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NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

INTERVIEW OF SARA BURKE PERRALTA, PG&E
(JAN-6-2011)

(69 Pages)

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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

Interview of: SARA BURKE PERRALTA

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

Thursday,
January 6, 2011

The above-captioned matter convened, pursuant to notice.

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Investigator-in-Charge

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I N T E R V I E W

MR. CHHATRE: On the record. Good afternoon. Today is Thursday, January 6, 2011. We are currently in Burlingame, California, at the San Francisco Airport Marriott. We are meeting in regards to the investigation of pipeline rupture in San Bruno, California, that occurred on September 9, 2010. The NTSB accident number for this investigation is DCA-10-MP-008.

My name is Ravi Chhatre. I'm with the National Transportation Safety Board, and I'm the 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 party members will have a chance to review the transcripts when they are completed.

Also I'd like to inform Ms. Burke that you are permitted to have one other person present with you during this interview. This person is of your choice, a supervisor, friend, family member or, if you choose, no one at all.

So for the record, please state your full name, spelling of your name, contact information like e-mail, telephone number, postal address, and whom you have chosen to be present with you during this interview.

MS. BURKE PERRALTA: Okay. I've chosen Dane to be present during this interview. My name is Sara, S A R A, Perralta, P E R R A L T A, formerly Sara Burke, B U R K E. My

address is 375 North Wiget Lane, that's in Walnut Creek, California 94598, and e-mail address, sebe@pge.com.

MR. CHHATRE: Thank you for that. Now I would like to go around the room and have each person introduce themselves. Please state your name, spelling of your name, organization that you represent, business e-mail and phone number, starting with the City.

MR. CALDWELL: Geoff Caldwell, City of San Bruno, my information's on the card provided.

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

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

MS. JACKSON: Connie Jackson, City of San Bruno. My information's on my card.

MS. FABRY: Klara Fabry, City of San Bruno, information on the card provided.

MR. SHORI: Sunil Shori, California Public Utilities Commission. Information is on the card provided.

MR. KATCHMAR: Peter Katchmar, United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration, PHMSA. My information is on the card provided.

MR. GUNTHER: Karl Gunther, NTSB, Operations Group Chair, karl.gunther@ntsb.gov; phone: (202) 314-6478.

MS. MAZZANTI: Debbie Mazzanti, IBEW Local 1245. My

information is on the card.

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

MR. NICHOLSON: Matthew Nicholson, NTSB, engineer, matthew.nicholson@ntsb.gov, spelled M A T T H E W, N I C H O L S O N.

MR. CHHATRE: Ravi Chhatre, National Transportation Safety Board. My e-mail is ravindra.chhatre@ntsb.gov; phone number is (202) 314-6644.

MR. NARVELL: Rick Narvell, Human Performance Group Chair, NTSB, at Washington, D.C., (202) 314-6422; e-mail is narvelr@ntsb.gov.

MR. JAQUES: Dane Jaques on behalf of the witness, and my information is on the card provided.

MR. CHHATRE: Thank you much. Do you want to go first, Karl, or start with the table?

MR. GUNTHER: No, I'll go ahead and start first. Karl Gunther, NTSB.

INTERVIEW OF SARA BURKE PERRALTA

BY MR. GUNTHER:

Q. Could I please have your job title and affiliation?

A. Yes. I'm the manager of the integrity management program.

Q. And what are your duties?

A. So my duties, the teams that are beneath me, I have a risk management team responsible for the gas transmission and distribution system risk, analysis and evaluation, and I have an integrity management program focus group, and that is comprised of a field support team, and it's also comprised of the engineering aspect that is responsible for all integrity management assessments that we perform on the pipeline, and in addition to that, I have the program management for the operator qualification program.

Q. Are you involved or familiar with the design material, thread algorithm for the transmission lines?

A. Not the expert, but I'm, you know --

Q. Okay.

A. -- aware.

Q. Okay. In pipe seam design, for example, in seamless, they have it rated at 10 points and double submerged arc weld is at 10 points and single submerge is at 60 points and I don't know if you're familiar with the pipe that it failed out there, but it was listed as seamless. Did anyone or did anybody get suspicious that, you know, that there would be seamless pipe in 1956? Did it seem odd?

A. I'm not aware that anyone had that question.

Q. I mean, you know, there is one class here, welds made prior to 1970.

A. Uh-huh.

Q. Would that maybe have been a better choice for risk?

A. I'm not the -- I don't sit on that threat committee. I'm not the expert on that.

MR. FASSETT: Bob Fassett. Point of clarification. Did you ask is it odd to have seamless pipe installed in 1956? Was that the question?

MR. GUNTHER: To our knowledge, there is no seamless pipe made in 1956.

MR. FASSETT: Off the record.

MR. CHHATRE: Off the record.

(Off the record.)

(On the record.)

MR. CHHATRE: Back on the record.

BY MR. GUNTHER:

Q. Would it strike you and the group as odd that you would have 30-inch pipe marked seamless that was installed in 1956?

MR. JAQUES: I'm going to object. She can answer as to what she thought, not as to what anybody else would have thought. Calls for speculation.

MR. GUNTHER: I agree.

BY MR. GUNTHER:

Q. Would it seem strange to you, say looking at a plat or, you know, the GIS system, to do a risk assessment, that the pipe would be listed and installed in 1956, 30-inch, and yet say seamless?

A. I don't know that that would strike me as odd.

Q. Okay.

MR. FASSETT: Bob Fassett. Point of clarification. You also asked if she was familiar with the pipe in this investigation. She has not been -- she is not aware of any of the information discovered through any of our responses to the NTSB.

MR. GUNTHER: All right. Let me ask that question.

MR. CHHATRE: Let me just state one more thing for everybody. We tend to be impulsive in trying to get input immediately. What it does really both for the witness and the questioner, you disturb the chain of thought. When you get a chance, you can ask the same thing. Make a note and get a clarification, and there's no reason to -- you can ask the questions you have. There is no reason to interrupt while asking questions.

MR. FASSETT: I apologize, but I did not want those questions, if not accurately stated, to confuse anybody else and continue the confusion through all of the people until it came back to me as follow-up. That was the purpose for clarifying that.

MR. CHHATRE: That will be perfectly all right. Once Karl is finished, you can interrupt. I'm not saying if something's unclear importantly in your view, that you have to wait until your turn. You can ask the question, and when he finishes, you can clarify. That's all I'm asking.

MR. FASSETT: Are we off the record?
MR. CHHATRE: We are now.
MR. GUNTHER: We are now, I guess.
MR. FASSETT: We're off the record now.
MR. CHHATRE: We're off the record now. We're off the record.
(Off the record.)
(On the record.)
MR. CHHATRE: Back on the record.
BY MR. GUNTHER:
Q. Anyway, again there are a number of classes in pipe seam design. There's about 10 different choices. If you were looking in the GIS system, would it be possible and you saw something suspicious, would you consider choosing another class?
A. So just so I understand the question, if we were looking -- if I was looking in GIS and saw something suspicious, would I look into another class?
Q. For example, one, I could see where maybe you would make inquiries or, two, you'd say, you know, maybe I don't know what this is. So maybe I should use a default class.
MR. JAQUES: You know, I'm going to object because I believe her testimony was that she's not the one who's the expert on that table. So I don't think she's the appropriate person to answer that.
MR. GUNTHER: All right.

