BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

ADMINISTRATIVE LAW JUDGE MARIBETH A. BUSHEY, presiding

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.	)	EVIDENTIARY HEARING Rulemaking 11-02-019

REPORTER'S TRANSCRIPT
San Francisco, California
November 20, 2013
Pages 2709 - 2981
Volume - 18

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PUBLIC UTILITIES COMMISSION, STATE OF CALIFORNIA
SAN FRANCISCO, CALIFORNIA

I N D E X

STATEMENTS

SAN FRANCISCO, CALIFORNIA

NOVEMBER 20, 2013 - 9:05 A.M.

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ADMINISTRATIVE LAW JUDGE BUSHEY: The Commission will come to order.

This is the time and place set for the evidentiary hearing in Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Transmission and Distribution Pipelines and Related Ratemaking Mechanisms. This is Rulemaking 11-02-019.

Good morning. I'm Administrative Law Judge Maribeth Bushey, the assigned administrative law judge to this proceeding. I am expecting the assigned commissioner Commissioner Florio for part of the hearing today. He will be in and out. He had some unavoidable conflicts.

We will begin today with a summary from the parties regarding a workshop that was held yesterday. I'd like to hear what issues were resolved in the workshop and more importantly what issues remain to be resolved today in the cross-examination.

Shall we begin, I guess with the parties as opposed to the Applicant PG&E, or Mr. Malkin, would you like to begin with a

status report?

MR. MALKIN: We're happy to have Mr. Singh do that. As you know, I was not there.

ALJ BUSHEY: That's right.

MR. MALKIN: But Mr. Singh was. And we also at least believe that the minutes that we circulated last night are an accurate reflection of what occurred. And I guess we'll hear from the parties whether there's any disagreement about that. But I would suggest we begin with Mr. Singh giving an oral report.

ALJ BUSHEY: Okay.

MS. PAULL: ORA does not find the minutes completely accurate, and Mr. Roberts can explain how. Mr. Roberts can --

ALJ BUSHEY: All right. The minutes are not in the record. So let's start with Mr. Singh's explanation of what he thought happened yesterday, and then to the extent the other parties disagree with his explanation, we can then address those disagreements.

So Mr. Singh, do you want to just come forward to the counsel table here so that you can be heard.

MR. SINGH: Good morning, your Honor. Good morning all. In terms of the workshop

yesterday, there were two main objectives of the workshop that we covered. The first objective was to provide additional explanation of the RCP hydrotest report results. And the second was provide assurance that the entire length of Line 147 including all the shorts operating at or above 20 percent SMYS were tested.

We had Mr. Larry Decker, who is the executive engineer from RCP, on the call the first two to two and a half hours. Mr. Decker walked the parties through specifically Test 43 B, which was subject to questioning the day before as part of our hearing process. The questions that he addressed and specifically discussed was why the actual pressure volume plot deviated from the predicted curve. He also talked about why there was a jig in the line at about 600 pounds of pressure. He explained that to all the parties. His discussion is accurately summarized from my perspective in the minutes that were sent out yesterday.

Mr. Decker also apologized on behalf of RCP regarding the data errors that were included which led to quite a bit of confusion in the hearing room the day before. He also confirmed that that error and that

section of the report was irrelevant when it came to establishing the MAOP of the line, given that there was no yielding as a result of that specific hydrotest that was performed.

The next objective that was discussed was did we strength test all of Line 147 and the shorts operating at or above 20 percent SMYS. We had PG&E's engineering team walk the parties through an in-depth review of the shorts, the pipeline features list for the main line and the shorts, the strength test pressure reports, all associated as-built drawings.

And at the conclusion of the review we, specifically, myself, Mr. Johnson, asked Mr. Roberts from ORA if we had confirmed that PG&E demonstrated that all of Line 147 including all the shorts operating at or above 20 percent SMYS have been strength tested. And his response was affirmative.

MS. PAULL: And Mr. Roberts will need to respond to that, have an opportunity to respond to that.

ALJ BUSHEY: Ms. Paull, I would be pleased to call on him in turn. Is it okay if I run the sequence of events here.

Thank you, Mr. Singh. We'll next

hear from ORA.

MR. ROBERTS: So I do believe that the minutes are -- pretty such describe what happened. And I would say that with regard to the RCP report I think through the course of the meeting we determined or we agreed that those curves do not show yielding. So they -- so we don't have a concern. We still have a concern with the fact that it took three revisions of that report to get it right. So we still have a recordkeeping issue on that. But from a safe operation of the line, I think ORA was convinced that we don't have an issue based on the PV curves.

The second issue about the completeness of the testing. I think the notes are very close to fully accurate. I think there's a little bit of a semantical difference in that we were taken through a guided tour of the main line drawing by drawing tied back to the PFLs. So we did look at everything that happened on the main line. And so I can say that I verified -- I feel confident that the main line has been fully tested.

With regard to the shorts, we looked in detail at two shorts, and I was taken through that and convinced that those shorts,

two shorts had been tested. Based on the course of actions during the day, I believe that PG&E has tested all the line including the shorts. I have not tested whether the 20 percent SMYS limitation on shorts that were not tested is applicable, but I trust that that -- I don't doubt that that's consistent with the record, but I have not verified that.

So in summary, I do feel like we can move forward with the assumption that the line has been hydrotested to support the 400 psi MAOP that the reports strove to provide. We do still have an issue with the recordkeeping in that my testimony raised inconsistencies within the STPR reports. Those inconsistencies are still there such that if somebody wanted to go back and do the same analysis I did, they would run into the same road blocks unless they sat down with PG&E or had access to all of PG&E's records with some guidance to truly show that. So.

ALJ BUSHEY: So in summary.

MR. ROBERTS: In summary, we're comfortable saying that the MAOP of test is as PG&E has stated, and we're comfortable going with that. The issues of recordkeeping are still open. We didn't try to address

those yesterday.

ALJ BUSHEY: Right. The broader issues of recordkeeping are within sort of the substantive component of the Order to Show Cause. Our focus here immediately is Line 147.

MR. ROBERTS: Correct.

ALJ BUSHEY: As I understand your presentation, all of the issues that you have been -- that the Office of Ratepayer Advocates has raised regarding the safe operation of Line 147 have been addressed, and there are no outstanding issues related to the safe operation of that line.

MR. ROBERTS: That is not correct.

ALJ BUSHEY: Okay. Please tell me what issues remain.

MR. ROBERTS: So all we looked at yesterday was hydrotest reports, the hydrotesting of the line. So to the degree that we were able to look at the documents and confirm that the line had been hydrotested, I can say that I believe the line has been hydrotested to the pressure that PG&E has stated. And so the MAOP of test is as they've stated.

What we did not discuss yesterday was what the quality control should have

been, what the records that were provided to DRA, how well they support that assertion. And also there's also we have an issue of what the other components of determining the MAOP would be, so for example, the MAOP of design. We still have open issues with regard to that that get into interpretation of the federal regulations, which we agreed in the meeting yesterday we couldn't go there in the time we had.

And so we focused on the thing we could do, and we did accomplish that goal, but there's still an open issue about how you interpret what's the safe and correct MAOP for that line. And it's a legal interpretation issue of the federal code primarily.

ALJ BUSHEY: And this -- okay. Let's try and put parameters around what -- where we are. PG&E put forward their hydrotest results as their demonstration of the safety of the line.]

You have no objection to their hydrotest results, correct?

MR. ROBERTS: That's correct.

ALJ BUSHEY: So their evidentiary presentation has been made and you do not dispute, correct?

MR. ROBERTS: They have made statements in the hearings about how one would establish the MAOP that suggests the MAOP only -- can be established based only on a hydrotest, and ORA does agrees with that point.

ALJ BUSHEY: Right. But I'm just focusing on the hydrotest.

MR. ROBERTS: So when you say hydrotest, we resolved that yesterday.

ALJ BUSHEY: Okay, that's resolved.

MR. ROBERTS: Yes.

ALJ BUSHEY: Okay. So now, there's this legal issue regarding the interpretation of the code.

MR. ROBERTS: Correct.

ALJ BUSHEY: And tell me exactly what that legal issue is.

MR. ROBERTS: Should I try?

MS. PAULL: Either way. If you would like to.

MR. ROBERTS: I think where -- there are two legal issues. One is with regard to the SMYS you would apply to an unknown piece of pipe. That's code section 192.107.

The more fundamental issue --

ALJ BUSHEY: Back up. SMYS to an unknown, that goes back to their -- forgotten the name of it.

MR. ROBERTS: PRUPF.
ALJ BUSHEY: Procedure for unknown --
MR. MALKIN: Procedure for Resolving Unknown Features -- Pipeline Features.
MS. PAULL: Pipeline Features.
MR. MALKIN: PRUPF as it is.
ALJ BUSHEY: And PRUPF was part of the PSEP, not to speak in complete acronyms, but that was part of the plan put forward two years ago.
MR. MALKIN: Correct.
ALJ BUSHEY: And approved by the Commission last year; correct?
MR. MALKIN: Yes. It was actually I believe approved by the Commission. Not the specific document but the concept was approved twice, once in the decision that set off the formal PSEPs. That decision also approved PG&E's proposed methodology for doing the MAOP validation. I --
ALJ BUSHEY: And then the general concept sort of on a conceptual level.
MR. MALKIN: Right.
ALJ BUSHEY: Then it was brought down to the detail level as part of the specific PSEP plan.
MR. MALKIN: Correct.
ALJ BUSHEY: Okay.

MR. ROBERTS: I don't know that I agree with that. The Ordering Paragraph 4 of the decision said generically you can use engineering assumptions on an interim basis. That's just a paraphrasing.

ALJ BUSHEY: I'm familiar with the language, Mr. Roberts.

MR. ROBERTS: What's that?

ALJ BUSHEY: I'm familiar with the language.

MR. ROBERTS: Okay. What -- and I know that the PRUPF was provided in the update application and it's provided as nonconfidential in that particular case. I don't recall that the full PRUPF was provided with the original PSEP application. And certainly, the one that they're putting forward in response to discovery now is a different document than what they could have possibly used for the PSEP, the original PSEP filing.

ALJ BUSHEY: Why would it have to be -- they had to have some sort of a protocol for dealing with the unknowns. Two years ago, they had to start --

MR. ROBERTS: Correct.

ALJ BUSHEY: -- with something.

MR. ROBERTS: Yes.

ALJ BUSHEY: There had to have been some sort of a protocol. Has it been updated, is that what happened?

MR. ROBERTS: Yes.

MR. MALKIN: The testimony on September 6 was that it was constantly being updated and improved.

ALJ BUSHEY: Okay. So this approach to the unknowns has been approved at least twice by the Commission. And sounds like it's up again and the new details are up again in the update proceeding.

MR. ROBERTS: Correct.

ALJ BUSHEY: So that issue has either been resolved by the Commission or is before the Commission in the update application.

MR. ROBERTS: Could we have a moment, your Honor?

ALJ BUSHEY: Sure. We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Mr. Roberts.

MR. ROBERTS: I think what I'm trying to characterize is that when we look at the MAOP of the line using the design MAOP, that use of the PRUPF entails more risk than

determining that number using the federal minimum standard value. So that is the point I'm trying to make and that DRA -- that ORA has a concern about it as it's related to the -- you can't say that one is safe and one is not. It's more a question of which has greater risk.

And so by using the federal minimum standard, there is less risk to the people in San Carlos than if the PRUPF number was used.

So from our standpoint, every time PG&E says we're using very conservative values, it's difficult to hear that language when the number they're using results in a less conservative outcome than if the federal minimum standard was applied.

ALJ BUSHEY: But this isn't anything that's particular to Line 147.

MR. ROBERTS: It is an overarching issue that does apply to 147.

ALJ BUSHEY: It applies to all the lines that are contested pursuant to the PSEP.

I've forgotten even what that stands for.

MR. MALKIN: Pipeline Safety Enhancement Plan.

ALJ BUSHEY: Pipeline Safety

Enhancement Plan.

Everything that's been tested pursuant to the Pipeline Safety Enhancement Plan has been tested in accord with that protocol for unknowns.

MR. ROBERTS: No. This -- so maybe it will help if I mention the second legal argument.

ALJ BUSHEY: Okay.

MR. ROBERTS: Because I think that makes it a little more clear.

What we've heard, it seems to be that the perception at PG&E is that we can establish an MAOP based solely on a hydrotest outcome and that the design MAOP as provided in section 192.619 is in some way irrelevant.

So that's probably the base issue. When you -- if one assumes that per the federal regulation the design MAOP does matter, then this assumes SMYS value comes into play because that determines the design MAOP.

So it starts with, does 192.619 apply to all pipe in Line 147 or not? And then if it does, how do we assign numbers for unknown pieces of pipe or pipe with very limited information that we now know to be in the ground.

ALJ BUSHEY: But again both of these apply to the entire enhancement plan effort. This is not -- there's nothing specific to Line 147. So if this one's flawed, then all the rest of them are flawed; right?

MR. ROBERTS: Well, my understanding is our primary objective in this hearing is to come out with what the safe MAOP for that line is. Is that -- I believe I understood that correctly. That when we're finished with our hearing we can say yes, the 330 is safe or no, it is not.

And so to do that, we have to have determined does the design MAOP apply or not. And if it does, is it correct to use PG&E's PRUPF value of 33,000 psi as SMYS or is it more correct to establish a design MAOP which will drive the MAOP of the line based on the federal minimum SMYS of 24,000 psi.

ALJ BUSHEY: All right. Well, I have said enough on -- let's go back.

Mr. Malkin, what's your position on this?

MR. MALKIN: Well, your Honor, the Commission's PSEP decision, first one that your Honor authored, did away with grandfathering in the following respect. Under 619(c), the MAOP of Line 147 and all of

the other pre-1970 pipelines was established based on the five-year high operating pressure from 1965 to 1970. And what the Commission said was in the absence of a hydrotest on those grandfathered lines, we're doing away with grandfathering, you cannot rely simply on that historical operating issue; you either have to go out and validate it through hydrotesting or replace that pipe.

So the whole purpose of the exercise has been to conduct hydrotests under modern subpart J standards with an added spike test on the segments of high consequence area pipe that had their MAOPs established solely under the grandfather clause with no hydrotest.

The Commission could have in that decision but did not say that we're changing the rules. We're not only saying you can't establish -- rely solely on the historic operating pressure, but you can't use that at all. You have to go back and apply 619(a) as if there were a brand new pipeline. And contrary to the way GO 112 has always been written and federal regulations were always written, you now have to retroactively apply those design factors including the section

that Mr. Roberts has referred to, section 192.107 which the code says were not retroactive. PHMSA specifically said it was not retroactive. The Commission specifically said was not retroactive. And the Commission has never changed that. What the Commission did change was to say you can't rely solely on historic operating pressure.

PG&E, as you've heard, has gone a step further with respect to Line 147, and to Mr. Roberts' point, in fact is making that line operate more conservatively than this Commission's decision allows. Because you heard from Mr. Rosenfeld, the hydrotest in fact validates safe operation at the historic 400 psig.

PG&E isn't asking for 400 psig. PG&E has conservatively applied the design formula and come up with an MAOP of 330 that it's asking for.

ALJ BUSHEY: Whose design formula?

MR. MALKIN: It is the design formula set forth in the federal code, the part that wasn't retroactively applied. PG&E has retroactively applied. But pursuant to the proposal it made to the Commission, that the Commission has looked at twice, instead of arbitrarily picking a 24,000 psig value

for those pipe features as to which it does not have complete verifiable and traceable records, what PG&E has done is where it has, for example, with AO Smith pipe, complete traceable, verifiable historical purchasing records that established that PG&E purchased AO Smith pipe to different pipe specifications, the least of which was 33,000 psi, others of which are 35,000, 42,000.

So PG&E, where it doesn't have a complete verifiable, traceable record for specific AO Smith pipe conservatively assumes pursuant to the guidance of the June 2011 decision conservatively assumes the least value of 33,000.

ALJ BUSHEY: Now Mr. Malkin, that pipeline because of the leak, a portion was removed and tested. Do we have an actual number for that, for the tested pipeline so we know what was really there?

MR. MALKIN: The piece that was cut out?

ALJ BUSHEY: Yes.

MR. MALKIN: Where the leak was?

ALJ BUSHEY: Right.

MR. MALKIN: We know several things. And this was in the Anamet materials.

We know it is AO Smith pipe.]

We know that when it was laboratory tested, the actual yield strength was over 39,000 PSI. And we know that the yield strength of the weld was over 40,000 PSI, which as Mr. Singh said on Monday, if you -- if you relied solely on that test result, you would say a joint efficiency factor of 1 is justified because the weld material is in fact slightly stronger than the pipe body.

PG&E conservatively didn't use those test results, and the Federal Code wouldn't use a one-off test to change specifications. PG&E conservatively used the 33,000. That's the lowest historical purchasing record and applied a .8 joint efficiency factor.

ALJ BUSHEY: Let me interrupt you for a minute, Mr. Malkin. It sounds to me like PG&E's assumption of 33,000 has been supported by subsequent evidence that -- that has been brought forward, and that is that all of the evidence points to a much higher number than what PG&E has been using. And you may need to turn to Mr. Singh for this, but other than on Line 147, has there been any instances where PG&E has found A.O. Smith pipe with less than 33,000?

MR. MALKIN: The answer to my knowledge

is no. I know PG&E has had Exponent do a number of burst tests on A.O. Smith pipe, which I'm not sure if Mr. Singh or Mr. Harrison is the person with the most knowledge about that. But my understanding is those tests have uniformly shown the yield strength of the A.O. Smith pipe to be above 33,000.

ALJ BUSHEY: Greater than 33. Do you want to confer with your clients for a moment so that we can have one of them who knows the answer to that come forward, or could the person who knows the answer to that just walk forward?

MR. MEYERS: Your Honor can I be heard for a moment while this gentleman is coming up.

ALJ BUSHEY: Certainly.

MR. MEYERS: I know Mr. Malkin is not testifying, therefore, what he's saying, even though it's in the record, is not evidence. However, I heard Mr. Singh yesterday specifically say that A.O. Smith pipe could have come from other utilities. He testified during the record that A.O. Smith pipe may be A.O. Smith pipe purchased by PG&E, but it also may be A.O. Smith pipe, quote, "from other operators."

So if Mr. Malkin is saying they're using PG&E's least specifications of 33,000 PSI, how do we know that that was the least specifications for pipe that they acquired from other utilities.

ALJ BUSHEY: Let's hold on that thought, and let's follow-up on the actual facts that have come forward subsequently.

Mr. Malkin, do you have a witness that is -- that will --

MR. MALKIN: Do you want to swear him early?

ALJ BUSHEY: Yes, let's swear him.

DAVID HARRISON, called as a witness by Pacific Gas and Electric Company, having been sworn, testified as follows:

THE WITNESS: I do.

ALJ BUSHEY: Please be seated. State your full name for the record and spell your last name.

THE WITNESS: My name is David Harrison. My last name is H-a-r-r-i-s-o-n.

ALJ BUSHEY: Okay. Mr. Malkin, we don't want to get into everything. We just want a narrow answer to a narrow question.

MR. MALKIN: I was going to seek clarification of that and I appreciate that, your Honor.

DIRECT EXAMINATION

BY MR. MALKIN:

Q Mr. Harrison, you've been sitting here and the specific question to you is are you familiar with the testing of the yield strength of A.O. Smith pipe that PG&E has had performed?

A Yes, I am.

Q And could you please describe for us the nature of the tests that have been done?

A There's -- over the years, there's been a variety of tensile tests, yield-strength tests performed on A.O. Smith pipe. There's records -- historical records in, like, 1968, the 1980s of us doing tests. We have -- and then we had Exponent burst test the pipe this last summer. That was 7 to 9 pieces of pipe. I don't remember the exact numbers. All of those cases, the test results were all greater than 33,000 -- clearly greater than 33,000.

ALJ BUSHEY: That's all we need to know for the moment, Mr. Harrison. So I'll let you be excused for the moment.

THE WITNESS: Okay.

MR. MALKIN: May I respond to Mr. Meyers' comment?

ALJ BUSHEY: Just hang on one second. I want to get back to Mr. Roberts. So we have a protocol. They've been following the protocol. Every factor they've found in apparently the last 30 years supports the facts used in the protocol.

MR. ROBERTS: Can I respond?

ALJ BUSHEY: Sure.

MR. ROBERTS: So first of all, we have certain lengths of pipe in the ground that PG&E now says are A.O. Smith pipe that PG&E has also said they can't say where it came from. So we have this fundamental issue of long lengths of pipe in the ground where we don't have documentation saying where it came from.

In that case, the Federal Code says you can establish a minimum SMYS based on tensile testing, but it also provides an Appendix B, Section 2(d), which provides a sampling protocol such that -- I'm not disagreeing that the Anamet report says that the tensile test of that sample was greater than 24,000 or greater than 33,000 even.

But what the federal legislation has acknowledged is that when you don't know what's in the ground when it's hundreds of feet of pipe, you can't draw a sample at one

location and then carry that one piece of data to represent the whole length of all the pipe that they've now classified as A.O. Smith pipe. And I -- I have a line of cross for today which asks them specifically about that protocol and if they followed it. Maybe the testing they've done over the years has in some way complied with that, but we haven't had a chance to ask that question.

MS. STROTTMAN: Your Honor, may I comment, please, on behalf of the City of San Carlos? It appears to me that the PRUPF if I'm saying that correctly, results in unknown pipe characteristics being given less conservative MAOP values than newer segments. And it's -- it's our position and -- and I'm going to cross-examine the witnesses on this -- that PG&E still doesn't have traceable, verifiable, and complete records for every inch of Line 147.

We don't know where the A.O. Smith pipe came from, and it's our stance that the yield strength should be 24,000 PSI, which is 24 KSI. And we will put forward that argument in our briefs but I just wanted to let you know our position.

MS. PAULL: Your Honor, I'd like to say something.

ALJ BUSHEY: Ms. Paull?

MS. PAULL: Clearly, there's a rather complicated question of the correct interpretation of the Federal Regulations of 192.619. ORA thinks that -- based on what Mr. Malkin said and what PG&E witnesses have said that they are not interpreting correctly certain requirements of the regulation. We would be happy to brief that. Maybe it would be helpful to you if you could get -- we could do this quickly, and it would be short. But we could brief what we think is the correct interpretation of these regulations and how they apply in this case.

ALJ BUSHEY: But this isn't a new issue. We've been applying this same protocol for two years, and it's not just in a Line 147 issue. If you're right, then everything in the PSEP is wrong. So it's a much, much bigger issue than just Line 147, and that's why it's -- I don't see how we resolve it in this re-pressurization proceeding, which is the narrow issue before us at the moment.

Mr. Malkin, do you have a response to this?

MR. MALKIN: Yes, well, I think your Honor is right. This is the way the

Commission has been interpreting it. Mr. Roberts just I think revealed the -- what is -- he is not correctly understanding in the code when he said that the code has a provision where if you've got some miles or hundreds of feet of pipe in the ground, there's a protocol for testing it. That is exactly wrong.

The Code Section 192.107, which is the pipe design section, applies to new pipelines. If you look at 192.13, it makes very clear that those pipe design requirements apply to new pipelines installed after a date in March 1971 and to replacements of pipe installed after a date in November of 1970. And so they -- they were never intended by the Department of Transportation -- Office of Pipeline Safety at that time -- to apply retroactively to pipe that was already in the ground.

As to pipe that was already in the ground, it's the grandfather clause, which this Commission has been wrestling with and done away with as the sole basis for establishing an MAOP. For two years, every gas utility in this state has been proceeding on the basis of the guidance provided by the Commission in June of 2011. What PG&E did

here, as you've just rightly pointed out, is no different from what PG&E has done through out its system and what the other utilities are doing.

Mr. Meyers didn't cite to the actual transcript of Mr. Singh's testimony, and I think his notes don't quite have it right. What Mr. Singh said on Monday is where we acquired a pipeline from another company -- and as you know, PG&E over the years have merged with and acquired companies, some of which own pipelines. Where we acquired another pipeline, we apply the federal minimum because we don't know what their purchasing standards were. Where it is our pipeline that we designed and we installed, we know what our minimum purchasing requirements were, and we apply the historic minimums.

In the case of Line 147, PG&E does not have complete, verifiable, traceable records to show which PG&E pipeline this pipe came from and when. But there is every indication that it came from Line 101 when that line was redone. The one thing that PG&E does know is it came from PG&E's system, contrary to the inference that Mr. Meyers drew that somehow this reconditioned pipe may

have come from elsewhere. The reconditioning was always done to pipe that PG&E had in the ground somewhere else and they had reused.

So the -- yes, it is -- it is true that in terms of what Mr. Roberts is saying, this is not the most conservative assumption one could possibly make. The most conservative thing one could do would be to shutdown all the pipelines. And that would eliminate every conceivable risk except for the risk of what happens to all of us without natural gas service. And in the scheme of things where this pipeline has operated safely at 400 PSI, where it has been tested to a pressure that justifies and validates that 400, as you heard from Mr. Rosenfeld, one of the leading experts in the world, and the company proposes to operate it only at 330, there is a huge margin of safety.

And there is no conflict with the code. There is no conflict with this Commission's decisions about how to go about validating the MAOP and hydro testing lines that have been historically grandfathered. And given what you've already heard from the parties about them now being satisfied, about the hydro testing, I think as to Line 147 -- putting aside records issues that you may

well hear more about and -- let me say parenthetically PG&E has always from day one acknowledged it does not have complete, verifiable, and traceable records of everything in its system. That's why we do the hydro testing. And the issue -- as far as the issue of is this compliant with the way this Commission has approached and verified the safety of pipelines and was the hydro test adequate, I don't think there's any dispute.

MS. PAULL: Your Honor, may I respond?

ALJ BUSHEY: Yes, Ms. Paull.

MS. PAULL: Mr. Malkin spoke for a long time. I'm not going to attempt to respond to everything he said. Just three things.

One, the interpretation of the regulations, it is somewhat complicated. I think it's much easier to sort it out on the basis of looking at the text of the regulations and short written briefs, much easier than hearing very long narratives about it. So I again renew our offer for -- to brief this particular issue.

The other thing is I want to correct a misimpression that Mr. Malkin may have created when he talked about things that Mr. Roberts was saying about risk.

Mr. Roberts was not talking about lowest possible risk. He was talking about less risk if you use the values for unknown pipeline features that are required by the federal regulations as opposed to the ones PG&E is using. That is -- was I clear, or do you need to rephrase that?

ALJ BUSHEY: I understand your point.

MS. PAULL: Okay. And the final point is very simple. I think everyone understands this. But to bring it back to what really matters, there's the MAOP established by the hydro test. And that question is now resolved for this line. There's the design MAOP. There's questions about how that should be calculated because of questions of interpretation of the regulations. And the assumption -- what assumptions must be used.]

The federal regulations, as you know, require that if you have both the design MAOP and the hydrotest MAOP, the operator must use the lower of those values. And that's not retroactive application of the regulation. That is applying the regulation to an MAOP validation being done now. That is that the current criteria for establishing design MAOP, those regulations apply to MAOP validation being done now. And if PG&E

thinks otherwise, I think they're mistaken.

Again, we can brief this. We'd be happy to brief it.

ALJ BUSHEY: We can brief this. And if PG&E is mistaken, then the Commission has been mistaken for two years. And if it's mistaken, it's not just Line 147 and it's not just PG&E. It's every natural gas operator in the state.

So if you want to pursue that issue, it needs to be pursued in the sort of overall perspective in this proceeding. That's the place to make that argument and get everybody -- get every natural gas system operator's safety enhancement plan revised in accord with your perspective on the regulation, because right now all of the operators are using the rules as adopted by the Commission over the last two years.

MR. ROBERTS: Can I add something. I believe that the added -- that the requirements added by the decisions of this Commission relative to PSEP, that basically what it did is eliminate the grandfather clause and required operators to go beyond the federal standards by doing a Sub J test.

The use of engineering assumptions in that decision is said to be used on an

interim basis for the purpose of prioritizing PSEP work. I don't believe that that decision in any way attempted to change the MAOP of existing pipelines either before, during or after the PSEP-related work. I may have that wrong, but it doesn't seem in my mind that we have done the PSEP implementation wrong or that the Commission has given the utilities direction to change the way they calculate the MAOP of record on their pipelines.

