Docket No. SA-534

Exhibit No. 2-CI

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

INTERVIEW OF MICHAEL WEST, PG&E
(JAN-4-2011)

(67 Pages)

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: MICHAEL WEST

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

Tuesday,
January 4, 2011

The above-captioned matter convened, pursuant to notice.

BEFORE: RAVINDRA CHHATRE
Investigator-in-Charge

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I N D E X

I N T E R V I E W

MR. CHHATRE: Good morning, everyone. Today is, January 4th, 2011. We are currently in Burlingame, California, in the San Francisco Airport Marriott. We are meeting in regards to the investigation of a pipeline rupture in San Bruno, California that occurred on September 9, 2010. The NTSB accident number for this investigation is DCA-10-MB-008.

My name is Ravi Chhatre. I'm with National Transportation Safety Board and I am Investigator-in-Charge of this accident.

I would like to start by notifying everyone present in this room that we are recording this interview for transcription at a later date. All parties will have a chance to review the transcripts when they are completed.

Also, I'd like to inform Mr. West that you are permitted to have one more person with you during this interview. That person is of your choice and can be a supervisor, a friend, a family member, or if you prefer, nobody at all. For the record, please state your full name, spelling of your name, contact information, like email, telephone number and postal mailing address, and whom you have chosen to be present with you during this interview.

MR. WEST: My name is Michael Morrison West. My email address is ----------. My ZIP code is -----. And I've chosen Dane to represent me.

MR. CHHATRE: I'd like to go around the room and have each person introduce themselves. Please state your name, spelling of your name, title, organization you represent, business email and phone number, starting with city.

MR. CALDWELL: Geoff Caldwell with the City of San Bruno. All my information is on the card provided.

MR. DAUBIN: Brian Daubin, PG&E. All of my information is on the card provided.

MR. FASSETT: Bob Fassett, PG&E. Information on the card.

MS. JACKSON: Connie Jackson, City of San Bruno. My information is on the card.

MS. FABRY: Klara Fabry, San Bruno. Information provided on the card.

MR. SHORI: Sunil Shori with the California Public Utilities Commission. My information is provided on the card.

Mr. KATCHMAR: Peter Katchmar, U.S. DOT, Pipeline Hazardous Materials Safety Administration, PHMSA, and my information is on my card.

MR. GUNTHER: Karl Gunther, NTSB, Operations Group Chair, email is karl.gunther@ntsb.gov. Phone number (202) 314-6478.

MS. MAZZANTI: Debbie Mazzanti, International Brotherhood of Electrical Workers, Local 1245. My info is on the card.

MR. SPERRY: Joshua Sperry of the Engineers and Scientists of California, Local 20, IFPTE. My information has been provided.

Mr. NICHOLSON: Matthew Nicholson, NTSB Engineer, M-a-t-t-h-e-w, N-i-c-h-o-l-s-o-n, matthew.nicholson@ntsb.gov.

MR. CHHATRE: Ravindra Chhatre, National Transportation Safety Board. Email address is ravindra.chhatre@ntsb.gov. My phone number is (202) 314-6644.

Mr. NARVELL: Rick Narvell, N like in Nancy, a-r-v-e-l-l, Human Performance Investigator out of Washington, D.C., NTSB. Phone is (202) 314-6422, email is narvelr@ntsb.gov.

Mr. JAQUES: Dane Jaques on behalf of the witness and my information is on the business card I provided.

UNIDENTIFIED SPEAKER: Could we get the spelling of your name, please, Mike?

MR. WEST: Last name?

UNIDENTIFIED SPEAKER: Both first and last name.

MR. WEST: Michael, M-i-c-h-a-e-l, West, W-e-s-t.

MR. CHHATRE: Okay. Let's begin with Karl.

INTERVIEW OF MICHAEL WEST

BY MR. GUNTHER:

Q. What is your job title and affiliation?

A. Job title is Supervisor of Integrity Management Program, Field Support.

Q. Okay. And what are your duties?

A. I am -- I supervise seven field engineers for the Direct Assessment Programs in IOI.

Q. Okay. I'm going to start out here with the risk management. And were you involved in development of the IM plan, Itegrity Management?

A. No.

Q. Okay. I'll start here with risk management and what I'm looking at here is Procedure RMP 5 and RMP 05, design materials, thread algorithm. You can find that or not?

A. Yes.

Q. It is tabbed. I'm not sure which tab it is. RMP 05. All right. You have it? And 6, design materials, thread algorithm. Pipe seam design. You know, the point system is a little interesting. Furnish butt weld, for example, to points that are 100, signal submerged arc is 60. Where seamless, the points are ten, and double submerge is ten. Can you describe that, what that really means?

A. No.

Q. No? Okay.

UNIDENTIFIED SPEAKER: Off the record.

MR. CHHATRE: Off the record, please.

(Off the record.)

MR. CHHATRE: Back on the record.

UNIDENTIFIED SPEAKER: But that's not his job duties. I just wanted to clarify it, that he's not been trained or qualified

or works in that field.

UNIDENTIFIED SPEAKER: And I think you ought to ask him that on the record, just so it doesn't appear that he doesn't know something that he should. You ought to clarify what his responsibilities are, in fairness to him.

MR. GUNTHER: I thought my second question was -- but in any case, could you give me your job responsibilities?

MR. JAQUES: Are you back on the record now?

MR. GUNTHER: All right, back on the record.

MR. CHHATRE: We are on the record right now.

BY MR. GUNTHER:

Q. All right. Could you give me your job responsibilities?

A. I am a Supervisor of the Field Engineers for the Direct Assessment and Allied Programs. I'm also Project Manager for our ECDA, External Cause and Direct Assessment, and our Risk Management Direct Assessment.

Q. Okay. Then are you familiar or involved with the risk management section of the integrity management plan?

A. Somewhat.

Q. Are you aware of the material threat algorithms and how risk is calculated?

A. I'm aware of it, but I haven't been trained on it. I haven't taken part in developing it.

Q. There was another party who developed it?

UNIDENTIFIED SPEAKER: I'm sorry. You say you haven't

taken part in it?

MR. WEST: I have not.

BY MR. GUNTHER:

Q. Okay, you haven't. In that case I will move on. Okay. So again, in your duties you do supervise the external direct assessment; correct? Okay. Now, could you go over the procedure for a direct assessment on the pipeline?

A. ECDA has four parts, pre-assessment, indirect inspection testing, direct examination and post-assessment, and what I take part in is the pre-assessment is gathering all the information before you do the phase two, gathering history and different parts of the program, the cathodic protection history, pipe characteristics, casing information, soils information, and then phase two is doing -- we do a three-test -- three tools to test the cathodic protection of the pipe an also the coating on the pipe.

Q. What tools do you use?

A. You use the close interval survey, pipeline current mapper, and a DCVG or ACVG.

Q. Okay. And then you said you have a third step.

A. Direct examination.

Q. And what's the procedure for that?

A. We get the data from the contractor who runs the test, and our project engineer selects the digs that we are required to do, and then I create maps of the site, location. We have a dig

sheet that we give to the contractor requesting a proposal, and with all the information from the survey. And then we do the digs and I contract the digs, and we do a bell-hole inspection, which includes mag particle testing, internal corrosion testing, and soils testing. Then we do the digs, get the information, and then we do a post-assessment, which again looks at the information and determines how the procedure went, and if we need to do any more digs, and re-prioritize the initial indications sometimes, and then I write the executive summary of the four phases, and then we give it to our risk management group.