BY MR. GUNTHER:

Q. All right. Same thing, with girth weld condition. Are you familiar with that?

A. Again, you're reading out of the design and material algorithm --

Q. Right.

A. -- RMP, and I do not sit on that committee and I'm not intimately familiar with the weighting and point assignments of the algorithm there.

Q. Okay. How about the area, material flaws or unique joints?

A. Same answer.

Q. Okay. Okay. Looking at the integrity management program, in valves, automatic shutoff and remote control valves, are you familiar with a study that was made by Che Hong Li (ph.) that the company concluded that the use of automatic shutoff valves or remote control valves would have no effect on increasing human safety or protecting pipelines?

A. Yes, I'm aware of that paper.

Q. Okay. Is that a company policy or does the company agree with that?

A. Yes.

Q. Okay. Have you all considered about using -- putting these valves in the older systems like line 132 or 101?

A. So the paper that you reference is the company's

position, and we are looking into the use of that but nothing has been decided yet.

Q. Okay. So it's not necessarily a closed issued. Are you considering doing an upgrade in the SCADA system on the older lines, maybe adding flow meters, sensors?

A. I'm not aware of any projects that you mentioned.

Q. All right. Thank you. I'll go and --

MR. CALDWELL: No questions.

MR. DAUBIN: No questions.

MR. FASSETT: Just a clarification on that paper.

BY MR. FASSETT:

Q. Are you also aware that AGA and other industry groups have come out with papers on automatic and remote shutoff valves that has stated that the damage occurs within the first 3 minutes of the blast?

A. Yes.

Q. Are you aware that they've also stated therefore that installing an automatic shutoff valve would not reduce the likelihood of a pipeline failure?

A. That's correct.

Q. Are you also aware therefore that if everything happens within the first 3 minutes of the blast, installation of automatic or remote shutoff valves would not reduce consequence?

A. That's correct.

Q. And is it reasonable -- is it accurate to state that the

equation for risk is the cross product of likelihood times consequence?

A. That's correct.

Q. Therefore, the risk would not change if you did not install these valves. Is that correct?

A. That's correct.

Q. Thank you.

MS. JACKSON: Connie Jackson, City of San Bruno.

BY MS. JACKSON:

Q. Is it in your area of responsibility to assure that the information in the SCADA system matches your knowledge of field conditions?

A. I do not have responsibility for our SCADA system.

Q. Whose responsibility is that?

A. The SCADA system oversight is run out of our gas system operations, gas system control.

Q. Thank you.

MS. FABRY: Klara Fabry, no questions.

MR. SHORI: Sunil Shori, California PUC.

BY MR. SHORI:

Q. Sara, is it your role or responsibility, are you over folks who basically confirm that GIS matches field conditions or review of historical records? Are you involved in that at this date?

A. So in terms of how GIS relates to the integrity

management program, as part of the pre-assessment step of our assessments, we do go and do data mining for values that may be assumed in GIS and any other records that we may be able to recover from the local office, and those records are reviewed and, you know, updates made into the GIS system through the integrity management process. Again, that's focused on HCAs, not systemwide, but we may learn something in the data mining process, you know, and again, those updates would be made into GIS.

Q. And data mining would be, are you talking job files?

A. Right. So going and pulling the local job files from the different division offices.

Q. And that's occurring now?

A. Correct, during the pre-assessment phase.

Q. Now notwithstanding the paper from Che Hong Li and AGA and all the other positions Bob stated --

A. Uh-huh.

Q. -- the Commission has requested PG&E to look into automatic valves at various spots. What's the process that's being utilized to determine that, and where are you at on that step?

A. So there's a team that's focused on that evaluation. I'm not part of that team, and I know that they are working on it but no final decision has been made. It's in progress.

Q. And who does that team report to?

A. I believe it's under Pipeline 2020.

Q. Who manages Pipeline 2020? There's got to be somebody who --

A. Oh, I'm sorry. Randy Livingston and Todd Evanson.

Q. Are there any proposed timetables? I mean is there some sort of goal as to when to establish a position, whatever position that may be?

A. You know, I'm not aware of that. I'm not that close to the work.

Q. Now I want to try and understand what Bob said earlier in regard to a lot of the information I guess that's been provided to the NTSB not being shared with you. At the same time, there's a lot of data requests that have gone out from the Commission in regard to various pipe fittings or various types of pipe.

A. Uh-huh.

Q. How have you or how has your group acted on that information in terms -- I think there's been certain CPC data requests outside of the NTSB in regard to certain types of pipe and identify that in your system. Are you involved with that?

A. Yes, my team is involved in that.

Q. And is there -- can I get the names of the team members that are basically part of that team that are involved in that?

A. The primary focus for my team have been involved in data requests are Bill Manegold and Frank Dauby.

Q. Frank Dauby.

A. Correct.

Q. And based on some sort of estimate of how much needs to be reviewed, can you share any kind of percentage as to how far these folks are in terms of reviewing your documentation?

A. Can you be more specific about reviewing our documentation?

Q. I think if you were to perhaps go through GIS or go through some other means and identify what's solid versus what's unknown and whatever process is being used to address those unknowns.

A. Uh-huh.

Q. Is there a certain amount of scope of work that you folks have identified versus, you know, how far into that you are? Is there any way you can get into that?

A. So right now a full validation has been done on the three Peninsula lines and that's all the work in terms of a full systemwide -- in terms of a full review that has been done at this point.

Q. On the Peninsula lines?

A. Correct.

Q. And is there still work more to be done on that or is the team transitioning to other lines?

A. There's been preliminary discussions about what else we need to do with our GIS system but nothing's been decided.

Q. Thank you.

MR. CHHATRE: Are you done, Sunil?

MR. SHORI: Yes.

MR. KATCHMAR: Peter Katchmar, United States Department of Transportation, PHMSA.

BY MR. KATCHMAR:

Q. Did you find any discrepancies when you did your review of the Peninsula lines?

A. I cannot speak to the details of the discrepancies that were found.

Q. So the answer's yes, but you don't know the details.

A. Quite honestly I don't know.

Q. Okay. Who would know?

A. A good person to ask about that is Frank Dauby. He led that validation effort.

Q. D O B E.

A. D A U B Y.

UNIDENTIFIED SPEAKER: Point of clarification or off the record.

MR. CHHATRE: Off the record.

(Off the record.)

(On the record.)

MR. CHHATRE: Back on the record.

MR. KATCHMAR: Peter Katchmar still.

BY MR. KATCHMAR:

Q. Sara, how many years have you been with PG&E?

A. Just over 8 years.

Q. Eight years. Could you discuss your education?
A. Sure. I received a bachelor's of science in mechanical engineering from Cal Poly San Obispo.
Q. Okay. Do you have any additional pipeline experience, integrity management experience with any other company prior to PG&E?
A. PG&E was my first company after college.
Q. Okay. All right. Have you received any specialized training in integrity management?
A. Yes. So I recently attended the NACE integrity management program course this past year, and I've also attended and completed and passed NACE Levels 1, 2 and 3.
Q. Okay. You mentioned in answer to one previous question something about you're involved in the pre-assessment.
A. Right. So the GIS records as it relates to integrity management would be focused on the pre-assessment.
Q. Okay. Is that pre-assessment for hydro-test pre-assessment?
A. It would be for any assessment.
Q. ILI.
A. Any assessment method that we would choose.
Q. Okay. And I guess this may have been asked and answered but are you aware that they did not make 30-inch seamless pipe?
A. I would say I was not aware of that.
Q. Okay. The other people in your group, how much

experience or -- I don't know how to ask this question. I guess I'll ask it and let you tell me it's a bad question. How much experience do your team members have?