So I do agree that it's a bigger scope than just Line 147 and it has serious consequences systemwide. It doesn't seem that it is quite as broad as your Honor has suggested.

MS. STROTTMAN: Your Honor, the City of San Carlos agrees with Mr. Roberts and Ms. Paull's statements. Obviously there is a difference of opinion on this issue, and we feel like this should be briefed. And I just wanted to note too and comment on Mr. Malkin's statement that he said, you know, we have every indication that the pipe came from Line 101, but that doesn't mean that they have traceable, verifiable and complete records.

ALJ BUSHEY: They have better than

that. They have it on a yield strength test that says it's 39,000. Why are you arguing for 24 when we know as a matter of fact it's 39?

MR. ROBERTS: We know as a matter of fact that at one point in that line that's what the tensile strength of the piece of pipe that they pulled out of the ground is.

ALJ BUSHEY: There's never been any other piece in the last 20 years that they have pulled out of their system that has been below 33. You have no evidence to support your assertion.

MR. ROBERTS: We have --

ALJ BUSHEY: You have regulations that the Commission has -- we have been at this for two and a half years now. You know. And if you want to pursue this, their updated application is in. I expect it will be assigned to me. And we'll put it in the scoping memo, and we can litigate it there and brief it there.

MS. STROTTMAN: But your Honor, what proof do we have that every single inch of 147 is A.O. Smith pipe? What proof do we have that they know what's in the ground, every single inch of Line 147?

ALJ BUSHEY: That's why we did the

pressure testing, because they don't. We decided that two and a half years ago. They don't know. Therefore, we're going to at great expense hydrotest or replace everything in the state. That's what we did two and a half years ago. That's why we have a hydrotest record right now that supposedly is good to 400, 400 psi.

MS. STROTTMAN: That's fine. But it's San Carlos's position that that line needs to be replaced.

ALJ BUSHEY: Well, the Commission approved a PSEP plan last year that segregated things between replacements and hydrotesting. And if you want to -- I guess you can't really relitigate the PSEP. There's the update proceeding. You can propose recat -- reprioritizing things. But to be honest, there are lots of segments of pipeline in the state that have not been hydrotested yet. So those are the next up in priority.

MS. PAULL: Your Honor --

ALJ BUSHEY: But we can litigate that in the update proceeding if you want to change the priorities. But a year ago we set the priorities, we approved the plan, volumes of plans. And everything was all laid out in

a three-year -- a three-year series of priorities. This process is well underway, and if you want to propose changing it, we have a proceeding to do that, but this isn't the one.

MS. PAULL: Your Honor, I'd like to make you aware of some information that has been produced in this proceeding but not offered into evidence. Possibly Mr. Harrison would be able to speak to it. It's evidence that -- well, as you -- once the company found out what pipe it did have in the ground, that cha -- under the PSEP decision tree it may very well have been prioritized for replacement rather than testing. And this was a question that was discussed among the engineers. It's a discussion in some e-mails that, you know, have been produced.

Possibly Mr. Harrison could speak to this, and it was one of -- I remember that was one of the questions he raised. Now that we know what's in the ground, now that we know it has a joint -- a different kind of seam and a lower joint efficiency, and I don't remember about the SMYS, but now we know that it has -- it's a different sort of pipe, would it be prioritized under the PSEP for replacement rather than testing.

And there's at least one examination under oath with one of the engineers who works on the PSEP proceeding, has responsibilities for the PSEP plan, said yes, it would have been -- it would have been prioritized as replace rather than test.

Maybe people think that doesn't matter because it's been tested now. Apparently that's what that engineer -- I'm thinking of Mr. Manegold, who was one of the engineers examined under oath by Mr. Shori. Maybe engineers feel, well, it was tested. So now it doesn't have to be replaced. But had they had correct information, it looks like it would have been replaced rather than tested. So maybe this really does matter.

ALJ BUSHEY: Well, Ms. Paull, yes, this does matter. That's why we're all here. But we can't go back in time. If they would have known then what they know now, the decision tree would have led to a different result. But it's not then. It's now. And in between those two times at great expenses and great inconvenience the line was pressure tested.

Now the information is available. We've fundamentally changed the equation. Now we have a piece of pipeline that has been hydrotested and will come out in a very

different place in the decision tree because it's been hydrotested.

MS. PAULL: Yes.

ALJ BUSHEY: So that -- we have to work with what we know now. And what we know now based on every -- every expert who has looked at this agrees that this line is safe to operate up to 400 pounds per square inch. So.

MS. STROTTMAN: I'm sorry to interrupt, but our expert, Dr. Stevick, did not testify to that.

ALJ BUSHEY: Okay.

MS. STROTTMAN: So I just wanted to highlight that.

ALJ BUSHEY: Okay. So it sounds like ORA's objections go to the protocol for the entire PSEP plan, which we can take up in the broader proceeding.

MR. ROBERTS: I just received a note that somebody looked -- one of our team looked back at the decision and clarified that the MAO -- excuse me -- the MAOP decisions -- I'm assuming that's the decisions to raise MAOP on these lines -- did not address the interpretation of federal regulations and that PG&E's what we think mistaken interpretation of that code is being

raised here for the first time. So.

ALJ BUSHEY: Absolutely. The repressurization decisions would not have looked at that. They would look at the supporting evidence which was specified in a decision in 2011. We set it out, and it was basically hydrotest results. That's what we said. Bring us hydrotest results, and we will authorize repressurization. They brought us hydrotest results two years ago. Authorized repressurization. They came back with corrected ones now, and they're requesting reauthorization to 330.

That's where we are. We're in a very narrow review of a very narrow question with a very specific evidentiary requirement. And to the extent you want to challenge the way, the protocol for the PSEP, that is something that should be addressed in the update application if you don't like the interpretation there, because it goes -- it's not just to Line 147. It's everything throughout the state.

MS. BONE: Your Honor, if the Commission is using an incorrect protocol to set MAOP that is not consistent with federal regulations, that is an issue that needs to be addressed here when you decide to set the

next MAOP for Line 147. It cannot be ignored. It would be legal error to ignore the fact that we have an improper application of the federal code to calculate the MAOP.

MAOP is not just based on hydrotest records. You take the Subpart J record, and you run it through the requirements of 619, and you look at the design MAOP as well. And that section is the one that determines what MAOP does. You cannot ignore that section to set MAOP. And that is what appears to be happening here.

ALJ BUSHEY: If it's happening here, then it's happened throughout this proceeding. I don't agree that it is happening here.

But we need to get started. We've spent an hour on this now. And it appears that there are no factual disputes. If there are any disputes, they're legal disputes.

MS. BONE: That's not correct, your Honor. There are a number of factual disputes.

MS. STROTTMAN: And I agree with Ms. Bone.

ALJ BUSHEY: Okay. What are the factual disputes? Let's get down to that.

MS. BONE: PG&E's showing in this case

to support the 330 MAOP is not complete. It has not made that showing. It has not provided data.

ALJ BUSHEY: Ms. Bone, that's argument. Give me a disputed issue of material fact.

MS. BONE: The material fact is that Exhibits A and B do not contain data to support PG&E's assertion that every foot of Line 147 has been tested.

ALJ BUSHEY: Mr. Roberts, this is your counsel.

MR. ROBERTS: That's correct.

MS. PAULL: Traci Bone is co-counsel for ORA.

ALJ BUSHEY: Right. I understand that. But didn't you just tell us at the beginning.

MS. PAULL: What Ms. Bone was saying is that the safety certification doesn't -- she wasn't saying that the line has not been tested. We now know -- we now much more confident that it's been tested. What she was saying is that you couldn't tell that form the safety certification, which is PG&E's evidentiary support for its pressure restoration request.

ALJ BUSHEY: So what do you want them to do? Do you want them to put more information in the record?

MS. PAULL: Their safety certification to the Commission should, number one, be in the records because a key piece of evidence, and number two, when reviewing it one should be able to determine that's the factual confirmation of what PG&E executives are saying. PG&E executives are testifying and saying things. The information in that safety certification, you're supposed to be able to confirm what they're saying in there.

So if that doesn't -- if they don't match, something is wrong with PG&E's showing. I think that is the point that Ms. Bone was trying to make.

MS. BONE: That is exactly the point. This Commission, as we reminded in opening statements, has an obligation to look at the evidence on the record, and that the evidence should support its decisions. And in order for PG&E to sit here and assert that Line 147 has been tested, every foot of it, they should have data to back that up. The NTSB recognized this.

ALJ BUSHEY: Okay. Stop. Mr. Roberts.

MR. ROBERTS: Yes.

ALJ BUSHEY: Didn't you tell me that on the record that as part of the workshop you walked through this and that you were

satisfied that every foot has been pressure tested?

MR. ROBERTS: I clar -- so PG&E in their workshop statement said that we have -- that we have certified the entire line has been tested. What I said is that in my opinion after that workshop that I believe that the line was hydrotested.

I still stand by my testimony which says that Appendix A to their October 11th filing, which, as Ms. Bone said, is the evidence that I thought I needed to look at and analyze to determine the validity of their statement, this still does not support the assertion that every inch of pipe has been tested.

On the one hand, I now -- I believe the line was hydrotested. There is no evidence in the record that it has been. So that's the difference. We had a workshop where I think all the experts that were there for parties concurred that we don't believe -- that we believe that the MAOP of test is correct, that that is a different thing from saying that PG&E has in this -- in response to this OSC provided the evidence to support that. And I did raise that point at the end of the workshop yesterday as well.

ALJ BUSHEY: Okay. This isn't an OSC. So there's no dispute about the fact. The only dispute is about what's been presented, that they haven't presented the correct paper to the Commission?

MS. PAULL: No, your Honor. They haven't met their burden of show -- of demonstrating that they have correctly calculated the MAOP that they are requesting. It's PG&E's burden to produce that evidence.

You will recall the NTSB, when the NTSB in their accident report on San Bruno, they said, they had a number of findings where they said, PG&E says X, but our investigation when we look at the data does not confirm that.

ALJ BUSHEY: What does that have to do with --

MS. PAULL: That the safety certification should -- is the key piece of evidence to support the restoration of the pressure of the line.

ALJ BUSHEY: Right. I understand that. But Mr. Roberts has met with them and gone over their information, and he factually agrees that they have done it. The only dispute I'm hearing is that somehow there's some pieces of missing paperwork to make that

demonstration. Is that what --

MS. PAULL: No.

ALJ BUSHEY: That's not a disputed issue of material fact.

MS. PAULL: No. There is a dispute, as you know, your Honor, about how to correctly calculate the design MAOP. That is one dispute.

ALJ BUSHEY: That is a legal issue. I'm looking for a disputed issue of material fact. I want a fact that PG&E has asserted that ORA asserts a different fact, actual fact in the real word.

MS. PAULL: Well, our assertion is that the showing they have made in their safety certification is not sufficient to support their request.

MR. ROBERTS: I can add another one. I believe it is a -- I believe this is a fact that you're looking for. PG&E is asserting that they can determine the SMYS of the line based on the sample that Anamet tested. I think it's a factual dispute whether that one piece of evidence can stand to represent the entirety of all the A.O. Smith pipe in Line 147 and other unknown -- other pieces of pipe which their PFL says are unknown.

So in essence, in the safety

certification in the hearings we have seen I believe two test reports, one within the section where 109 leaked, and the other where they tied in between two hydrotests. We have two data points that --

So it's a statistical issue. When they can't provide complete traceable records of what's in the ground, then we have to somehow ascertain what's in the ground. And the common engineering practice is if something is unknown you sample with a formula that allows you to say that a finding in one point can be applied to the general population. And the federal standards actually account for that if you want to establish a SMYS based on tensile testing.

So I think it is a factual dispute whether the Anamet report, or I believe it's reports, can be used to establish a SMYS that is -- that accurately represents the unknown pipe in Line 147.

ALJ BUSHEY: But you've now come in a full circle back to the protocol for the unknowns. We have a protocol for dealing with that. And do you have any assertion that PG&E is not complying with that protocol that the Commission has adopted over two years ago?

MR. ROBERTS: I can -- a factual dispute that the document they provided to us is dated October -- October of 2013. The PRUPF that was provided to us as evidence was not the PRUPF that led to the PSEP filing.

They had a protocol. The Commission adopted a very broad definition of the use of engineering assumptions. That is not the same thing as, in my mind, the Commission taking a document which had been approved by PG&E management and saying, yes, we agree that you can use this on an interim basis to establish characteristics for unknown pieces of pipe.

PG&E has been modifying that process. And I think evolution is a good idea, but you do need to start from someplace solid and change.

But I guess my central point was that protocol itself, the one that they provided in this venue, was not directly approved by this Commission and your Honor in the decisions relevant to the PSEP.

ALJ BUSHEY: Okay. So other than legal argument about the unknown protocol, I still -- what disputed --

MR. ROBERTS: I'm sorry.

ALJ BUSHEY: -- issue of material fact

is there?

MR. ROBERTS: A separate related issue is that if -- so we do have the PRUPF, and we can now look at it because it was provided non-confidentially in the new PSEP application.

We have evidence that it was -- that PG&E's own process was not applied correctly for Segments 107 and -- I'm sorry -- 108 and Segment 108.7.

So setting aside what the federal government says to do, it appears that PG&E did not correctly apply their own process, which is something we saw many times in the PSEP application.

ALJ BUSHEY: In what way?

MR. ROBERTS: My testimony went into a lot of detail about where PG&E's decision tree was not followed in determining the mitigation that was performed on individual pipelines, pipeline segments.

ALJ BUSHEY: Decision tree.

MR. ROBERTS: I'm going back in time to the PSEP. What I'm saying here --

ALJ BUSHEY: I need you to get focused --

MR. ROBERTS: Right.

ALJ BUSHEY: -- on Line 147 and the

specific evidentiary requirements for repressurization authorization. It's very simple, and it amounts to a hydrotest.

As I hear ORA's position, they, ORA has agreed with PG&E that the line has been hydrotested. Is that an accurate statement of your position?

MR. ROBERTS: ORA does agree that the line was hydrotested.

ALJ BUSHEY: Okay.

MR. ROBERTS: Complete, completely.

ALJ BUSHEY: And that consistent with Subpart J, the Maximum Allowable Operating Pressure of that line is 400 pounds per square inch.

MR. ROBERTS: No. The determination of an MAOP based on a test pressure determined by Subpart L, I believe, which is 192.619. So Part J just says how you do a hydrotest.

ALJ BUSHEY: Sorry. Okay. So in any event, based on the hydrotest results, does ORA dispute that PG&E has provided hydrotest results to support their request for a 330 pounds per square inch MAOP?

MR. ROBERTS: Based on the workshop yesterday, not on anything PG&E provided in response to our extensive discovery process, we are now -- I personally believe, and I

think my view represents ORA's position, that Line 147 was hydrotested consistent with Subpart J to support an MAOP of test of 330 psi.

ALJ BUSHEY: Thank you.

MS. STROTTMAN: So your Honor, then is it your position then that the hydrotest is the end-all-be-all for this determination?

ALJ BUSHEY: It's not. My position is the position of the Commission in the decision setting forth the requirements for a repressurization authorization. There are specific supporting information that the -- that PG&E must present. The essence of that is hydrotest results.

MS. STROTTMAN: Because I mean the City of San Carlos has a lot of issues. I mean we don't believe that the line even needs to be operated as a transmission line. We believe that PG&E's arguments that the upcoming winter season requires them to raise the MAOP, which is a reason why this proceeding in our opinion has been rushed. And there are several other issues that we have relating to PG&E's operational practices that relate to Line 147. So that's why I'm asking, is hydrotesting, if that's all the information you need, then this is the end of

the story? Is this --

ALJ BUSHEY: The Commission wrote the specifics for the story in Decision 11-09-006. That's where it specified what PG&E needs to show to repressurize a line. It's very specific. It's very narrow. And the process is expedited. It's been that way for two years.

MS. PAULL: But your Honor, there's a requirement that is ongoing that I'm sure you know that PG&E be in compliance with all safety requirements, state and federal.

ALJ BUSHEY: And if you think that they're not, then you should file a complaint or we should take the issue up in the broader rulemaking. The narrow issue in front of us today is Line 147 and whether PG&E has met the requirements of Decision 11-09-006. That's all.

MS. PAULL: Does that decision only require hydrotesting, nothing more? I don't have it in front of me. That's the only reason I'm asking.

ALJ BUSHEY: It requires a safety certification. It requires the concurrence of SED. There's a list of supporting information that is required. It's very specific, very well laid out, if I do say so

myself, and we've applied it at least five or six times. That's what's required. And once they've met that, those requirements, then the decision is issued in fairly straight order.

So why don't we take a break, allow the parties to confer amongst themselves, and we'll reconvene in 10 minutes.

We'll be off the record.

(Recess taken)]

ALJ BUSHEY: We'll be back on the record.

While we were off the record, I distributed copies of Decision 11-09-006 that sets out the procedures and substantive requirements for a repressurization proceeding such as this one. I've directed the parties' attention to Ordering Paragraph 4 which sets forth the showing that PG&E must make.

The parties have been reviewing Ordering Paragraph 4, and it would assist us in setting the schedule for cross-examination if the parties would indicate which of these items that they believe that PG&E has not presented.

We'll start with ORA.

MS. PAULL: Your Honor, I'd just like

to note first that this is an Order to Show Cause proceeding, not a pressure restoration proceeding.

ALJ BUSHEY: No, it's not. This is not an Order to Show Cause proceeding. This component is a pressure restorization proceeding. The Order to Show Cause on the first part of that, the PDs are pending before the Commission. The substantive part of that we have cross-examination to do on. Today, the issue in front of the Commission is to restore pressure on Line 147.

MS. PAULL: Yes, I understand.

So we, ORA has already put on the record or, rather, will put on the record when you would like to move into evidence Mr. Roberts' testimony which explains in great detail the deficiencies in the safety certification and other information that PG&E has presented. Errors and so forth --

ALJ BUSHEY: Right.

MS. PAULL: -- which PG&E has acknowledged some of them on the record, I believe.

ALJ BUSHEY: Acknowledged and corrected.

Ms. Paull, Ordering Paragraph 4 sets out A through G. I'm sorry, A through

H. Which of these components is it ORA's position that PG&E has not presented?

MR. ROBERTS: I would say that D, the Complete Pressure Test Results. If this Ordering Paragraph is intending that the complete pressure test results be part of the showing, I think we would say that that is not in the record because of the issues we raise with Exhibit A.

MS. PAULL: Exhibit A of the safety certification. It's the first of two parts of the safety certification.

ALJ BUSHEY: I'm trying to understand this.

So is it your position that they have not been done or that they are not -- "they" being the pressure tests, is it your position that the pressure tests have not been done or simply that they have not included all of the records?

MR. ROBERTS: I'm addressing the completeness part of D. So --

ALJ BUSHEY: So it's a documentation problem?

MR. ROBERTS: Correct.

ALJ BUSHEY: And what documentation not part of appendix A would you like to have as part of appendix A?

MR. ROBERTS: First, the appendix A would remove information that's contradictory that was raised -- that was highlighted in my testimony. And based on our workshop yesterday of what the outcome was is that what correctly documents the test are as-built drawings. So in some way, the STPR package as I believe it's referred to should accurately provide drawings that show where the tests were performed so that you can determine the segments that were tested.

ALJ BUSHEY: But it's your position that they were tested, it's just a matter of the proper documentation not having been presented.

MR. ROBERTS: Correct.

ALJ BUSHEY: Okay. So a post-decision compliance requirement that they provide that?

Actually, appendix A isn't part of the record, is it?

MS. PAULL: Your Honor.

MR. MALKIN: No. It's not, your Honor.

MS. PAULL: We, ORA feels strongly that it should be part of the record. And the confidentiality concerns really can be easily resolved. We think it's a key piece of evidence and it needs to be in the record.

And it has to be corrected -- either uncorrected or corrected, that's to be decided, but I don't see how the Commission can -- the Commission's record will be incomplete without it.

ALJ BUSHEY: Mr. Malkin, this is the documentation that we have not -- specifically decided not to include in the record in all of our past pressure restorations?

MR. MALKIN: That is correct, your Honor.

ALJ BUSHEY: And the information has been provided to the parties for their inspection and clarification questions on, but not included in the record?

MR. MALKIN: That is correct. The materials were not filed, so they're not part of the record.

ALJ BUSHEY: Is it a fair statement that -- and you might need to confer with your clients because I know you weren't there yesterday at the workshop. But yesterday's workshop, would that have provided the same level of inspection and clarification as has been offered in the previous pressure restoration proceedings?

MR. MALKIN: Yes. At least, if not

substantially beyond.

That workshop was specifically held in PG&E's offices in Walnut Creek in order to have all documentation available as necessary.

ALJ BUSHEY: Okay. So then it would be accurate to say that the procedural availability of information for parties in this proceeding has at least been as high as in the Commission's previous pressure restoration proceedings.

MR. MALKIN: That is correct. With respect to the inspection in all of the proceedings, the procedure has been inspection but not copying and --

ALJ BUSHEY: Thank you.

MR. MALKIN: So certainly consistent with that.

ALJ BUSHEY: So the documentation availability has been at least as high in this pressure restoration as has been in the previous five or six.

Is there any other component of this list that you believe PG&E has not provided?

MS. BONE: Your Honor --

MR. MEYERS: Are you addressing that to all parties --

ALJ BUSHEY: Yeah. I'm starting with ORA. But let's finish with ORA.

MS. BONE: What's concerning about this list is it actually has a very significant omission which is the issue that we're raising here today, which is that PG&E is not required to show how it calculates the MAOP based on the pressure test readings consistent with 192.619. And that is the problem that we have with PG&E's showing today, or one of them. And that is what is missing from this decision and is a very significant error.

ALJ BUSHEY: This decision was issued on September 8 of 2011.

MS. BONE: That may be. And what it sadly means is that the Commission has been doing this wrong for the last two years.

ALJ BUSHEY: Well, that is the process that the Commission has engaged in. This is the Commission's decision. And until it's changed, it's the decision that I need to apply in this proceeding.

MS. BONE: I understand that that's your position, that's it's not an issue here, that the Commission has not complied -- insured that PG&E's MAOP calculation complies with federal regulations. We understand that

that is your position, that we should not explore that issue here.

ALJ BUSHEY: Right. It is -- the Commission issued a decision two years ago. There's a list of things that are required for PG&E to present and we are -- and I'm bound to apply this decision until the Commission changes it.

MS. BONE: So --

ALJ BUSHEY: So here we have the decision. This is the evidentiary presentation they need to make. Is there any portion of this evidentiary presentation that it is ORA's position has not been presented by PG&E?

(No response)

ALJ BUSHEY: Hearing none, then I'll move on to the next parties.

MS. PAULL: I'd just like to note that the question about whether the entire line was tested was answered at the workshop yesterday, that's when that question got answered to the satisfaction of the parties.

ALJ BUSHEY: But as we sit here today the parties, or at least ORA is satisfied?

MS. PAULL: Yes.

ALJ BUSHEY: I'd like to hear from the other parties now.

MS. PAULL: Yes.

ALJ BUSHEY: Okay, San Carlos. Ms. Strottman.

MS. STROTTMAN: Thank you, your Honor.

I just wanted to clarify first of all, so this not an Order to Show Cause proceeding. It's an adjudicatory proceeding. So does that mean that there is not a ban on ex parte communications?

ALJ BUSHEY: That is correct. It is a rulemaking proceeding though, so there is an ex parte rule that applies.

MS. STROTTMAN: Yes. Yes. But it doesn't ban the City of San Carlos from making ex parte visits with commissioners, correct?

ALJ BUSHEY: In compliance with --

MS. STROTTMAN: Yes.

ALJ BUSHEY: -- with the regulations --

MS. STROTTMAN: Under the rules.

ALJ BUSHEY: -- covering those, yes.

MS. STROTTMAN: Thank you.

Your Honor, the City of San Carlos, we would want to -- we are requesting based on due process bases to cross-examine the witnesses on section C which is the reason for the MAOP rejection. And then subsection C, that says in the professional

judgment of the engineering officer that the system is safe to operate at the proper or at the proposed MAOP, as I stated earlier, the City of San Carlos has cross-examination questions relating to whether the line has to operate as a transmission line. We wanted to ask Mr. Johnson and Mr. Singh some questions about the weather demands issues.

And we have an e-mail that we would like to present to Mr. Singh and Mr. Johnson that states that this Line 147 issue is a serious issue. It was serious to PG&E and that they considered it a near hit from a safety perspective. And I would like the opportunity to cross-examine the witnesses on this particular e-mail because it seems now that PG&E's changing course and doesn't think that the safety implications for Line 147 are as serious that they initially thought they were.

ALJ BUSHEY: Okay, so the safety implications go to the safety certification.

MS. STROTTMAN: Yes.

ALJ BUSHEY: So that makes sense. I'm lost on the weather, though.

MS. STROTTMAN: Your Honor, I recall from the -- I think it was the October 21st prehearing conference, PG&E said that they

needed to increase the operating pressure due to weather demands because they had projects in 2014 that needed to be completed. And I'd just like the opportunity to cross-examine them on that issue.

And then the last one is whether the line can be operated at the distribution line versus a transmission line.

And I know Mr. Rubens would like to make some comments to you as well, your Honor, if that's permissible. The city attorney for San Carlos.

ALJ BUSHEY: I guess the weather goes to sub F, the proposed MAOP.

MS. STROTTMAN: Yes.

ALJ BUSHEY: Okay. All right. Okay, that makes sense.

All right, Mr. Meyers.

MR. MEYERS: Thank you, your Honor.

Did you want to allow Mr. Rubens to make a comment?

ALJ BUSHEY: Oh. Right now?

MR. MEYERS: Ahead of me.

MS. STROTTMAN: Yes, please.

MR. RUBENS: I can comment later.

ALJ BUSHEY: I'm just trying to get organized as to what is at issue here.

MS. STROTTMAN: Okay. Thank you, your

Honor.

MR. MEYERS: Thank you, your Honor.

ALJ BUSHEY: You've made a good presentation. I understand what's at issue there.

Okay, Mr. Meyers.

MR. MEYERS: From the perspective of San Bruno, we have extensive cross-examination of these witnesses relative to the overall issues encompassed in your original OSC order. I recognize as we sit here today that we're not going to get into that. And so if we are then permitted the opportunity to bring these witnesses back and cross-examine these witnesses relative to the issues raised by your original OSC order with the exception of the repressurization, then we will -- we have substantially reduced our cross-examination.

We do have some questions of these witnesses relative to the same things that Ms. Strottman indicated concerning the subpart c of paragraph G as well as paragraph C and E, I believe. Same sort of questions that Ms. Strottman has, but from a different perspective.

ALJ BUSHEY: You said sub paragraph E about MAOP validation?

MR. MEYERS: No, I'm sorry. I was wrong. It's F.

ALJ BUSHEY: F. Okay.

MR. MEYERS: My apologies.

ALJ BUSHEY: So C, F and, G sub c.

MR. MEYERS: Correct.

ALJ BUSHEY: Those are --

MR. MEYERS: Just one thing further, your Honor.

The issues implicated in the restoration of pressure here have to do with the adequacy, veracity of PG&E's records for their pipeline.

And I recognize that in the Commission's decision that the hydrostatic testing of the line is sufficient evidence to justify an MAOP that they're requesting subject to the legal issues that ORA has presented before your Honor this morning.

But those records issues go to the larger issue relative to the OSC. And I don't want to be in a position of not being able to discuss and cross-examine these witnesses prospectively on the records discrepancies with respect to Line 147 as a part of the overall issue of their recordkeeping and their obligations under both the Commission's rulings and the NTSB

findings to maintain adequate, accurate, verifiable and traceable records.

So I just want to make that statement for the record.

ALJ BUSHEY: Right. As a component or as an example --

MR. MEYERS: Correct.

ALJ BUSHEY: -- of inadequate recordkeeping.

MR. MEYERS: Correct.

ALJ BUSHEY: Okay.

MR. MEYERS: Thank you.

MR. LONG: Your Honor, could I just say I'm completely in the same situation as Mr. Meyers just articulated for the City of San Bruno. We have questions of Mr. Singh and Mr. Johnson and also for Mr. Harrison, but they go to the larger issues of the accuracy of PG&E's records and related to OSC issues, not the Line 147 issues.

ALJ BUSHEY: Right. Good. It sounds like we're getting focused.

Oh, Mr. Gruen. I'm sorry.