Q. And when you dig, do you dig like, for example, would you want to dig maybe at a bottom of a hill, a top of the hill, along the hill? Are you looking maybe to dig where joints are or dig where there's straight pipe?

A. We dig where the data tells us to dig.

Q. Okay. And what data, your corrosion data?

A. Corrosion data. It's based on the cathodic protection of the pipe and the coating.

Q. And then when you do these tests, I assume you remove the coating?

A. Yes.

Q. And then you replace it?

A. Replace it, right.

Q. All right. What was your fourth phase?

A. Post-assessment.

Q. Right. Can you describe that for a little bit?

A. That's where you take all the -- we get a report from the digs. Everything is put on a Form H, includes the mag particle test, the internal corrosion test. We do a 12 by 12, one-inch grid to test for internal corrosion, and then we take the data and look at the -- basically look at the burst pressure, and then come up with the remaining life calc, and when we have to redo the dig, reassess the pipe, based on this information.

Q. And amongst your assessment do you do anything like look at the welds or look at the joints? You know, just observe other things, see if you notice anything unusual?

A. Um-hum. Yeah. If we have corrosion along the long seam or girth welds, that's --

Q. And again, you look at both the long seam and the girth welds?

A. Yeah. If there's a girth weld present in the excavation and then we try to describe what kind of pipe it is. If it's a seamless or seamed weld.

Q. And if you would notice let's say multiple joints, multiple girth welds, you know, short pieces of pipe, what would you do in those cases?

A. Well, I guess it would just be noted in the report.

Q. Okay. And you also say you worked with ILI.

A. I have field engineers that support it. I don't work under it myself.

Q. Oh, okay. What type of ILI systems do you support?
A. Could you clarify that?
Q. Yeah. Are you looking -- do you do ultrasonic ILI, magnetic ILI, wall thickingss? You know, what different types of --
A. We do all of those, depending -- I don't select that. I just supply a field engineer to help with the -- manage the project or support the project with the ILI engineers.
Q. And is there a particular interval that you test? Is there a predetermined interval at which you do your ILI inspections?
A. Yes. I'm not part of any of that interval though.
MR. GUNTHER: Okay. All right. I'll go ahead and I guess Brian?
MR. DAUBIN: No questions at this time.
MR. FASSETT: One at this time.
BY MR. FASSETT:
Q. You mentioned that during the direct examination phase you mag particle all of the pipe; is that correct?
A. Yes.
Q. Is that required by the NAE specification on 502, to mag particle?
A. No, it's not.
Q. You do that in addition to?
A. We do that in addition to be -- to do more than we're

required to do.

Q. And the mag particle is of the full length of pipe exposed?

A. Yes. Generally ten foot.

Q. And you do that to look for cracks in the body of the pipe or along the welds; is that correct?

A. Yes, stress corrosion cracking.

Q. And if there's a crack along or in the body of the weld, would it also pick that up?

A. Yes.

MR. FASSETT: Thank you.

MS. JACKSON: Connie Jackson, City of San Bruno. I just have --

MR. FASSETT: Sorry, that was Bob Fassett. Sorry.

BY MS. JACKSON:

Q. Just one question. The procedure that you just described is the one, if I remember correctly, that was done most recently on Line 132 in the area or in the vicinity of San Bruno, was done most recently in the spring of 2010; is that correct? Was it this procedure that you've just described or was it some other --

A. Spring of 2010?

Q. That was my understanding.

A. No.

Q. No? Okay. When was it last done in this particular

area?

A. Well, we started on 132 from Milpitas to the patrol powerplant or load center. We started it in June of 2008 and completed it in -- the survey in March of 2009. I'm not exactly sure when we went through San Bruno. And we completed all the digs we did at phase three of the direct examination in November, by November of 2009.

Q. And that was the most recent time that this particular type of examination was done?

A. Yes.

Q. In the vicinity of the rupture?

A. Yes.

MS. JACKSON: Thank you.

MS. FABRY: Klara Fabry.

MS. JACKSON: Could I just add another question then?

BY MS. JACKSON:

Q. My recollection or understanding was that there was some sort of internal, direct -- external, direct assessment work that was done more recently. Would you be knowledgeable about that?

A. Well, after the incident we did -- we tested all three lines running through San Bruno, did a close interval survey and a PCM and DCVG.

Q. And that was essentially the procedure that you just described?

A. Yes.

UNIDENTIFIED SPEAKER: Can you tell us what those acronyms stand for?

MR. WEST: Which ones?

UNIDENTIFIED SPEAKER: The two you just mentioned.

MR. WEST: Close interval survey and DCVG -- PCM is pipeline current mapper and DCVG is direct current and voltage gradient. Close interval survey checks the cathodic protection on the pipe and the other two tools give you coating data.

MS. FABRY: Thank you. No questions at this time.

MR. SHORI: Sunil Shori, California PUC.

BY MR. SHORI:

Q. Might the CIS PCM DCVG that you did subsequent to the incident, did you correlate those findings, those results, with your 2009 indirect surveys?

A. Yes.

Q. How well did they match up or did you find -- I guess the whole process is supposed to be is you take back the readings there and comparing them with what you got before. How well did they align and what kind of new findings did you have based on that more recent assessment that you performed there?

A. I only managed the project. I didn't really look at the results of it. My project engineer and another member kind of went through that. So I'm not sure exactly how it correlated.

Q. But you managed that?

A. I managed the contract work, yeah.

Q. And who is your manager for that then? And basically who would be the one doing that correlation to get an idea on where that's at?

A. That would be my project engineer. I guess the name?

Q. Yes.

A. Lee Haynes and probably David Gear.

Q. So after you did the contract work, what's the rest of your responsibility then on that particular assessment and correlation? What is the long term on that? What do you hope to get from that, to finalize from that?

A. I guess to see if we had to do any additional work, examinations, direct examinations, on any of the stuff we found.

Q. At this stage do you know if you got any immediates that came off that assessment?

A. There were no immediates. I think -- I guess the only issue we had was the casing crossing Highway 101, which is south of San Bruno Avenue.

Q. And then which line is that casing on?

A. 101.

Q. And is that being assessed or looked at further as part of this overall project?

A. We did a direct examination in November.

Q. And what did you find on that?

A. We had a short and it appeared in the casing they used 4 by 6's to -- there was a 44-inch casing, 24-inch pipe. They used

4 by 6's in there to keep the pipe off the bottom of the casing, and then they took short pieces and like used it as a seal, which didn't really work and so I guess when they backfilled the pipe it was the newer pipe and they backfilled it, they used the wood in there supported them, and they backfilled it, it didn't serve any purpose. So we cut off -- we cut off eight feet of the casing and cleared the short and put a new end seal on it, a boot, and recoated the pipe -- sandblasted the pipe, no corrosion was found, recoated the pipe, put a new end seal on, and ran coupon test station wires up to the fence line where the pipe is.

Q. And what was the length of the cased segment then?

A. About 520 feet, 525 feet. It went from the west side, where Anita Park is, all the way to the airport side, where the off ramp is for San Bruno Avenue.

Q. And so other than the eight feet that you cut off on the casing, how did you basically test the rest of the 525 foot cased pipe?

A. We didn't test it. I mean, we ran the PCM and the ACVG and it showed that the rest of it was clear. When you look at the other side, which already had wires, the pipe was cleared.