A. I would say it varies. We have entry level positions, for field engineers, which again entry level positions out of entry engineer program all the way to, you know, 30 plus years with the company. So it's a broad spectrum.

Q. Who might the people be that have 30 years with the PG&E?

A. Wow.

Q. In your group that might have been involved in the pre-assessment stage where they would have seen this 30-inch seamless pipe identified on the GIS prior to an assessment?

A. So I guess I can answer who are the employees that have around 30 years that are involved in pre-assessment?

Q. Sure.

A. So David Aguiar would be the primary person.

Q. A G U E R E?

A. A G U I A R.

Q. I A R. Okay. Anyone else you can think of?

A. Not with 30 years.

Q. How about 25 years or 20 years?

A. No.

Q. Okay. All righty. Who does the data mining? You said something about data mining.

A. That's primarily done by our field engineers.
Q. Those would be the young entry level?
A. I mean it's an entry level position but I would say that there are varied levels of experience in that team.
Q. Okay. Can you give me names of the more experienced ones I guess?
A. I'd say one of our more experienced engineers is named Robert Dale.
Q. D A L E?
A. Correct.
Q. Any other ones?
A. He's the most experienced.
Q. Okay. Thank you. Appreciate it.
A. Uh-huh.
MR. GUNTHER: Karl Gunther, NTSB.
BY MR. GUNTHER:
Q. Are you aware of the new threat in your integrity of the long seams?
A. The new threat?
Q. The long seam threat in your integrity.
MR. FASSETT: Bob Fassett, clarification. You said that a couple of other times today. Could you define what that long seam threat is?
MR. GUNTHER: The long seam threat is the pipeline that basically opened up and the accident.

MR. FASSETT: But can you describe the -- I assume you're talking about a manufacturing threat. What is -- specifically what is the threat?

MR. GUNTHER: Well, again we don't have all the test data. With the test data we do have, shows that there were some sections of it that were only welded 60 percent. So to me I would consider that to be a threat that you weren't aware of, and as a new threat in your integrity management system, you would say, okay, I've got this new threat. I need to modify my integrity management or at least study it and then change my plan to be able to meet that threat.

MR. FASSETT: And I'm asking for clarification because you stated it's a new threat. You haven't done the testing yet. So we're not completely sure of what it is. I don't know how we can identify a threat that the testing hasn't been done for yet to determine what the threat is.

MR. GUNTHER: All right.

MR. FASSETT: I'm just trying to understand.

BY MR. GUNTHER:

Q. Are there any integrity management threats that you weren't aware of three months ago?

MR. JAQUES: You mean that she's aware of now.

BY MR. GUNTHER:

Q. That you're aware of now or that you're working on.

A. So through the data requests that we've been responding

to, and also through the recent report that was released, there are, you know, some concerns around manufacturing methods and that's something that the team is looking into.

Q. And again, so are you studying this with the idea that maybe you would have to modify your integrity management program to manage this possible new threat?

A. We are looking at our integrity management program, yes, we are.

Q. And have you changed your integrity management program at this new threat or are you still in the evaluation stage?

A. We have not changed our integrity management program.

Q. Thank you. I have no more questions.

MS. MAZZANTI: No questions.

MR. SPERRY: No questions.

MR. NICHOLSON: No questions at this time.

MR. CHHATRE: Ravi Chhatre, NTSB.

BY MR. CHHATRE:

Q. Ms. Burke or is that all right.

A. Perralta, my new name.

Q. That's the one I have.

A. Okay.

Q. Could you tell me what you are involved in in this integrity management document that I'm looking at?

A. So you have the -- all the RMP documents.

Q. Yes, I do. I believe I have all of them. I have RMP 02

to RMP 13. Is that all?

A. Yeah, I think, yeah, 1 through 13.

MR. DAUBIN: This is Brian Daubin, PG&E. The binder that Ravi is referencing is a compilation of all of our current RMPs for the integrity management program.

MR. CHHATRE: Thank you. For that clarification.

BY MR. CHHATRE:

Q. Which part of the documents you are involved either in input or compiling?

A. Okay. Fair enough. So all 1 through 13 are under the integrity management program in one way or another. I would say my largest involvement in RMP 6 which is our program document, and then RMP 9 primarily is my experience in years as a field engineer and then project engineer for the direct assessment program.

Q. RMP 6 and RMP 9.

A. Correct.

Q. What about the other documents? Are you involved in any form or shape?

A. Yes. Yes, so --

Q. Can you elaborate?

A. Sure. So RMP 11 is our inline inspection procedure, and that team is within my realm of responsibility. RMP 12 is our public awareness program, also within my realm of responsibility. RMP 1 is our consequence procedure and then 2 through 5 focuses on the individual threats, all of which are a very integral part of

our IMP program.

Q. And the program mentions a lot of items, the largest collection of items I ever heard. Which teams you're a member of? Are you chairing any of those? Two questions.

A. Am I chairing any teams. I'm not chairing any teams. We have individuals assigned to chair the teams and for those RMPs like CDA or ILI which do not have chair, we have a lead that facilities the revision process.

Q. And which area again?

A. I’m sorry.

Q. Which area do you have some leads participating or facilitating --

A. So for those -- so for the consequence and for threats, we have, we have committee chairs and for the other RMPs where we don't have formal chairs, there are revision leads, and those can change as job duties change but we haven't.

Q. And what is the revision change between your work and the GIS?

A. As I said, so the primary use of GIS for my team is, when we get involved, is during that pre-assessment step where we do data mining and validation for where we have assumed values in order to learn more about the pipeline and uncovering information that may not have been in GIS to help us with our assessments.

Q. You also mentioned doing data mining that you primarily use GIS but also go to other sources such as local offices or --

A. Correct.
Q. -- or something like that?
A. Correct.
Q. Does that mean that the data available at the local or division offices has not made its way through GIS?
A. In some cases, no, that would have been the assumed values. So where we feel that -- again, where there's assumed values, we will go and make another effort to go into the various division offices and see if we can fill in those values.
Q. Who is responsible to get information in GIS? Do you know?
A. Through the pre-assessment work that we do?
Q. No, I mean the division offices. I thought all your GIS was a central resource for information. If I interpreted your answer correctly, it looks like some information stays at division offices where you have to go in addition to GIS. Am I correct in that interpretation?
A. So the original -- so, let's see. I guess maybe I don't know how to answer your question other than where we do have assumed values in GIS, we will go look for that information as part of the pre-assessment phase.
Q. Normally you will go to division offices because it is not available through your GIS. Is that correct?
A. Correct.
Q. Can you elaborate briefly, I know you don't have the

document, if you want I can show you the page, a different page, but the basic -- from what I have read, it look like the basic structure of the IMP program looks like your likelihood of failure and consequences of failure. Is that correct?

A. Correct.

Q. Now what are the consequences of failure? It looks pretty much like PHMSA's classification, class 1, class 2, class 3 and class 4 of consequences.

A. Uh-huh.

Q. We assume that's classifications, that's classification used on minimum number of density of population for example.

A. Uh-huh.

Q. So you're using that as a number for your consequences?

A. The consequence piece of the equation is defined for us through high consequence areas, and that is the value that we use.

Q. That you use.

A. Correct.

Q. So has it made a difference or have you rather made a difference in class 3 or class 4 but in the same classification you could have certain number of population that meets class 3 but you can have significantly more population in class 3 or class 4. Does that make a difference on consequences number?