MR. GRUEN: Your Honor, SED Advocacy has a couple of points.

Under Ordering Paragraph 4, subpart D, if there are any complete pressure test results -- we believe that PG&E has

marked the current pressure tests as confidential and so if those are to come into the record, and we believe they should, we would ask that PG&E redact those and provide a version that's available for the record.

ALJ BUSHEY: That's not how we've done it in the past. These records because of their -- the size of them and the information that they contain have been available for inspection by the parties and discussions with PG&E. And as we've made clear here, there's been substantial additional clarification from PG&E regarding those records.

So I don't anticipate taking a different procedural step here than we have in the past with the other pressure restoration proceedings.

MR. GRUEN: Understood, your Honor.

ALJ BUSHEY: So --

MR. GRUEN: In that case, one other point which is a line of cross. On paragraph 4 sub G and then section c, sub-subsection c which we have some questions for Mr. Harrison that would go to whether the professional judgment of the engineering officer considered some of his input in certifying the system as safe to operate.

ALJ BUSHEY: Well, I don't know how -- if I'm recalling correctly, Mr. Johnson is the certifying officer.

MR. GRUEN: I understand.

ALJ BUSHEY: So you're going to have to ask Mr. Johnson about certification because he's the one who did it.

MR. GRUEN: Well --

ALJ BUSHEY: You can't ask Mr. Harrison what Mr. Johnson was thinking.

MR. GRUEN: If Mr. Johnson is familiar with the documents that were provided by Mr. Harrison. And I can lay foundation with him. I'm happy to do that.

ALJ BUSHEY: That's entirely reasonable cross-examination of Mr. Johnson.

MR. GRUEN: Understood. We can do that, your Honor.

ALJ BUSHEY: All right. So it sounds like we have three subparts C, F, G, and G sub c, to focus on our cross-examination of the witnesses; okay?

And the witnesses that we want to cross-examine are Mr. Johnson and Mr. Singh; correct?

MR. GRUEN: Yes, your Honor.

ALJ BUSHEY: All right, let's get to that.

Mr. Malkin, could you call your witnesses, please?

MR. MALKIN: Yes. PG&E recalls Kirk Johnson and Sumeet Singh.

KIRK JOHNSON and SUMEET SINGH,

recalled as witnesses by Pacific Gas and Electric Company, having been previously sworn, testified as follows:

ALJ BUSHEY: I'll remind you both that you remain under oath.

WITNESS JOHNSON: Okay.

ALJ BUSHEY: Please be seated.

And we will begin, let's turn it around and begin with Ms. Strottman for San Carlos.

MS. STROTTMAN: Thank you. Thank you, your Honor.

CROSS-EXAMINATION

BY MS. STROTTMAN:

Q Good morning, Mr. Singh and Mr. Johnson. I'm Britt Strottman. I represent the City of San Carlos.

WITNESS SINGH: Good morning.

Q So, I know we don't want to go into a lot of detail about hydrostatic testing since we've -- since Judge Bushey has somewhat seems to have decided that issue. Well, not decided. But it seems like we've

discussed it morning.

But I only have a few questions about hydrotesting, your Honor, if that's okay.

ALJ BUSHEY: Ms. Strottman, I can't decide things. Only the Commission can decide things.

MS. STROTTMAN: Okay.

ALJ BUSHEY: So if you have factual evidence that you would like to elicit from these witnesses, I suggest that you do that.

MS. STROTTMAN: Thank you.

Q So Mr. Johnson or Mr. Singh, are you aware of any situation where a pipe has failed notwithstanding the fact that the pipe had been hydrostatically tested?

WITNESS JOHNSON: A I'm sorry. Would you repeat the question.

Are you talking about PG&E's system?

Q Yes.

A Would you repeat the question?

Q Yes.

A Has failed. Failed being what?

Q I don't know. Exploded. Leaked. Let's say exploded. Are you aware of any situation where a pipe has exploded notwithstanding the fact that the pipe had

been hydrostatically tested?

A I am -- I can't think at this point in time, of any time in my career where I've seen a pipeline hydrostatically tested and then rupture after the fact. Not to my recollection.

WITNESS SINGH: A Same for myself as well.

Q And what about when you -- when PG&E hydrostatically tested a pipe, did -- are you aware of any situation where the pipe had ruptured when you hydrostatically tested it?

WITNESS JOHNSON: A Yes. We've had pipeline ruptures as part of our hydrostatic test program as part of the PSEP program.

Q And can you give me a ballpark figure about how many pipelines are ruptured?

A I believe -- and I believe it's in documents somewhere. I believe there's been seven. Subject to check, I believe there's been seven ruptures associated with the PSEP hydrostatic testing.

Q And subject to check, what time period would that include?

A The beginning of PSEP till today.

Q Okay. Now, I wanted to ask you about the records for Line 147. As you

testify today under oath, can you testify that you have traceable, verifiable, and complete records for every length -- inch of Line 147?

A No. I don't believe we testified that we have traceable, verifiable, and complete records for everything on Line 147.

Q No. I'm sorry. I didn't mean to -- I didn't mean to ask that. I'm just saying as you're under oath today, would you under oath today, can you testify as to whether you have traceable, verifiable, and complete records for every inch of Line 147?

WITNESS SINGH: A Let me take that question.

So we do have traceable, verifiable, and complete strength test records, and that was exhibited as part of the workshop that we conducted yesterday. As records is a broad categorization, there's different types of records for the pipelines. So we do have traceable, verifiable, and complete strength test records. That was the objective of yesterday's workshop, which I believe Mr. Roberts on record has also concurred to.

As it pertains to the pipeline specifications --

Q Yes.

A -- we have always claimed as part of our MAOP validation project we don't, and don't anticipate to, have traceable, verifiable, and complete records with a perfect chain of custody for pipelines that have been installed over 80, 90, hundred years ago, which is the reason why we do strength tests.

In fact, that question is specific to Line 147. For every inch of the line and every specification of the line, I can't sit here in front of you and tell you we have traceable, verifiable, and complete specification records, but that's the reason why we have a very successful hydrotest in accordance with the Commission decision.

Q So what percentage of records if you could tell me for Line 147 you do not have traceable, verifiable, and complete records for pipeline specifications?

A I do not have that information with me here. And I --

Q What about you, Mr. Johnson. You're the vice president of gas operations. Do you know?

WITNESS JOHNSON: A In terms of a percentage, I don't know. You'd have to

define what you're measuring.

Q Okay. So you have --

A We'd have to look at the documents. And you know, we -- if you're talking about on a footage basis, we can go back through those documents and calculate it. I don't have it as I sit here today.

Q But you don't know as a vice president of gas operations what percentage of records you have missing for Line 147?

A On a percentage basis, no. What I did review as part of this file is I reviewed the entire Pipeline Features List, but I didn't do it on a percentage basis.

WITNESS SINGH: A The one thing I would like to add on to that is I believe Mr. Roberts on Monday in the -- one of the DRA's presented the percentage calculation that ORA did in terms of the number of assumed specifications. That's where we're making assumptions in accordance with the methodology that we put forward. That was also approved. That's consistently -- has been consistently applied not just for Line 147, but all of the lines as part of the MAOP validation project.

Q Okay, thank you.

So will you agree that about

1300 feet of the pipe was installed in Line 147 in 1957; is that correct?

WITNESS JOHNSON: A I don't know. We'd have to look at the pipeline features list on Line 147 to see how much footage was installed in 1957.

Q Well, do you know about how many feet in Line 147 you can say with absolute certainty is AO Smith pipe?

A Not without going through the Pipeline Features List in its entirety and looking through it again.

Q But you don't know that --

A Not off the top of my head, no. I don't have it memorized.

Q May I refer you to Exhibit I, please?

A We don't have a copy of Exhibit I up here.

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Ms. Strottman.

MS. STROTTMAN: Thank you.

Q And I understand that Hearing Exhibit I is not obviously the whole Pipeline Features List but does that refresh your

recollection at all?

WITNESS JOHNSON: A Well, as I'm looking through here, on the back table it indicates 1327 feet in segment -- which is Segment 109 of Line 147.

Q Okay.

A So there is at least 1327 feet or thereabouts.

Q Okay.

A Does that answer your question?

Q Well, I mean, I just -- my question related to percentagewise --

Or no, no. I'm sorry. Yes, that does answer my question. Thank you.

I'm going to move on to a different topic.

I understand and I don't want to argue with the two of you about the interpretation of the federal code, but I do want to give you a hypothetical relating to yield strength.

So hypothetically speaking, if you note in the database that the MAOP for section 109 which is AO Smith pipe is governed by the calculated design pressure; is that correct?

WITNESS JOHNSON: A I am not following your hypothetical. This is a hypothetical

or --

Q Yes. This is a hypothetical.

A -- is this a factual?

Q This is a hypothetical.

A Hypothetically it could be.

Q Okay.

A But I'm not -- I'm sorry. I'm not following your question.

Q Okay. So I'll just repeat it.

So let's say hypothetically speaking in your database, in PG&E's database, the MAOP for Section 109 AO Smith pipe for Line 147 is governed by the calculated design pressure; is that correct?

A Hypothetical -- is this a hypothetical question?

Q Yes.

A Hypothetically it could be.

Q That could be correct. Okay.

A Hypothetically, yes.

Q I'll rephrase. I'll rephrase it.

A Okay.

Q And this is not -- this is part of the hypothetical but I do want to ask you this fact though.

Is PG&E policy, it dictates that the MAOP is the lower of the hydrostatic or

hydrotest pressure divided by 1.5 or the calculated design pressure; is that correct?

A The -- I'm getting a little confused on hypothetical, but I want to try to answer the question.

Q Okay.

A In regards to hydrostatic testing or pressure testing pipelines, there is a factor applied in translating that into an allowable MAOP. 1.5 I believe is the number you just stated.

Q Yes.

A That would -- I guess that would be used on Class 3 pipelines. There's different factors for different class pipelines.

Did I --

Q Okay.

A I'm not sure I answered your question, but I'll try to --

Q No, that's --

A -- answer best I can what I think you're asking.

Q Then would you agree then that a design pressure -- you're stating PG&E's position that the design pressure calculation is based on a minimum yield strength of 33 ksi which is 33,000 psi?

A I'm sorry. Are you asking a hypothetical or are you asking a specific question?

Q I'm sorry. I'm asking for PG&E's position.

MR. MALKIN: I'm not sure --

THE WITNESS: I'm not --

MR. MALKIN: -- it's clear what we're talking about. Vague.

ALJ BUSHEY: Mr. Malkin, I agree.

We've lost our clarity here, Ms. Strottman, so let's just focus on -- let's try and take this one step at a time.

I think you're asking factual questions, not a hypothetical.

MS. STROTTMAN: Yes. And I'm sorry for making this confusing. I was asking a factual question.

Q I guess what I'm getting to is that if you change a yield strength from 33 ksi to 24 ksi -- and we don't need to argue about the interpretation of the federal code -- and leaving all other factors the same, if you recalculate the design pressure, does it come to 240 psi?

A I can't do the math in my head. I can say if you change the SMYS which is what --

Q Yes.
A -- I think you're talking about --
Q Yes.
A -- in a design calculation and don't change any other factors, it's going to change.
Q Okay.
A So the math is pretty straightforward. You just have to run the math.
Q Okay, thank you.
So I wanted to ask you some questions about PG&E's position on replacing Line 147.
And your Honor, may I approach? I only have two exhibits.
MR. MALKIN: Your Honor, I'm going to object to that line of questioning as being irrelevant to this proceeding.
ALJ BUSHEY: Yeah.
MS. STROTTMAN: Your Honor, it is the City of San Carlos' position that whether PG&E intends to replace the line is relevant to the proceedings, we want to hear from these two witnesses what PG&E's position is on replacing the line. It's important to city. And they've responded to data requests on this issue.

ALJ BUSHEY: But what portion of Ordering Paragraph 4 does that go to?

MS. STROTTMAN: I'm sorry. I don't have it in front of me.

ALJ BUSHEY: How --

MS. STROTTMAN: Well, it goes to whether in the professional judgment of the engineering officer, which is Mr. Johnson, that the system is safe to operate at the proposed MAOP. If they think that the line shouldn't be replaced, then they think it's safe to operate.

ALJ BUSHEY: How many questions do you have on this line?

MS. STROTTMAN: Maybe four. I can narrow it to four.

ALJ BUSHEY: All right, let's move expeditiously through those four questions.

MS. STROTTMAN: Okay.

ALJ BUSHEY: We'll be off the record.

(Off the record)]

ALJ BUSHEY: We'll be back on the record.

While we were off the record, Ms. Strottman distributed two exhibits. Exhibit L -- it starts with the PG&E's response to SED Data Request 003-11.

Exhibit M looks to be copies of

redacted e-mails. The first one is dated Saturday, November 17th, 2012, at 1:35 p.m. That's Exhibit M.

Ms. Strottman?

(Exhibit No. L was marked for identification.)

(Exhibit No. M was marked for identification.)

MS. STROTTMAN: Thank you.

Q Mr. Johnson and Mr. Singh, looking at Hearing Exhibit L, if you could please read -- you don't need to read it out loud, but look at Question 11. It says, Does PG&E anticipate repair or replacement of the A.O. Smith pipe?"

And then the answer says, "Yes, PG&E currently intends to replace the Line 147 and Line 101 A.O. Smith pipe that are limiting the MAOP to 330 psig."

Did I read that correctly?

WITNESS JOHNSON: A I believe so.

Q So Mr. Johnson, what is PG&E's position on replacing Line 147 in San Carlos?

A I think you're referring to the A.O. Smith pipe specifically?

Q Yes.

A To my knowledge -- I mean, there's certainly no reason to replace it due to

safety issues. I'm not sure why we'd be replacing it unless there's some other driving factor there.

Q Then why did you say yes in this data response that you were going to replace Line 147 with A.O. Smith pipe?

A I would have to talk to the parties who actually wrote as to why they were planning on replacing it. I could only speculate at this point in time. I would have to make a call to folks as to why. It's certainly not for safety reasons.

Q But you're the vice president of gas operations and you don't know if Line 147 --

A I don't -- I don't know the reason for this specific segment of pipe. We are replacing hundreds of miles of pipe, hydro testing hundreds of miles of pipe. I don't know every piece of every project we've got going, certainly not for a future year.

Q Would you recommend to upper management that PG&E replace all A.O. Smith pipe?

A No.

Q Why?

A Because if the pipe has been tested and it's safe, there's no reason to replace

it. There may be other reasons to replace it, but it's certainly not for safety reasons.

Q So while you're sitting here, you don't know -- you wouldn't know, then, when PG&E plans on replacing Line 147 with A.O. Smith pipe?

A As I sit here today, I -- I don't know why PG&E would want to replace that pipe. It's not for safety reasons specific to the A.O. Smith Pipe Segment 109. So no, I don't -- I don't know why we would need to replace that pipe. There may be reasons beyond my knowledge at this point in time, plans people have, but I am not aware of it and certainly not for safety reasons.

Q Okay. But, Mr. Johnson, if you look at Answer 12, which is on the next page, it says, "Replacement of the A.O. Smith pipe is required to allow Line 147 and Line 101 to operate at an MAOP of 365 psig or higher."

Did I read that correctly?

A Correct.

Q So then can you infer that you need to have better pipe to operate at a higher pressure of 365 psig?

A I -- I can infer that if we need to raise the pressure to 365 pounds, we need to

replace any pipeline segments that do not allow for operating at that pressure. And that's what I believe this indicates. There have been changes made on the system to accommodate the changes we've done on Line 147, and so we have to go back and ask ourself do we still need Line 147 to operate at 365 pounds. These -- these issues move as decisions are made, so --

Q Okay. Now -- now I'm going to take your attention away from --

MR. MALKIN: I believe Mr. Singh wanted to add something.

MS. STROTTMAN: Q Oh, I'm sorry. Go ahead.

WITNESS SINGH: A I just wanted to add that at 330 pounds, there's no reason to replace any section of Line 147. As we talked about previously, we've had a strength test, a spike test, traceable, verifiable, and complete strength test records. There's no reason to replace any section of Line 147 for operating the line at 330 psig. I believe all of these data responses are consistent.

Q So to that point, what is the current operating status of Line 147?

WITNESS JOHNSON: A Line 147, as I

understand it, is -- has got gas piped in it at approximately or below 125 pounds.

Q And it's not in a shut-in status; correct?

A I don't know how you define shut-in status. It's got gas in it at 125 pounds or less. But shut-in status -- what do you mean shut-in status?

Q The way that it was described to me I believe by Mr. Malkin during the October 21st prehearing conference is that shut-in status is -- is akin to, like, gas being trapped inside of a bottle. It's not being moved. It's not dynamic.

A If what you're referring -- let me explain where I believe Line 147 is today. The block valves feeding that from the associated transmission valves Line 101, 109, Line 132 are closed. And I believe the cap valves are also closed. I don't know if that means shut-in status, but I believe that's the operational condition. I haven't checked on that in the last week or two, but that's my understanding where we are.

Q So then the four regulator valves are not open?

A I'm not -- I don't know -- I'm not sure what you mean by four regulator valves.

Q I thought that there were four -- I'm sorry, four distribution valves on Line 147. That's not the case?

A Are you talking about district regulator stations potentially?

Q Yes, yes, yes. Thank you.

A I believe the district regulator station valves are closed, but I'd have to check on -- on how it's operating today. It doesn't operate above 125 pounds is the operating restraints we have on it right now.

Q So what -- what are the reasons why PG&E needs to operate Line 147 as a transmission line?

A Well, Line 147 is a cross-tie between the other major transmission lines feeding the entire city of San Francisco and everybody from Milpitas north. It is an integrated system, and it allows us a great deal of flexibility of operating our system. It allows us to feed all the customer needs from Milpitas north, and it's just part of an overall integrated system.

Like any segment on that pipeline system, things need to be taken out of service occasionally, and maintenance is done or construction work is done or tie-ins are made. And it is one of the integral pieces

in making that happen. It is one of the -- it is one of the major cross-ties between those two pipelines -- between those three pipelines. Excuse me.

MS. STROTTMAN: Your Honor, may I have a moment, please?

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Ms. Strottman?

MS. STROTTMAN: Q So for Line 147, I just want to talk about this -- this weather and curtailment issue. So if -- and -- and I'm sorry if I'm a little bit confused by this. But if the gas is shut in or it's not moving, how are you -- how are you transporting gas to customers.

WITNESS JOHNSON: A They would be -- if that's the exact condition it's in right now, they would be fed by other district regulator stations.

Q Where?

A I don't have the maps in front of me. I don't know where the exact other district regulator stations are for all of Redwood City and San Carlos.

Q And do you recall PG&E's position

as to the -- the two exceptions that PG&E wanted to have in place for raising the pressure at 125 psig? One was an unforeseen event, which could be a dig-in, and the second one would be safety work. Do you recall that?

A I don't know that I -- I recall the discussions, yes. I don't know the exact wording behind those but go ahead.

Q Okay. What about you, Mr. Singh?

WITNESS SINGH: A So same as Mr. Johnson articulated. I'm aware of those discussions. I'm aware of what you're referring to. I don't have the exact words in front of me of what you're referring to, but the concept and the discussion, I'm familiar, yes.

Q What is your understanding, then, as to why the pressure needs to be raised back to 330 because of weather conditions?

A Well, it's as Mr. Johnson articulated. There's -- Line 147 is a major cross-tie between the three lines of 109, 132, and 101. And as stated and as I believe you referenced as well, in the case of a dig-in and what's that alluding to is there's a dig-in or safety work that's going on, which would involve Line 101 -- or have

done -- and 132 and 109, which we have a lot of planned work for next year as well. Taking those lines and shutting them in requires us to use Line 147 to insure we can continue to provide supply and provide gas to our customers. It's a main part of our operations and overall operational flexibility.

Q And what projects are you speaking of?

MR. MALKIN: Your Honor, we're getting -- Ms. Strottman began this line of questioning saying it went to safety and the safety certification. We're now getting into system planning issues. It seems pretty far afield.

ALJ BUSHEY: Ms. Strottman, are we going to get back to something that's listed in Ordering Paragraph 4?

MS. STROTTMAN: Yes, but, your Honor, it is relevant as to whether they really need to operate this line due to weather conditions. And they stated that they have -- they needed to do safety work for 2014. I just have a few questions asking them about their safety work, and then I'll move on.

ALJ BUSHEY: All right.

MS. STROTTMAN: Thank you.

Q So what type of safety projects or work do you have I guess in queue for -- for 2014? Because it appears that that's one of the reasons why you need to increase the operating pressure on Line 147.

WITNESS JOHNSON: A Well, in terms of the work -- and again, I don't have the entire work list in front of me -- there is actually work in 2013 that we can't complete because of our operating flexibility right now. That includes valve automation. So there's some valve automation work, and there is some work scheduled for later this year to make a segment of Line 132 piggable, which we are at risk of not being able to do if we don't have the operating flexibility that we need to remove that section of pipe from service to we can change out some segments there.

For next year on -- on the San Francisco Peninsula, there is some -- there is a significant amount of pipeline replacement work on Line 109. I believe it's approximately 10 miles worth of work to get done. So we'll be taking clearances through out the year to tie that work in. There is some make-piggable work, if you will, on the three different transmission lines. And I'm

sure there's a laundry list of -- of other activities happening in the San Francisco Peninsula. There's a lot of Pipeline Safety Enhancement Plan work that occurred under PSEP on the San Francisco Peninsula.

Q I appreciate that list, but what about projects that are queued up ready for Winter 2014?

A Well, all of them are queued up.

Q Just for the winter months.

A All of the work is queued up to be done in 2014.

Q But what -- what projects -- what immediate projects does PG&E have that they need to complete for Winter of 2014?

A Well, all the projects have to be complete by Winter 2014 other wise we can't serve gas to our customers. Is that --

Q Well, I guess I'm just trying to get at -- yeah, well, it's -- it's Winter 2013, Winter of 2014. I'm asking about what projects PG&E needs to complete in that time period as to why they need to increase the operating pressure on Line 147 to 330?

A So -- so the -- it's an integrated system. And when we take one piece of pipe out of service, we route gas around. And this is a major routing point, if you will,

between the pipelines. It is a cross-tie.

So whenever we take a segment of pipe out, whether it's on Line 101, Line 132, Line 109, we reroute gas. And we use our cross-ties to feed customers from different directions. The work that I shared with you is all work that is scheduled to be done in 2013 or if not done in 2013, 2014. And that's the pipeline replacement work, the valve automation work, the SCADA work, the make-piggable work.

There is a significant amount of work for the San Francisco Peninsula, all of which require clearances, all of which require taking pipelines segments out of service, and all of which require us to route gas to feed different customer needs. And Line 147 is a significant link in the overall transmission system in the San Francisco Peninsula.

Q But not all of those projects don't have to be completed by Winter 2013, 2014; correct?

A When you say, "Don't have to be completed," they are Pipeline Safety Enhancement Plan projects which we have committed to completing. These are all safety-related projects.

Q That have to be completed by Winter 2014?

A Well, when you say, "have to be completed by," based on what?

Q Done. You're done. You -- you've finished everything that you needed to do. There's nothing else to do.

A Well, there's never a time where there's nothing else to do. We need to get -- we have 10 miles of Line 109 that we hope to replace as part of the Pipeline Safety Enhancement Plan work that we were planning on doing in 2014. We want to get all that work completed, tied in for 2014. It is very hard to do work in the winter time because the demands are higher and we can't get clearances.

Q Okay. I. Just have a few more questions on this. So what's the highest demand for gas for PG&E? What time period?

A Well, you have to look at each segment differently, but for 90-plus percent of the segments, it's the winter -- the winter period.

Q And what -- what month -- what time period?

A It's probably early December through late January is when you see the

coldest weather. It's the shortest days, so I think it's pretty much common sense that winter time is colder and the coldest days happen in the January -- December, January timeframe.

Q And isn't it true that PG&E discovered the Line 147 issues in October of 2012; is that correct?

A The issues being the leak you're referring to?

Q Yes, yes. I'm sorry, the leak.

A I believe it was October 2012.

Q And isn't it true that PG&E didn't inform the CPUC of those issues until March of 2013?

MR. MALKIN: Your Honor --

ALJ BUSHEY: Argumentative.

MR. MALKIN: We're going into other issues.

MS. STROTTMAN: Your Honor, I would just like to note that PG&E didn't inform the Commission nor the parties of these issues of Line 147 during the highest peak of demand.

ALJ BUSHEY: Ms. Strottman, this is all a matter of -- of record already in this proceeding. I think it's all laid out in the order to show cause.

MS. STROTTMAN: Okay. Thank you.

Q And I'm sorry. I'm going to go back to some questions about accuracy in PG&E's database.

So Mr. Johnson, you did confirm that Segment 109 is about 1320 feet?

WITNESS JOHNSON: A Based on the document that we were looking at earlier.

Q Yeah. I'm sorry. That's document -- it's Hearing Exhibit I.

A Yes. So based on this -- based on the exhibit I'm looking at, it states the length is 1327 feet of Segment 109.

Q Okay. And then I'm going to finally give you a hypothetical. Assuming that Segment 109.3, which is adjacent to Segment 109, is listed as seamless. Would that raise a red flag to you? Do you think that that's accurate?

A If I think anything on our system is inaccurate, it's going to raise a red flag.

Q But in your mind, if -- if I give you the hypothetical that in this pipeline features list you have Section 109, which is 1320 feet and it's A.O. Smith -- and let's assume that the section immediately adjacent to it, Section 109.3 is listed as seamless. Do you think that that's accurate?

A Well, if that's what's listed in our pipeline features list, I believe it's accurate to the best of our knowledge.

Q But it wouldn't raise a red flag to you?

A No. No, if I -- if we believe it's accurate and we -- as we've laid out in our pipeline features list, then no it doesn't raise a red flag.

Q Okay. Then I'll give you another fact in this hypothetical.

MR. MALKIN: I think Mr. Singh --

MS. STROTTMAN: Q Oh, I'm sorry, Mr. Singh.

WITNESS SINGH: A Can I add on to that?

Q Yes.

A It wouldn't raise a red flag to me either. And the reason for that is because you could have a separate job that was done for that respective segment that was installed at some other point. You have to look at the actual pipeline and look at the actual situation.

It's not uncommon where -- and I think I answered previously that Line 147 was originally installed in 1947. And after that there was work done on the pipeline in '57,

in '87, and in 1990. So it's not uncommon to find different seam types and different specifications along one length of the pipeline. It's very common not just within our system, but in the industry.

Q Okay. Where in the industry? Can you point to me some examples where is that common in the industry? I mean, I've heard you say that several times in cross-examination, but I'm asking you if you could point to an example.

A Based on all the conferences I've attended, based on my discussions with other operators, based on my discussions with industry experts such as Mr. Rosenfeld.

Q Okay. So if I added another fact to this hypothetical -- if this pipe segment, which is 109.3, which is adjacent hypothetically to 109, and it's got an install date of 1947, would that raise a flag to you that it was listed as seamless?

WITNESS JOHNSON: A Not in itself. You would have to go through the pipeline features list and look what's on the pipeline features list. It may show a different job. It may show a different strength test pressure report. There could be a lot of reasons why it changed. Just because it's

the same year doesn't mean it wasn't done on different jobs or something else wasn't different there.

Q Okay. Thank you.

WITNESS SINGH: A And it wouldn't be a surprise to me because there was seamless pipe made around 1947. We've got a purchasing record for this. We've actually in fact done a field inspection on a segment of Line 147 installed in 1947 that was seamless. And we actually took a look at a stream of line manufacturing, which has been authored by Kiefner and Associates. It talks about manufacturing practices typically in the industry of line pipe that was manufactured. And it wasn't uncommon from my understanding and we have some in our system. The fact that it is 1947 seamless pipe does not raise any questions in my mind.

Q Okay. I'm going to ask you some questions now about safety factor. What -- what is safety factor to you when you're assuming or calculating a safety factor -- well, I'm sorry. I'll rephrase that. What does safety factor mean to you?

WITNESS JOHNSON: A Well, as a -- as a generalization, it usually means calculating some structural issue at its maximum or its

-- it's 100 percent strength point and dividing by a number. And that number would be your safety factor.

Q What factor of safety are you assuming or calculating for Line 147 after the hydro tests were conducted?

A Well, are we speaking specifically to Segment 109 or talking about the entire pipeline now?

Q Let's talk about the entire pipeline.