Q. So just cutting off the eight feet of casing --

A. On the west side.

Q. -- on the west side and then resealing took care of the short?

A. Yes.

Q. Now, you're also involved with the LTIMP's on the projects as your ECDA projects are completed?

A. Yes.

Q. As the project manager in terms of reviewing the LTIMP, and I would imagine one of many parties that kind of approve and sign off on the LTIMP's?

A. No. I take part in the LTIMP review. As far as the mitigation issues, I might be assigned project manager, or have one of my field engineers manage LTIMP project, which could involve recoating, adding coupon test stations or doing excavations where we found corrosion that we want to see if it meets the tool tolerance.

Q. And that would be the PL --

A. That's ILI.

Q. Okay. But as far as the preparation of the executive summary for LTIMP's as projects are finalized, who does the final preparation?

A. I write the execute summary. The project engineer does the mitigation news for the LTIMP.

Q. But as far as handling various threats that are considered stable, that's part of the executive summary in terms of how those would be handled going forward?

A. No, executive summary basically takes the data from the post-assessment and just describes what we found, where we prioritized, and the reassessment interval, whether it be, you

know -- seven years is required minimum, seven years. If it's less than that, that's noted, the dates, and then -- which we don't do a CDA, conformatory direct assessment, which would be ten years, those dates are noted. And then the mitigation issues are attached to that from the project engineer.

Q. But a given segment or given ECDA scope can have various threats that are considered as stable threats, and so essentially ECDA is performed without those as far as the stable threats and in terms of how those would be handled going forward?

A. No.

MR. SHORI: I'll pass for now. I may come back.

MR. KATCHMAR: Peter Katchmar, U.S. DOT, Pipeline Hazardous Material Safety Administration, PHMSA.

BY MR. KATCHMAR:

Q. Could you define your term LTIMP?

A. Long-term Integrity Management Program.

Q. Okay. Thank you. Are you involved in determining if there is or is not enough information to determine if ECDA is feasible in your pre-assessment step?

A. I have been a little bit in the past. Generally the field engineers gather the data and then the project engineer is responsible for putting together the pre-assessment and all the information. I review it to see if there's anything that maybe -- I review it for signature, to see if they got everything that they could find. If we don't have some of the information, we'll go to

the divisions where a lot of records have been kept and get the information there, find records.

Q. Okay. Have you ever determined that ECDA is not feasible for a section of pipe?

A. No.

Q. What information would have to be missing for you to determine that ECDA is not feasible?

A. I really can't think of any.

Q. Okay. What is your experience with PG&E and this job that you have? How long have you been working for PG&E?

A. I'm entering my 34th year.

Q. Okay. Do you remember reviewing the pre-assessment information for the Line 132 in the area of San Bruno?

A. Let's see. The first time we did a survey of that line was 2004, but I don't recollect any pertinent information from that. Then we did another pre-assessment in 2008 or ‘9. I don't really remember any pertinent information.

Q. Okay. Would the as-builts in your GIS that says 30-inch seamless pipe, would you have questioned that information?

A. No.

Q. Okay. In your opinion was 30-inch seamless pipe made?

A. Yes.

Q. Okay.

A. So in your GIS if the information is not assumed, then we take it as it is. If we do a direct examination and we find

something else, then we correct the GIS.

Q. Okay. But you did not question the fact that there was 30-inch seamless pipe in there?

A. No, we didn't do any direct examinations in that area, so --

Q. Okay. I guess did you know that it was 30-inch seamless pipe?

A. That's what GIS told us, so I had no reason to question it.

Q. I guess I'm asking you specifically did you know when you did the ECDA that there was 30-inch seamless pipe there?

A. Just based on the GIS.

Q. Okay. But you did know that? Okay. All right. In doing your post-assessment for ECDA, have you ever added digs?

A. Um-hum, yes.

Q. Have you? Can you think of a -- what was the reason that you added the dig?

A. We would call them project engineer discretionary digs. Maybe early in the program when we're still learning about what we're doing and finding, we would do extra digs just to check out certain issues that the project engineer had.

MR. KATCHMAR: Okay, thank you.

BY MR. GUNTHER:

Q Do you know how many digs you did in the San Bruno area, both before and after the accident?

A. I'd say before the accident we've been around San Bruno, but we never did any digs -- did digs on other lines, south of San Bruno Avenue, but I believe that was on Line 109, and I don't think we did any digs on 132 in San Bruno, in that area.

Q. And then after the accident?

A. We didn't -- I know there's been digs done on some of the lines, but I wasn't involved in any of that.

Q. Okay. Outside the San Bruno area have you done any digs on Line 132?

A. Yeah, we've done digs all the way from Milpitas to San Francisco on 132.

Q. And do you remember how many?

A. We just did one in December in San Mateo. We did about ten in 2009, going from say Palo Alto all the way up to San Francisco.

Q. Okay.

A. We did probably seven or eight back in 2003 and ‘4.

Q. And on a Line 132 dig did you find anything unusual?

A. No.

MR. GUNTHER: That's all the questions I have.

MS. JACKSON: No questions.

MR. SPERRY: Joshua Sperry, ESC, Local 20. Just one question.

BY MR. SPERRY:

Q. Could you describe any degrees, professional licenses

that you have?

A. I have a NACE, National Association of Corrosion Engineers. I have Cathodic Protection 1 and 2, and I have Coating Inspection Protection 1, and I have Direct. Basically that would be it. I've taken other classes for pipe.

Q. Are you a licensed engineer?

A. No.

MR. SPERRY: That's all.

MR. NICHOLSON: No questions.

MR. CHHATRE: My sequence of questions to follow up with what Mr. Sperry said.

BY MR. CHHATRE:

Q. What is your formal education? Do you have certificates --

A. I have got high school, two years of college.

Q. Let me go back to your responsibilities. The op chart I have does not show who reports to you. Can you tell me how many people report to you?

A. How many people report to me?

Q. At the -- not now.

A. I have seven field engineers. Currently I have five, because I just lost two, took other jobs. They all have either civil or mechanical engineering degrees.

Q. Are these degrees from accredited schools in the United States?

A. Yes.

Q. And at the time of the accident you had seven and now you have five; is that correct?

A. Yes.

Q. In your responsibilities, supervisory responsibilities, what are you responsible for? You mentioned supervisor of Integrity Management field support. What does that responsibility include?

A. Well, I have seven field engineers. Two of them support the allied program and the other five support ECDA or other projects that the Integrity Management team needs, other short projects. Eventually I'm making sure that they get all the field recon work done for ECDA for risk management. We go out and mark their regions. They GPS the pipe, make maps with the information, and they gather CP data from the divisions or districts, and then I have -- make sure they get all their required PG&E training done, and then we also send them to different training, like NACE. They all have -- send them to NACE 1, CP 1 and CP 2. Direct assessment, bell-hole inspection training, R stream training, CAPA.

Q. In the one thing field engineers do, does it have to come from somebody, like does somebody have to request you to go and do the ECDA or ILI or how does that work?

A. We get the ECDA work from the risk management team. They give us the pipelines and the segments that we have to

assess, that are in HCA's.