A. If you're asking, have I run those numbers myself.

Q. No, no, I'm asking the principle of consequence.

A. Okay.

Q. And from what I understand, and if my understanding is not correct, tell me, it looks like you are taking PHMSA definition of class 4, multiple buildings for example.

A. Uh-huh.

Q. Now there are two locations where your pipeline runs. The one barely meets class 4.

A. Uh-huh.

Q. The other, and not just number written in PHMSA, but whole bunch of four story buildings. From what I understand from your program, you are numbering the same for both locations, you are taking PHMSA's classification as the number. Am I correct or not?

A. Let me try to answer this way --

MR. FASSETT: Can we go off the record please?

MR. CHHATRE: Off the record.

(Off the record.)

(On the record.)

MR. CHHATRE: Back on the record.

BY MR. CHHATRE:

Q. Your consequence of failure, how do you do it?

A. The consequence of failure for the integrity management program is defined by high consequence areas and as Bob mentioned, we use method 2 to identify the extents of our high consequence areas, and that's where we apply our assessments.

Q. Can you please for the record tell what the method 2 is?

A. So method 2 is using the PIR calculation which is the function of pipeline diameter and pipeline pressure and essentially sliding it up and down the pipeline and counting structures and looking for identified sites.

Q. Do you recall what the structures are in that radius?

A. Twenty structures.

Q. Twenty structures. Does PHMSA rule says that you cannot have more than 20 in the same classification?

A. Does it say you cannot have more than 20?

MR. CHHATRE: Off the record.

(Off the record.)

(On the record.)

MR. CHHATRE: Back on the record.

MS. BURKE PERRALTA: I'm sorry. I thought I said 20 or more. That's what your question is.

BY MR. CHHATRE:

Q. Yeah, my question is so you are treating in your formula residences 20 or more, it can be 20, it can be 100. If I read your document correctly, the value is safe. Is that correct?

A. Whether it's 20 or whether it's 100, that will be a high consequence area and will be assessed under the integrity management program.

Q. In the high consequence area, is there a minimum and maximum number given?

A. For structures? So 20 or more.

Q. So it can be more?
A. It can be more, correct.
Q. So the regular formula is you have the same value for the structures 20 or structures 200. Is that correct?
A. I guess --
Q. A high consequence area.
A. Right, right. I guess I'm confused by the question because going back to what I originally said, consequence is defined for us. So whether it's 20 or whether it's 1,000, that segment of pipeline near those structures will be assess through our integrity management program.
Q. But wouldn't damage to population be different should there be a failure? That is one concept of consequence of failure is it not?
A. I understand. I understand that but I guess for the purposes of the integrity management program, the definition of consequence is defined for us.
Q. Is it your document or now I'm confused. Defined for you by whom?
A. The potential impact radius.
Q. Let's go back. I understand that.
A. Okay.
Q. The way I read this formula is in that radius --
A. Uh-huh.
Q. -- if you have 20 residences --

A. Uh-huh.

Q. -- and 100 residences, the way your formula is, both will have the same number given that. Is that correct or is it not correct? That's what I'm trying to understand. The way the formula is to me, the way I read it, your value will be safe.

A. And I guess --

Q. Is that true or not? That's what I'm asking. I'm trying to understand this. I'm not questioning anything. I'm just trying to understand the document I'm reading.

A. So I guess I would say that I don't know numerically what that would be, but I would say that they would both receive an integrity assessment.

Q. Thank you.

A. They would both be considered high consequence. I feel like we're getting kind of circular, and I apologize for that but --

Q. Now the pipeline statement should be defined as a length of continuous pipeline with same piping specification classification and integrity management ACA designation. Can you elaborate on this how the segments are separated? Does a valve on a line separates pipeline segments or it does not?

A. So a pipeline segment is any segment of pipe where all of the characteristics are the same as it says there. So any time there may be a change in diameter or thickness or coating type or job number, that's where we would segment the pipeline.

Q. So the mechanical separation by a valve or flanges, will that be a different segment or not? I'm trying to understand.

A. Not necessarily.

Q. Okay. So that could be the same segment then.

A. That could be the same segment.

Q. Do you recall this September 9th incident? I don't have the document with me. It was mentioned that 2 miles north of the rupture location, PG&E had sent a document to CPU or some agency I guess where it was high risk, high priority pipeline.

A. Uh-huh.

Q. Are you aware of that?

A. I am aware of that.

Q. And how far miles away that pipe segment was from the rupture location?

A. So if you're asking where that section of pipe is relative to the rupture location?

Q. Yeah, how far in miles?

A. I believe it's about 2 or so miles north.

Q. Two or so miles.

A. Yes.

Q. And would that be considered same segment or not? If not, why not?

A. I do not believe it was the same segment, and I couldn't tell you exactly what characteristics changed in that 2 miles, but I mean it could have been diameter, it could have been a job

number. A lot of different changes can happen in two miles --

Q. Okay.

A. -- during construction.

Q. What is a job number?

A. Oh, I'm sorry. A job number is a unique number that is given to a pipeline job for new construction, for basically when the job is installed. When the pipeline is installed, it's given a job number, GM number and that's uniquely associated with that pipeline installation.

Q. So even if all the parameters are the same, the job number is different, automatically becomes a different segment then?

A. Yes, because it would be -- there would be something unique about it as opposed to its neighboring job number, different time period or whatever.

Q. Again, I'm trying to understand this document. The statement, external -- this is really in the beginning of your document, page 4.

A. Is this RMP 1?

Q. This is RMP 1.

A. Okay.

Q. And it says external corrosion, third party (indiscernible), design and materials. What does design and materials means?

A. So design and materials would speak to pipeline

construction methods or the materials of the pipeline, the metallurgic aspects of the pipeline.

Q. And where would you get this information?

A. The information about the design and materials of our pipeline?

Q. Yes.

A. So we would look at GIS, the threat committee for design and materials is associated with subject matter experts that have knowledge of the system, that they bring to the table.

Q. Okay. I seem to understand. GIS I can understand.

A. Okay.

Q. But I do not know subject matter experts, if you have someone expert in corrosion, how would that person, he or she would know what happened (indiscernible) materials and construction ways?

A. Well, I'm just saying as far as the design and materials go, for the threat committee, that person may have a metallurgical background and may understand the nuances in strength or performance of certain, you know, certain types of seamed pipe versus seamless pipe, certain types of manufacturers of certain eras. So they would bring that information to the table in terms of risk ranking.

Q. How would they know what material was used or what construction is being used? I'm talking about -- I see what you're saying in design and materials.

A. Okay.

Q. But what I don’t understand is where will you get the information, you're saying design experts. That's confusing me.

A. Okay.

Q. I understand GIS. I understand GIS.

A. So the information is derived through GIS and through job files.

Q. So job files are not part of GIS database?

A. Yeah.

Q. Okay. The other parentheses says inventory of all pipeline design attributes, operating conditions, environments, it says structures, faults, et cetera. There's a lot of words here I don't understand like design attributes. What does that mean?

A. I'd have to probably look at the document --

Q. Okay.

A. -- to see where you're reading from.

Q. What does faults mean?

A. Say again.

Q. It says design structure, faults, et cetera. F A U L T S.

A. Oh, faults. So seismic faults.

Q. Oh, earthquake faults.

A. Earthquake faults.

Q. Okay. I took that as faults in the material.

A. Oh, like flaws. Okay.

Q. Okay. Now there are a couple of statements in here that says the committee shall meet once each calendar year to review and approve the methodology used to calculate risk and determine if changes are advisable. And for the sake of time, I'm not going to go through all my questions. We'll do those by mail or whatever. I just want to touch few of those, or we'll be here for the whole week. Can you tell me, do you have a fixed timetable for those meetings and what happens at those meetings? Does some document come out?