A Well, the safety factors I believe are probably different depending on the segment of pipe you're looking at.

Q Okay. What's the range?

A Okay. Well, we could get the pipeline features list out. But without going through that whole document -- do we have the pipeline features list here? You can walk through and see each one of them depending on the -- we have Class 1. So we're looking at the hydrostatic test and the test pressures. The lowest one is 607. Had the highest one is 1440. That's just a quick review of the pipeline features list, so I may have missed something in there.

Q Okay. If you don't have the correct pipeline specifications for a

particular segment in a line, what type of safety factor do you have for that issue?

A Well, you're -- as we've discussed here at length is we have a hydrostatic test pressure. So if it's one-and-a-half times its normal operating pressure plus a spike test, it's going to be in the range -- just on the spike test alone, just on the hydro test alone, it's -- it's -- you know, it's the .5 or the .67, depending on how high the spike went.

WITNESS SINGH: A And just to add on to that, that's at least or greater. And the reason why I make that statement is because as part of the test -- and what we reviewed at length on Monday and yesterday's workshop was the pressure volume plus. And we did not see any yielding on the 2011 test, which is a clear indication that the strength of the pipe is greater than what we tested. So it's at least that value if not greater.

Q So what -- I guess what I'm getting it at if you don't have the right records for a segment -- and records I mean the right pipeline specs -- that consideration isn't a factor for you when you're analyzing the safety factor?

WITNESS JOHNSON: A Well, I'm not sure

-- I'm not sure what you mean by that question, but in the simplest terms, we've pressure tested the pipeline. We pressure tested it well in excess of its operating pressures, plus a spike test. So just hypothetically if the test is at 600 pounds, we're very comfortable it can operate at 400 pounds. It's just a simple engineering call.

Q I guess what I'm getting at -- so the hydro test to you is just the platinum standard? It doesn't matter that you have the wrong records or the wrong pipe specs for a segment because you completed your hydro test?

A What I'm saying is -- I think I've said it's the gold standard. I'm not sure if platinum is higher or lower.

Q I think it's higher.

A That is the best standard that we have today to ensure that a pipeline can operate safety at the pressure it's at. I think for most engineers, we're very comfortable that if I pressure test at 600 pounds hypothetically, operating at 400 pounds doesn't cause my any concern.

Mr. Kiefner I think -- excuse me, Mr. Rosenfeld spoke for an hour-and-a-half,

2 hours yesterday, and Mr. Kiefner spoke at the symposium. And I believe we think that's a very large, adequate safety --

WITNESS SINGH: A The only piece I would like to add to that is I think there's a little bit of a source of confusion around that in terms of the specifications. They only lowered that value, which is the true safety margin that's established by the strength test. Those specifications have never been used to justify a higher pressure, and that's again in accordance with everything we've been doing in the last couple years as part of our pipeline safety enhancement.

Q I guess what I'm saying is if you don't know what's in the ground, the fact that you hydro tested it is good enough?

WITNESS JOHNSON: A Well, the fact that -- if you're absolutely not sure what's in the ground and you hydro tested and you check for yield and ensured a safety margin and there is no yield, you can be assured you're operating very safely under those circumstances.

Q Okay. I may come back to that, but I have just a few questions about, Mr. Johnson -- in your verified statement --

I don't know if you have it in front of you?

A I do have a copy in front of me.

Q It's on page 8.

A Okay.

Q You stated that "PG&E discovered human error in MAOP validation records for one segment of Line 147." And specifically you stated, "Our MAOP validation documentation -- "

A Can you share with me where you're at --

Q Yes. Sorry. I'm just reading from my notes. Let me get it.

A -- what line you're at?

Q Yeah. It's at the bottom of page 8. But the -- the -- on page 6, it's --

A Page 6 or page 8?

Q Well, on page 6 -- I'm just directing you to page 6 of your verified statement, the heading that's underlined says, "Line 147, Segment 109," and then in parentheses, "Human Error"?

A Correct. Okay.

Q And then on page 8, it's at the last two sentences of the page. It's actually the last sentence. It says, "We determined that our engineer had mistakenly assumed," and then you turn the page to page

9, "DSAW pipe -- "

A Okay.

Q " -- when preparing the PFL in October of 2011."

Does that look correct to you?]

A Well, I mean we've all got the document. So I didn't actually follow your word word for word, but the words are there.

Q Okay. So an engineer there had basically made a bad assumption about the pipeline features of Line 147; is that correct?

A I believe we said he made an error, yes.

Q And you don't have to disclose his or her name, but how many other pipeline MAOP validations did this engineer work on? Do you know?

A I don't know.

Q Well, wouldn't all of his work be questioned based on this mistake?

WITNESS JOHNSON: Go ahead.

WITNESS SINGH: A So let me add on to that. I don't have the specific number of features lists that he worked on, but keep in mind that this is the work that was completed in October of 2011. And as I testified in my direct examination at the hearings for the

Order to Show Cause for the substance part of the issues on September 6th of 2013, we stated that we actually went through and re-reviewed all of the pipeline features lists, MAOP reports as part of the enhancements that we made to the processes and the MAOP validation process starting in January and February of 2012.

And we also included a independent audit firm which provided a quality assurance with the appropriate procedure, and the procedure is a part of the filing that we have made for the PSEP updated application, which I'm also sponsoring. And there's also clear delineation in terms of as part of that QA that was done what was the sampling, the sampling rate, the population, and the associated error rate for all of that work that was done as part of the MAOP validation project. More than happy to entertain the questions as part of that proceeding.

Q Yeah, that's fine. And I don't believe that that answered my question. I'm just asking, did you pay any particular attention to the engineer's validations, MAOP validations that this particular engineer worked on where he assumed the wrong value?

WITNESS JOHNSON: Well, go ahead. Did

you want to answer?

WITNESS SINGH: A Couple of things that we -- what we did is we found the error in November of 2012, and I believe you're going to get to this in the next exhibit that you have handed out, but what we did is we did a root cause analysis right away to identify what was the source of the discrepancy and why did that discrepancy take place and what are the corrective actions, and have the work that we have already been doing in terms of the number of corrective actions, how many of those have already been in place and implemented.

And the corrective actions that were identified, a lot of those were already incorporated as part of the enhancements that we made to our quality assurance process starting in January and February of 2012 where we went back and re-reviewed all of the PFLs and associated MAOP reports during Phase 3 of the project.

So I don't have sitting here the explicit number that this respective engineer worked on. What I can assure you is that whatever that number was and whatever work he did in 2011, that work was re-reviewed as part of the enhanced quality control and

quality assurance process which is articulated as part of the PSEP updated application.

Q So then you're testifying then that you essentially double-checked his work?

A I believe that's what I stated.

Q Okay. Thank you. And I have a few questions about this. It appears that you had, PG&E had some sort of additional third party review for PG&E's MAOP validation; isn't that correct?

A That is what I alluded to earlier in terms of a independent audit firm that did the quality assurance testing. It's all part of the PSEP updated application. There's several pages of testimony. There's several additional attachments that outline the QA procedure. That's all outlined as part of that application.

Q Who is the independent auditor? Was it the one that you mentioned yesterday? Was it Bureau Veritas?

A No, it was not Bureau Veritas.

Q Who was it then?

A It's one of the big four auditing firms.

Q Which one?

A PricewaterhouseCoopers, PWC.

Q And how is this independent auditor independent? Did the auditor report to you? Who did the auditor report to?

A I'm not sure -- what do you mean by that question?

Q Okay. Well, maybe I'll phrase it a different way. Who directed the auditor or who gave directions to the auditor?

A I can answer that question, but I'm not sure how I see it's relevant to this proceeding, but okay.

MR. MALKIN: I'll object that's irrelevant, your Honor.

(Laughter)

ALJ BUSHEY: I think I'll overrule both of you.

MS. STROTTMAN: I'm just getting to the fact that -- I just want to know who directed PricewaterhouseCoopers to conduct this work. I mean it doesn't seem like this auditor is independent, but that's okay. I'll move on to something else.

ALJ BUSHEY: Good.

MS. STROTTMAN: Thank you.

Q Now I will direct you to the exhibit -- I'm sorry -- I think it was M?

WITNESS JOHNSON: M. Do you have M?

Q Do you need a few minutes to review

it?

WITNESS JOHNSON: A Well, if you want to share with us what your question is about, then we can just review. Otherwise this thing is six, seven pages long.

Q Yes. I'll give you some time.

WITNESS SINGH: A Did you want me to go through all the pages?

Q If that would make you feel comfortable asking questions or answering questions. I just want you to please review the first page, or I'm going to ask questions about the first e-mail on the first page.

A Okay.

Q Which I guess is technically the last e-mail in the chain.

A Okay.

WITNESS JOHNSON: A Last e-mail in the chain.

Q Are you ready?

WITNESS SINGH: A Yeah, go ahead.

Q So looking at Exhibit M, do you recognize this e-mail?

A Now that you've put it in front of me, I recall this e-mail. I don't see my name directly being included in from or to, but I'll take your word that in one of the redactions it may be -- my name may be in

here.

Q And what about you, Mr. Johnson, do you recognize this e-mail?

WITNESS JOHNSON: A I don't. I believe I have seen this e-mail. My name normally wouldn't be redacted, but in some capacity I've probably seen the information.

Q Okay. And this e-mail, it looks like it was sent on November 17th, 2012, at 1:35 p.m. And I'm going to direct you to the first paragraph, last sentence. It says -- and I'm sorry. I'll also just say that it appears that this e-mail relates to the issues that are -- or the issues that are at hand right now during these proceedings. And it says, "At the executive level this situation is considered a near hit from a safety perspective that could have severely damaged the company's credibility."

Do you agree with that statement, Mr. Johnson?

A No, not necessarily.

Q Why not?

A Well, the term "near hit" is usually actually considered a safety issue. So I've never heard it used in near hit in terms of data or engineering terms. And I'm not sure that it severely damages the

company's credibility. We have been very clear that we don't know everything about every record. And so this is one person's opinion. I don't know that I necessarily share this opinion.

Q So the fact that we're all sitting here in this proceeding talking about the same issues, the same issues with wrong recordkeeping that was a proximate cause at San Bruno that now occurred in San Carlos is not something that you think damaged the company's credibility?

MR. MALKIN: Objection, argumentative.

ALJ BUSHEY: Sustained.

MS. STROTTMAN: Your Honor.

ALJ BUSHEY: Ms. Strottman.

MS. STROTTMAN: I think it's important to understand -- I would like to know Mr. Johnson's opinion. I can rephrase it if you'd like.

ALJ BUSHEY: He's not here to represent the company's public relations perspective. He's here having made a safety certification. Part of that certification is not his perspective on the company's credibility or whether it was a near hit.

MS. STROTTMAN: But your Honor, I'm sorry. I just I feel like as a vice

president of gas operations he would have an opinion on whether the situation that happened in San Carlos hurt the company's credibility and if in turn he feels completely comfortable, a hundred percent comfortable that Line 147 is safe to operate in San Carlos.

ALJ BUSHEY: The second part of your sentence is absolutely relevant to this witness's testimony. This witness has not presented any testimony about the company's credibility. So let's focus on safety certification.

MS. STROTTMAN: Q So Mr. Johnson, as we're sitting here today you can testify under oath that you feel a hundred percent comfortable that Line 147 is safe to operate?

WITNESS JOHNSON: A I believe it's safe to operate at 330 pounds as we have requested and as I've stated in my verified statement.

Q And what about you, Mr. Singh?

WITNESS SINGH: A I absolutely support that.

MS. STROTTMAN: Your Honor, may I have a few minutes, or just a minute, please?

ALJ BUSHEY: Just one minute.

We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Ms. Strottman.

MS. STROTTMAN: Thank you.

Q I just have one last question. And I'm not really sure I got an answer or a yes or no answer to this question.

Is it PG&E's position that the MAOP is the minimum of the hydrotest determined MAOP and the design MAOP?

WITNESS JOHNSON: A Go ahead.

WITNESS SINGH: A That's how we've applied the methodology in the MAOP validation project.

Q So the answer to that is yes?

A I'm not finished yet.

Q Oh, I'm sorry.

A So let me reiterate just so that I've got a continuous answer in the record. So that's how we've applied the conservative methodology as part of the MAOP validation project. But going back to the decision that the Commission articulated, stated, ordered PG&E to do was to validate the MAOP using a strength test. And in this case for Line 147 that's been shared, discussed at length, and without a doubt that MAOP that's been

validated through that strength test record for every single foot of that line and all the shorts operating at or above 20 percent SMYS is at least 400 psig.

Q But did that -- I'm asking for a yes or no answer. Is it PG&E's position that the MAOP is the minimum of the hydrotest determined MAOP and the design MAOP?

MR. MALKIN: Your Honor, I'm going to object. That's asked and answered. The fact -- Mr. Singh just explained PG&E's position.

ALJ BUSHEY: In great detail. I believe your question oversimplifies the actual approach that they're taking.

MS. STROTTMAN: Q Okay. Then the answer would be no then. Is that what you're saying, Mr. Singh? I'm trying to understand -- I'm just asking if -- it sounds like then that's not PG&E's position then that the MAOP is a minimum of the hydrotest determined MAOP and the design MAOP?

MR. MALKIN: Same objection, your Honor. Mr. Singh can restate his answer, but it's in the record.

ALJ BUSHEY: That question has been asked and answered.

MS. STROTTMAN: I believe it hasn't,

but if you -- that's fine. We'll let the record stand where it stands.

ALJ BUSHEY: Okay. Further questions?

MS. STROTTMAN: No, no. Thank you.

ALJ BUSHEY: Thank you. And I understand Mr. Ruben wants to make a statement at the conclusion of today's hearings. Is that fair?

MR. RUBEN: Yes, your Honor.

ALJ BUSHEY: All right. And the other parties have at least half an hour each, right?

So let's take a lunch break. I have several things I need to accomplish. So let's say 1:15 we will resume. So we'll be adjourned until 1:15.

(Whereupon, at the hour of 12:02 p.m., a recess was taken until 1:15 p.m.)

* * * * *]

AFTERNOON SESSION - 1:20 P.M.

* * * * *

SUMEET SINGH and KIRK JOHNSON
resumed the stand and testified further as follows:

ALJ BUSHEY: We'll be back on the record.

Cross-examination continuation with Mr. Meyers.

MR. MEYERS: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. MEYERS:

Q And Mr. Singh, Mr. Johnson, I'm Steven Meyers representing the City of San Bruno. Good afternoon.

Mr. Johnson, when you started your direct examination on Monday in response to a question by Mr. Malkin you indicated that your position at PG&E has changed. Could you refresh my recollection of what your current title is?

WITNESS JOHNSON: A I am responsible for the project management and program management of PG&E's gas operations.

Q And who took the position that you previously held?

A Well, it was basically a restructuring. So nobody, quote, took my position. It's just we moved things around and organized differently. So there were some functions that went just in different places.

Q For purposes of this particular proceeding, the repressurization request of PG&E for Line 147, you are the gentleman at PG&E that signed the certification under penalty of perjury that Ordering Paragraph No. 4 in the decision sets forth as the criteria that must be produced and shown by PG&E to justify a repressurization; is that correct?

A I have a verified statement, and I signed the safety certificate. I didn't -- I don't have a copy of the document you're referencing right now. So I can't --

Q But when I refer to the decision of the Public Utilities Commission, Decision 11-09-006, you're familiar enough with that decision to answer my question accurately today that you are the officer to whom the company requested a verified statement for submission to CPUC?

A I am the one that signed my verified statement and the safety certificate

for this proceeding.

Q And you previously signed such a verified statement for the original repressurization decision made by the CPUC before this current proceeding took place, correct?

A You're referring to the ones for Line 101 and Line 147 previously? Is that your question?

Q Yes. This proceeding results from an Order to Show Cause why the previous order the CPUC issued allowing you to repressurize various pipelines in the peninsula, why that shouldn't be rescinded.

So you previously signed a certification under penalty of perjury that led to the first repressurization following the Executive Director's decision to lower pressure; is that correct?

A I'm not sure I'm following all of your question, but I signed the safety certificate for this proceeding, and I signed the safety certificate for what I believe was for, the title was Line 101, Line 147, and I believe it was Line 132A.

Q Thank you. And Mr. Singh, you have also signed a verified statement on behalf of PG&E. I think the copy I have is dated

September 13th, 2003. And that is your statement relative to the request of PG&E to repressurize Line 147; is that correct?

WITNESS SINGH: A Is that the September 13th, 2013 document?

Q That's what I said.

A The declaration? Yes, it is.

Q I just wanted to say that -- preparatory matter to make sure I was asking the right questions to the right guy.

So with respect to Line 147, which is all we're talking about today given the guidance from Administrative Law Judge Bushey, I'm looking at Exhibit I, cross-examination Exhibit I, I as in India. This is PG&E data response and attachment that were submitted by the Office of Ratepayer Advocates. Do you have that in front of you?

WITNESS JOHNSON: A Is it SED 003 Q 06?

Q Yes, sir.

A Okay.

Q And on the last page, I believe it's the last page, of that exhibit there was a chart which is vertical across the page. That chart purports to represent six segments of Line 147 and then has various data with

respect to the October 2011 as-filed pressure restoration, and then the next large column shows updated specifications. Do you see that, sir?

A Yes, we have it in front of us.

Q Okay. My questions are going to relate to that. So in the prior certification that you, Mr. Johnson, said that you filed on behalf of PG&E for the October 2011 pressure restoration application, the data that was on this document was the data that PG&E had that it used as part of its process of validating MAOP. Is that a fairly accurate statement?

A Well, if I understand you correctly, if you're talking about the October 2011 section.

Q Yes.

A As filed for the pressure restoration?

Q Yes.

A That's the document?

Q Yes.

A Yes, that information would have been in the previous filing.

Q Okay. Thank you. Now, if you go to the next large portion of that spreadsheet which is entitled Updated Specifications,

those are the updated specifications that you have now submitted as part of your verified statement in support of the MAOP validation and repressurization of Line 147? In other words, these are the corrected -- it's the corrected information in your database for this, these segments; is that correct?

A The -- I'm sorry. Would you repeat the question? It is the what now? What was your question again?

Q My question is, in the column, large column that says "updated specifications."

A Okay.

Q There's a list of specifications starting with design factors, wall thickness, SMYS, long seam, things of that nature, and that data is now the corrected data that you are using for purposes of making your verified statement to the Commission to justify the MAOP validation and restoration of pressure; is that correct?

A I think these are situations for the long seam.

Do you want to try to answer that? You got to go back and make sure it matches.

WITNESS SINGH: A I can answer that. These are the updated specifications as the

title states.

Q Okay. So now that I have that clear, I want to ask you a question about Segment 109, which is the last segment in that column. And I'm asking this question because I am cross-examining you with respect to your safety certification and the validation of engineering and construction data that you are using for these proceedings.

You list in this exhibit that you have just authenticated a wall thickness of .250, SMYS of 33,000, A.O. Smith SMAW, which Mr. Rosenfeld testified to yesterday, joint efficiencies, and MAOP design, MAOP test, and MAOP of record. Is that correct? You follow me?

A That's what's included in the table, that's correct.

Q And I'm sorry. This is all preparatory to a question I want to ask you.

A No problem.

Q So the MAOP of design -- let's start with MAOP of test. The MAOP of test would have been the results that you obtained based upon your hydrostatic testing for that line, correct?

A That is correct. And that number

is the same in both columns, both columns being October 2011 and the updated specifications.

Q Okay. I didn't ask that question, but thank you for that editorial comment.

A My pleasure.

Q The MAOP of design to the immediate left of the MAOP of test, what does that number represent?

A The MAOP of design represents our conservative methodology and application as part of the MAOP project to retroactively apply the design equation for the specifications as articulated throughout the conversation we've had today.

Q And the MAOP of design that's shown in that column for Segment 109 and the MAOP of record are the identical figures 330; is that correct?

A That's correct.

Q Okay. So the MAOP is what you're asking for the Commission to authorize. My question is simply this. If the MAOP resulting from a hydrostatic testing, which is the gold standard in the industry, results in a figure of 404, why aren't you asking for a MAOP of record of 400?

WITNESS JOHNSON: A We are asking for

a very conservative number at this point in time. But we acknowledge that the MAOP of test is 404. And in theory we could be asking for 404. But also as part of the PSEP program we said we would validate the existing MAOP, which previously was 400.

Q And if you could just, summarily if you wouldn't mind, explain to me the conservative factors that you're using that results in your decision to only ask for 330 and not what your hydrotest shows this pipe is safe to run at?

A Well, all the issues are conservative factors. So we have talked about Segment 109 at length here. We've talked about the fact that the SMYS that we're using for that line has actually been tested to be significantly higher than our conservative assumptions. We have talked about using a joint factor of .8, which under the federal guidelines we wouldn't normally use for calculating hoop stress. So that's another conservative assumption.

WITNESS SINGH: A And the third one I'd like to add on top of that is the point that Mr. Malkin made earlier today is the strength of the weld versus the strength of the base metal at that specific location

where the leak occurred, which we analyzed, which is part of Segment 109, validated that joint efficiency factor of 1.0. We still continue to use the conservative assumptions.

Q Mr. Singh, thank you for that. I don't think that Mr. Malkin is testifying. So could you please explain in your own words what you meant by that statement.

A Sure. So if you take a look at the -- one of the Anamet reports, one of the many documents we filed as part of this proceeding, it includes the metallurgical results for the section of the line that was removed so we could conduct the root cause analysis of the leak.

The metallurgical properties showed that the minimum yield strength for the base metal was lower than the minimum yield strength for the actual weld metal, and the weld metal is where the seam comes together for the respective pipe as it's rolled. And that's a proxy for or an indication where the weld metal has a greater strength than the base metal that the joint efficiency factor does not have to be derated.

Q So if I understand your answer, there is a difference in the yield strength between the base metal and the actual weld

itself, the longitudinal weld?

A That's correct. That's what's stated in the metallurgical report.

Q And you're using the most conservative of those two factors in doing your verification for line -- for Segment 109?

A We are actually not using the result from the metallurgical analysis, which is higher than what's used here to do the calculation. The reason we use 33,000 is the fact that it's been our historical procurement practices and we have contracts that state that the A.O. Smith pipe that we procure and have procured, minimum value is 33,000 psi. Mr. Harrison, I believe, was under oath when he did talk about that issue.

Q Okay. So just so I can make sure I understand this. You could come to the Commission with the information that you have, the testing that you've done, and in your engineering opinion you could ask based upon the hydrotest, which again is the gold standard we've all been talking about, you could have asked for an MAOP of 400 psig. Is that correct? But you chose to employ more conservative assumption, and that's why you're asking for less than 400?

WITNESS JOHNSON: A As I stated earlier, I believe we have the right to ask for 400 if we chose to based on everything we've talked about previously at these hearings. And we chose to be very conservative in all of our assumptions, and that's why we're only asking for 330.

WITNESS SINGH: A And I would also actually like to reinforce that in an assessment. It's not just PG&E's position. One of the leading experts that's been a witness and the letter that was submitted by Mr. Rosenfeld on behalf of Kiefner & Associates also speaks to this issue that the line has been validated to 400 psig.

Q Some of the reasons for your conservative assumptions are your understanding and PG&E's records showing the type of pipe that you purchased -- let me rephrase that.

Is the reason that you have employed a conservative assumption on your otherwise hydrotested MAOP the fact that you are aware of other pipeline feature characteristics which you believe warrant a more conservative approach to establishing pressure?

For example, we know that one

portion of Line 147 is A.O. Smith pipe. In yesterday's testimony Mr. Rosenfeld, excuse me, testified that he didn't know where that pipe came from, didn't know when it was reconditioned, how it was reconditioned, where it was purchased, who purchased it, but it is A.O. Smith pipe, probably manufactured before 1930.

Would your employment of conservative assumptions take that into consideration?

WITNESS JOHNSON: A I think you're referencing, again getting right back to this PRUPF conversation again. Is that what you're -- in terms of how we apply our conservative assumptions? Is that your question?

Q I'm sorry. I'm just asking where -- what's the source of your desire to employ more conservative assumptions in coming before the Commission asking for an MAOP certification? What is the source of that reason? Why in your engineering judgment do you feel it's important as the chief officer of PG&E to come in with a certification that is below what the MAOP would otherwise permit?]

A Well, just as we did in the first

request at 365 pounds, we came below because we agreed to use, and we believe we should be using, conservative assumptions. We talked about being conservative in our decision making, and that is the whole basis of all the discussion we had earlier today.

We said we would calculate MAOPs as an interim safety measure prior to hydrostatically testing pipelines. That is the driver for going through that calculation. And from our standpoint, we are trying to be very conservative.

Q So the 330 psi is the appropriate pressure based upon your expert engineering judgment. Is that correct, Mr. Johnson?

A At this point it is the pressure I am requesting based on everything I've seen, and it is a conservative number. I believe we still have the right to ask the 400. I'm not asking for it at this point in time.

Q Okay, let me try a hypothetical. Hypothetically, if Segment 109 of Line 147 were seamless pipe with a joint efficiency factor of 1.0, would you still be requesting an MAOP of 330?

A I would have to go back through and look at any other constraints that might be on this pipeline, different segments. And

what we calculated there, and whether or not we are sticking with our conservative assumptions. It might change, it might go up.

You mentioned the seam -- it would be a seam factor of zero, I mean 1, if it didn't have a seam, quote, seamless pipe. But I would want to look through that entire document again, and I would want to make sure I understood all of our conservative assumptions, and I would make my judgment then.

Q So in your engineering opinion, sir, as you sit here today testifying, the existence of information regarding a particular pipe segment does enter into your decision regarding whether to imply conservative factors in your overall engineering judgment. Is that a correct statement?

A Well, I'm not sure I understood. I looked at all the issues that I mentioned at the beginning of this in putting together my judgment in what we are asking for. And coming into this one, we decided to be, I decided to be very conservative.

And so I've looked at all the issues, and one piece of that is looking

through the pipeline features list. But it is also looking through a lot of the other documents that I mentioned earlier including the MAOP documents, including the leak surveys, including the patrols, including having conversations with Mr. Kiefner, looking at the shrink test pressure reports.

As I stated earlier, we are asking for 330. I'm very, very, very comfortable with that number. This pipeline has already proven itself well over 600 pounds. It can operate, in my opinion, legally at 400 pounds. I'm asking for 330.

Q Earlier today Mr. Malkin, again he was not testifying, he was offering argument. It was either on the record or off the record. I don't recall. He made a statement to the effect that PG&E employs conservative assumptions in, again, I think this goes to the pipeline, the unknown pipeline features at issue that we talked about yesterday. I have a very specific question.

Mr. Malkin referred to purchasing records of PG&E and said something to the effect that PG&E has looked through its purchasing records and never acquired AO Smith which had a SMYS of 33,000. I think that was something he said. I'm not

questioning so much Mr. Malkin, the accuracy of what he is saying, I'm asking you this question, sir.

As the chief engineer of PG&E who is responsible for this certification, do you specifically look at things such as when you have unknown pipeline features, purchasing records of the company, what type of pipe you purchased over what period of time when this particular piece of pipe was installed? And can you make general assumptions about the quality of that pipe based upon that information?

A What I have looked at, I have seen some of the purchase documents when we started the MAOP process and we started the PRUPF discussion on how to put that together. I saw some of those documentations. I didn't look at all of them.

I do have a lot of conversations with Mr. Singh, Mr. Harrison, and many other people doing that work. And so we have had dialogue about that, but I haven't personally reviewed each one of those documents.

Q But you would expect the people who report to you so that you could make a decision to have reviewed that information?

A Well, in terms of what is in the

PRUPF document?

Q Yes?

A I mean I think that Mr. Singh has clearly articulated what has gone into those documents in the past.

In terms of wanting to know the strength, and if we are talking hypothetical again about AO Smith pipe, if we are still on that line, we had conservations with Mr. Harrison. And Mr. Harrison has stated we have tested this pipe under numerous circumstances. And each and every time I believe he stated that the strength was well above 33,000 psi.

This particular test, adding again to the confidence level, is we tested this pipe and I believe it came out at 39,000, I believe it was 300, subject to check. So that is the kind of -- that is the kind of discussions I have had in preparing for signing the document and reviewing all of the -- all the information that went into this filing.

Q Mr. Singh, you looked like you wanted to add something to that answer?