Q. And the risk management team, are any of your staff, including yourself, a member of that team?

A. No, it's a different part of our integrity management.

Q. And do you know who they report to, how that structure works? Do they have a team lead?

A. There's a team lead.

Q. Which person does the team leader report to?

A. I guess Bill Manegold, the team lead.

Q. Can you spell it for me?

A. Bill. It's M-a-n-e-g-o-l-d.

Q. The team leader reports to who?

A. The team lead, he reports to our manager and he has people who report to him.

Q. Okay. So the risk management team does not request to anyone that he would be doing any ECDA work?

A. If they didn't request us to do any? Right.

Q. ILI, who has to request you to do that?

A. Same, Bill Manegold does the ILI work to the ILI program manager.

Q. In the month before that comes in, what is the final product that comes out of --

A. ECDA?

Q. What are the engineers, what are the tasks that they may have? What is the final product that comes out of it?

A. Well, the final product is they walk the line, GPS it, set region points, get all the CP data, get all the records that we -- from the division to get records, if we're missing data. And then they get permits to do the work, both phase two and phase three work.

Q. After all this is done, what is the final product?

A. The final product is we have all four phases in a binder and we complete -- just complete the work in a binder and we start.

Q. So you just have data sheets and report? I'm trying to understand -- I understand a lot of stuff that you do and take all this information. Is this filed as a piece of paper or is it some report that goes to somebody?

A. It's a report. It's a binder. It's got all the modification data, the history of the pipe, back as far as we can. It has pre-assessment data all filled out. It has the survey, the phase two report, anchor form. It's got all the direct examinations, all the reports, and post-assessment, and then it has -- and then everything is stored in a binder as well as electronically.

Q. So the binder is a compilation of all the information you gathered?

A. Right.

Q. Are there any conclusions drawn from that?

A. Well, the ECDA work conclusion, and then when we're

going to reassess it again.

Q. So who draws a conclusion about the condition of these different statements that you compile data on?

A. Project engineer.

Q. The binder contains this conclusion?

A. Yes.

Q. And who reviews the accuracy of the data after it's completed?

A. We give it to risk management. They look at it, look at the LTIMP plan.

Q. So nobody in your group reviews it and approves it for accuracy and correctness?

A. Well, I do.

Q. You review it?

A. Yes.

Q. Make sure everything --

A. Make sure everything -- we have a checklist to make sure everything is in the binder and everything is like it's supposed to be.

Q. So by the conclusions drawn from ECDA, you look at the information and concur with the guy -- yes, it sounds correct?

A. The project engineer, yes.

Q. Now, the work that you mentioned, the history, the statistics, all this work done internally or some of the work is I guess given to off-site contractors?

A. We have done some outside contractor work with the pre-assessment.

Q. In PG&E territory, which area are you responsible for or is it the entire PG&E transmission distribution?

A. Entire transmission system.

Q. What does that mean? The direct assessment, you dig up the pipe at your direct assessment. You do that in digs?

A. Direct examination?

Q. Yes.

A. Yeah.

Q. And I guess you told earlier that the locations are based on the information you have or --

A. The data received from the survey.

Q. And what data are you looking at to decide where to dig?

A. Well, we have a matrix we use, close interval survey against PCM and DCVG, and we come up with priorities, and like immediate schedule or longer, or no indication, and so we have to dig all immediates. We have to dig requireds, if it's first time, two schedules, if there are schedules, and then we have to do effectiveness digs afterwards to have just a random site, no indication site, just to see if the program worked, you know, if at the dig we found worked.

ECDA, we have the data tells us the indications but not necessarily the conditions, so we dig to see if we have an immediate condition or scheduled condition. Initially it's just

an indication, because you have maybe low CP or bad coating.

So you could have a potential for corrosion but basically just an indication, and you dig up condition.

Q. Is the matrix internally prepared or you are taking it from some other source?

A. It's in our RMP-09.

Q. And is that matrix done by Integrity Management people? Who does the matrix?

A. Well, we had it developed -- when we first started the program we had developed by an outside company, and every year we review it and basically add revisions to add things as we put through the program.

Q. Is it an outside company looks at it also?

A. No, they don't. Initial development.

Q. Do you know who that outside company was?

A. Structural Integrity. They basically took the NACE procedure and came up with a basic procedure for us and then we have gone over their -- we're on our seventh revision so far.

Q. And in this matrix, I think you said DCVG digs indicate no priority. How is that assigned? You said you did a matrix from the information you have, and that decides the data, the immediate actions and --

A. All the survey stuff is put on what we call a Form G, to list every foot and GPS coordinates, and it tells us how each tool did, and then it tells us what the final priority was.

Q. Right. There has to be somewhat of a (indiscernible) for each of these --

A. Some kind of what?

Q. Some type of a written (indiscernible) some kind of a number given before you can draw that conclusion? There are four different tests. How do you to draw some kind of a conclusion as to which digs need to be done immediate and which can be delayed?

A. Well, we have -- we have a -- let me look in here. It's basically called a severity guide. Then we have CP levels that make it immediate or scheduled or moderate, no indication, and we also have the same things for the PCM and the DCVG and the ACVG.

Q. One second.

A. Okay.

Q. What I don't understand is all these different absent numbers for you --

A. Yes.

Q. They are. So are those numbers given by your team -- number four, or if my ECDA readings are second number one, is there some --

A. Yeah. Something -- 850 on or off is one of our numbers, based on our experience and just what the code requires, so we have 000500, make it immediate. And so we use that and they have a formula or contact has a formula that ranks everything, prioritizes it.

Q. Prioritizes --

A. Prioritizes everything. That becomes an immediate or scheduled, moderate or no indication.

Q. And that is organized by PG&E, by Structural Integrity --

A. By us. We give our requirements severity guide to the contractor.

Q. And this gets Structural Integrity?

A. No.

Q. So I'm still a little confused as to the matrix of the numbers. Who did that whole process, PG&E did?

A. Yes.

Q. Or the contractor did?

A. We did, based on the NACE procedure.

Q. Okay. And so each project engineer has its own team -- I'm still confused. You did the initial baseline assessment and you got all these numbers. Who does the different lines? How is it coordinated for you guys, different parameters?

A. We get the information from the survey. The project engineer looks at it and determines where we have to dig, based on --

Q. Do you have that information with you, that matrix that would prioritize what you do?

A. Uh-huh.

Q. Can you tell me these numbers you're looking at?

A. Via Table 4.6.1.

Q. 4.6.1.
A. I guess this is Page 37, this is RMP O9.
Q. RMP O9. What does RMP O9 stand for?
A. It's our -- just our procedure. 09 is for ECDA.
Q. RMP stands for?
A. Procedure for --
MR. FASSETT: This is Bob Fassett. RMP stands for risk management procedure. 09 is the ECDA procedure. You have copies of that also from previous data requests.
BY MR. CHHATRE:
Q. Could you look at Table 4.6.1 and tell me is age of the pipeline a factor in that table for you to consider the priority?
A. Is what?
Q. Age of the pipeline.
A. No.
Q. So age of the pipeline is not --
A. It's looking at what the tools, the survey told us.
Q No, I understand that.
A. Nothing to do with the pipe.
Q. Nothing to do with age.
A. No.
Q. Now, you also mentioned that you had looked at the pipe characteristics. What pipe characteristics that you are looking at today?
A. Well, type of seam. We're looking at the age, the

diameter.

MR. FASSETT: This is Bob Fassett.

MR. CHHATRE: Let him finish.

MR. FASSETT: Well, let's reference the table. You have a copy of it. It would be easier if he just referenced the table so you would know what to look back on the procedure, which you already have a copy of.

MR. WEST: You can look at our pre-assessment data list. It's on Page 13.