A. So as the document states, the committees are to meet annually, and discuss and review the algorithm and any changes that maybe need to be made to the RMP itself to update it, and those decisions take place in the annual meetings. I will say that the consequence RMP is the least dynamic as opposed to the threat committees, and I myself have not taken part in the RMP 1 consequence committee meeting. So I couldn't tell you exactly what takes place.

Q. Anybody in your group has participated in that?

A. Bill Manegold is the supervising engineer of risk.

Q. Okay. And does he, does he give you any input as to what happens in this committee as supervisor or he doesn't tell you?

A. We have not held one under my time here as a manager.

Q. That reminds me of my question. What was your position on September 9, 2010 when the accident happened?

A. Manager of integrity management.
Q. Manager of integrity management.
A. Yes.
Q. And when did you get promoted if I may?
A. Yeah, I assumed this position September 1 of 2009.
Q. So September 2009 to September 9, 2010, there is no meeting of the steering committee.
A. That's correct.
Q. Okay. Now at the beginning of the document, the very first page, I think in the description it says date, some of this stuff is not clear, the exact date, are these the dates when some revisions are made to the -- let me show you this.
A. Yes. I believe the answer is yes, but I just want to see where you're reading.
Q. I'm reading here.
A. Correct. So these are revision dates.
Q. What happens when you don't make any revisions at all? You do not have to make revisions.
A. Correct.
Q. So what happens when you don't make any revisions at all?
A. Is that a trick question?
Q. No, no.
A. We don't make any revisions.
MR. CHHATRE: Off the record.

(Off the record.)

(On the record.)

MR. CHHATRE: Back on the record.

MS. BURKE PERRALTA: So if there's no revision made, then there's no revised document produced.

BY MR. CHHATRE:

Q. But me reading, how would I know there was a meeting held at all and revisions were made? I'm seeing a gap here. There are two meetings in 2004 and nothing between '05 and as we speak today.

A. So revisions would not always be as a result of the meeting. They could be. There could be another reason.

Q. This document tells me that it would be reviewed every year. I believe that's what you said. Do you remember correctly reading all this stuff? It's not.

A. A review of the document, correct.

Q. You review the document yearly.

A. Correct. So a review of the document may not produce a revision.

Q. I understand. That's all my question was. It's not a trick question. I realize that not every time there will be a revision of the document but how does the integrity management group producing this? How would the company, an operator in the field, or CPUs or me know that, in fact, there was a meeting and there was no revision then?

A. You would not know other than asking.

Q. Would, God forbid, but (indiscernible) PG&E and somebody takes over, how would that person know that there was a meeting and no revisions made? I'm just trying to understand.

A. Right.

Q. There should be --

A. Well, you would not -- you would know a meeting did not take place if -- if, for example, an exception report was filled out to say that we took exception to that because we did not meet.

Q. Is there some kind of documentation that comes out from that meeting, that was held on January 1, 2006 --

A. Yes.

Q. -- committee reviewed it, looked at the document, it's perfect and no revisions are made?

A. Yes, there are revision notes not contained in that binder, but we do have -- I'm sorry. Not revision notes, but meeting notes are taken during those meetings.

Q. And official document, can you explain that?

A. The committee chair takes the notes and then files them accordingly.

Q. Where? The committee -- okay. Let's leave that.

A. Okay.

Q. It's not an official document that comes out. That's okay. I just want to -- I have lots of questions but, like I said, we can take care of those by mail. There's only one acronym

that I really did not understand at all, and I don't understand the points given to this EC threat algorithm. And I can show you --

A. Okay. This is RP 2?

Q. I can show you the document. I think those points are kind of repeated almost throughout the document at different locations, but what I'm really looking for is on RMP 2, revision 5, I'm sure it's in all revisions, you have this EC threat algorithm.

A. Okay.

Q. And then it give soil resistivity and corrosion survey and whole 10 yards.

A. Okay.

Q. And each table has like different things, soil resistivity. You have very conductive soil, you are assigning 100 points.

A. Okay.

Q. And (indiscernible) you're assigning 10 points.

A. Uh-huh.

Q. Now that makes sense to me. What doesn't make sense to me is where are you coming up with these points? What is the basis for that?

A. So the point assignments are, again it's a team of subject matter experts in the area of, in your example, corrosion who meet and they have assigned point values based on their

experience, based on integrity assessments, and it's a weighting system. So it's a relativistic rating system and that's how those point assignments were determined and that's how they're updated is again through the committee meetings.

Q. That part I completely understand. So that is the ranking of the system you have.

A. Correct.

Q. I understand arbitrary point. You can give 5, 4, 3, 2, 1 or you can give 1,000 or 100.

A. Right.

Q. I understand that also. What I don't understand for each table, the numbers are different. Like in one case, to give an example, the highest point for soil resistivity is 100. Then I go to the next table, it says corrosion survey criteria, the highest point seems like 50 or 300. The lowest point is minus 100. So I don't -- I see a big -- as a reader, I see a big inconsistency. I can understand if every table has 100 points and 0 point range. So where does these numbers come from?

A. Without looking at the tables, I couldn't tell you.

Q. I will show you, as long as you don't read my notes.

A. I'm going to get the answer.

Q. I calculate total numbers here. And I'm not even saying the numbers should be the same. But 300 here, 250 here, 190 here, 120 here. They're all over, and I'm just trying to find out what is the basis for picking this high of numbers?

A. The real, the real -- I mean what matters to the algorithm is the weighting.
Q. I'm not questioning rating.
A. Okay.
Q. That's an arbitrary number --
A. Right.
Q. -- given by some criteria the company used --
A. Right.
Q. -- to give that. I'm not even there yet and I have a question for that but I'm not even there yet.
A. But even the point values themselves, and maybe this is where it's confusing. Even the point values themselves are --
Q. Arbitrary.
A. No, no.
Q. They're not arbitrary.
A. They are also a weighting unto themselves, right.
Q. True. But the number is arbitrary. I mean you can start with 10, 9, 8, 7, 6, 4, 2, and you'll get the same results.
A. Well, I can't, I can't -- I mean --
Q. I'm not questioning it. I'm just trying to understand what does this mean? Why -- where do these numbers come from? Why this table have highest number 100, this table highest number 300, and a minus 100? That I don't understand.
MR. JAQUES: Okay. There are about six questions in there. Why don't you pick one and ask her and let her answer it.

MR. CHHATRE: Question number one, where does the numbers come from?

MR. JAQUES: Okay.

MR. CHHATRE: I'm just giving example of different locations. There is not six questions.

MS. BURKE PERRALTA: Okay. So again these -- I can't tell you exactly why, you know, this soil resistivity criteria has 100 points, but it also is a ranging system, a weighting system, assigned to this kind of attribute.

BY MR. CHHATRE:

Q. Maybe I can complete my message. I'm saying --

A. If you want to know why --

Q. No, I want to know this highest number is 100, but each table has a different high and low number. So that means these numbers have some kind of a logic.

A. Exactly. Exactly. And I guess maybe that's where we're missing each other is that even those weightings are weightings unto themselves. The whole category of soil resistivity has a weighting, but the individual soil resistivities also have a weighting because of their impact on corrosion.