WITNESS SINGH: A The only thing I wanted to add is if there is a general question about the quality of the AO Smith

pipe, how it was manufactured, how it was developed over time, how it was tested over the mills, I think Mr. Rosenfeld spoke to that on Monday, Mr. Rosenfeld is still here. If there is any questions in regards to the actual strength of the pipe, what type of testing they did, I believe he testified, and go back and look at the transcripts. We can also look at the October 18th letter that Mr. Kiefner, or Kiefner & Associates, and Mr. Rosenfeld submitted. In that it states that AO Smith pipe was one of the higher quality manufacturers of line pipe during their era.

Q Mr. Singh, earlier today Mr. Malkin objected to a characterization of your testimony that I made in an off-the-record comment, I believe. I can't find the portion of the transcript where you actually said these words, because we just got the transcripts this morning. But I believe you said something to the effect that, with respect to AO Smith pipe, that that pipe may have been pipe that was acquired from other utilities. Do you recall making that statement?

A It would be great if you can point me to a specific section in my transcript.

Q I can't. To your knowledge has

PG&E acquired AO Smith pipe from other utilities?

A I think Mr. Harrison would be more appropriate to answer that question. Because I haven't looked at every single purchasing record associated with 6,750 miles translating to more than 4 million individual documents. I personally have not reviewed every single document to be able to make that statement.

The fact that we had a successful strength test, a spike test, does not concern me. We monitored to ensure line doesn't yield, which we also talked about at length. So it does not concern me that that is weaker pipe. And if it was weaker pipe, we would have identified that as part of strength test. That is why we strength test.

Q So I know we've talked about this quite a bit. But basically what you are saying, if I interrupt it correctly, while it is good to find the original records for the purchase of particular segments of pipe to validate the information that you have in your database with that information, ultimately it is the strength test or the hydrotest that is the standard by which PG&E uses to file its verification by you guys

under penalty of perjury that the pipeline in question is -- can be operated at the MAOP? I mean it is ultimately the strength test, the hydrotest you are relying on?

WITNESS JOHNSON: A So that we are very clear on this, Line 147 for the segments that were built before 1970, that is the information we are using.

Q Okay. So isn't it true from an engineering point of view that all pipeline features are not validated by a hydrotest?

A I'm sorry, your question again?

Q Isn't it true from an engineering perspective that not all features of a pipeline are actually validated by a hydrotest?

A There are multiple types of tests that can take place on a pipeline. So hydrotest is not the only one.

Q Would you -- would a hydrotest tell you the load capabilities of a miter in a pipeline?

A Would it tell you the, I'm sorry, what capabilities?

Q Would a hydrostatic test provide sufficient information for you to validate the integrity of a miter bend on a piece of pipeline? In other words, is hydrotesting

the way to test the integrity of a miter bend?

A Well, a hydrotest is a way to test the integrity of a pipeline to be capable of holding a pressure that it is operating under. So, again, 400 pounds hypothetically, you test the 600, you know that pipeline system from Point A to Point B is capable of handling that pressure. That is what a pressure test or a hydrotest in this case does.

Q I understand that. Thank you for that.

But are there structural elements in a pipeline such as a miter bend or such as a bell that -- a bell joint, where a hydrotest is not the best means of assuring the integrity of that particular feature, that you do other testing?

A When you refer to "integrity "what are you representing?

Q Integrity of the line to withstand the pressure that you are operating in?

A If you are looking to understand if the pipeline can hold pressure, you do a pressure test.

Q Did you happen to do any special tests on miter bends on Line 147?

A "Any special test"?

WITNESS SINGH: A So in the response that Mr. Rosenfeld also provided I believe on Monday, he did mention that we did do a structural analysis on the open span which included the miter bend. I'm not sure if that is your question.

Q It is my question. Why did you do that?

WITNESS JOHNSON: A Why did we do a structural?

Q Yeah.

A Well, it is just part of the overall assessment. You have a span, right? It is aboveground. And so one of the things you do on spans, you look at the structural integrity of that span. You are aboveground. So you will take a look at that.

Q And Mr. Rosenfeld, I think as Mr. Singh pointed out, also included it in his explanation that that included the miter bend as well?

A Yeah, I would have to reference back to it. But if that is what is in Mr. Kiefner's, or Mr. Rosenfeld's statements, then that is in his statement.

Q Gentlemen, I'm not trying to trap you in debating the point here. But I'm just

trying to understand that hydrotesting may be the gold standard for the circumferential pressure within a vessel. But it is not the only test that you do to ensure the integrity of the pipeline. Is that a correct statement?

A There are other things that you do to continue to ensure the ongoing capabilities of the pipeline, leak survey, controls and inspections, monitoring for dig-ins, cathodic protection, all those type of things are the things you do on an ongoing basis.

Q Okay. In your verified statement before this Commission you are saying that you've done all those things necessary to support your conclusions?

A I am comfortable that we've done everything necessary to operate this pipeline at 330 pounds. I believe that is the essence of my verified statement.

Q Okay. Well, thank you for that.

Mr. Johnson, you are familiar with the Decision 11-09-006 that we've been referring here today?

A I am not familiar with decisions by decision numbers. Those aren't things I put to memory.

Q Well, it is the decision adopting procedures for lifting operating pressure restrictions. Are you familiar with that document?

A I have seen it. I don't have it in front of me. I'm not intimately familiar with it, no. I've read it, but I don't have it to memory.

Q Okay. I don't want to offend you, but you are the guy certifying under this order. I would think that you would know it. But that is okay.

MR. MALKIN: Your Honor.

ALJ BUSHEY: Mr. Meyers, can we focus on answering questions and leave the editorial comments behind.

MR. MEYERS: Q Mr. Johnson, are you aware that the City of San Bruno proposed in this proceeding, and it is referenced in the decision on page 5, the City of San Bruno proposed to the PUC that they adopt a remedy or a requirement that the operating pressure be validated by independent experts and then reviewed in a public process by the Commission?

A I recall reading that in some of the testimony. I don't remember the exact words.

Q I think we've referred to the term as "independent monitor." Have you heard that term used?

A I have heard the term used, yes. I have not had any conversations about an independent monitor.

Q Do you know whether PG&E supports the concept of an independent monitor to validate MAOP?

A I don't believe we have any reason to need an independent monitor to validate the MAOP. We have the Commission, we have PHMSA, we have SED as part of the Commission. We have numerous parties looking over to try to validate anything that PG&E does.

Q So as the chief engineer for gas for Pacific Gas and Electric, if Mr. Johns comes to you and asks you your opinion whether you recommend that PG&E sign on to a proposal to have an independent monitor, what would your recommendation to him be?

A Without understanding what the independent monitor was really going to do, if you are -- hypothetically, I'm going to hypothetically answer that question --

Q Please.

A -- I would say I don't think it is necessary.

Q Thank you.

A I think we have plenty of agencies that have already had the capabilities of looking at anything we want to do. We have the CPUC, we have the SED portion of the CPUC, and we have PHMSA.

Q Mr. Johnson, we made a data request of PG&E that unfortunately has not been responded to as we sit here today. So I'm going to ask you a question relevant to that that bears on this issue of certification. Mr. Singh, you can please answer this as well, if you could.

Are you aware of any circumstances with respect to your MAOP validation where the field information is different than the records maintained by PG&E concerning that particular piece of pipe, or whatever it might be? In other words, are you aware of any circumstances where PG&E has discovered, in the course of doing its MAOP validation, a discrepancy, such as we have here on Line 147, between the data in your system and what you found out in the field? Are there any other circumstances like Line 147 that you are aware of?

A Well, I think in respect to Line 147 we found that as part of, as we termed

it, a routine leak survey, somebody standing by. I'm not familiar with any other time that we have found information in that manner. I'll let Mr. Singh add to it. But we do data validation digs to exactly verify what is in the ground.

So the answer would have to be yes, we have found things that may differ from the records, and this whole purpose of those digs is to validate that. That is the purpose of a validation dig.

WITNESS SINGH: A Just to add on to that, that is part of the MAOP project. That was one of the things that we were doing. We were -- performed excavations to identify specifications. And that is part of the process and the procedure that we laid out previously as well. As we do excavations to perform work on our system, safety-related work as part of the Pipeline Safety Enhancement Plan, or any other work, we validate the information that is in the field with our records. It is a process, continuous improvement process.

Again, it goes back to the same aspect that we stated in terms our methodology back in March 21st of 2011. Nothing has changed since then.

Q Are you familiar with Line 210C, as in Charlie, in Vallejo?

MR. MALKIN: Objection, irrelevant.

MR. MEYERS: Your Honor, my question is going to go to the veracity of the witnesses. I'm going to ask a question about this particular line because what was covered with respect to that.

ALJ BUSHEY: Mr. Meyers, you are going to impeach the veracity of these witnesses?

MR. MEYERS: I'm going to try.

ALJ BUSHEY: All right.

MR. MEYERS: Q Are you familiar with line 210C, as in Charlie, in Vallejo?

WITNESS JOHNSON: A I am, in general, familiar with the location of that line.

Q And is it correct that the -- that PG&E inspected that line and determined that the line interior walls were less than expected and has now replaced that line?

A I believe what you are referencing is we ran a tool, if I understand your question correctly, we ran an ILI tool through the line looking for wall thickness, looking for information on the pipeline, including external and internal corrosion, and a multitude of other things, including dents.

And during that ILI pig run, there was some pipe found to be different than what was in the records. And that pipeline segment, I don't recall exactly how long it was, was replaced in relatively short order, as I recall. I don't have all the details to memory, but it was a project our team took on.

Q Mr. Singh, anything further on that?

WITNESS SINGH: A I have nothing else to add to that. The tool, on just a clarification point, the tool that was run as part of that was an in-line inspection tool. That is clearly a method, that is something that is part of the Integrity Management Program that we have within PG&E. And that is something that we are going to continue to do on our lines that are piggable, and we continue to make more of our lines piggable to exactly identify those types of issues.

Q Is line 147 piggable?

WITNESS JOHNSON: A At this time I don't -- well, one thing, no, Line 147 cannot be pigged today at 125 pounds with no valves open. I don't know of a tool right now that could be run through that system, and certainly not at the lower pressures that we

are talking about that it is currently operating at.

Q As the head of Pacific Gas and Electric's gas projects, sir, would you recommend to management that they reconstruct Line 147 so it is piggable?

A We plan to get all -- in time, we will get all of our lines, certainly over greater than 6 inch, piggable. It is simply a matter of looking at which ones we make piggable first. I think Line 147 would ultimately be one of those lines. If there is segments or things that need to be done to the pipeline to make it piggable, we will go about doing that work.

MR. MEYERS: One minute, your Honor.

ALJ BUSHEY: We will be off the record.

(Off the record.)

ALJ BUSHEY: Back on the record.

Mr. Meyers.

MR. MEYERS: One final set of questions, if I might.

Q Mr. Johnson, you are aware of the NTSB's urgent Recommendation P-10-3 issued to PG&E as a result of the San Bruno disaster?

WITNESS JOHNSON: A They had numerous recommendations to PG&E. I don't have them memorized by number at this point. That was

quite some time ago.

Q Would it refresh your recollection if I told you that this recommendation had to do with MAOP validation and traceable, accurate, and verifiable records?

A I think there were several tied to that concept.

Q And do you know whether that recommendation has now been cleared by the NTSB?

A Which one are you specifically referring to?

Q P-10-3 MAOP validation.

WITNESS SINGH: A I can try. I am familiar with that recommendation as well as P-10-2 and 10-4. And my understanding is, subject to check, that P-10-2 and 3 have been closed by the NTSB.

Q Mr. Singh, thank you for that.

Do you recall that Chris Johns, President of PG&E, sent a letter to the NTSB on January 31st, 2013, requesting that clearance? Are you aware of that fact?

A There is many letters that have been exchanged with our executives at PG&E with the NTSB. So that may be one of the letters. I'm presuming you are looking at it. I don't have it in front of me. I will

have to take your word for it.

Q I guess my question, gentlemen, is whether or not in retrospect now you believe that your request to clear that recommendation to NTSB was made in good faith based upon the knowledge that you had in October, the information concerning Line 147 was not accurate?

WITNESS JOHNSON: A I believe if we made that recommendation, we made it in good faith.

Q That recommendation was made in January of 2013, and yet you had information concerning the discrepancy in Line 147 in October/November of 2012?

A As Mr. Singh has stated and we stated here many times, this is an ongoing process to get records better and better. At no point does that necessarily invalidate all the work that has gone on to improve records. As we've said, we believe our records are in very good shape, but it is a continuous process to get better and better. As we dig up pipelines, we will know more and more.

Q Mr. Singh, I ask you the question whether or not you are aware of any efforts that PG&E has made either orally or by correspondence with the NTSB to correct the

record with respect to your MAOP validation?

MR. MALKIN: I'm going to object to the question, your Honor, on two grounds. First, it assumes facts not no evidence. Namely, the record, quote, needed to be corrected.

Secondly, we are veering further and further from Line 147 which I thought Mr. Meyers committed earlier he was going to limit his questions.

ALJ BUSHEY: Mr. Meyers, the NTSB declaration is not on the list in Ordering Paragraph 4.

MR. MEYERS: I was wondering how long you would let me go.

ALJ BUSHEY: Thank you, Mr. Malkin, for saving me.

Who is next? Mr. Gruen.

MR. GRUEN: No, we don't mind if ORA goes before us, your Honor. If that is okay with you.

MS. PAULL: Because we have very limited cross.

ALJ BUSHEY: Okay, go ahead.

MS. PAULL: I have a couple of questions and Mr. Roberts has a few too.

CROSS-EXAMINATION

BY MS. PAULL:

Q Looking again, you may not need to

refer to the table in Exhibit I again, but look at it if you need to. The table with the updated specifications.

So looking at the table again for Segment 109 of Line 147 in your October 2011 pressure restoration filing the MAOP of design was 437. Is that right?

WITNESS SINGH: A That is what is stated here.

WITNESS JOHNSON: A That is what is stated on the document.

Q Okay. Now, the updated MAOP of design is 330, correct?

A Correct.

Q Now let's look at the MAOP of test for October 2011. It is 404, right?

A That is what is showing on this table, yes.

Q And the updated has not changed, right? It is the same?

A That is correct. It wouldn't change. They are based on the hydrostatic test. The hydrostatic test didn't change.

Q Okay. But is it your testimony that you are not now requesting 330 instead of 365 because the MAOP of design is 330?

A What I believe I stated, we are asking for 330 because we are being very

conservative on our request. We believe we have the right to ask for 400 based on the previous MAOP. But based on our very conservative assumptions, at this point in time we are asking for 330 pounds.

Q If the design MAOP is lower, I thought we had covered earlier, I thought you had agreed, you can correct me if I'm wrong, that under federal regulations 619, 192.619, the operator has to choose the lower. If you have test MAOP and design MAOP and the design MAOP is lower, you choose lower. Is that not your understanding?

A I believe what we said earlier, maybe I misunderstood the question, but when you talk about design of a pipeline, that is for pipelines built after 1970 when the code went into place. So this line was built earlier than that.

Q And that is the basis for your belief that you are legally entitled to set the MAOP at 400?

A I believe we can request 400 based on the codes that are in place today.

Q I see. And just to clarify one more thing about that. The basis for your belief that you can legally set the MAOP at 400, you are not relying on the Commission

decision that ordered PG&E to go out and validate MAOP through testing or replacing, are you?

A Well, at the federal level we have grandfather. We've already talked about that.

It is clear, I'm not going to put words into the ALJ's mouth, but it was the decision here that the State of California is getting away from grandfathering. And to validate the MAOP of the pipeline specific to Line 147, MAOP of that pipeline prior to this was 400 pounds. To validate the MAOP of that pipeline, we would conduct the hydrostatic test to verify that MAOP was safe. For this pipeline it would be 600 pounds or greater, which is what we've done for the pipeline segments. As an interim safety measure, we said we would go about a calculation of the MAOP as an interim safety measure prior to the hydrostatic test. That is, in essence, my understanding what we've agreed to.

We've completed the MAOP activity, and we will continue to get better at that. Now we are going through the process of pressure testing any of our pipelines that have not been previously tested.

Q Thank you. We got far afield I

though I think. My question is actually very simple.

You don't interpret the Commission order to require you to validate MAOP by strength test only --

A No.

Q -- do you?

A No. We have been -- we are getting rid -- the State of California wants to get rid of the grandfather clause, not strength test, pressure test. We've been ordered to pressure test all of the pipelines that have previously not undergone any pressure testing.

Q Thank you for that correction, pressure test.

But do you --

A Under that order is the process we are going through.

Q So is it your belief that the Commission ordered, directed PG&E to validate MAOP on the basis of pressure test only and gave PG&E permission to disregard design MAOP --

MR. MALKIN: Your Honor?

MS. PAULL: -- in the MAOP validation process?

ALJ BUSHEY: Sustained.

Ms. Paull, we have Ordering Paragraph 4. There is a list of items in there. Nowhere in that list does it say an interpretation of Commission's previous decisions.

MS. PAULL: This goes to F, your Honor, the MAOP validation which we've been talking about.

I'm just trying to understand the basis for Mr. Johnson's as belief that PG&E could, if it wanted to, set the MAOP at 400.]

ALJ BUSHEY: F says their proposed maximum operating pressure and maximum allowable operating pressure for each segment in the entire line.

MS. PAULL: That's exactly what I'm talking about.

ALJ BUSHEY: That's a number. We know exactly what the number is. It's 330.

MS. PAULL: I was asking to clarify.

Q Are you proposing 330 because that's a design MAOP? And I believe your answer is no.

ALJ BUSHEY: Ms. Paull, it's not on the list. He told you what the answer is. 330. That's what they're proposing. That's Item F. I'm sure there are probably thousands of reasons why they propose 330. The point of

this list is what are they proposing. 330.

MS. PAULL: Okay. We know what they're proposing.

ALJ BUSHEY: Good. That takes care of Item F.

MS. PAULL: Do you really think so, your Honor?

ALJ BUSHEY: That's what it says. Proposed MOP and MAOP for each segment.

MS. PAULL: Doesn't what the Commission need to determine what MAOP is required?

ALJ BUSHEY: No. We need to know what their proposed is. This is what they have proposed.

MS. PAULL: And I was asking the basis for the number they're proposing just to clarify because we have --

ALJ BUSHEY: Ms. Paull, we've been over this for now we're -- well, into our third day of this.

MS. PAULL: I actually think I got an answer to my question. I actually think it's very relevant, your Honor.

ALJ BUSHEY: Okay. Thank you for that opinion. Do you have any further questions for this witness?

MS. PAULL: No, but Mr. Roberts does.

ALJ BUSHEY: Okay. Mr. Roberts.

MR. ROBERTS: I think these will go hopefully very quickly.

CROSS-EXAMINATION

BY MR. ROBERTS:

Q Good afternoon, gentlemen. You had just mentioned a moment ago, Mr. Johnson, that the use of assumed values was an interim measure. And the word "interim" in that case, did I understand correctly that it's of use until you hydro test. But then once you've hydro tested, that interim measure -- that's the end of the interim period? If I'm not correct, please define "interim".

WITNESS JOHNSON: A I think -- I think when we use the term, "interim," we're talking about until the pressure test is done. So I don't have the exact wording of all the rulings that have gone on, but in my words, we did the MAOP validation based on very conservative assumptions as an interim safety measure until we can pressure test every piece of pipe that previously has not undergone a pressure test. And I believe that's the essence of the requirement.

Q Okay. Thank you. Now, I just have a follow-up question on the City of San Carlos' discussion about safety factor. And I'd like to ask you to turn to page A-60 of

Exhibit A to PG&E's October 11th filing?

A I don't think we have Exhibit A up here.

MS. PAULL: It's the safety certification.

WITNESS JOHNSON: Okay. Exhibit A. Where is Exhibit A? The whole thing is Exhibit A. Okay. What page was it?

MR. ROBERTS: Q Page A-80 -- page A-60.

WITNESS JOHNSON: A A-60. Okay. So we're back to the PFL.

Q Correct.

A MAOP report. I'm sorry.

Q MAOP report, yes.

A Okay.

Q In the Decision that we've been talking about and the specific area that the ALJ asked us to look at, Item A of that asks for the percent specified minimum yield strength at MAOP?

A I'm sorry. Item A being where now?

Q This is -- so I'm actually taking a small step back. Decision 11-09-006 had asked that if you want to raise -- to restore pressure, you need to provide the percent specified minimum yield strength at MAOP. So the judge handed out a copy of the Decision.

I thought you might have that or if that sounds familiar --

A I wasn't up here when it was handed out. Go ahead. Your question.

Q So the judge asked for that. And in the page I just asked you to look at the one, two, three, fourth column from the right provides a column entitled, "Percent SMYS per R." Do you see that?

A Yeah.

Q Okay. Is the percent SMYS an indication of the factor of safety for each of these features?

A It could be.

Q Okay.

A It could be. I mean, we're using very conservative assumptions; right? So this would be a calculation, and so that would be a starting point. We're using specified minimum yield strength, that's a safety factor there. That's the minimum yield strength of the pipe. We're using joint efficiencies that are below necessary requirements, and we're using strengths below. So there's safety factors on safety factors on safety factors. This would be one indication of a specific safety factor.

Q Well, that column in particular is

summing the information to -- from the left of that, and aren't those values the overall safety factor that is provided for each of those features given your MAOP of record?

A I'm not sure I understood that question again. So we've got --

Q So all the assumptions --

A -- a joint efficiency factor.

Q Correct.

A Right? So there's conservative assumptions in there.

Q Yes.

A And then there's the test pressure.

Q Uh-huh.

A Right? So there's conservative assumptions. We've tested well above the operating pressure. Is that your question?

Q My question is I would understand the percent SMYS per R to be a measure of the factor of safety provided by the MAOP of record that you've requested, which is 330, and that that number encompasses all of the other conservative decisions you've chosen to make. So for example, the decision to use a conservative SMYS, the decision to use a conservative joint efficiency factor, and it also incorporates the joint MAOP of test because that is the higher than the MAOP of

record.

So what I'm asking is is one measure of the overall factor of safety for the features of this line -- is the percent SMYS per R a metric to tell us what the factor of safety is?

A I guess in very rough terms you could do that. Yes, there's a hundred percent SMYS; right? So if you're at 50 percent of a hundred percent of SMYS, you've got a safety factor, if you want to use math, engineering terms -- it would be two.

Q That was actually -- yes.

A That was the conversation. What I don't think is incorporated in that the SMYS itself a conservative number. I'm going to use hypothetical numbers. If the SMYS was at 100 and we said this was operating at 50 percent, that would be 50 of a hundred, safety factor of two. That SMYS because of conservative assumptions may be 150. Does that make sense?

Q Uh-huh.

A Because we've used conservative factors together. So this is one very conservative way to look at it.

Q Okay.

WITNESS SINGH: A The one thing I would like to add on to that is in this calculation -- Mr. Rosenfeld also spoke to that -- there's also an inherent conservatism built into the methodology. And that methodology includes the use of the joint efficiency factor. And the joint efficiency factor is based on seam type as you can see in this report. And this number represents the actual hoop stress of the line.

And we've been talking a lot about the federal code and the interpretation, and Mr. Rosenfeld provided that. He cited a specific letter in our workshop yesterday as well, and it's publicly available on PHMSA's website. It was a 1979 letter which PHMSA clearly stated that the hoop stress equation do not use the joint efficiency factors. The joint efficiency factors is .8 to .6.

We're still using a value of 1.0, but our conservative methodology uses the joint efficiency factor. So to the point Mr. Johnson made earlier, it's safety factors on top of safety factors on top of a conservative methodology to do the arithmetic calculation.

Q So based on what you just said, are you saying that the factor of safety for

features in the middle of this page, which currently show -- they show a percent of SMYS at 50 percent. Do you believe that the actual factor -- and by 50 percent, that would imply a two time safety factor.

Because there's conservatism built into some of these other numbers, is the actual factor of safety in your mind higher than two?

WITNESS JOHNSON: A Yes, I would expect it to be higher than two if you use the equations as Mr. Singh just pointed out --

Q Uh-huh.

A -- and if you really look at what is really the strength of the material you're looking at.

Q Okay.

A And I think we shared that on Segment 109 we're using 33000. Clearly the test showed -- 39,300 I believe is the number. So right there you've got a significant safety factor.

Q So now I'm -- and I'm almost done, your Honor.

Now I'm going to ask a hypothetical about a piece of pipe here that says A.O. -- any of these in the middle of the page that

say A.O. Smith pipe.

A It's not a hypothetical if you're pointing to a piece of pipe. Just tell me what piece of pipe you're looking at.

ALJ BUSHEY: Mr. Johnson.

THE WITNESS: I'm sorry.

MR. ROBERTS: Q Let's start with a real set of data on your element of the PFL, which is any of the ones that say A.O. Smith pipe that have a design MAOP of 330 and a calculated percent SMYS of 50. There's many of them. You can pick any one of them.

WITNESS SINGH: A Okay.

Q Now we're going to go into the hypothetical situation. This table shows a SMYS of 33 percent. What would the calculated percent SMYS be, everything else --

WITNESS JOHNSON: A I'm sorry. This table does not show 33 percent.

Q 33,000 PSI, I'm sorry, for SMYS.

A Okay.

Q If instead of 33,000 we used a stronger pipe with a SMYS of 66,000, everything else being equal, would the calculated percent SMYS now go to 25 percent or would that stronger pipe provide a factor of safety of four?

A At least, yes.

Q Okay. Just one other question, then. And now I'd ask you to turn to page A-183, which is into the hydro test report.

A Okay.

Q So we're not going to talk about the slopes of this curve today. Thank you for going over that yesterday. What I want to look at is the relative position of the actual line relative to the calculated expected yield curve, the straight line. And my question is fairly -- I hope it's simple.

We -- we agreed in the workshop that this curve does not show yielding, that the -- that the pipe did not yield during the spike test on Test T43B; correct?

A Correct. There has been no yielding in any of the hydro static testing that we've done.

Q Does the PV plot or any other data in the test report show how close you came to yielding?

A Well, I don't -- I don't know that you can say how close you came to yielding. I mean, you're looking for yield. We have no reason to believe we're even close to yield. So I mean, if you wanted to roughly look at it, you can probably, you know, look

across -- and what is that? 700 and -- 740, 750 pounds.

Q Uh-huh.

A And the line that was expected -- that in theory would yield at; right, in theory -- and there's a lot of issues with that -- is the red line. So you've got -- what? 200 and -- 200-plus pounds before yield in this particular case.

Q So if all the pipe were as expected when they calculated that expected yield, you are very far from what you expected yield to be in this test?

A Oh, yes, absolutely.

Q Okay.

A I mean, this is -- this is -- we only tested to 600 pounds; right? Other than -- there's some segments we tested to -- 1,200 pounds I believe was the number we saw earlier. So yeah, it's not -- it's not -- it's not anywhere close to where we expect to have yield.

Q But if -- and now I will go hypothetical. If there were a piece of cast iron or something with a very low yield strength, this curve wouldn't tell us how close we got to that. It would only tell you you did not achieve yield; is that correct?

WITNESS SINGH: A Let me answer that question. First of all we don't use cast iron pipe.

Q It's a hypothetical.

A And if we had a material like cast iron pipe, it would not be able to withstand this type of pressure. It would actually not pass the hydro test --

Q Okay.

A -- according to my understanding. And we have to look at the material properties. And I'm not going sit here and have that engineering discussion about what the material properties are of cast iron, what the minimum yield strength is, what is the wall thickness. Maybe there's pipe manufactured that can withstand that, but we do not use cast iron pipe at they pressures.

Q Okay. So I did preface my question by saying this is a hypothetical. I was just trying to look for my data to what type of pipe would have a significantly lower yield strength. So forget about the type of material. But if there was a material in there that had a significantly lower yield strength, this plot doesn't show how close you same to that. It only shows you did not achieve yield?

WITNESS JOHNSON: A Well, if you hypothetically were looking for a lower -- a lower SMYS piece of pipe, which is what I think you're stating -- is that what you're stating?

Q Correct.

A This red line would drop down. The theoretical -- based on that information, the theoretical yield on that pipe would drop. Here I said roughly it's 200-plus pounds. If that red line dropped, it would be less than 200 pounds. You would get a relative feel for it.

Q That would be if you knew what the material was and could calculate this value.

A You just hypothetically told me what it was.