BY MR. CHHATRE:

Q. Okay.

A. We have 11 sections in it with different categories.

Q. On Peninsula Lines 101, 109 and 132 I believe you said the first direct assessment was done in 2004 in three to four days; is that correct?

A. In this area?

Q. In the -- 101, 109 and 132, peninsula lines.

A. 132, the first time we did direct or VCA was 2002. We did 2003, 2004, 2005, 2006, different areas. 101 -- that was 109, the first time was 2003, going forward. 101, the first time was 2004. Then we've done different areas each year and we've done -- we redid all of 109, 132 in 2008 and ‘9, and then we're doing -- reassessing 101 again this year.

Q. And what does that test tell you? What does the test tell you?

A. It tells us the condition of the pipe, the CP, where we're protected, where we're not protected.

Q. Now, which test do you do for the coatings, the condition of the coating?

A. Current mapper and DCVG or ACVG.

Q. Okay. Did any of those tests give you any indications that the coating is a problem or deteriorating or not acceptable condition or for any of these lines?

A. No. Mostly it's close interval survey.

Q. Any of those lines trigger any of your, I guess, alarm levels?

A. No. Generally it's close interval survey.

Q. Now, close interval survey, did that give you any concerns for any of the three lines?

A. Well, we dug where the data told us to dig.

Q. And what did you find out?

A. Well, we had a lot of immediates, indications on 132 when we did our 2009 survey, in (indiscernible) but when we dug like eight locations, approximately eight locations and we found no damage. It was basically interference from another pipe, an abandoned pipe in the water pipe, so we dug all these locations and didn't find anything. Same thing on I want to say 109.

Q. You mentioned earlier that when you do the bell hole or dig, then you look at the I guess mag particle or look for the external damage, look for the weld and look for the -- Line -- in

2009 for Line 132?

A. Mag particle?

Q. Mag particle, seam inspection. My notes tell me that you indicated that when you do the dig, you expose the pipe, you do up to ten feet, a hundred percent.

A. For the mag particle.

Q. For the mag particle. You also look for the condition of the pipe and you look for the seam.

A. If there's a seam, yeah, they'll be one, yeah.

Q. So my question, in 2009 you had eight locations that you did dig, based on DCVG or ECDA or whatever test you did, and you did eight locations on 132 and where was that, how long was that?

A. From Palo Alto up to San Francisco.

Q. Okay. Eight digs, and you found --

A. We did approximately eight digs. I'm not sure exactly how many --

Q. That's okay. Eight, plus or minus, whatever. I just want to get an approximate number, that's all. The records will have the exact numbers.

A. Um-hum.

Q. In those eight locations, did you see any long seams on any of the 132 pipe?

A. I'm sure we did.

Q. You did?

A. Long seams?

Q. Yes, sir.
A. Yes.
Q. Now, when you do the dig, you have this mapping document that tells you where to dig and what to look for in the pipe.
A. Um-hum.
Q. Did the mapping documents show you that it was a seamless pipe?
A. When the engineer picks the digs, he looks at the pre-assessment and knows what to expect, the wall thickness, pipe diameter, and he'll know what kind of -- if we have it, what kind of long seam it is, if it's seamless or DSAW or whatever.
Q. I don't think I still got the answer. If your drawing shows you it's a seamless pipe, but it did not --
A. Our drawing? We don't --
Q. Drawing, mapping, whatever information you get from the mapping department that tells you --
A. The GIS.
Q. The GIS. Did that GIS say it's a seamless pipe or did it say it's a welded long seam pipe?
A. It might say either. I don't know. I don't know. There's different pipes in the ground.
Q. I understand. At the dig --
A. Sometimes it says we have an SSAW, sometimes it's something different.
MR. FASSETT: Do you recall what you saw at

those digs?

MR. WEST: I don't recall anything.

MR. CHHATRE: Can you give me the notes and eight digs information reports those to us?

MR. FASSETT: You have all that data. That's already been provided to you in previous data requests.

MR. CHHATRE: Do I have, what do you call it, the GIS?

MR. FASSETT: You have all that data provided the previous data request.

MR. CHHATRE: All right. If I cannot find it, I'll ask you where it is, which number it is.

MR. FASSETT: It's in your office. I've seen it.

BY MR. CHHATRE:

Q. Now, do you, as supervisor, do you do any checking on that, whether the information is matching or not matching? As a supervisor before you approve that, it goes in the binder, do you --

A. After it's done?

Q. Yes, sir.

A. Yes.

Q. And do you recall doing any of that stuff, any checking on Line 132?

A. I look at all of it but I'm looking more for making sure all the information is filled out and if it's a certain kind of digging, they did certain priority, they added another priority,

make sure that's right, or issues like that. If there was any wall thickness doesn't make sense with what we thought we had, I look at that.

Q. To your recollection was anything mentioned about the seam discrepancy on the eight digs for the people who looked at it?

A. No.

Q. On the eight digs, any of those closer to San Bruno, not in San Bruno, but closer to San Bruno, start from Palo Alto up to San Francisco?

A. Start from Milpitas to San Francisco.

Q. Milpitas to San Francisco.

A. We did digs from Palo Alto to San Francisco.

Q. Okay. The digs are from Palo Alto to San Francisco, eight digs. Any of them closer to San Bruno that you recall?

A. Not in 2009, no.

Q. Any closer to Martin Station?

A. Not in 2009, I don't think so.

Q. Okay. Any prior to 2009?

A. Yeah, we did some digs -- let's see. We did some digs near Martin Station in 2005.

Q. Okay.

A. 2005 or ‘6, I'm not sure.

Q. Okay. And do you recall any discrepancies in the pipe characteristics in those digs?

A. No.
Q. You mentioned in 2004 and 2009 you were looking for seam cracks, mag particle, I believe.
A. Well, we test for stress crows and cracks.
Q. Okay. Now, was there any indication about any cracking external or internal, any indication of cracking in those digs?
A. No.
Q. Nothing, okay. Do you have any input on the Integrity Management Program PG&E has?
A. A little bit, but over the overall program, I have input on certain things but not much.
Q. Like what?
A. Casings.
Q. Can you be more specific? Casing, what kind of input?
A. Well, I kind of help with our casing program.
Q. Okay. Anything else?
A. I make comments and help with the re-writes of our procedure, RMP 09.
Q. The procedure of how you do the seam inspections and things like that?
A. The things we follow.
Q. Since you do all these ILI, ECDA, and ECVG and direct assessment, is there any other input you give the Integrity Management development program in terms of what should be looked at and what should not be looked at, what is critical? In the

whole program development that PG&E has?

A. I'm just basically a part of ECDA.

Q. Nobody has asked for your input in developing the program? The kind of testing and work you do, do you have input into the Integrity Management Program at all, all these four steps that you described earlier, the pre-assessment, indirect, direct, and confirmation of ILI, work that you do, do you have any input into the Integrity Management Program in your work or your group's work rather?

A. Just refer to RMP 09.

Q. That's it. Can you tell me what ILI you've done and on what pipelines?

A. I haven't done any ILI. I know what pipelines that we've done, but I'm not part of the ILI. I give support -- I lend field engineers to support the ILI team.

Q. Okay. And can you tell me what ILI support your team -- which ILI inspection of pipeline -- eventually the report goes through you; right?