Q. Okay. I'll just ask two more questions and then I'll let go. The casing survey, it says existing -- let me go back. Table C, it says coating visual inspection, 8 percent rating, and if the seal is bonded or poor coating 100 points.

A. Okay.

Q. I understand that. Even though I question it, I understand that. Worst case you can see. And when I come down with that coating issue, one thing I noted is there is no age factor included in there. Another age factor is later, like a bare pipe or no inspection performed and the coating age between 5 and 20. My number is 19 points. So I guess if there is an area where you never performed an inspection, and similarly on the coating, the right number should have been 100, but you only give it number 19 because it says bare coating or no inspection of coating performed and the pipe age is between 5 and 20, my number is 19. Where at that location, actual coating could be simulated as bonded and the real number should be 100. But your algorithm is not going to give that.

MR. JAQUES: What's the question?

BY MR. CHHATRE:

Q. So my question is how come in that table then the bare pipe with no inspection, I'm getting 51 number which is completely different than -- I'm trying to understand the logic for this particular exception -- I call it exception.

A. I just want to -- like I really am trying to be helpful. I don't sit on the steering committee --

Q. Okay. And that is fine.

A. -- and they -- all of these have a lot -- every point value here and contribution has a lot of discussion by the subject matter experts --

Q. Okay.
A. -- to develop these tables. So there's just a lot of work that's represented here, and so I think --
MR. JAQUES: If it's not an area --
BY MR. CHHATRE:
Q. That part we both agree, there's a lot of work in here.
MR. JAQUES: If it's not an area that you're familiar with, you shouldn't be testifying about it.
MS. BURKE PERRALTA: Okay. Let's go that direction. Okay.
BY MR. CHHATRE:
Q. Okay. The question is who will be familiar with this area? We need talk to that person.
A. I think you just let him go, but the chair of that threat committee is Kevin Armato.
Q. Kevin -- how you spell it?
A. A R M A T O.
Q. Okay.
MR. CHHATRE: Off the record.
(Off the record.)
(On the record.)
MR. CHHATRE: On the record.
I'll just yield to the next person because we can deal with it later. Thank you much for the time.
MR. NARVELL: Rick Narvell, NTSB.

BY MR. NARVELL:

Q. This is very simple.

A. Okay.

Q. I've just been keeping track of, as I've been doing all week, of some acronyms that have been used by various folks. I wanted to make sure for the transcriptionist to spell out the two that you had used, and then one that Bob had used.

A. Okay.

Q. I'm going to start first with you, okay. One was, just to make sure, what RMP again?

A. That's risk management procedure.

Q. Okay. And PIR.

A. Potential impact radius.

Q. Thank you.

MR. NARVELL: And, Mr. Fassett, AGA?

MR. FASSETT: American Gas Association.

MR. NARVELL: Thank you very much. That concludes my questions.

MR. CHHATRE: Any questions?

MR. CALDWELL: No question.

MR. DAUBIN: No questions.

MR. FASSETT: I have a few. Bob Fassett, PG&E.

BY MR. FASSETT:

Q. There was discussion about mining GIS. I took that to mean the data is in GIS and then you look for or your team looks

for those items that are shown as assumed if it's associated with a HCA in an integrity management project, and that's when they go in and pull the records to find out what is the actual data if they find jobs that has that information. Is that correct?

A. Exactly correct.

Q. But who updates GIS? Who actually takes that information and puts it back into GIS to populate that?

A. That information is given to mapping to update GIS.

Q. And that's a department, correct?

A. Correct, the mapping department.

Q. Does the mapping department report to you?

A. No, they do not.

Q. Question or discussion about experience within integrity management and things like that. The integrity management program I'm looking now is Subpart O of 49 C.F.R. Part 192 and the source date here for that is December 15, 2003, which I take is that's when the rule pretty much came into existence, right?

A. Correct.

Q. So if we were to give experience to PHMSA on the integrity management program, would it be reasonable to say that experience started December 15, 2003, when the requirement for integrity management started?

A. That would be reasonable.

Q. You said you had 8 years with the company?

A. Uh-huh.

Q. When did you start on the integrity management team originally?

A. It was right around 2003.

Q. All right. 2003. I believe it was November 2003. Is that correct?

A. That's probably correct.

Q. Okay. You also mentioned that you were just assigned or you just got this job as manager in September of 2009.

A. Correct.

Q. What was your job prior to that?

A. T&R, transmission and regulation supervisor over in the Oakland area.

Q. And how long were you there?

A. For two years.

Q. So for 2 years, and the time prior to that, where were you? Between 2003 and that job.

A. Right. So between 2003 and essentially 2007, I was a field engineer for the direct assessment team and then a field engineer supervisor/project engineer for about another year.

Q. So help me with my math. Would that put you with about six year in integrity management?

A. Yes.

Q. And the program is 7 years old?

A. Yes.

Q. Thank you. You mentioned Bill Manegold is responsible

for I believe you said risk management algorithm. Is that correct?

A. Correct.

Q. Now, the algorithm, I believe you also mentioned that that's essentially populated using information in GIS?

A. Correct.

Q. Bill's responsible for the algorithm. Do you have a rough idea of how many years Bill Manegold has with the company?

A. I would say that he has 30 plus years with the company.

Q. And as I recall, Tosh Ha (ph.) is also a part of that team. Do you have a sense of his experience?

A. Tosh is very experienced. I don't -- maybe more around 20 years with the company.

Q. Okay. There is discussion around potential impact radius, you just defined the acronym, you called it PIR. You just defined it for Rick. Again looking at Part 192, I had it here, I turned the page, just so I'm clear, it defines potential impact radius to mean the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property. Is that how you recall it as well?

A. Yes.

Q. It goes on to say that the PIR is determined by the formula of the radius equals 0.69 times the square root of the product, pressure times diameter squared where R is the radius of a circle area in feet surrounding the point of failure, P is the

maximum allowable operating pressure in the pipeline segment in pounds per square inch and D is the nominal diameter of the pipeline in inches. Is that how you recall it?

A. Yes.

Q. So looking at that definition, I'm trying to understanding for myself --

MR. CHHATRE: Bob, let me get a point of clarification here. You are reading it and then asking her if that how she interprets it.

MR. FASSETT: I said is that how she understands it.

MR. CHHATRE: Once you read it, I don't understand.

MR. FASSETT: I just want to make sure we're on the same page. It's leading to my next question.

MR. CHHATRE: All right.

MR. FASSETT: Because I'm trying to understand what PIR means because there seems to be a lot of confusion.

MR. CHHATRE: Okay.

BY MR. FASSETT:

Q. So based on that definition, potential impact radius, is it fair to say that there isn't impact to society outside of that circle according to this definition?

A. According to the definition, that's correct.

Q. So if you have 3.5 million structures and 9.8 million people on those structures, outside of this circle, they're not impacted if this fails?

A. According to that definition.

Q. Thank you. Clarify members of threat committees. I think you actually clarified it. The committees are made up of people with various backgrounds but they don't necessarily report to you.

A. No, in fact, we try to get a diverse population on those threat committees throughout our operations and field personnel.

Q. Are they just restricted to the gas engineering department?

A. No, they're not. Not at all.

Q. So they come from the maintenance operation and they could come from gas system operations.

A. Correct.

Q. They could come from anywhere. Is that correct?

A. That's correct.

Q. That's all for now. Thank you.

MS. JACKSON: Connie Jackson, City of San Bruno.