Q I didn't. All I said was hypothetically if a material is in there that you don't know has a significantly lower pressure at which it would yield, this curve wouldn't tell you -- you wouldn't have a valid red line. You wouldn't know where the red line was. And this curve doesn't tell you how close you came to the actual red line. It only tells you you did not cross the red line; is that correct?

A I don't know if it's correct. I

didn't quite follow you. Was there a question?

Q Yes. Does this yield tell you -- does this curve tell you how close you came to actually yielding every part of the pipe under test?

A Well, so the yielding of a piece of pipe under test -- the weakest link will yield --

Q Correct.

A -- the one with the lowest SMYS in theory. This curve clearly shows there's no yield. And I think we've gotten through that.

Q Yeah.

A Where you draw your red line is where you -- where you believe you have potential yield based on the information you have.

Q Understood.

A Okay. Good.

Q But what -- what you didn't address is if we don't know the material -- so in the case -- when this test was performed, you had not yet had the leak on 109 and you didn't know some of the characteristics of pipe in this test, T43B, were different than you thought.

And in that case, this -- for those segments, the red line is not applicable and you wouldn't have known during the test what the expected yield was. What I'm asking you is -- is I think pretty straightforward. This is actually a -- a kind of elementary question -- that a PV curve -- stress strain curve if you want -- if it stops at a place before yielding, it does not tell you how close you came to yield, only that you did not yield; is that correct?

WITNESS SINGH: A That's irrelevant because you've -- because you've actually done the strength test, and you've validated that margin of safety. And how close you come to yield is -- is really irrelevant. And again, we could have Mr. Rosenfeld, who is the industry expert, talk about that.

MS. PAULL: Your Honor, could you please ask --

ALJ BUSHEY: Let me interject here. First of all, I don't think it's an elementary question. I think it's more of differential equations type question. But I think that it's a straightforward questions that if the red line isn't there, the information that you have doesn't tell you what's going to happen in the next pressure

segment; right?

WITNESS JOHNSON: Right.

ALJ BUSHEY: Right. That's all.

MR. ROBERTS: Thank you. No further questions, your Honor.

ALJ BUSHEY: Mr. Gruen?

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

CROSS-EXAMINATION

BY MR. GRUEN:

Q Good afternoon, gentlemen. If we could turn back to the popular Exhibit I, last page? I'll go with the crowd. And the line that -- that indicates Segment 109, do you have that in front of you?

WITNESS JOHNSON: A Yes, we have the same document in front of us.

Q Same document. That's right. And under the second column where it says, "length," the number there indicates 1,327; is that correct?

A That's correct.

Q And that's in reference to feet; is that correct?

A Yes, that would be in reference to feet.

Q Okay. So continuing over on that line, I'm going to skip past the October 2011

as filed for pressure restoration broad column and go to the updated specifications column that Mr. Meyers defined earlier. And under that broad column looking at long seam, for Segment 109, the long seam is identified as A.O. Smith SMAW; correct?

A That's correct.

Q Okay. So we see here referenced, then, that the updated specs show 1,327 feet of A.O. Smith SMAW long seam. And I want to ask you how many actual feet of pipe from 1957 job installation can you absolutely without doubt state is A.O. Smith pipe?

A Is -- I'm sorry. You want to try that question again?

Q Sure. How many feet of the job installation from 1957 can you without doubt state is A.O. Smith pipe within Segment 109?

A Say without doubt? I -- I would -- if you're asking me to go back and pull the as-built drawings out and measure -- is that what you're asking me?

Q Let's ask it this way. Based upon visual inspection, what you have seen of the pipe -- either you or your staff has seen of the pipe, how much of it can you be certain that you have seen is A.O. Smith pipe?

A Well, we have -- I think the facts

behind this particular segment is we have the job. We have the job indicating how many feet it is. We did dig up one section at the front as you very well know; right? And we've seen segments at the back, so I think we're pretty comfortable that based on our records 1,327 is -- is accurate.

WITNESS SINGH: A Could I add something?

ALJ BUSHEY: Hold on. Mr. Gruen, what's the question?

MR. GRUEN: Q The question is actually how many feet have been observed within the section as being A.O. Smith pipe? I'm not asking about your records. I'm asking about what you've seen or your staff, the field personnel, have actually seen on the segment as being A.O. Smith pipe.

WITNESS SINGH: A So as part of the leak repair process, we would excavate a bell hole. On this particular one I don't have the actual inspection form in front of me. It's typically 8 feet by 8 feet or 10 feet by 10 feet. We have to go back and look at the actual inspection form. That also identifies what the actual length of the pipe was that was exposed as part of the repair process.

WITNESS JOHNSON: A So to answer that

question fairly, you would have to go back and pull all the jobs previously where you've specifically dug up the pipe. Is that your question? How many feet have we dug up and looked at? Because in order to do that, I would have to go pull the drawings and look and see what the size of our bell holes are for that job and the section of pipe and add it up for you.

Q So at this point though --

A We have not dug up all 1,327 feet if that's what you're asking.

Q So you cannot confirm all 1,327 feet are actually A.O. Smith SMAW pipe?

WITNESS SINGH: A That goes back to the conservative assumptions. At the point that the repair was made, we identified that this section of the pipe was A.O. Smith, had a .25 wall thickness as part of the nondestructive examination and and the inspection work that we do.

We went back, as Mr. Johnson articulated, to identify the pipe that was installed as part of that 1957 job, and for that entire section of the -- the length of that pipe, we assumed a lower SMYS value and a lower long seam value.

Q I understand.

A And that's exactly what we do, continuously apply the conservative assumptions.

Q That was -- that was far more than my question asked for but thank you for the --

A I apologize.

Q -- for the additional information Mr. Singh.

At this time, your Honor, I've prepared a packet of handouts so that they can be referenced. We only have to circulate them once, and they're provided so they can be referenced in an expedited fashion.

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

While we were off the record, we identified Exhibit N. It's comprised of seven different data responses from PG&E.

We're on the record.

Mr. Gruen, would you like to begin asking questions?

(Exhibit No. N was marked for identification.)

MR. GRUEN: Yes, your Honor. Gladly.

MR. MALKIN: I'm sorry. You said this

was N?

ALJ BUSHEY: N as in Nancy.

MR. GRUEN: Q Gentlemen, Mr. Johnson and Mr. Singh, do you have a copy of Exhibit N in front of you?

WITNESS JOHNSON: A Yes, we just received it.

WITNESS SINGH: A I do as well.

Q And referencing the first e-mail, this is a data response to Energy Division's Data Request 5, Question 2, Attachment 48. Do you see that?

WITNESS JOHNSON: A Well, I'm looking at the first e-mail, so that's where I'm at now.

Q Top right corner.

A Top right corner. Okay.

Q Are you familiar with this document?

A I'm -- I don't know. I have to go through and read it.

Q Mr. Singh, are you familiar with this document?

WITNESS SINGH: A I have to go back and read it as well.

MR. MALKIN: Your Honor, the question is ambiguous when Mr. Gruen asks this document. It is six and seven pages of

e-mails and attachments.

MR. GRUEN: Your Honor, I recognize that Mr. Malkin would like to harp on the volume of this document, but I actually just specified that this was Energy Division's Data Request 5, Question 2, Attachment 48. And the witness recognized it. There's not much question here about what the identification of the document is.

ALJ BUSHEY: But what part of this is relevant, Mr. Gruen? If you could just ask the substantive question?

MR. GRUEN: Yes, your Honor.

Q The -- could you read the first --

ALJ BUSHEY: No, Mr. Gruen. Don't lead them into the document. Ask them a substantive question.

MR. GRUEN: Okay.

Q Did you know that Mr. Harrison asked whether the pipe was at the Mile Post 2.2 was X-rayed?]

WITNESS JOHNSON: A At what point?

Q At the point where the pipe was excavated.

A You're talking about when we first found the weld? I don't remember the exact --

Q When you first found --

A Excuse me. First found the leak?

Q Yes.

A When we first found the leak I recall there was an e-mail of some sort floating around where somebody, and it may have been Mr. Harrison, asked, did we do any x-rays at that point in time. So I do recall that issue coming up. But again, the leak has been repaired and that whole segment has been cut out. So it's got nothing to do with the safety of the pipeline system.

Q Moving to the next document in turn, it's got the next cover page.

A Next cover page.

Q It says R.11-13-019 and Safety Enforcement Division. After that cover page it's an e-mail from Joe Medina to Bennie Barnes sent September 11th, 2013.

ALJ BUSHEY: Again, Mr. Gruen, it's not important that we read the e-mail into the record.

MR. GRUEN: Okay.

ALJ BUSHEY: What substantive issue?

MR. GRUEN: Q The substantive question, note from Sumeet on the second page that talks about the traceability regarding the potential installation and installation location of reconditioned pipe along Line

147.

And just a clarification for Mr. Singh. Does PG&E know whether it has reconditioned pipe on Line 147 in other locations beside Milepost 2.2?

WITNESS SINGH: A The only indication we have is what we've already stated through all the data requests. We don't have definitive, traceable, verifiable and complete records that it's reconditioned pipe. Based on all the testing that we have done, based on subject matter experts that have opined on this such as Mr. Rosenfeld, we believe that it is reconditioned pipe, but if you're asking, do we have traceable, verifiable, complete records that show the installation of that reconditioned pipe, the answer is no.

But do we believe now based on all the testing that we've done that it's likely reconditioned pipe? Yes. And this is the only location that we've come across on 147 with this indication. But again, we have stated this so many times, I don't have any concerns about the safety of the line. It's successfully strength tested. It's good pipe.

Q I appreciate that from both of you.

I haven't asked about the safety of the line here or any opinions. I'm just asking very narrow focused questions here.

A Okay.

Q So moving to the next document again, there's a placeholder that talked -- that is labeled R.11-02-019 Safety and Enforcement Division Hearing Exhibit is the next cover page for the next exhibit.

A I'm sorry. You moved on to the next cover page?

Q The next document.

WITNESS JOHNSON: A It's 11-02-019. Is that what you said?

Q They're all the same cover pages.

A That's very helpful.

MR. MALKIN: It's the third stapled batch.

WITNESS JOHNSON: A So is it the e-mail from Sumeet saying Wednesday, November 21st at 9:24 a.m.?

MR. GRUEN: Q That's right.

WITNESS JOHNSON: A Very good.

Q Exactly. And on the first page for this, the particular job file for -- related to the segment where the leak was located in October 2012, is there a complete job file, was there a complete job file identified or

found for that particular section of pipe?

WITNESS SINGH: A How would you define complete in your terms?

Q Well, here it says, "We can't find any additional job file information." And that was provided to you from Mr. Harrison. So could you find any job file information on the line?

A I think you're going to have to ask Mr. Harrison that question. He did the records research, and the records we identified for that segment were reviewed by our engineering team. And I've already stated previously that, did we have specifications that stated that that segment was reconditioned in the job file? No, we did not.

Q I'll just ask if you're familiar with this document then?

A With this, I'm sorry, this document being the one?

Q DRA 86, Question 13, Attachment 499. The e-mail dated November 21st, 2012, at 9:24 a.m. from you to Mr. Harrison.

A I absolutely responded to it at that point in time. Now you're jogging my memory in terms of the details. So I'm sure I read it at that point in time before

responding.

Q Thank you. And moving to the next cover page then.

A Sure.

Q Moving to the third page of the document.

MR. MALKIN: May I ask your Honor for clarification. Is that the third point counting the cover or excluding the cover?

ALJ BUSHEY: Mr. Gruen, where are we and why are we there?

MR. GRUEN: Your Honor, it says page 3 at the bottom of the page and it is excluding the cover. Your Honor, at the first page of the document it stated it's an e-mail from Kirk Johnson dated November 27th, 2012, 9:54 a.m.

ALJ BUSHEY: So you're in the next pack.

MR. GRUEN: Yes, the next pack.

ALJ BUSHEY: All right.

MR. GRUEN: Q Page 3 going down there are a couple of other things going on with this issue. And again, this is focusing on whether there is -- this is showing uncertainty as to whether there is reconditioned pipe on Line 147 that was -- that came from Line 101 in 1929; isn't that

correct?

WITNESS JOHNSON: A Where are you reading that again? The top, are you on the top of the page 3?

Q Page 3.

A What do you want us to read?

Q Where it says, "There are a couple of other things going on with this issue."

A Okay.

Q And it says, the second point down, "We think we have established a weak link." That's how it starts.

A Okay.

Q Would you like me to ask the question again?

A Yes, please.

Q So didn't this sentence show that there was uncertainty as to whether reconditioned pipe was taken from Line 101 and put into Line 147?

A Well, I think, as Mr. Singh has pointed out numerous times, we don't have a traceable, verifiable record, but we believe that this is reconditioned pipe in Line 147 in Segment 109 based on what we have now seen.

The date of this document was -- I can't find the date, but this is now -- it's

after November 16th, right? So we would have made the repair on or about that time.

Q Great. Thank you. And moving on to the next cover page. Let me know when you're there if you would, please.

A Is it the -- I got a different one. What's the page?

Q This is the document that's a response to DRA 86, Question 13, Attachment 475.

A Review of risks MAOP validation?

Q That's right. That's the title of the document. Thank you. And going to page 2, the sentence right above Section 2.3.

A I'm sorry. What section? What are we reading here?

Q Let me back up. Do you know who wrote this document?

A I don't know specifically who wrote this document.

WITNESS SINGH: A I don't know definitively. I can --

Q Are you familiar with the document?

A I may have reviewed it at some point. I can't attest to that. Maybe some e-mails with this attachment. I don't know definitively. Subject to check. Do you want to reread this whole document at this point

in time?

MR. GRUEN: Your Honor, would PG&E stipulate to this going into the record since the witnesses don't seem to be familiar with the document. This is a PG&E --

ALJ BUSHEY: Mr. Gruen, that makes absolutely no sense. If the witnesses aren't familiar with it, then they can't authenticate it and we can't move it into the record. Why would they stipulate to something they can't --

MR. GRUEN: Because if Mr. Harrison were on the stand, your Honor, I believe he would recognize it.

ALJ BUSHEY: He's next up.

MR. GRUEN: I misunderstood. I understood that I was to cross the panel with this particular set of documents. Okay.

ALJ BUSHEY: Not of Mr. Harrison's information.

MR. GRUEN: No problem. I can cross Mr. Harrison with it then. Thank you.

Q I'll move on to the next document. Next cover page and going to -- this is a document entitled L147 Seam Type Joint Deficiency PFL Error. And turning to page 3 of this document, let me ask you again, are you familiar, are either of you familiar with

this document?

WITNESS SINGH: A I am familiar with the final version of this document, which I think we've previously discussed. And one of the e-mails was at my request, the MAOP validation team, I requested them to do a root cause analysis of why we had a discrepancy between our features list and what we found. This looks to be like a draft because there's several insertions in here that say, "explain, rewrite, define, explain why" on page 1.

So with this particular specific document if that's the question, I have to reread it. I have seen a final version of this document, but it didn't have some of these insertions.

Q Okay. Let me ask you, if you turn to page 3, please, are you familiar with the concept that the completed pipeline features lists and the resulting MAOP validation conclusions are not a hundred percent error free?

A I am absolutely aware of that. Not only am I aware of that, I filed a testimony as part of the PSEP updated filing, and I spoke to that earlier. And if you want to know the error rate, we can actually look at

that table, which is .9 percent.

Q Okay. Thank you, Mr. Singh.

A Pleasure.

Q And I want to just direct your attention to the process of achieving a zero error rate for PFLs just on page 3 just below the section entitled Data Quality. And it identifies several things.

So is this a complete set of steps that are identified for correcting the errors on the PFL for Line 147?

A Again, I have to go back and compare this to the final draft or the final version of this that I reviewed. I can't sit here today and validate that for you. If you want me to go through this and read it and say and validate, did we apply this for Line 147 as part of the recertification process, I could do that for you.

Q Yes, please.

A Okay.

ALJ BUSHEY: Wait a minute. Mr. Gruen, you presented a document that's obviously a draft. A final version exists. So the witness can't authenticate this.

MR. GRUEN: Let me ask it this way, your Honor.

Q If all of the things that PG&E is

doing to achieve a zero error rate for the PFL on Line 147, has PG&E retroactively applied all of those measures to the PFL for Line 147?

WITNESS SINGH: A For Line 147, I mentioned this earlier, as part of the MAOP validation process we made enhancements to the process. And I discussed that at length at the September 6th direct hearings. And what we also identified was at that point in time, that point being when we identified the discrepancy in October of 2012, the Line 147 PFL had not gone through the enhanced process. As a result of the discrepancy we identified, we did what any prudent operator would do. We identified the root cause and we went back and reevaluated and assessed the records for every foot of that pipe, every inch of that pipe.

Q So when will the process be complete for updating the PFL on Line 147?

A I'm not sure I understand your question. The process of updating the PFLs for all of our systems is ongoing. It's part of our mapping process. As we go out and make modifications to our system, what Mr. Johnson testified to earlier in terms of the valve automation work that's going on within

those stations, that's new construction. We will go and update our PFLs as we go in and make updates and physically do construction or replace certain assets or install new assets. It's an ongoing process.

Q Am I understanding correctly that PG&E is uncertain as to when it will complete the error corrections on Line 147 for the PFL?

A I'm not sure I'm following your question. What I've stated is that the PFLs are a source of our asset knowledge information on a going-forward basis. We will stop updating those PFLs once we never do any work on our system, which is impossible.

Q Just talking about correcting the errors on the existing, the existing PFL. When will PG&E complete the error corrections on the existing PFL for Line 147? That's all I'm asking.

MR. MALKIN: Objection, assumes facts.

ALJ BUSHEY: Sustained. Mr. Gruen, you know, they've been telling us for three days now that it's an ongoing process. They don't know everything that's in the ground. If they find out more things, they'll update their records.

MR. GRUEN: Understood, your Honor, I'll move on.

Q Moving to the next document, the next cover page, and this is the last, the last one. And if you -- this is data response DRA 086, Question 13, Attachment 548 entitled Line 147 October 15th Leak Repair Summary. Are you familiar with this document?

WITNESS JOHNSON: A Assuming it's the final one, yes.

WITNESS SINGH: A Are you alluding to this, okay, October 15th leak repair summary, and that's got the date of 21 November 2012?

Q Yes.

A Okay. We've got that in front of us.

Q And you're familiar with this document?

A I'm absolutely familiar with this document.

WITNESS JOHNSON: A Seen it.

Q If you turn to page 2 under the Recommended Next Steps, point No. 4 that PG&E retroactively reviewed all PFLs completed as part of the MAOP validation project to identify and address any similar instances.

I'm assuming that means similar

instances to the leak repair that PG&E did on Line 147; is that correct?

WITNESS SINGH: A In this context it was instances where we have PFLs that have not gone through our enhanced quality control process, the revisions that we made. So keep in mind, this document was dated 21st November 2012. You also provided a draft version of the root cause analysis. There's a final version of the root cause analysis report. There were concrete recommendations within that root cause analysis report in terms of what the cause was of the error. We validated that, does -- and asked the question, does our enhanced process address those errors?

MR. GRUEN: So am I understanding correctly that you are still -- strike that.

That's fine. Your Honor, I have one or two more questions.

ALJ BUSHEY: All right.

MR. GRUEN: Q Did you have any records showing that the October 2012 leak identified in approximately Post Mile 2.2 on Line 147, did you have any records showing that that leak existed prior to when it was discovered?

WITNESS JOHNSON: A We wouldn't have any notification of a leak existing prior

until we discovered a leak.

Q But once you discovered it, you went back and looked at the records; isn't that right, to see if there were -- if there was a leak in the location that the records showed prior to that time?

A Well, we would go back and look at the records, but if there was a leak prior, we would have fixed it prior.

Q But were you able to identify any records that showed a leak in the location prior to the October 2012?

A In that exact location?

Q Yes.

A No. There were no records indicating a leak in that exact location prior.

MR. GRUEN: Thank you, your Honor. No further questions at this time.

ALJ BUSHEY: Thank you. Final questions from any party?

(No response)

ALJ BUSHEY: Mr. Malkin, redirect.

MR. MALKIN: Can we take a personal convenience break?

ALJ BUSHEY: Yes. Ten minutes, 5 minutes after 3.

(Recess taken)

ALJ BUSHEY: We'll be back on the record.

Mr. Malkin, redirect.

MR. MALKIN: Thank you, your Honor.

REDIRECT EXAMINATION

BY MR. MALKIN:

Q Mr. Singh, I want to clear up a point of confusion. The transcript at page 2691 through 2692 quotes you as saying the following:

> In those circumstances where we have acquired pipe from third party operators and we didn't have that information, absolutely we used the federal minimum standard.

What did you mean in what's quoted there as saying "where we have acquired pipe from third party operators"?

WITNESS SINGH: A It should be acquired pipelines, not acquired pipe, and that would have been corrected as I would have reviewed my transcript and had the opportunity to submit the errors that are included in that transcript.

MR. MALKIN: Thank you. I have nothing further.

ALJ BUSHEY: Thank you. Questions for the witness?

(No response)

ALJ BUSHEY: Hearing none then, the witnesses are excused.

Mr. Malkin, would you like to call your next witness.

MR. MALKIN: I would, your Honor. PG&E calls David Harrison.

ALJ BUSHEY: Mr. Harrison was called earlier today and sworn earlier today. He remains under oath.

DAVID HARRISON

resumed the stand and testified further as follows:

ALJ BUSHEY: Mr. Malkin.

MR. MALKIN: Thank you, your Honor. Just have a few questions for Mr. Harrison.

REDIRECT EXAMINATION

BY MR. MALKIN:

Q For the sake of time, Mr. Harrison, I'm not going to ask you about your current position, responsibilities, educational and work background. Somebody else may want to, and if so, that's fine.

I want to ask you directly --

MR. MEYERS: Pardon me, your Honor.

Point of order. Has Mr. Harrison been sworn?

ALJ BUSHEY: Yes. We did that this morning.

MR. MALKIN: Q I want to ask you directly about an e-mail that you wrote, everybody here has read because it was on the front page of the newspaper. It's a November 17th, 2012 e-mail in which you wrote in part, quote, "Could the recent hydrotest contributed to additional cracking in this pipe and essentially activated a threat? Are we sitting on a San Bruno situation?"

When you wrote that e-mail on November 17th, did you think that there was a then existing safety hazard on Line 147?

A No.

Q Then what was your purpose in writing the e-mail?

A The purpose in the e-mail was sort of due diligence. I wanted to make sure that we had thought of all the issues and any possible concerns with the pipeline at the time. And I was trying to get the other people to think about those possibilities.

My reference to San Bruno is not in the sense of a failed pipeline. It's what we learned from an engineering point of view, from an MAOP point of view from San Bruno,

and that is that the pipe wasn't what we expected it to be. So it was thinking about it from that point of view, that if this pipe wasn't what we expected it to be, then could it be something that would be a problem for us.

Q Now, this and other e-mails that you will probably be shown on cross-examination, you raised a number of questions and issues with respect to Line 147. Were those issues resolved?

A Yes, they were. So the e-mail went out like the 17th, and then soon after, you know, within days of that we had some conference calls and calls among the groups. And there's a variety of e-mails around. And we basically came to the conclusion that we were going to keep the pipeline at 300 pounds until we had the leak -- piece of pipe for the leak removed and examined to make sure that we didn't have any potential problems on it. And that was perfectly safe as far as I was concerned. That was the right decision to make.

Q Who were the groups that were involved in these conference calls?

A It was all the major groups. There was integrity management, the pipeline

engineers, gas control, MAOP validation. So those were all the major groups.

Q Was the PSEP, Pipeline Safety Enhancement Plan group also involved?

A I believe so, yes. Yeah.

Q Do you have any regrets about writing that e-mail?

A It made it to the papers. So that's one I regret heavily. If I had to do it over again, I would have worded it differently, especially if I knew it was going to end up in the papers. It created a lot of swirl, a lot of work that's been unnecessary.

But the idea again behind it was to make sure that we were doing the right thing. That's what I was trying to get across. And so that I don't regret asking the question that we want to make sure we do the right thing to the pipeline.]

Q Among other things, at one point in the dialog about this you asked whether the pipe where the leak had occurred had been x-rayed. Do you recall that?

A Right.

Q And that wasn't done, was it?

A No, it wasn't.

Q Are you concerned about the fact

that it wasn't done?

A I mean at the time we were talking about taking the pressure back up, so that is why I was asking the question. And the end result, again there within days, we decided no, we are going to maintain the pressure at the lower pressure. So, no, I wasn't concerned if we were maintaining the pressure until we got the piece cut out and examined.

Q You mentioned getting the piece cut out and examined. There has been prior discussion about that. To your mind, was cutting the piece out and examining it in the laboratory, as Anamet and Exponent have done, as good as, not as good as, better than x-raying the pipe?

A Way better than x-ray. So, yes, cutting the piece of pipe out and examining the laboratory is much more informative than doing the x-ray.

Q Let's talk briefly about AO Smith pipe. You gave some testimony earlier this morning about testing that pipe. And I want to ask you: Generally, do you have a safety concern about the presence of AO Smith pipe in PG&E's system?

A No, the AO Smith pipe has been very reliable for us. It has been, you know, good

pipe for us. It is older pipe, but it has been very good. We've done the test. In the historical documents I've seen tests over the years of it. We reexamined it every 10 to 20 years. All the tests are consistent. We had it retested again this summer, like I stated earlier. So I think AO Smith pipe is good pipe for us.

Q Mr. Singh mentioned earlier that you were the person who would know most about whether -- what PG&E's purchase records showed with respect to the minimum, specified minimum yield strength of AO Smith pipe. Was he right about that?

A That is right. So the minimum, specified minimum yield strength that we show in contracts with AO Smith dating from '29, they show -- some of the contracts show 33,000, some of them show 35,000, and some of them show 42,000. So we bought a variety of pipe from AO Smith, and the lowest value is 33,000. So that is why we sort of automatically go back to 33,000.

Q Independent of whatever PG&E's Integrity Management Program does or the Pipeline Safety Enhancement Plan does, do you believe that PG&E needs to dig up all reconditioned AO Smith pipe in its system?

A No.

Q Why is that?

A The reconditioned pipe is, like I said, is fine pipe. Actually, the reconditioned pipe is better pipe, in a way, because the earlier pipe had different girth welds on it. This pipe has the girth -- the original girth welds are gone now. So this is actually better pipe, because those original girth welds are gone. It has been reconditioned. It has been looked at again, and put back in the ground.

Q Thank you. I want to ask you a few questions about hydrotesting.

First, do you consider yourself to be an expert in hydrotesting?

A No.

Q Who would you consider to be a hydrotesting expert?

A Mr. Rosenfeld.

Q So do you have any concerns today about the hydrotesting that was done on Line 147?

A No, I don't. I think hydrotesting was done correctly. Again, my point of my e-mails and the communication was to make sure that Mr. Rosenfeld or somebody of his caliber did review it.

I mean the time when I wrote the e-mail, I had just come off testimony in the records OII. And so I knew people would be interested in what we found out, and they would be interested in this. And I wanted to make sure we gathered all the information that we could and answered all the questions before other people started asking them.

Q Do you have an opinion about whether Line 147 is safe to operate today at 330 psi?

A Yeah, I think the line is fine at 330. The pipeline is tested to twice that. We've never -- you know, the documentation that I've seen doesn't show any kind of a problem with those kind of pressure test ratios. Mr. Rosenfeld testified to all that. He is really the expert on it. Everything that I know is consistent with that.

And so, yeah, I think it is perfectly safe at 330 pounds.

MR. MALKIN: I have nothing further, your Honor. Mr. Harrison is available for cross-examination.

ALJ BUSHEY: Thank you, Mr. Malkin.

Who would like to go first?

MS. PAULL: I have just a few questions.

ALJ BUSHEY: Ms. Paull, okay.

CROSS-EXAMINATION

BY MS. PAULL:

Q Mr. Harrison, I'm Karen Paull for the Office of Ratepayer Advocates. I have just a few questions.

You said earlier you don't regret raising the questions you've raised when you found out about Line 147, right?

A That is correct.

Q So do you feel that the concerns that you've raised then were valid concerns?

A At the time, yes. I think so, yes.

Q And one of those concerns was that the -- if the pipe is different from what PG&E thought, it could -- that could affect how it was prioritized for purposes of the PSEP program. Is that true?

A Well, yes. Yes, it could affect the PSEP priority potentially. That is why I was asking the question about the PSEP priority.