A. Not the ILI.

Q. Not the ILI. So at that time did they report to somebody else?

A. There was another team that does the ILI.

Q. Okay. And you don't get that information.

A. No.

Q. For your work?
A. No.
Q. So there's no cross communication between ILI work and what you do?
A. ILI, I've done some testing with ILI casings and ECDA casing, kind of tested to see if they would line up, but generally ILI, the only thing I do for ILI is L chip projects.
Q. Outside work.
A. Long-term Integrity Management Program, mitigation process for ILI. That's generally where I am involved.
Q. Do you know what ILI tools are being used by the group that you support?
A. Sometimes but not --
Q. Do you recall what tools they're using?
A. I know they've used the -- they've checked for seams. They've checked for internal corrosion.
Q. But you do not know actual tools, what technique?
A. I don't know what technique they're using.
Q. That's fine.
MR. CHHATRE: That's all I have for now. Thank you so much.
MR. NARVELL: I have no questions.
MR. CHHATRE: Any follow-up questions?
MR. FASSETT: Bob Fassett, PG&E.
BY MR. FASSETT:

Q. Clarify a couple of things. You say LTIMP stands for Long-Term Integrity Management Plan; is that correct?

A. Yeah.

Q. It's correct to say that the code, and maybe this was a little bit of Peter's questioning or confusion, the code does not require an operator to have a Long-Term Integrity Management Plan.

A. Right.

Q. Is that correct?

A. Right.

MR. CHHATRE: Which code are you referring to?

MR. FASSETT: Part 192, Subpart O.

BY MR. FASSETT:

Q. I want to clarify. ECDA is external corrosion direct assessment; is that correct?

A. Yes.

Q. You stated earlier that it's the risk management team that essentially says you need to do the external corrosion direct assessment, and they give you the pipes and the --

A. And the segments, yeah.

Q. So by definition the threat you are looking for when you use external corrosion direct assessment is the threat of external corrosion; is that correct?

A. Right.

Q. It is not the threat of long-seam failure; it is not the threat of internal corrosion; it is the threat of external

corrosion?

A. Correct.

Q. Is that correct?

A. Correct.

Q. You talked about post-assessment, you mentioned that there were project engineer discretionary digs that are done in that phase; is that correct?

A. Yes.

Q. Also you mentioned the NACE ECDA procedure standard, you said Structural Integrity based that on. In that procedure are there not effectiveness digs that are required in the post-assessment phase?

A. Right.

Q. What's the purpose of those effectiveness digs?

A. Well, one, you're picking just a random, like throwing at a dartboard to pick a dig. And it's just checking the validity of the program.

Q. So it would be in that phase of the project that, if in your dig something came up where you missed or you found something new, the intent of the effectiveness is to take that, learn from it, and improve your program; is that correct?

A. Correct.

Q. You mentioned that this procedure has been rewritten seven times since it started.

A. Yes.

Q. Is it reasonable to say that's evidence that you're always looking for continuous improvement, if you're changing your procedure?

A. Yes, exactly.

Q. You also mentioned you assessed Line 132 from Milpitas to San Francisco.

A. Um-hum.

Q. Is it all one diameter that entire length?

A. It's many diameters.

Q. So the diameters vary; and, therefore, the characteristics of the pipe also vary?

A. Yes.

Q. It could be seamless; it could be DSAW, it could be whatever; is that correct?

A. DSAW, could be, yeah.

Q. So answering any specific question about the pipe, you need to know the location and what the issues are?

A. Yes.

Q. Associated with it.

MR. FASSETT: Thank you.

MS. FABRY: Klara Fabry.

BY MS. FABRY:

Q. Just two clarifications for me, Mike. You mentioned in the beginning that the follow-up inspection took place in 2008. Then the second time you described the follow-up inspection in

2009, and also I heard a representation before that this inspection of 132 line took place in the spring of 2010. If you can just clarify for me when exactly that the inspection of 132 really took place?

A. We started in June of 2008. We didn't finish it until sometime in spring of 2009. We dug however many digs we did in summer of 2009 and finished it in November of 2009. I don't know anything about spring of 2010.

Q. You have no recollection of anything in 2010?

A. No.

Q. You also mentioned you had lately a leak on 109 in San Bruno. Do you recall the cause of that leak?

A. No. I know they were (indiscernible) on the street where the pipes cross Scotland Boulevard, but I don't know what their priorities were. I recollect there was tape coated pipe and we did two digs and had no corrosion or anything.

MR. DAUBIN: This is Brian Daubin just to clarify.

BY MR. DAUBIN:

Q. The digs that Klara referenced in 2008 and 2009, was that the first or the second assessment that was done on Line 132?

A. 2008 to 2009 was the second assessment.

Q. So when was the first assessment?

A. In San Bruno?

Q. For Line 132.

A. In San Bruno?

Q. Yes.
A. 2004.
Q. Okay.
MS. JACKSON: Could I just clarify, going back? Connie Jackson, City of San Bruno.
BY MS. JACKSON:
Q. Going back to the beginning of your comments, you described very helpfully the four phases of the testing that you do.
A. Um-hum.
Q. Could you give me some idea of the time period that might elapse in any given location between the pre-assessment, for example, and the direct examination? Is that a long time, a short time?
A. It could be, you know, could be probably at least six months, three months, six months.
Q. Okay. So would it be fair to say that the way you do it is you would do your indirect assessment in an area-wide or a length, some long distance, and then go back and do -- you do each phase separately.
A. Um-hum.
Q. As opposed to each segment separately?
A. We do the whole thing, yeah. We do the part, each segment, in one shoot, and then we --
Q. Then you go back and you do the next phase?

A. Yeah, and get the report. Then we do the next phase, phase three.

Q. And then following on the comments that Mr. Fassett just made, in clarifying that the ECDA is looking for external corrosion, but not the risk of long-seam failure or internal corrosion.

A. No.

Q. Are those areas outside of your particular knowledge and expertise or --

A. Yeah.

Q. Or are you --

A. ECDA looks for external corrosion.

Q. Okay. Are you qualified to tell us what procedures or tests are used to look for those other types of threats?

A. Well, we have another person who manages the internal corrosion; and, again, I do the contracting for that but I don't report on that or have anything to do with the report.

Q. And long seam failure --

A. And long seam, that's --

Q. Outside of your --

A. Yeah.

MS. JACKSON: Thank you.

MR. CHHATRE: Sunil.

BY MR. SHORI:

Q. Earlier we talked about you do help prepare the

executive summary.

A. Um-hum.

Q. For the ECDA or for the assessment or for the particular segment involved. And does that list the various threats that were included as part of that LTIMP or that particular assessment?

A. No. That's devised by the person who does the LTIMP, who sets up the LTIMP. He comes with all the threats and whatnot.

Q. Does the executive summary feed into the LTIMP?

A. The LTIMP -- executive summary is just -- closes out the ECDA. Then the LTIMP is developed after that.

Q. And what's your involvement with the development beyond that phase, beyond providing your executive summary?

A. I have no involvement. I attend some of the meetings where they have the LTIMP review with the PLE and the PLE in charge of that area and our project engineer, and our corrosion engineering department.

Q. And how are any discrepancies noted from the digs as far as when you compare what you find on the dig versus what's on GIS or expected, how do you correlate the discrepancies? And again, this could be wall thickness. It could be other things but --

A. It's sent to our mapping department to correct -- to correct -- if they say we have something and find another wall thickness that's entered in there, they have a log where they correct -- put the correct wall thickness in or pipe type.

Q. And who determines the change in the possible MOP MAOP

based on that discrepancy?