BY MS. JACKSON:

Q. How are individuals selected to serve on committees?

A. How are individuals selected to serve on committees? So typically it would be their knowledge and expertise in the particular area of interest.

Q. I probably should have been more specific. By whom is that determination made?

A. So it would be made the committee chair.

Q. And who selects the committee chair?

A. The committee chairs are those individuals that are recognized to be experts in their field and capable of leading, leading the team. So that is decided. I don't know. There's not a formal nomination process if you will, but again it's those that have exhibited subject matter expert knowledge in that area.

Q. I guess my question is in your role as manager --

A. Uh-huh.

Q. -- among your manager colleagues, is that management level decision that some group of managers put their heads together and say these -- this person should lead this group and these individuals should be part of that committee?

A. I would say there's not a management committee that makes that decision. We haven't had to bring a new chair into a committee during my time here, but I believe that's a decision I would definitely have input on.

Q. And to whom do these -- it sounds like from what I'm learning here today, that the committee venue is pretty important in terms of the development of information and contribution to the integrity management program. Is that a fair statement?

A. That's a fair statement in terms of the committee work around the threats. That's correct.

Q. And that's what I meant.

A. Okay.

Q. Thank you. So help me understand how the result of

those meetings that were a product of the committees then is incorporated into your programs for actual implementation? Under what authority or what procedure does that work product turn into action or policy?

A. Okay. So the decisions that are made through those committee meetings are documented in the minutes and then the chair would get with Bill Manegold, our supervising engineer of the risk management program, to make sure that any potential changes in the weighting values for specific items would be updated into the algorithm.

Q. And are there -- this question may strain my lack of knowledge but I'm wondering if it is appropriate and then if there are field personnel who participate as members of committees? In other words, individuals who might have let's say real world operational perspective in terms of how the system, when it comes down to operational issues, sort of very basic issues --

A. Uh-huh.

Q. -- is that input -- are those individuals or is that input represented in some matter in the committee process?

A. Yes.

Q. Can you explain to me how that occurs?

A. So I'm trying to think of the different committees to try to give you a good example of that. We talked corrosion.

Q. Uh-huh. That's a good example.

A. Okay. So Kevin Armato who is the chair of that

committee, he has been -- he was a corrosion engineer for a number of years and a corrosion engineering supervisor for then again a number of years, working in the field, troubleshooting, installing and designing different anode systems and, you know, getting his hands dirty if you will in learning the nuts and bolts of corrosion and corrosion engineering from the field aspect. So in that sense, that input is there sitting on the table represented.

Q. Thank you.

MS. FABRY: Klara Fabry.

BY MS. FABRY:

Q. You indicated previously that the data mining and the validation process was done and finished for the transmission system on the Peninsula. If you could tell us when was that finished?

A. When was that finished? I don't know. To be honest, I don't know the exact date that that work was completed.

Q. Do you know what percentage of the length of the whole system was field verified?

A. I cannot tell you that.

Q. Do you have any recollection or information as a result of that validation process, any discrepancies were found or was any highlight, what kind of discrepancies were found throughout that validation process?

A. I don't have information of the details of any discrepancies that may have been found during that process.

Q. Thank you.

MR. SHORI: Point of clarification. That again is information that has been requested, that we may get and we'll share with the NTSB parties in regard to that, and I do want to clarify even on that, I think we brought the question up before, all three lines, 132, 109 and 101 have been validated because the last meeting I recall attending was the 101 had been validated.

BY MR. SHORI:

Q. Are we at the point that all three have been validated?

A. I know that work was done on all three lines. In terms of, to her question, in terms of its finality or finalization, I don't know exactly which date and it may be that 101 and 109 are not formally finalized.

Q. Okay. So earlier it was said that all three Peninsula lines, the Peninsula lines are validated.

A. Right. I should say they're part of that validation effort.

Q. So is 101 completely validated at this point?

A. I believe so.

MS. FABRY: And to clarify that, you are not sure about 132 and 109, that those were --

MS. BURKE PERRALTA: Right. So I believe they were part of the validation effort, and I don't know that the results have been finalized.

BY MR. SHORI:

Q. One last question. Sunil Shori, California PUC. Does Mike West report to you?

A. He does.

Q. So he's another one of your 34-year personal that you were talking about before?

A. Has he been here that long? He's been with the company quite a while.

Q. Thank you.

MR. KATCHMAR: Peter Katchmar, DOT, PHMSA.

BY MR. KATCHMAR:

Q. You were just asked by the City of San Bruno, something about how these people are placed on their respective teams --

A. Uh-huh.

Q. -- and all that.

A. Uh-huh.

Q. Does your integrity management program actually have requirements for these particular people in it? General statements about who would be the best people to --

A. I don't know that we necessarily are explicit about those individuals.

Q. Do you have high BTU content gas?

A. Occasionally.

Q. Do you change your PIR calculation from the .69 to something a little higher if you --

A. We would use the appropriate factor for rich gas if we

encountered it in our system for PIR.

Q. Have you ever done that?

A. I believe we have.

Q. Okay. Would that in effect change your -- it would change your PIRs.

A. That's correct. It would make it larger.

Q. So then that would change your risk in certain segments.

A. It wouldn't change our risk but it would change the extent of the PIR. So it would be larger. So it would encompass more of the pipeline segment for assessment.

Q. Okay. Would it be homogenously high in the whole system, the gas?

A. It would be -- we would receive information from our gas quality organization about what the extent of the elevated BTU content would be and then we would have to look at that geography to see where to apply that factor.

Q. Like how long would that gas be in the system?

A. I couldn't answer that. I don't know.

Q. Okay. You had talked about the different changes that might pre-suppose a new segment --

A. Uh-huh.

Q. -- some of which were type of pipe or diameter of pipe. Do you know through the City of San Bruno on line 132 how many segments there are?

A. I wouldn't know without looking at GIS.

Q. Okay. But we could figure that out?
A. Yes, yes.
Q. All righty. As part of your data mining, did you look back for historical leaks or things such as that?
A. As part of the pre-assessment process, we pull all what we call A forms which is our leak repairs associated with the inspection length. So the pipeline for assessment. So we would pull all the leak history on that pipeline.
Q. Okay. Did you -- do you remember seeing any trendable events?
A. For?
Q. Releases on any specific pipeline?
A. No. I'm not sure I understand your question, but no.
Q. Okay. But you think your teams did a good job of looking back at all the releases and leaks on the entire --
A. Yes.
Q. -- I don't know how many miles you've got, but from Mexico to, you know, North Urica?
A. For those pipelines where we have done an assessment as part of the pre-assessment, a full leak repair history was pulled for those pipelines and evaluated by an engineer.
Q. Okay. Is there anyone looking over the entire integrity management program that instead of being the specific engineer that would look up each little segment --
A. Uh-huh.

Q. -- is there anybody stepping back and looking at the forest instead of the specific trees?

A. So that is the responsibility of the engineer who is performing the pre-assessments. So they're looking at the, you know, the lines for assessment and if you take a given pipeline, you could have any number of HCAs along that pipeline route. So those HCAs are looked at, depending on the year of assessment, but in general looked at together. So, you know, you could have leak repair history for multiple HCAs on an assessment that's considered holistically.

Q. Okay. Is your risk model entirely done in house or do you use any outside vendors?

A. It's done in house entirely.

Q. All right. All right. I think I'm done. Thank you.

MR. SHORI: Can I ask one more follow up. Sunil Shori, California PUC.