I am not that familiar with their decision tree. I know they have a decision tree. I know it considers AO Smith pipe, I believe, somewhere in it, but I don't know the logic of it exactly. So that is why I was asking that question.

Q Yes, but you knew enough to know it could affect whether the pipe was slated for testing or replacing?

A That is right, yes.

Q Do you know if in fact -- if PG&E had known what the pipe -- the true characteristics of the pipe, if it would have been slated for testing as opposed to replacement, do you know?

A I mean I got the answer back from my e-mail that given it was tested, it would not be slated for replacement. But beyond that, you know, it is a better question for PSEP. I don't know the decision tree that well.

Q But it is your understanding -- now, we know that 147 has been hydrotested, so that is done. But if we are talking about pipes that have not yet been tested or replaced.

MR. MALKIN: Objection, irrelevant.

ALJ BUSHEY: That isn't within the scope of our hearing. We are talking about Line 147.

MS. PAULL: Okay then, I'm done.

ALJ BUSHEY: Thank you.

Mr. Gruen.

MR. GRUEN: Yes, your Honor.

CROSS-EXAMINATION

BY MR. GRUEN:

Q Mr. Harrison, do you have in front of you Exhibit N as in Nancy?

A Yes.

Q And during the break I approached counsel and just asked them to provide you a copy for purposes of review. And I just wanted to ask you if there is any document in this exhibit that you are not familiar with?

A I believe that I'm familiar. I've seen them all before, yes.

Q Okay, thank you. And just regarding a couple of -- one of the documents. Can -- have you found the job file related to the piece of pipe that was -- that where the October 2012 leak was found?

A Well, we had a job file but it only had about 6 to 8 documents in it. It had the most critical stuff. It had the strength test pressure report. It had a drawing in it. It was obviously not the full job file. So that is what we went on the hunt for. That is where we found there was a 1963 lawsuit and pulled the job file for the lawsuit, and the job file never made it back to us.

Q And of the job file that was

remaining that you did seek, were the as-builts left in that particular --

A Yes. As I remember, there were as-builts in there for the job, yes.

Q Okay. Turning to, it is the document that is DRA-86 Question 13A Attachment 475. I believe it is the second, no, third to last in the set. It is entitled Review of Risks MAOP Validation.

A Okay.

Q Are you there?

A Yes.

Q On the second page above Section 2.3 that says leak on recently tested pipe, it says: If we cannot show the reconditioned pipe is indicated in the job files, we may want to say that all unknown long seam pipe installed prior to 1965 must be excavated to determine the long seam.

Do you still agree with that statement?

A Well, I didn't agree with it at the time that I wrote it necessarily. These are -- you are looking at a very draft document. And I prepare these, and they get edited.

So the -- sort of my job in preparing them is to make sure that I include

everything in there. So anything that might possibly need to be done, somebody want to do, somebody would order us to do, all those get included in the documents so that they can then get edited and evaluated.

And it is sort of like my e-mail to begin with, that is why I sort of think in those modes, making sure that everything is covered. And so this document was written in that sense.

Q Thank you. And just -- I can refer you back to Exhibit I, but I don't think it is necessary. There was a spreadsheet on the last page where we were identifying the 1300 or so feet of pipe in Segment 109.

Just regarding that, are you comfortable with the assumption that all approximately 1300 feet of pipe in Segment 109 are AO Smith?

A I'm comfortable with it, yes. I think that is a valid assumption.

It is sort of like Kirk and Sumeet referenced. Until we replace it or dig it up or something else, we can't be absolutely sure what that is. But based on all the job files we've gone through, all the information, the documentation and the field work that, you know, that people have done

digging those things up, a given job is typically the same type of pipe. And so we would expect to be that same pipe for the 1300 feet.

MR. GRUEN: No further questions at this time.

ALJ BUSHEY: Thank you, Mr. Gruen.

Ms. Strottman.

CROSS-EXAMINATION

BY MS. STROTTMAN:

Q Mr. Harrison, good afternoon. I'm Brit Strottman on behalf of the City of San Carlos.

Do you have Exhibit N in front of you?

A Which one?

Q That is the large packet of e-mails.

A Right.

Q In looking at the e-mail at issue which is the Saturday, November 17th, 2012, e-mail.

A First document?

Q First page, yes.

So when you drafted this e-mail --

A Just to be sure, you are talking about?

Q Where it starts with: I'm guessing

that you didn't x-ray anything on this pipe?

A Bottom of the first page?

Q Yes.

A Okay.

Q So when you drafted this e-mail on November 17th, 2012, did you know that a 2011 hydrotest had been completed?

A Yes.

Q And you still raised these issues listed in this e-mail, even though you knew that the 2011 hydrotest had been completed?

A That is right. My concern, again, was to make sure that somebody like Rosenfeld evaluated it. We had a hydrotest. We had a leak two years later. It is unusual. The pipe is something that we didn't expect.

I felt that it was safe, but I'm not the expert. So I wanted somebody like Rosenfeld or Zach Halbert to evaluate what we found and have them make a judgment about whether they thought there was a problem there, or not.

Q But you still raised all these concerns even though you knew a 2011 hydrotest had been completed?

A Yes. Again, I wanted to be sure.

Q And I just wanted to break down a few things from this e-mail. You raised a

concern about the X -- that the pipe had not been x-rayed?

A Right.

Q Is that correct?

A That is correct.

Q And now that is not a concern for you?

A No, because the issue would be that you've got this small area of a leak. And so you could potentially x-ray the area around the leak to see if there was additional wall thickness loss, or other problems around there that were interior to the pipe that you couldn't see from the outside. That would be what my concern was.

And at this point in time, you know, we basically have cut out that piece and completely removed it and examined it. There was no internal kind of damage. And so, no, at this point there is not a concern about that.

Q And so you also raised a concern about cracks in any other way other than visual, which is your second question. Now you don't have any concerns about that issue?

A Right. Same thing again, because now the piece has been taken out, it has been examined. People have looked at it and

determined there was no crack growth. You know, there was no crack, active crack or anything in the area that wasn't related. There wasn't any cracks related to the leak.

And so, again, that is what I wanted to -- that is what I was asking about, and we have those answers now.

Q Then you asked another -- you raised another concern is this whole backfill. Now you don't have any concerns about that issue?

A Well, no, that is just reference to whether they backfilled the hole, or not. So basically if the pipe was still -- if the hole was still open and the pipe was still exposed, it would be relatively easy for them to x-ray. But if the hole is already backfilled, then you would have to go get, pull a permit again and get the hole dug up. That is all I was referring to.

Q And then you flagged another issue that this was a 1929 pipe that was recently tested to 1.5 time the MAOP in 2011.

So you no longer have a concern about that issue?

A No. The -- I mean that kind of goes into the AO Smith discussion in that it is 1929 pipe. We've had good luck with 1929

pipe, but I still wanted to make sure that somebody like Rosenfeld didn't know of anything else that we don't know about.

But, no, at this point I don't have any more concerns about that.

Q Then you also flagged a concern that it is a thin wall pipe, and now we found external corrosion.

Now you don't have concern about that issue?

A Right. Because, again, the pipe was dug up. We evaluated it. There is no unusual corrosion. There is no internal corrosion at all virtually on this pipeline.

And the reference to thinner wall pipe, people have asked me about that. That is just that this is .250 wall pipe. The other pipe around it was .281 wall and .312 wall. So all the surrounding pipe was heavier wall than this pipe. That is what my reference to thinner wall pipe is.

Q And then you raised another concern, could the recent hydrotest contributed to additional cracking in this pipe, and essentially activated a threat.

And that is no longer a concern to you?

A That is the whole issue with

bringing in Rosenfeld and having the piece cut out, Anamet and Exponent examination of it. It is sort of due diligence. We checked it all out. There is no cracks. There is no issues there. And we ran that to the ground. That was what I wanted to get done, see done.

Q And then the statement are we sitting on a San Bruno situation. Now you are saying that you didn't mean a potential rupture. So you are backtracking on that statement?

A No, I'm not backtracking. Because what I'm saying is that -- I'm referring to it as an engineer. I wrote the e-mail to two other engineers. So I'm talking about it from an engineering perspective.

Again, what did we learn on San Bruno? What we learned there from an MAOP evaluation and engineer point of view, is that the pipe is not always what we think it is. And so is there a possibility that the pipe is different in any way?

And the way that really comes out is, you know, how to prove that to yourself is, again, the things we've been talking about with the yield. We took the pipe. We tested it to yield. We didn't test it to yield, we tested it and it didn't yield. And

so, you know, at the pressures we tested it at we are talking about running it at 330 pounds. So we tested it to more than twice what we were going to be operating at and that is a substantial test margin.

Essentially what the test is, you know, you are doing a strength test. You are testing it. So you want to try and make the pipe fail. So could -- the question you have to ask yourself is could anything have survived this strength test that would then be a problem at the operating pressure? And this operating pressure, like I said, we tested it at two times ratio.

And so, no, I don't believe anything would be a problem. But I wanted, again, industry experts to take a look at it because -- to make sure that there wasn't a problem, there wasn't anything going on.

Q Okay. I'm going to have you, please, it is 16 pages after the first page, if you wouldn't mind. These e-mails aren't numbered. There are no page numbers on here, so I apologize you have to count. The 16th page after the cover page.

A Which package is that?

Q I'm sorry, Exhibit N, the one that is in front of you.

MR. MALKIN: Your Honor, could I ask Ms. Strottman to identify which of the stapled groups it is in?

ALJ BUSHEY: We will be off the record.

(Off the record.)

ALJ BUSHEY: We will be back on the record.

Ms. Strottman.

MS. STROTTMAN: Thank you.

Q Mr. Harrison, I'm going to have you please look at, it is -- like I said, it is 16 pages after the title page. And the e-mail is from Jane Yura to Francis Yee. It is at 8:55 e-mail at the middle of this page.

A Yes.

Q It says: Francis, I'm concerned with, it says David's 11/17 note raising integrity issues. Particularly since he was our key engineering witness on the records OII and answered multiple questions related to pipe. Can you please call, and it is redacted, and speak to him. Then we need to have our recommendation.

Have you seen that e-mail before?

A I've seen it here. I don't believe I ever saw it prior to the last month or so.

Q And did Ms. Yee call you to let you know that -- or did Ms. Yee call you about

the issues that you raised in the e-mail?

A I believe so, yes. I don't have specific recollection of it, but...

Q You don't have any specific recollection of that conversation with Ms. Yee?

A No.

Q Anyone else call you and ask you about that -- the November 17th e-mail?

A Well, like Sumeet and I had several conversations back and forth about it and a variety of other people. I talked to the pipeline engineers involved. You know, there is definitely a lot of phone calls that don't show up in the e-mail streams.

Q Okay. Then can I have you then please refer to Exhibit M. I'm not sure if that is in front of you.

A No.

Q M as in Mary.

A All I have is the packet, the N packet.

Q Mr. Harrison, before I ask you questions about Exhibit M, did any executives at PG&E call you in response to e-mail that you drafted on November 17th, 2012, to discuss your concerns about Line 147?

A Well, like I stated, I talked to

Sumeet. So I'm not sure whether you consider Sumeet an executive, or not. Maybe he is. Kirk definitely is.

I would not expect a call from an executive. This stuff should be going up through Sumeet, pretty much, yeah. That is the chain of command. And so I'm following the chain of command as far as who I would expect to talk to about these issues.

Q Looking at Exhibit M, do you recognize the first e-mail where it says Jim Tong?

A Right, I do.

Q And the second, sorry, the last sentence of the first paragraph says: At the executive level, this situation is considered a near hit from a safety perspective that could have severely damaged the company's credibility.

Did you draft that statement?

A I did.

Q So what did you mean by that if you didn't speak to any executives other than Mr. Singh?

A Well, the executive level is just a -- you know, it is not capitalized. It is generally referring to the higher levels in the company.

And the "near hit," was, this is going to some guys that are working on the MAOP validation. So this is focused on the MAOP validation. I'm trying to kick them in the fanny to get them to give us a good thorough root cause write-up on this. So I'm trying to spur them on.

The "near hit," the point there is that we had a mistake on the MAOP validation. And I get accused of being too much of a perfectionist. But, by God, I want the records right. I want them as good as we can get them. In this case, we had a mistake on the MAOP validation. At this time, you know, it didn't cause a reduction in MAOP, but it could have very well caused a reduction the MAOP.

And so that is what I was referring to as a "near hit." It is, you know, it is a phrase that we use at the company. Usually it relates to an automobile accident, or something. In this case, it is the same kind of thing where, you know, this is a mistake we made. It could have been a problem, and so we need to make sure that it doesn't happen again.

Q But at that point, even though you said this is a near hit from a safety

perspective, no one at the CPUC knew about this issue on November 17th. Isn't that correct?

A That is right.

Q You drafted this e-mail it looks like 2-1/2 hours after you drafted the are we sitting on a San Bruno situation e-mail?

A Right.

Q And I just wanted to ask you a few questions about your root cause analysis. So did the thought ever cross your mind that the winter season is coming up so you should keep the line in service and then wait, or do the root cause analysis and not take this line out of service because of the winter months?

A So when you say "root cause analysis," there have been some write-ups. Can you refer to exactly what you are talking about?

Q Well, you state here in your e-mail Exhibit M on November 17th at 1:35 p.m. that the formal root cause, you said a "formal root cause analysis." I'm assuming that you were requesting that a formal root cause analysis be conducted, correct?

A Yes, I understand. There is a couple of root causes here that, you know, some of it had to physically do with the

pipe. So if we are focused on the root cause of the mistakes in the MAOP validation.

So I understand that that is what your question was in regards to, so now can you reask your question? Sorry.

Q Yeah. No, I'm sorry.

But I guess what I'm asking you is: Did you think it was okay to keep this line in service, Line 147, because of the winter months? Instead of saying, hey, you know, what, we need to -- we need to flag this to the CPUC and have them determine what to do with this line?

A Well, the -- I felt it was okay to leave it in service. Because we -- well, at this date it wasn't -- it hadn't been decided. But within a week we decided to leave it at 300 pounds through the winter which, again, is fine.

As far as the CPUC goes, those are things sort of out of my purview. I mean that would be some lawyers decide that, somebody else. As far as sending information to the CPUC, those are all things that I would not be making a decision on.

Q Did you ever recommend to Mr. Singh that the CPUC be advised of this situation?

A No, I would expect him to make

those decisions. It wouldn't be something that I would be involved in.

Q I just have a few more questions, then I'm done.

A Okay.

Q So you are a technical consultant for PG&E, correct?

A That is right.

Q So you are not an employee of PG&E?

A That is right.

Q And how much do you make an hour as a consultant?

A 200.

Q And then do you have a consulting agreement with PG&E?

A I do have a contract.

Q So PG&E could call you up and say your services are no longer needing, correct?

A That is right.

Q Your contract is subject to termination at any time?

A Yeah, generally.]

Q And how many hours a week let's just say in the last year have you dedicated to working for PG&E?

A I don't know if Sumeet really wants to know. I typically work 12 to 14 hours a day.

Q So -- I'm sorry. And that's all for PG&E?

A That is all for PG&E.

Q Okay. Did the thought ever cross your mind that if you testified adversely to PG&E, that that could result in the termination of your contract?

A Yes, it's crossed my mind. Yes.

MS. STROTTMAN: Thank you, I have nothing further -- I'm sorry.

Q You do still work for PG&E; correct?

A I do still work for PG&E.

Q Thank you?

A The only piece I can add on there is they can get rid of me, and I can get rid of them. If they were doing something that I feel is really unsafe, to me that is a personal, ethical dilemma. And I would leave. I don't need a job that bad.

MS. STROTTMAN: Okay. Thank you.

ALJ BUSHEY: Thank you, Ms. Strottman.

Mr. Meyers?

MR. MEYERS: Thank you, Judge Bushey.

CROSS-EXAMINATION

BY MR. MEYERS:

Q Mr. Harrison, I'm Steven Meyers. I think we met previously on the OIIs for San

Bruno. Good afternoon, and thank you for your candor.

Can you briefly tell me what exactly your role is with respect to the MAOP validation process at PG&E?

A Well, my role has shifted over time. So initially with MAOP validation, I basically designed the original process. I designed the PFL spreadsheet. I was -- I was the chief engineer responsible for the MAOP validation, did a lot of the technical pieces -- did almost all of the technical pieces. I was -- served and I still pretty much serve in this capacity where I'm sort of the final judge on MAOP-related questions. So policy, you know, gets decided by the higher-ups at PG&E, but then if we have questions that come up, they basically bubble up to me. And I'll make a final decision on how it goes within the policy.

Q Thank you. To whom do you report?

A Right now I report to Joe Medina.

Q Okay. And are you in a position where you can direct PG&E employees to undertake certain studies or analyses related to the scope of your services?

A Yes, somewhat. I -- in reality, the group is almost entirely contractors, so

there's only, like, one employee in the entire group. So --

Q What is your relationship with Mr. Singh?

A Sumeet, as he alluded to earlier, has now moved on to another position. So I used to work directly for Sumeet, and Joe used to work directly for Sumeet. And now positions have shifted around, so Joe is now responsible for MAOP validation.

Q Thank you, Mr. Harrison.

Mr. Malkin asked you a number of questions about A.O. Smith pipe, and in response to those questions -- and I'm characterizing your testimony here, so if I'm inaccurate please correct me. But you basically said you don't have particular safety concerns about A.O. Smith pipe. It's generally good pipe, and it's reliable; is that a fair statement?

A That's fair.

Q In making that statement, you did not mention anything with respect to A.O. Smith pipe that is reconditioned pipe though. Do you have the same position about A.O. Smith pipe if it's reconditioned pipe?

A Yes, I do. Usually reconditioned pipe is actually better because it has been

reconditioned and reexamined and the girth welds have been replaced on it.

Q And when was the reconditioned A.O. Smith pipe that exists in Line 147 actually reconditioned?

A Well, I can't really tell you because we -- we have a weak link to potentially reconditioned pipe. And so I don't have anything that I can really put my finger on and tell you when it was reconditioned. Reconditioning of pipe was very common during the 1950s. Pipe was in huge demand. We have records in the file that shows 60 truckloads of pipe a day being shipped out of plant to PG&E, which is just a huge amount of pipe coming out of the pipe plant. So they were running out of pipe. They reconditioned a lot of pipe, and -- I don't know if that got your question, but --

Q That's very close to it. Thank you, sir.

So it would be an assumption on your part -- perhaps an educated assumption, but an assumption nonetheless that this piece of A.O. Smith pipe that is of 1929 vintage, as you stated in your e-mail, was in fact reconditioned by PG&E?

A Technically it is an assumption,

yes. An educated assumption is a fair evaluation of it, yes.

Q And it would also be your assumption, again, a -- a -- an assumption based upon your expertise as an engineer and as a consultant to PG&E, that the reconditioning of that pipe by PG&E at the time of this significant amount of construction work in their system was consistent with the reconditioning regulations that were applicable at that time?

A That's right.

Q So that's an assumption as well.

You also answered some questions from Mr. Malkin concerning contracts that PG&E entered into to purchase A.O. Smith pipe. And you referenced various SMYS values of that pipe in those purchase records being 33,000, 35,000, 42,000 SMYS. And you indicated as well that the default, if you will, in the valuation that you as an engineer makes and that the MAOP validation team makes is you default back to the 33,000 figure because that's the more conservative value.

So that is basically where we have records of A.O. Smith pipe purchased but we

don't have a specific record for the A.O. Smith pipe that exists in 147, we will assume a value of 33,000. Is that a fair statement?

A That's a fair statement.

Q Okay. So you're using the most conservative values of documents that are relevant to that type of pipe but not necessarily particular to that pipe?

A That is right.

Q Okay. So do you recall the segment of pipe referred to as Segment 180 in Line 132 in San Bruno?

A I do.

Q And what did the purchase records show regarding that piece of pipe?

MR. MALKIN: Objection, relevance.

ALJ BUSHEY: Purchase records for Line --

MR. MALKIN: For Segment 180 in Line 132 is what he's asking about.

MR. MEYERS: I'm trying to reach a conclusion here.

ALJ BUSHEY: Okay. But it better include something that is relevant to Line 147.

MR. MEYERS: Q Do you recall that piece of pipe?

A I do. I recall the segment, yes.

Q And did that piece of pipe have purchase records?

A I do not recall right off the top of my head today. I -- I really can't remember right now. I don't believe we did, but I'm not really sure.

Q So if there were no purchase records, what -- what conservative value would you assume for that piece of pipe?

Yes, I know, Mr. Malkin, you have a concern about relevancy. But what I'm trying to get to here is that an assumption that is made by a witness who is testifying under penalty of perjury should be validated. And we're making an assumption here about pipe for which we have no purchase records. I'm trying to make a comparison between the absence of purchase records for Line 132, Segment 180 that exploded and killed eight people and the lack of purchase records for this piece of pipe.

MR. MALKIN: Very dramatic, very irrelevant, particularly in light of the hydro test that everybody agrees validates the 330 psig.

ALJ BUSHEY: Well, it completely changes the factual scenario.

MR. MALKIN: That too.

ALJ BUSHEY: So your comparison doesn't work, Mr. Meyers. I'm wondering if you're testing me again, so I'm going to sustain Mr. Malkin's objection.

MR. MEYERS: Very good. I'll move on.

Q Mr. Harrison, you said in your testimony that -- that you had regrets concerning your November 17th, 2012, e-mail. And I understood you to say that your regrets were about the consternation, if you will, that that e-mail had as opposed to the actual regrets of the factual points that you made in that e-mail. Is that a correct statement?

MR. MALKIN: Objection, mischaracterizes the testimony.

MR. MEYERS: Q Can you characterize your testimony for me with respect to the issue of regrets?

A Again, I regret writing the e-mail with those words because it's generated a lot of consternation and -- and work that wasn't necessary. The point of the items that I brought up in that e-mail was to just ask those questions and make sure that we had dealt with those questions and performed due diligence on what we found.

Q As you sit here today and as you read your e-mail of November 17th, which is

Exhibit N, do you feel that the issues you raised were legitimate issues at that time?

A They were legitimate issues in that we needed to make sure that we had answers to those questions, yes. I think the pipeline was safe then, and I still think it's safe, but I wanted to make sure there were no issues that -- that we could find out that somebody like Rosenfeld would know of that we were not aware of.

Q In the body of the e-mail you make the statement, "Could the recent hydro test contributed to additional cracking in this pipe and essentially activated a threat?" In your testimony thus far, you have referred to the cracking of the pipe in relationship to the leak site and the segment of pipe that was been removed by PG&E for further testing from the system; is that correct?

A That's right.

Q In your e-mail, were you referring to any other cracking within that pipeline, which is about 1,400 -- that section of pipe that's about 1,400 feet that has not been removed?

A I mean, I don't have any knowledge of any other damage or cracking or any of that kind of information. And again, the

hydro test should have flushed out anything that was a problem on the rest of the pipeline.

Q So you're satisfied based upon your review of the hydrostatic testing that there is not a likelihood that the hydro test contributed to additional cracking or activating a threat within the remainder of the pipeline that has not been removed for destructive testing?

A That's right. Just to be clear here, you're asking me for my opinion, but my opinion is also based on what -- what the experts have said. I'm not an integrity management engineer. I asked about the threats. I know integrity management has nine different categories of threats, but I don't know all the details. So again, that's why I was raising the question, so the other people who are experts, such as the integrity management engineers, can -- can weigh in on what they feel.

Q The next sentence is actually a partial sentence. "Are we sitting on a San Bruno situation?" Again, I understood your explanation of that to be not so much a question of the failure of Line -- of 132 and the resulting fire that caused damages, but

rather the absence of records. Is that what you meant by that, "Are we sitting on another San Bruno situation?"

A Yeah. Again, I believe what we learned from an engineering MAOP perspective in San Bruno is a pipe is not always what we think it is. If it's not what we think it is, then what is it and have we done what we need to do to ensure it's safe.

Q Well, why do we care if we do a hydro test?

A Well, that's just it. The hydro test did make it safe, but I wanted to make sure that we still felt -- somebody like Rosenfeld felt that the hydro test was still safe. That was the point of the e-mail. There's the things that I brought up in the e-mail, pressure reversals, those kind of issues are unusual phenomenon that have occurred, very rare under certain circumstances, and I'm not the expert on them. I want the expert to weigh in on them.

Q So when you said, "Are we sitting on another San Bruno," you were not referring to the possibility that the original hydro test of Line 132 caused a fatigue crack which grew over time? You were not referring to that?

A No, I was not referring to that.

Q Your final statement in this e-mail -- I'm sorry, the final statement of that paragraph of the e-mail says, "I don't want to panic people, but it seems like we should consider this and possibly possible -- and probably move this pipe up the PSEP priority for replacement."

If MAOP validation process operated as you thought it was operating and if PG&E was testing to 1.5 MAOP and that hydro test was satisfactory, why would you suggest in your e-mail that this piece of pipe be replaced?

A Because at the time we were considering -- operating it at 365 pounds and/or higher. And so depending on what we were going to do with that pipeline, we might want to consider replacing it.

Q You were here in the hearing room when Mr. Johnson testified that this pipe could be operated at 400 psig; correct?

A Right.

Q If the pipe is operated on 400 psig, would you recommend that it be replaced?

A I would have to evaluate it, go back and look more closely at it. But again,

I would rely on people like Rosenfeld and the integrity management people and what their views were on it. And they're saying that it's safe at 400 pounds.

MR. MEYERS: Mr. Harrison, thank you very much.

ALJ BUSHEY: Thank you very much.

MR. LONG: Your Honor, can I just ask a follow-up question on one of Mr. Harrison's answers to Ms. Strottman?

ALJ BUSHEY: Sure.

CROSS-EXAMINATION

BY MR. LONG:

Q Mr. Harrison, Tom Long with TURN.

Exhibit M, Ms. Strottman asked you a question about that. Do you have that in front of you?

A I do.

Q And it's the -- it's the "near hit" sentence that I wanted to ask you about. And if I -- if I jotted down your answer correctly, you said that what you meant by -- words to the effect that what you meant by near hit was there was a mistake in MAOP validation for this segment, 109, but at the time it didn't cause a reduction in the MAOP, and that's why it was a near hit?

A Right.

Q So does that mean that if it had caused a reduction in the MAOP, that would be a hit?

A I would have termed it that way, yes, in comparison. Yes.

Q Okay. So now you remember this exhibit. I think you were asked questions about this earlier today, Exhibit I, with the chart about the changes in MA -- various MAOP parameters from October 2011 to the current?

A Right.

Q Okay. In fact, the -- for Segment 109, the MAOP of design in October 2011 was 437, and the MAOP of record was 396. And now by virtue of the mistake in MAOP that was discovered, the MAOP design has gone down to 330. And as a result the MAOP of record has gone down to 330.

A That's correct.

Q So in fact, isn't this a hit?

A That is correct, yeah. So at the time -- again, you're asking about when I wrote this e-mail, and the time I wrote the e-mail, that's why I wrote it that way. And in effect, we have taken that into consideration. And as we've discussed, we've taken a conservative value for the line, including the joint factor, so you arrive at

a 330-pound MAOP.

If you remove the joint factor impact, you end up with a design pressure I believe at 412. So you're back over 400 pounds. And so that, again, is -- you know, that's what we've been discussing here that we've been taking a conservative joint factor. We don't really think it needs to be applied, but --

Q So from your perspective, this is exactly what you don't want to happen in an MAOP validation. You don't want to find out that a supposedly validated MAOP needs to be corrected to a lower MAOP; isn't that right?

A That's right. Absolutely.

MR. LONG: That's all I have. Thank you.

ALJ BUSHEY: Thank you, Mr. Long.

EXAMINATION

BY ALJ BUSHEY:

Q Mr. Harrison, I have a couple of questions for you on a completely different topic. How are you?

A All right.

Q You've been -- you've been through a lot, and I wanted to know about morale and about how this ensuing controversy has settled among the working-level engineers at

PG&E. I'm very concerned that it may have undermined your -- I think you call it your questioning culture. Could you -- could you talk to me about how you've experienced this in the last couple of months?

A Well, it does get challenging in that I -- I -- I talked to Sunil in the interview with Sunil about it a bit. And yeah, the biggest comment that I get that I can say is, you know, the other engineers talk about me and say, "Oh, I'm not writing any e-mails."