A. That would be the pipeline engineers or first management. I'm not sure.

Q. But it's not the project engineer for the ECDA?

A. No.

Q. In the case of Line 132, was that all one class line or does it have various classes on it?

A. I would say it's probably --

MR. JAQUES: Don't guess.

MR. WEST: Don't guess? I don't know. I know there's three and some four.

BY MR. SHORI:

Q. Is there any Class 2 on Line 132?

A. I'm not sure.

Q. Have you identified any sections on Line 132 that are out of class?

A. No.

MR. SHORI: Thank you.

MS. FABRY: Klara Fabry. I would like just a follow-up question to Sunil's question.

MR. CHHATRE: Okay.

BY MS. FABRY:

Q. As specifically part of your dig procedure to look for any discrepancy or to verify all of the elements of the information on the fact?

A. We're looking at the coating, mapping the coating for holidays, we're looking for corrosion, and we're trying -- or identifying the wall thickness and if it's a seam or seamless. We want to verify if that's what we -- if they can, they describe the type of seam, if they can, the diameter, the diameter also, so --

Q. Then in a sense you are -- is part of the procedure that you have to verify in the field with any dig, all of the information included in your GIS system about that section of the pipe?

A. No, because it's very hard to determine what kind of seam you have just looking at it.

MS. FABRY: Thank you.

MR. GUNTHER: I just have a couple.

BY MR. GUNTHER:

Q. You were saying a couple the method using coding pipeline, current map or close interval survey, and I think that was ACVG?

A. Close interval survey doesn't do mapping, coding. ACVG, that's A-C --

Q. What is that spelled out?

A. It's AC, current, gradient.

Q. AC current gradient?

MR. FASSETT: It's alternating current voltage gradient.

MR. WEST: And DC is direct current.

MR. GUNTHER: I just heard the letters. I just wanted

to figure out what the acronym was. Okay. That's it.

MR. KATCHMAR: Wait a minute. You skipped me. Peter Katchmar with US DOT, PHMSA.

BY MR. KATCHMAR:

Q. I want to clarify a couple things. Number one, the only reason I asked about long -- what did you call it, long-term -- LTIMP, was because I had never heard that before and I didn't understand what it was. You know, so that's why I asked you to define that, because I didn't know what it was. Since the rupture are you aware that they did not make 30-inch seamless pipe? You still don't know that they didn't make 30-inch seamless pipe?

A. That who didn't make? I mean --

Q. No one made 30-inch seamless pipe? You're not aware of that yet? Okay. All right. Because that's why I was asking about the feasibility of ECDA. If you reviewed the GIS information and it said 30-inch seamless pipe and you were aware that they didn't make 30-inch seamless pipe, would you then have questioned that?

A. If I was aware that it never existed?

Q. Um-hum.

A. No.

Q. Why would you not have questioned that?

A. Because I'm not aware that they do or don't.

Q. Okay. What I understand from what I've heard here today is that your job is primarily to implement the assessment

schedule, the ECDA assessment schedule that's given to you; is that correct?

A. The schedule?

Q. You know, the segments that, you know --

A. Yeah.

Q. They give you a prioritized segment list and say go out and do the ECDA on these segments in this order?

A. Right.

Q. Pretty much, and you don't really have input as to whether it's applicable to do ECDA on that segment or not, you're just told to. Someone else makes the decision to do ECDA on that segment; is that correct?

A. Well, when there's issues like that I can offer some input, but generally it's the pre-assessment with the project engineer that decides whether we can or can't do it.

Q. Okay. And that would be Lee Haynes and David Agulara.

A. Lee Haynes currently.

Q. Lee Haynes. And is that H-a-y-n-e-s?

A. Yes.

MR. KATCHMAR: All right, sir. Thank you. That's all.

MR. GUNTHER: No questions.

MR. SHORI: No more questions.

UNIDENTIFIED SPEAKER: No questions.

MR. CHHATRE: Ravi Chhatre. Couple of questions.

BY MR. CHHATRE:

Q. You said you could find discrepancies in your bell-hole digs of -- you reported to the mapping department any discrepancy that you see on your GIS exam. How often it happens? Do you have a number? Happened ten times on 132 or --

A. I don't know.

Q. So nobody keeps track of those numbers?

A. It's kept track but I don't know.

Q. Who keeps track, your department or somebody else?

A. I think it's risk management.

UNIDENTIFIED SPEAKER: GIS reports to risk management.

BY MR. CHHATRE:

Q. The risk management department keeps track?

A. Yeah.

Q. Of how many discrepancies happen? How would they know how many discrepancies are there? From what I understand, you tell the mapping department that we found discrepancy at line such and such at line such and such. How does that information goes to risk management?

A. There's a mapping request and then I guess GIS logs it or risk management people log it.

Q. Who?

A. GIS group.

Q. GIS logs it.

A. They report to mapping and to risk management.

Q. So they are part of risk management?

A. Yes.

Q. They are part of risk management group.

A. Yes.

Q. Do you know the procedure for -- how do you know that risk management knows about it? You made a statement, risk management, either one -- I'm trying to find out the process for that. You report to mapping. From that point on I'm not sure I understand.

A. I'm not sure where it goes from there. I just know we send a mapping request.

Q. Do you ever go back to the same location to dig?

A. Could we go back to the same?

Q. To compare?

A. Compare?

Q. Whatever finding you have at location in 2001 in 2004, would you go back again to that same location to see if they improve, gone south or bad more at what rate or some kind of a follow-up to keep track of how fast they're going bad, if they are?

A. Well, we put in coupon test stations at every site, so if we wanted to, we could go back and we could monitor -- we'd monitor that coupon test station to see what the condition is or what the CP is on the pipe.

Q. You could see some coating damage or see some indications based on external corrosion.

A. Again, that would be the test survey that -- inspection testing that would tell us.

Q. I guess correct me if I am wrong, the simple answer is you do not go back to the same location to dig again?

A. Depends on what the data tells us.

Q. Have you ever done that? Have you ever gone to any location again?

A. No.

Q. Okay. What about training? You mentioned that you provide PG&E training. What kind of training is provided to them?

A. We give them R string and CAPA training, bell-hole training, bell-hole inspection. They could do, so they're aware of the bell-hole process with all --

Q. Digging process?

A. Yeah. We give them defect assessment training.

Q. Using which technique? Using which technique?

A. Which technique?

Q. I'm not sure what you mean by defect assessment training.

A. It's a company that gives on pipe ruptures and leaks and we give them NACE training, similar to the NACE CP, cathodic protection one and cathodic protection two.

Q. Going back to that outside, I guess, outside consulting company give them some type of training. Which company would that be? A minute ago you said that an outside group give some type of

training.

A. Defect assessment? I don't know what the name of the company is off the top of my head.

MR. FASSETT: Bob Fassett. It's Clarion Technical Institute. It's very well known in the industry and oil and gas people tend to take it. It's offered three or four times a year throughout industry.

BY MR. CHHATRE:

Q. Any of this training is mandatory for your employees?

A. Mandatory?

Q. Yes, sir.

A. I wouldn't say mandatory. It is part of their training though to send them to it. We make it mandatory for our procedure.

Q. So are all seven employees gone through the defect that Bob mentioned? Have all seven gone to that training?

A. No, because my field engineers are continually changing because of the nature -- running corrosion and they might try to get another job at a different part of the company.

Q. Oh, so they are taking another job within the company?

A. Yeah.

Q. Now, any of the seven people you have, any of them have -- of the seven engineers you have, are there any (indiscernible)?