BY MR. SHORI:

Q. Did you -- in regard to the rich gas, are you saying you could have rich gas or do you know of locations you have rich gas?

A. I don't personally know of locations that we have rich gas. He had asked if we had ever used a different factor to calculate the PIR for its gas, and I believe we have done that in the past.

Q. At this date, you don't know if you have any locations with rich gas? Have you done any reviews to determine if you have

any locations with rich gas?

A. I myself have not done any reviews but we do have a process for that review to be done in collaboration with our risk management team and our gas quality team.

MS. FABRY: Klara Fabry. I have a follow up.

BY MS. FABRY:

Q. Mike West, he's under your direction?

A. That's correct.

Q. He's involved in any way in this validation process, ongoing validation?

A. No.

Q. Thank you.

MR. GUNTHER: No questions.

MS. MAZZANTI: No questions.

MR. SPERRY: No questions.

MR. NICHOLSON: Just one question. This is Matt with the NTSB.

BY MR. NICHOLSON:

Q. When you talk about assumed values in that GIS database --

A. Uh-huh.

Q. -- is there actually a column that says it's an assumed value? How do you know it's assumed?

A. It's preceded by a negative sign. That's an indication to us that that value is assumed.

Q. When it was assumed, it was assumed from what?
A. From conservatively assumed engineering values.
Q. Based on? Are we talking materials and diameters or what exactly is assumed in that database?
A. So an example of what may be assumed could be wall thickness.
Q. Okay.
A. So it would be for that particular diameter, the most conservatively assumed. So the thinnest wall of manufacturing for pipe that we may have received at that diameter.
Q. Okay. Thank you.
MR. CHHATRE: I have no questions.
MR. FASSETT: Bob Fassett.
BY MR. FASSETT:
Q. Going back to the rich gas and the gas quality, it's the gas quality team, if I recall what you said, which notifies you that we have evidence that there has been rich gas that's entered the system. Is that correct?
A. That's correct.
Q. So they would be modeling it and determining where it's going and then when it's moved out of the system. Is that correct?
A. That's correct.
Q. So it would be during that time of an alarm if you will, of rich gas, that they'd be notifying the team saying here's what

we have, here's the geography and you'd be checking the potential impact radius accordingly. Is that correct?

A. That's correct.

Q. Thank you.

MR. CHHATRE: Any more questions?

MS. JACKSON: I just have one more quick question. Connie Jackson, City of San Bruno.

BY MR. JACKSON:

Q. Have there been any changes to either your process or your programs, your integrity management information as a result of this September 9th incident as of now?

A. There's a number of items that are being looked at in and outside of my team. No changes have been made to the plan.

Q. The fact that issues are being looked at though suggests that that's a possible outcome?

A. It is a possible outcome.

Q. Thank you.

MR. CHHATRE: Any questions? Since Bob started it, I -- my last question, I'll just ask two.

BY MR. CHHATRE:

Q. On 6.2.5 on your RMP 01 --

A. Okay.

Q. -- at each meeting on each calendar year, the committee shall review -- and I'm presuming it is the committee, the RMP committee, I guess, or -- who does that?

A. Right, right, the consequence committee.

Q. Okay. It goes through all that and says, finally, for the committee that addresses one of the (indiscernible) you shall, at a minimum, consider the following: 10 pipeline segments with the highest likelihood of failure, 10 pipe segments with the highest likelihood of failure times consequences of failure, and 10 additional pipe segments with risk values spread through the range of values. My question here is what is the basis for 10?

A. I don't know the basis for 10.

Q. Okay. Do you --

A. It's a way to quantify the top segments.

Q. I understand. I was looking for the magic number 10. Why not 15 or 20?

A. Right.

Q. That's all I'm asking, the logic on that. And with the definition of segment, can you tell me on PG&E's transmission lines only, gas transmission lines, how many of these segments exist according to this classification integrity management program has?

A. How many segments do we have within the integrity management program?

Q. Yeah, but I mean based on your definition of when things change or --

A. Right. Thousands. We have --

Q. Can you be a little more specific?

A. Probably --
Q. I mean, you can get back to me on that.
A. That's fair. That's fair.
Q. You can back to me on that. That is perfectly all right.
A. That's fair.
Q. I don't expect you to remember that number, but I thought maybe you had some idea.
A. Right.
Q. I'm going to base -- why the basis question here, and it says here, likelihood of failure and it says about external corrosion. I won't read the entire paragraph, but it says, be submitted to the consequences steering committee for inclusion in the risk calculations, each 10 categories shall be rated in proportion to PG&E and industry failure experience. Two part question: The basis for industry failure experience, where does that information come from?
A. So we have --
Q. Do you want to read this?
A. I can just answer your question.
Q. Okay.
A. Yeah, but in terms of industry experience, we have many individuals in the integrity management program and outside the integrity management program that participate on different industry committees, different task groups, technical evaluation

teams, and that's where the industry experience would come into play.

Q. I don't think you answered my question. My question is what number you using? Where do these numbers come from? If I'm on certain committee and I'm PG&E employee, would I just tell you I think this is more important than the other and you guys on the committee take that as a factor or -- I'm just trying to understand what weight is given to that and what is the logic or what the data based for industry failures?

A. Right. So it could be through the form of industry statistics or, you know, an industry report or study that was done, but it's a committee. So all items are discussed for their effect and for their -- you know, whether the weighting should be changed. So it's a discussion.

Q. Offhand, can you give me one source where we can get this industry experience information?

A. If would be most appropriate to ask the certain chair committee for --

Q. That is fine. That is fine. So you are not aware where this come from. Now do you know what weight is given to PG&E experience and industry failures? I think you are considering both.

A. That's correct. That's correct.

Q. So what is the weighting for industry experience versus PG&E experience? And that is not clear here. In fact, it is not

given here.

A. I don't believe we're explicit as to the source.

Q. No, I think it is difference source because, you know, you said you are not aware of it. What I'm saying is both factors are being considered. Each threat category shall be rated in proportion to PG&E and industry failure experience. That's the statement.

A. Right.

Q. I don't understand (indiscernible) weight given to those two factors that you are going to consider, and do you know how those ratings are given or not? Am I clear?

A. I think you're clear, and I would say that we give weightings, and I don't think we break that down and then say that PG&E has contributed 60 percent to this weighting and industry has contributed 40 percent. In some cases, they may be derived through industry available statistics and studies and in some cases it would be PG&E experience. So it's a blend.

Q. All right. Thank you much.

MS. FABRY: Klara Fabry, one last question.

MR. CHHATRE: You start all over again. Okay. Go ahead.

MS. FABRY: Last question.

MR. CHHATRE: Okay.

BY MS. FABRY:

Q. As the manager for integrity management for PG&E and

knowing the effect of this unfortunate event, do you have an opinion how could be the most effectively addressed for modifying your integrity management program to address this deficiency in the existing system, to address the facts of this instance?

MR. JAQUES: I'm going to object. She's not here to give opinion testimony especially not something that calls for that kind of speculation.

MS. FABRY: Okay.

MR. CHHATRE: Any more questions? If not, thank you so much for time --

MS. BURKE PERRALTA: Thank you very much.

MR. CHHATRE: -- and patience.

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 Sara Burke Perralta
DOCKET NUMBER:	DCA-10-MP-008
PLACE:	Burlingame, California
DATE:	January 6, 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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Kathryn A. Mirfin
Transcriber