And I think that's a bad thing. It's definitely a bad thing because the people are much more wary of e-mails, and it's going to be harder for them to share safety-related concerns. I think the company does support them, though, and are trying to encourage people to bring them up. And they are bringing up issues. But it does get more challenging I think as we -- you know, because my e-mails made it into the newspaper and then, you know, I have to testify. And nobody wants to go through the grilling.

Q Right. And is there anything that we can do to make the grilling less grill-like?

A I don't -- I don't know right now

off the top of my head. I can't think of anything, but --

Q But you're aware of all the whistleblower protections and you felt like your management was supporting you?

A Right. Yeah.

Q And so other than enabling you to survive the process and go back and say that it's --

A Survivable.

Q -- survivable, that's all we can do?

A Yeah, I think so. I mean, the management did respond. There was debate about the issues. We got a variety of groups together. So I mean, I think the process did work, and so I -- I think that's -- that's good.

ALJ BUSHEY: All right. Thank you.

Redirect, Mr. Malkin?

MR. MALKIN: May I have a moment, your Honor.

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Mr. Malkin, redirect?

REDIRECT EXAMINATION

BY MR. MALKIN:

Q Okay. Mr. Harrison, I just have a few questions for you on two points.

One, in response to a question from Ms. Strottman, you testified that if you testified adverse to PG&E, PG&E could terminate your contract. Do you recall that? Do -- has that fact that your contract is currently terminable at will in any way influences your testimony today?

A No.

Q Has anyone from PG&E threatened you in any way about either your e-mail, your testimony, or anything having to do with Line 147?

A No. They tease me about taking away my e-mail, but they're just teasing me.

Q Do you as you sit here today have any concerns about any retaliatory action being taken against you either for the e-mail, the questions you've raised or your testimony, or anything related to Line 147?

A No, I don't.

Q You've mentioned in connection with that that the termination right goes both ways?

A That's right.

Q Do I understand correctly that if you felt there was a safety issue with respect to Line 147 that you raised that PG&E refused to address, that would you exercise that right and stop working for PG&E?

A That's right.

Q Okay. The last thing I want to ask you about is the questions from Mr. Long about your e-mail talking about a near hit. And then you went on to testify that when the MAOP changes, as Exhibit I reflects for Segment 109, in your terminology, that's a hit. Do you recall that testimony?

A That's right.

Q And as I recall, you explained also that if -- even with the changed specifications on Line 109 that if you did the MAOP calculation literally according to the code without the joint efficiency factor, the MAOP of design would be 412; is that right?

MR. LONG: Objection, vague. I didn't hear that testimony. That is a leading question. It would be better if it were phrased in a less leading fashion.

ALJ BUSHEY: Try and tie it back to something that he said previously.

MR. MALKIN: Q Did you testify to what

the MAOP of design for Segment 109 would be if you literally followed the code and didn't include the joint efficiency factor the way PG&E does?

A And yes, I did it on the telephone, so I'm not sure I got it exact. But I believe it's 412. 412 pounds would be without the joint efficiency factor.

Q Last question. Despite the fact that you consider a change of MAOP on Segment 109 to be a hit in your terminology, do you have any doubt in your mind about the safety of that line over the past two years?

A No, I think the line is fine. 330 pounds is perfectly safe operating pressure for the pipeline, and so the line I think is fine.

MR. MALKIN: No further questions, your Honor.

ALJ BUSHEY: Thank you, Mr. Malkin.

MR. LONG: Your Honor, could I just ask about that 412 calculation? I must have missed that.

RECROSS-EXAMINATION

BY MR. LONG:

Q So Mr. Harrison, tell me what 412 represents?

A So if you calculate the -- the SMYS

-- the pressure that you could operate the pipeline at, not operating it out of class, but ignore the 0.8 joint efficiency factor, taking what the code says at 1.0, then you get a 412 pressure I believe.

Q Okay. And that was earlier today that you said that?

A Well --

MR. LONG: Anyway. Okay. I understand what you're talking about. Thank you. That answers my question.

CROSS-EXAMINATION

BY MS. BONE:

Q A clarification. Which code section are you referring to?

A Well, we're talking about the design formula essentially without the joint efficiency factor in it, so it's two times the SMYS times the wall thickness divided by the diameter and then take 50 percent of that.

Q So that's 192.105?

A Yeah, in effect. But again, without the joint efficiency factor in it.

MS. BONE: Understood. Thank you very much.

ALJ BUSHEY: Any final questions for the witness?

Ms. Strottman.

MS. STROTTMAN: I just have one.

RECROSS-EXAMINATION

BY MS. STROTTMAN:

Q Thank you, Mr. Harrison. You -- it seems like -- and please let me know if I'm mischaracterizing this -- your testimony -- that you feel badly because you think you've generated a lot of work that's not necessary as a fallout from your e-mail; is that correct?

A That's right.

Q So if PG&E reported these issues of Line 147 and 101 right away to the CPUC, we wouldn't all be sitting here; is that correct?

MR. MALKIN: Objection.

ALJ BUSHEY: Speculation. Try again.

MR. MALKIN: It's also outside the scope or redirect.

ALJ BUSHEY: We just need one reason.

MS. STROTTMAN: I don't think that is outside the scope but --

Q So Mr. Harrison, we are all here, isn't that correct, because PG&E waited four months to tell the CPUC of these issues and nine months to tell the parties involved; isn't that correct?

MR. MALKIN: Objection, argumentative, speculative.

MS. STROTTMAN: I don't think that's argumentative, and I'm not sure that's speculative. I mean, we all know why we're here.

ALJ BUSHEY: Well, then why do we need to ask?

MS. STROTTMAN: It would be nice for him to answer but --

ALJ BUSHEY: Yes, we're here because of some rulings I wrote.

MS. STROTTMAN: My point is that if PG&E had been forthcoming -- it's not Mr. Harrison's fault that he thinks he generated a lot of work. PG&E should have reported these issues to the Commission and then to the parties, and then we wouldn't all be sitting here.

ALJ BUSHEY: Thank you for your perspective on that, Ms. Strottman.

MS. STROTTMAN: Thank you.]

ALJ BUSHEY: Anything final for the witness?

(No response)

ALJ BUSHEY: Hearing none, then the witness is excused.

Ms. Strottman, your client wanted to

make a statement.

MS. STROTTMAN: Yes. Thank you.

STATEMENT OF MR. RUBENS

MR. RUBENS: Your Honor, I suppose I have a unique role here as representing a party, and I'm the city attorney for the city. I've been the city attorney for five years. It's not really in the record, but I was the interim city attorney for the City of San Bruno when the disaster happened there. So I'm intimately involved in what can happen when a pipeline fails. It's catastrophic.

The City of San Carlos didn't seek this process. It was imposed upon us when we were presented with an e-mail on October 3rd of this year. Your Honor reacted to that and issued an order which resulted in this proceeding. And it's an expedited proceeding. We have asked for time to have our expert further evaluate, and that hasn't been granted. Perhaps there is still time depending on when the CPUC considers it. Special counsel mention that request for further review on that.

The public is very concerned about the safety of Line 147 in San Carlos. It runs through the heart of the town. It passes thousands of residences past. I've

walked the line. Many of the places where the line is it's less than 25 feet from the front doors of homes. Sometimes it goes between people's yards. Sometimes it's right behind their house depending on where it is in the line. It passes a city park. It goes through a city park. It goes through a nature preserve. It passes over the Hetch Hetchy Aqueduct. It's a very serious line. Its safety must be assured.

I think the credibility of PG&E is relevant, with all due respect to your Honor, and that's because the reason we're here, and I know this is argument, but the reason we're here is because it was 11 months until the City of San Carlos was given the e-mails that we consider red flag e-mails. They may be able to be explained after the fact, and there are sworn statements that try to explain that, but the fact is when you look at the e-mails and you see them, there were serious concerns raised.

And PG&E, instead of reporting it to the CPUC and taking immediate action to communicate it to the City of San Carlos, which might have created a different procedure here, they decided to hide it. And they decided to hide it because the winter

season. That's all the sworn statements. And because of this rushed proceeding I spent the whole weekend reading them all. They all say from PG&E employees the winter season was a major factor in their decisionmaking process.

So what I see when I look at these sworn statements is that PG&E decided, rather than go through a safety process because of what they discovered about the type of pipe there and the leak, they decided, we're just going to go with system rather than safety. That's what I see. Because that's what they were -- that's why they delayed. There can be only one explanation why they delayed, and that's it.

The city -- the one point that I saw today in these hearings that I think needs to be underlined is PG&E is relying on a standard that doesn't make any sense. They're saying because it's pre-1970 pipe that was operated before 1970 that it can have a higher standard than known pipe that's in the ground. And that makes no sense to me at all. Unknown pipe has -- can run at a higher operating pressure than known pipe. That just doesn't make any sense. I think that's part of why the public is so upset

about this because PG&E does not know what's in the ground there, and they still don't. None of the testimony in these hearings have shown that they know what's in the ground. In fact, they admit they don't know what's in the ground.

So in conclusion, we have requested this hearing that we want safe pipeline through San Carlos. If that includes replacing the pipe, if it includes proper -- applying the proper standard until PG&E can get the resources and mobilize to get the pipe repaired, that's what we're after in this proceeding.

So I wanted to say that for the record. I know that I'm not testimony. I'm fully aware that I'm argument, but because I'm the city attorney and, you know, local government is closest to the people, I think I need to make that statement for the record. Thank you.

ALJ BUSHEY: All right. Thank you.

MR. MALKIN: Your Honor, if we may. I don't want as a lawyer to take on Mr. Rubens' statements, but the point that he makes that is really important is the concern of the public. And we would appreciate it if you would allow Mr. Rosenfeld to briefly address

that question to put the mind of the public at ease as to the safety of this pipeline.

ALJ BUSHEY: Mr. Rosenfeld, are you prepared to make such a statement?

MR. ROSENFELD: Yes, I am.

ALJ BUSHEY: Yes. Let's do that. Mr. Rosenfeld, please come forward.

MS. STROTTMAN: Your Honor, I'm sorry. I'm going to object to this. He's already testified. I don't know. It's like --

ALJ BUSHEY: No. I let Mr. Ruben make a speech about the interest of the public. I'm going to ask Mr. Rosenfeld to come back here and address the public. Don't address us. Address the public and tell them what his response as a nationwide expert is on these issues. I think that's exactly to the point of what we're doing. And Mr. Rosenfeld is uniquely in a position to address the public. So please come forward, Mr. Rosenfeld.

MR. MALKIN: Would you like him to take a seat up there?

ALJ BUSHEY: Yes. Please be seated.

MR. MALKIN: Or have my seat?

ALJ BUSHEY: Mostly for the convenience of the court reporters.

You remain under oath. You have

heard the statement. And I'd like you to conceptually address your comments to the members of the public who live near Line 147.

MICHAEL ROSENFELD

resumed the stand and testified further as follows:

THE WITNESS: Sure. You know, the concerns are understandable, but, and I think it's reasonable that, for example, that David Harrison was asking the questions he was asking. I think the kinds of -- there are no bad questions. The issue is, you know, what's -- how do we know that it's safe. How do we -- you know, is PG&E being prudent in the way they're approaching things?

I think that, well, I've tried to look at the safety aspects of this pipeline from a number of different angles including what was provided for in the regulations historically and currently. What do I interpret the CPUC's expectations to be in terms of re-verifying the integrity of the pipeline. You know, certainly a lot of questions have come up about is the hydrostatic test effective because there was a leak afterwards.

And so I tried to look at it from

the standpoint of what do we know about -- what can we say about the safety of the pipeline having been hydrostatically tested to essentially twice what PG&E proposes to operate it at. And this is not, you know, a hydrostatic test. It's a proof test. It's called a proof test because it proves the ability of the pipe to do what it's supposed to do. You know, conceptually it's like saying if the bridge can hold an 80-ton truck, it's logical that it can hold up a 40-ton truck, and it doesn't matter what the bridge is made out of. Whether it's wood, stone, wrought iron or, you know, high test steel, it can do that job.

So the hydrotest, and this is -- this is not radical new science. It's pretty well -- well trod ground in terms of understanding how something like a pipeline or a pressure vessel or things like that can be safe. So we know it works. It's been done, practiced for decades. So, and a successful test can make up for or can help compensate for some things that aren't known such as every -- the complete description of every piece of pipe. And that relies on the fact that the hydrotest was performed to a pretty high level over and above what the

pipeline operates.

So taking -- you know, I know that the City of San Carlos has asked for a fracture, fracture mechanics or fracture control approach to this. Well, the explanation for why what happened in San Bruno would not happen here as a result of due to damage caused by the test or due to some fairly -- fairly uncommon sorts of metallurgical concerns such as pressure reversals comes -- the assurance of that actually comes from a fracture mechanics analysis of what you get out of a hydrostatic test. And that's very well documented in the technical literature as well if you wanted to do your own research.

So I feel very comfortable about what the hydrotest proves. The fact that a leak occurred sometime afterwards is interesting, but you know, it is not proof that the hydrostatic test doesn't demonstrate the strength of the pipe.

So, and then the other -- another approach that I took here was that I know that the hydrostatic test is not a -- it's not a silver bullet. I mean it does not deal with every possible concern that could happen with the pipeline over time. There are

things that it doesn't address. So I tried to look at it from the standpoint of what -- what are the integrity threats or integrity concerns that do affect natural gas pipelines as demonstrated through cumulative industry experience, through reportable incidents that are presented or that are reported to PHMSA and what industry guidelines say about dealing with that and just tried to work through each one of those.

Do we have evidence that there's a problem, or do we have evidence that any condition has worsened in the last two years with respect to those particular things. And I don't -- I don't see evidence that there's -- that there are other problems affecting the pipeline.

So you know, and then finally, I think I alluded to this on Monday, I thought, well, knowing what I know about A.O. Smith pipe or about hydrotesting or pipelines in general or risk assessment, how would I feel if I were living near this pipeline? There's a pipeline that goes through my neighborhood. It's not next to my house. It's a propane pipeline, but if it failed it would be -- certainly be a bad thing. I'm conscious of its presence. So I certainly am able to I

think put myself in the point of view of how would I feel about living next to this particular pipeline.

I think all of the evidence points to it being a safe pipeline. I don't think I would feel terribly concerned about that. In fact, there are many, many, many other things that pretty much everybody here in this room is exposed to in terms of risk, whether it's traffic accidents or food poisoning or, you know, poor medical treatment or things of that nature that are much more likely, present much higher risks I think than this particular pipeline. So that's my take on it.

ALJ BUSHEY: Thank you. Thank you, Mr. Rosenfeld. All right. Is there anything else to come before the Commission on this matter? You have your objection on Line 147.

MS. BONE: We need to enter documents into the record, and if possible we'd like a few minutes off the record with PG&E to see if we can stipulate to most of them and make this easier.

ALJ BUSHEY: Okay. We'll be off the record.

(Off the record)]

ALJ BUSHEY: We will be back on the

record.

While we were off the record we identified Exhibit O. That is going to be the Felts testimony. SED advocacy is going to provide me a copy of that.

(Exhibit O was marked for identification.)

ALJ BUSHEY: Exhibit P is the Roberts testimony.

(Exhibit P was marked for identification.)

ALJ BUSHEY: And Exhibit Q is the Roberts support.

(Exhibit Q was marked for identification.)

ALJ BUSHEY: Are there any objections to Exhibits A through N? Any objections to receiving A through N into the record?

MS. BONE: We are still working on that.

MR. MALKIN: I believe we may have some objections. I'm trying to -- I have no objection to A. Although, we are talking about whether we need to redact.

MR. VALLEJO: No, I was thinking Exhibit A to the safety --

MR. MALKIN: Oh.

MS. BONE: Oh.

ALJ BUSHEY: Hearing Exhibit A through N.

MR. MALKIN: No objection to A. No objection to --

MS. BONE: Can I fill in, Joe, are you working on that?

MR. MALKIN: Yes.

MS. BONE: On K?

So PG&E has stipulated to the entry of K into the record, the ones you are asking about, but we are going to need to redact it. So we will do a late filing to get that copy to you. And we've agreed that it can be filed with the redaction of the second and third columns.

ALJ BUSHEY: So the version of K that I have should be removed?

MS. BONE: Correct, and we will get you a new one.

ALJ BUSHEY: Any objection to any others?

MR. MALKIN: We are going through. We've gotten up to F, and we have no problems.

ALJ BUSHEY: Okay.

MR. MALKIN: G is good.

ALJ BUSHEY: We will be off the record.

(Off the record.)

ALJ BUSHEY: Back on the record.

While we were off the record Exhibits A through J which have been previously identified have been received into evidence.

(Exhibits A thru J were received into evidence.)

ALJ BUSHEY: We will be off the record.

(Off the record.)

ALJ BUSHEY: We will be back on the record.

While we were off record we addressed Exhibit K. It has been removed from the documents offered in hearing.

MS. BONE: That is not exactly right. The K that we talked about earlier is still there. The one on the marine standards.

MR. MALKIN: That was my error. It had originally been marked as K, but then it was withdrawn and K was used for this other exhibit that we have no objection to with the agreed redaction of two columns. That would allow one to precisely identify locations of the pipe.

ALJ BUSHEY: That is what I understood. So Exhibit K that has been provided to me has been removed from the record. A late-filed revised Exhibit K with two columns redacted

will be provided to me.

We will be off the record.

(Off the record.)

ALJ BUSHEY: We will be back on the record.

While we were off the record we discussed Exhibit N. The only portion of Exhibit N that was used as a cross-examination exhibit was the first page. I'm removing the other pages from Exhibit N. We will receive the first page only into the record.

(Exhibit N was received into evidence.)]

MS. BONE: Your Honor, there's an additional exhibit that we don't have that needs to be given a -- a letter.

ALJ BUSHEY: Okay. Can we do that when we get to the end of the letters because we've got things that have a letter that aren't in the record?

Exhibit N?

MR. MALKIN: Exhibit N we object to. It's a mishmash of things, very little of which was the subject of any questioning. If it gets boiled down to the things that were actually used in the hearing, then -- and I -- I don't include the one where the witness

said, "I don't recognize it," then we wouldn't object.

MR. LONG: Your Honor, I don't understand this principle that PG&E is using. They're e-mails. Is there something that they're worried about?

MR. GRUEN: Your Honor, in addition to that, I asked Mr. Harrison explicitly if there was any document in here with which he was not familiar.

ALJ BUSHEY: That's not the basis for getting something in the record as a cross-examination exhibit. You have to ask cross-examination on it.

MR. GRUEN: And I did ask cross-examination on each and every document in this exhibit, your Honor. And I asked Mr. Harrison. I asked extensive questions of both Mr. Johnson and Mr. Singh. I'm not following the exact grounds of the objection -- the basis for Mr. Malkin's objection on this.

ALJ BUSHEY: So Mr. Malkin, you're disputing counsel's assertion that questions were asked regarding each one of these seven packets.

MR. MALKIN: Yes. I think the record will accurately reflect that there were

questions about some of these. There was the blanket question, which as you said doesn't establish the basis for admission. There were some questions about certain of these documents, and as I said, if this gets boiled down to those, we would not have an objection.

ALJ BUSHEY: And who would you envision doing this boiling-down process?

MR. MALKIN: I would envision SED advocacy doing it in the first instance, and our looking at it and concurring.

ALJ BUSHEY: Okay. How soon can you do that, Mr. Gruen?

MR. GRUEN: Your Honor, I'm not clear. I explicitly -- and the record will reflect that I asked questions about every document.

ALJ BUSHEY: Then it will be very quick. And you'll just go through the -- the transcript with page citations for each one and you'll send it into them and the whole thing will come in.

MR. GRUEN: Understood, your Honor. I will work to turn that around by the end of the week.

ALJ BUSHEY: Okay. All right. So that will take care of Exhibit N.

And O is the Felts testimony. P is

Roberts' testimony. Q is the Roberts support. That brings us to an unallocated letter, which would be R. Ms. Bone?

MS. BONE: R. And PG&E has now stipulated that the exhibit Mr. Roberts sought to put in on Monday, which had an excerpt from the PRUPF can now be admitted because the entire document was included in the recent PSEP update proceeding.

ALJ BUSHEY: So that's going to be Exhibit R.

(Exhibit No. R was marked for identification.)

(Exhibit No. R [late-filed] was received into evidence.)

MS. BONE: Yes.

ALJ BUSHEY: Can I have a copy of it?

MS. BONE: I don't have it now so it will be late-filed.

ALJ BUSHEY: Okay. Any other documents?

MR. GRUEN: Your Honor, may I just clarify that in the case of Exhibit O, it includes both Ms. Felts's testimony as well as the exhibits that are referenced by her testimony?

ALJ BUSHEY: Okay.

MS. STROTTMAN: And your Honor we want

to late-file Dr. Stevick's testimony. Apparently there is some confidential information in there.

ALJ BUSHEY: What are you going to do about that confidential information?

MS. STROTTMAN: Give it to PG&E to redact it. Although we don't think it is confidential, but apparently just two lines need to be redacted.

ALJ BUSHEY: So Dr. Stevick's testimony.

MS. STROTTMAN: Mr. Malkin did stipulate to us entering it into testimony, but I just want to make sure you see it and make sure all the redactions are in there.

ALJ BUSHEY: You've got five days to do that. It will be late-filed Exhibit S.

MS. STROTTMAN: S?

ALJ BUSHEY: File it as redacted I don't want it under seal. Just everything redacted.

(Exhibit No. S was marked for identification.)

(Exhibit No. S [late-filed] was received into evidence.)

MS. BONE: Your Honor, I had an oversight. With regard to Mr. Roberts' testimony, which is now marked as Exhibit P

and entered into the record, there is one very minor errata that I wanted to bring to parties's attention. I'm not going to do a formal filing on it. It's Footnote 75 should be the same as Footnote 74.

ALJ BUSHEY: What page is that on?

MS. BONE: Towards the end on page 19.

ALJ BUSHEY: So Footnote 75 should be ibid.

MS. BONE: Yeah, ibid.

ALJ BUSHEY: All right. I made that correction in the official record.

Any further exhibits?

MR. MALKIN: Yes, your Honor. We have one. We would like to mark the workshop summary that we sent out that was commented on by both Mr. Roberts and Mr. Singh in the discussion this morning given that they both talked about it.

ALJ BUSHEY: Okay. Exhibit T. Is anybody going to object to that?

MS. PAULL: We object and if it's going to come in we've prepared a version --

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

While we were off the record, we

agreed to mark as Exhibit T the workshop summary presented by PG&E. It will only be marked for identification and not moved into the evidentiary record.

(Exhibit No. T was marked for identification.)

ALJ BUSHEY: We'll be off the record.

(Off the record)

ALJ BUSHEY: We'll be back on the record.

Exhibit U is ORA's version of the workshop summary. It's identified for the record, but not received into evidence.

Is there anything further to add into the record?

(Exhibit No. U was marked for identification.)

MS. BONE: Your Honor, if there are no further exhibits to add to the record, I thought it would be helpful to get some confirmation about certain other things just to ensure that we all agree that they are on the record, that there might be some open issues here.

Is PG&E's verified statement considered to be on the record of this proceeding?

ALJ BUSHEY: It's been filed and

served.

MS. BONE: So the answer is yes?

ALJ BUSHEY: Yes.

MS. BONE: And the same with SED's concurrents?

ALJ BUSHEY: Yes.

MS. BONE: Okay. And all of the documents that Mr. Singh also filed following up on PG&E's verified statements? Mr. Singh's documents --

ALJ BUSHEY: His supplements that were filed and served.

MS. BONE: Supplements, et cetera.

ALJ BUSHEY: Yes.

MS. BONE: And lastly with regard to the documents that are generally in the PSEP proceeding, this rulemaking, are they considered to be part of the record of this proceeding? Or do you separate -- do you designate the OSCs as something different?

ALJ BUSHEY: This is not an OSC. This is a re-pressurization.

MS. BONE: So you believe that all the records that are in the PSEP proceeding are part of the records of this proceeding?

ALJ BUSHEY: I don't see why not.

MS. BONE: Wonderful. Thank you.

MR. MALKIN: Well, that -- that opens

up two-and-a-half years worth of things that -- whatever.

ALJ BUSHEY: We can't ignore them. They're here.

Anything further?

MS. PAULL: Yes, your Honor I would like the record to reflect that while we were off the record, I renewed my request to have the safety certification -- PG&E's safety certification consisting of Exhibit A and B, the two exhibits that were filed October 11th and -- rather, served October 11th and 16th -- that they be made part of the record and that you denied that request.

ALJ BUSHEY: Yes, consistent with our past practice in dealing with pressurization, that information is not included in the formal record.

Is there anything further to come before the Commission?

MS. STROTTMAN: Yes.

MR. GRUEN: Your Honor, may SED do a late-served -- late service of Exhibit O, which is Ms. Felts' testimony.

ALJ BUSHEY: Yes, I already indicated that.

MS. STROTTMAN: Your Honor, I'm sorry. Are you going to outline a briefing schedule?

ALJ BUSHEY: No, there's no briefing.

MS. STROTTMAN: Oh, that's right. You're going to issue your Proposed Decision.

ALJ BUSHEY: Right.

MS. STROTTMAN: And then we can file comments --

ALJ BUSHEY: Comments on it.

MS. STROTTMAN: -- on the Proposed Decision.

ALJ BUSHEY: At this point, I don't know how realistic hitting the December 5th agenda will be.

MS. STROTTMAN: Okay.

ALJ BUSHEY: But certainly no later than December 19th. When the proposed decision comes out, you will have -- our practice has been a few days. And by a few, I mean between three and five days to file one round of comments on it.

MS. STROTTMAN: And, your Honor, I have a procedural question. The City of San Carlos is interested in some sort of order that if PG&E discovers some sort of leak on Line 47 that PG&E report it to San Carlos. Do you suggest a way --

ALJ BUSHEY: I suggest that the Mayor of San Carlos Carl Kirk Johnson and make that request.

MS. STROTTMAN: So that order cannot come from the CPUC?

ALJ BUSHEY: Well, it could, but they'll almost certainly voluntarily tell you that.

MS. STROTTMAN: I don't know about that, but --

ALJ BUSHEY: Well, why, don't you start with --

MS. STROTTMAN: Especially after --

ALJ BUSHEY: Why don't you start with a simple request to their executives, and if they turn you down, then you can file a motion in this docket.

MS. STROTTMAN: Okay. Thank you.

ALJ BUSHEY: Anything further?

Hearing none then, the record is closed on the Commission's consideration of Line 1 --

MS. PAULL: No. Aren't there late-filed exhibits scheduled to come in?

ALJ BUSHEY: We just went over that. With the late-filed exhibits, the record is closed.

MS. PAULL: Oh, with the late filed exhibits.

ALJ BUSHEY: With the late-filed exhibits, the record is closed on the

re-pressurization of Line 147.

THE REPORTER: I'm sorry. We're on the record.

ALJ BUSHEY: And this matter is submitted for Commission consideration.

Is there anything further to come before the Commission today? Hearing none, then this evidentiary hearing is concluded, and the Commission is adjourned. Thank you.

(Whereupon, at the hour of 4:57 p.m., this matter having been concluded, the Commission then adjourned.)

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.	Rulemaking 11-02-019

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, Alejandrina E. Shori, Certified Shorthand Reporter No. 8856, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on November 20, 2013.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 20th day of November, 2013.

_____
Alejandrina E. Shori
CSR No. 8856

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.	Rulemaking 11-02-019

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I, Ana M. Gonzalez, Certified Shorthand Reporter No. 11320, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on November 20, 2013.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 20th day of November, 2013.

_____
Ana M. Gonzalez
CSR No. 11320

BEFORE THE PUBLIC UTILITIES COMMISSION

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I, Thomas C. Brenneman, Certified Shorthand Reporter No. 9554, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on November 20, 2013.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 20th day of November, 2013.

_____
Thomas C. Brenneman
CSR No. 9554

BEFORE THE PUBLIC UTILITIES COMMISSION

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Order Instituting Rulemaking on the Commission's Own Motion to Adopt New Safety and Reliability Regulations for Natural Gas Transmission and Distribution Pipelines and Related Ratemaking Mechanisms.	Rulemaking 11-02-019

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I, Wendy M. Pun, Certified Shorthand Reporter No. 12891, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on November 20, 2013.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding.

EXECUTED this 20th day of November, 2013.

_____
Wendy M. Pun
CSR No. 12891