A. I know -- I'd say no, but there are a lot of them took

the test this past year.

Q. Beyond the ones who are making judgment, I guess, preparing the report and analyzing the condition of the pipe before it goes to your Integrity Management group?

A. Who does?

Q. On the four steps that you just described, pre-assessment, indirect, direct and confirmation, and you said all the data comes in and you draw the conclusions, your engineers?

A. No.

Q. They don't?

A. No.

Q. Who does that then?

A. They're involved in step one.

Q. Only?

A. In setting up the region points and the GPS and the line.

Q. Okay. So who does step two, three and four?

A. The contractor does step two and three, and step four is done by our project engineer.

Q. So that project engineer is different than your staff?

A. Yes. He doesn't report to me. We work together.

Q. So am I correct in interpreting -- so essentially your group, yourself and seven people, are only involved in step one, pre-assessment?

A. And permits, getting permits for step two and three.

Q. Right. So who does the comparison of actual observations, which is GIS and who makes the decision about the condition of the pipe and how is it verified by PG&E? If you want to -- it's a two-part question.

A. Part one is?

Q. Part one is who does the examination on the pipe? You said one hundred percent is done input and -- who does that then?

A. Contractor.

Q. Contractor does that. And who is verifying from PG&E side that they are doing the job properly? Who is verifying --

A. We have an inspector on site that has responsibility for checking the coating, watching the work done, making sure every step in our format is done.

Q. That's the process of doing it. I'm saying when the data comes in, who reviews the data and says, okay, communications? Does the contractor or someone at PG&E or the contractor --

A. If the contractor finds any corrosion, he reports it to me or the pipeline engineer in charge of that area.

Q. Okay.

A. And then they decide what has to be done.

MR. DAUBIN: This is Brian Daubin, PG&E. Bob, it would be easier if you could utilize the steps of the RMP project to ask those questions, and I think that you would get greater clarity by the answers, but you gave a three-step question and then he

answered the first part and then you asked the second question that didn't relate to the first part, so if you can go by the sections or the phases of the ECDA process, I think that he would be able to answer your questions more appropriately.

MR. CHHATRE: I'm not really focusing on ECDA procedure. The impression I got from the earlier discussion was the risk assessment group pretty much does first steps when the request comes to them.

MR. DAUBIN: Well, keep in mind, he's the ECDA program manager.

UNIDENTIFIED SPEAKER: Off the record, just again clarifying terms.

(Off the record.)

MR. CHHATRE: Let's go back onto the record. Back on the record.

BY MR. CHHATRE:

Q. You want to elaborate that for the record, Mike?

A. Elaborate?

Q. The role that you just described as to --

A. I manage the project from phase one to phase four. When people do their parts then I take the post-assessment, phase four, which talks about how things went, and I write an executive summary based on the information I'm given. I have to talk to him sometimes to clarify certain things, but generally that's what I do.

Q. All right. That gives some clarification. So that probably explains why you would not know what happens after it enters the Human Mapping Department. You said --

MR. CHHATRE: No more questions.

UNIDENTIFIED SPEAKER: I have no questions.

MR. DAUBIN: Brian Daubin, PG&E.

BY MR. DAUBIN:

Q. Mike, would it be a true characterization to say that it's not a primary goal of the ECDA process to determine and find discrepancies between GIS and physical assets in the ground?

A. Right, yes.

Q. However, is those discrepancies are found, what is your role and responsibility if you are made aware of those?

A. We report it to the mapping -- to risk management, Bill Manegold, and to the mapping.

Q. And are there procedures written that PG&E has on how to get that information to mapping?

A. I guess it's logged by risk management. I'm a little unclear about that.

MR. DAUBIN: Okay.

MR. FASSETT: Bob Fassett, PG&E.

BY MR. FASSETT:

Q. You mentioned that there are three tools that you use in the ECDA procedure. If I recall, the NACE procedure, which is incorporated by reference in Subpart O, calls for a minimum of two

tools; is that correct?

A. Correct.

Q. So you actually do an additional tool than what's required?

A. Yes.

Q. These are, as you've described, these are close interval survey, alternating current voltage gradient, direct current voltage gradient; is that correct?

A. Um-hum.

Q. Does it make a difference to those tools and the information provided by those tools as to what the long seam is or isn't?

A. No.

Q. So it doesn't matter to the frequencies that are measured by those tools if it's a long seam DSAW or a seamless pipe; is that correct?

A. Correct.

Q. You spoke about the field engineers. The field engineer is an entry level position for the company; is that correct?

A. Yes.

Q. So is it fair to say that these are relatively recent graduates that may have one to three years in the company before they move on to their next job?

A. Yes.

Q. Also going back on what you'd find in the ground, there

are a number of elements in GIS, more than 15 as I recall; is that correct?

A. Yes.

Q. When you're actually looking at a pipe in the ground, how many of those elements would you be able to verify? For example, would you be able to verify the tinsel strength of the pipe in the ground?

A. No.

Q. Would you be able to verify the carbon content in the steel in the ground?

A. No.

Q. You would be able to verify if there is a seam or not, providing it's the type of seam you can see; is that correct?

A. Right.

Q. So, for example, if it was --

MR. CHHATRE: I'm sorry, I didn't hear the answer.

MR. WEST: Yes.

BY MR. FASSETT:

Q. So, for example, if it was an ERW seam, that would be difficult to see by eye; is that correct?

A. Yes.

MR. FASSETT: Thank you. No, I have one more.

BY MR. FASSETT:

Q. In the pre-assessment phase the field engineers are gathering information, some of the information, or the leak

investigation reports or the A forms?

A. Yes.

Q. Is that correct? If you came across an A form that said there was a leak on a long seam, would that raise the flag that perhaps I have a long seam threat?

A. Yes.

Q. What would you do at that?

A. Well, we'd probably pick a spot to dig there.

Q. Would you also notify --

A. We'd notify --

Q. -- risk management?

A. Yes.

Q. Because that would mean that perhaps easy data is not feasible for a long-seam threat; is that correct?

A. Right.

Q. It's still feasible for the threat of external corrosion; is that correct?

A. Right, yes.

MR. FASSETT: Thank you.

MS. FABRY: Klara Fabry. Follow-up question.

BY MS. FABRY:

Q. Accepting the fact that the direct assessment is not a tool to validate the GIS information, you are responsible in essence for the pre-assessment phase of the program. Is any other program or tool available to you to validate the GIS information

as part of that overall program?

A. Any other tool?

Q. Any other tool or program or process, you know, in that whole Integrity Management Program, how you are validating the available GIS information system.

A. I don't think there is one.

MS. FABRY: Okay.

MR. CHHATRE: Any follow-up questions?

MS. MAZZANTI: Debbie Mazzanti.

BY MS. MAZZANTI:

Q. I have a question in regards to the contracting. Is that work always given to a contractor?

A. Yes.

Q. Has that work ever been done internally by PG&E employees?

A. Phase --

Q. Whatever it is that you're giving to them, contracting out?

A. Phase two, no. Phase three has been given to I guess general construction.

MS. MAZZANTI: Thank you.

UNIDENTIFIED SPEAKER: No questions.

MR. CHHATRE: Nobody have questions? Thank you so much for your time. Off the record.

(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 Michael West
DOCKET NUMBER:	DCA-10-MB-008
PLACE:	Burlingame, CA
DATE:	January 4, 2011

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.

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Sandra K. Ledford
Transcriber