## BEFORE THE PUBLIC UTILITIES COMMISSION

## OF THE

## STATE OF CALIFORNIA

## ADMINISTRATIVE LAW JUDGE MARIBETH A. BUSHEY, presiding

EVIDENTIARY HEARING

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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1 SAN FRANCISCO, CALIFORNIA 2 NOVEMBER 20, 2013 - 9:05 A.M. \* 3 4 ADMINISTRATIVE LAW JUDGE BUSHEY: The Commission will come to order. 5 6 This is the time and place set for 7 the evidentiary hearing in Order Instituting Rulemaking on the Commission's Own Motion to 8 9 Adopt New Safety and Reliability Regulations 10 for Transmission and Distribution Pipelines 11 and Related Ratemaking Mechanisms. This is 12 Rulemaking 11-02-019. Good morning. I'm Administrative 13 14 Law Judge Maribeth Bushey, the assigned 15 administrative law judge to this proceeding. 16 I am expecting the assigned commissioner 17 Commissioner Florio for part of the hearing 18 today. He will be in and out. He had some 19 unavoidable conflicts. 20 We will begin today with a summary 21 from the parties regarding a workshop that 22 was held yesterday. I'd like to hear what 23 issues were resolved in the workshop and more 24 importantly what issues remain to be resolved 25 today in the cross-examination. 26 Shall we begin, I guess with the 27 parties as opposed to the Applicant PG&E, or 28 Mr. Malkin, would you like to begin with a

1 status report? 2 MR. MALKIN: We're happy to have Mr. 3 Singh do that. As you know, I was not there. 4 ALJ BUSHEY: That's right. 5 MR. MALKIN: But Mr. Singh was. And we also at least believe that the minutes that 6 7 we circulated last night are an accurate reflection of what occurred. And I guess 8 9 we'll hear from the parties whether there's 10 any disagreement about that. But I would 11 suggest we begin with Mr. Singh giving an 12 oral report. 13 ALJ BUSHEY: Okay. 14 MS. PAULL: ORA does not find the 15 minutes completely accurate, and Mr. Roberts 16 can explain how. Mr. Roberts can --17 ALJ BUSHEY: All right. The minutes 18 are not in the record. So let's start with 19 Mr. Singh's explanation of what he thought 20 happened yesterday, and then to the extent 21 the other parties disagree with his 22 explanation, we can then address those 23 disagreements. So Mr. Singh, do you want to just 24 25 come forward to the counsel table here so 26 that you can be heard. 27 MR. SINGH: Good morning, your Honor. 28 Good morning all. In terms of the workshop

yesterday, there were two main objectives of 1 2 the workshop that we covered. The first objective was to provide additional 3 4 explanation of the RCP hydrotest report results. And the second was provide 5 6 assurance that the entire length of Line 147 7 including all the shorts operating at or 8 above 20 percent SMYS were tested. 9 We had Mr. Larry Decker, who is the 10 executive engineer from RCP, on the call the first two to two and a half hours. 11 Mr. 12 Decker walked the parties through 13 specifically Test 43 B, which was subject to 14 questioning the day before as part of our 15 hearing process. The questions that he 16 addressed and specifically discussed was why 17 the actual pressure volume plot deviated from 18 the predicted curve. He also talked about 19 why there was a jig in the line at about 600 20 pounds of pressure. He explained that to all 21 the parties. His discussion is accurately 22 summarized from my perspective in the minutes 23 that were sent out yesterday. 24 Mr. Decker also apologized on behalf 25 of RCP regarding the data errors that were 26 included which led to guite a bit of 27 confusion in the hearing room the day before. 28 He also confirmed that that error and that

1	section of the report was irrelevant when it
2	came to establishing the MAOP of the line,
3	given that there was no yielding as a result
4	of that specific hydrotest that was
5	performed.
6	The next objective that was
7	discussed was did we strength test all of
8	Line 147 and the shorts operating at or above
9	20 percent SMYS. We had PG&E's engineering
10	team walk the parties through an in-depth
11	review of the shorts, the pipeline features
12	list for the main line and the shorts, the
13	strength test pressure reports, all
14	associated as-built drawings.
15	And at the conclusion of the review
16	we, specifically, myself, Mr. Johnson, asked
17	Mr. Roberts from ORA if we had confirmed that
18	PG&E demonstrated that all of Line 147
19	including all the shorts operating at or
20	above 20 percent SMYS have been strength
21	tested. And his response was affirmative.
22	MS. PAULL: And Mr. Roberts will need
23	to respond to that, have an opportunity to
24	respond to that.
25	ALJ BUSHEY: Ms. Paull, I would be
26	pleased to call on him in turn. Is it okay
27	if I run the sequence of events here.
28	Thank you, Mr. Singh. We'll next

hear from ORA. 1 MR. ROBERTS: So I do believe that the 2 minutes are -- pretty such describe what 3 4 happened. And I would say that with regard to the RCP report I think through the course 5 6 of the meeting we determined or we agreed 7 that those curves do not show yielding. So they -- so we don't have a concern. We still 8 9 have a concern with the fact that it took 10 three revisions of that report to get it 11 right. So we still have a recordkeeping 12 issue on that. But from a safe operation of 13 the line, I think ORA was convinced that we 14 don't have an issue based on the PV curves. 15 The second issue about the 16 completeness of the testing. I think the 17 notes are very close to fully accurate. I 18 think there's a little bit of a semantical 19 difference in that we were taken through a 20 quided tour of the main line drawing by 21 drawing tied back to the PFLs. So we did 22 look at everything that happened on the main 23 line. And so I can say that I verified -- I 24 feel confident that the main line has been 25 fully tested. 26 With regard to the shorts, we looked 27 in detail at two shorts, and I was taken 28 through that and convinced that those shorts,

two shorts had been tested. Based on the 1 2 course of actions during the day, I believe that PG&E has tested all the line including 3 4 the shorts. I have not tested whether the 20 percent SMYS limitation on shorts that were 5 6 not tested is applicable, but I trust that 7 that -- I don't doubt that that's consistent with the record, but I have not verified 8 9 that. 10 So in summary, I do feel like we can 11 move forward with the assumption that the 12 line has been hydrotested to support the 400 13 psi MAOP that the reports strove to provide. 14 We do still have an issue with the

15 recordkeeping in that my testimony raised 16 inconsistencies within the STPR reports. 17 Those inconsistencies are still there such 18 that if somebody wanted to go back and do the 19 same analysis I did, they would run into the 20 same road blocks unless they sat down with 21 PG&E or had access to all of PG&E's records 22 with some guidance to truly show that. So. 23 ALJ BUSHEY: So in summary. 24 MR. ROBERTS: In summary, we're 25 comfortable saying that the MAOP of test is 26 as PG&E has stated, and we're comfortable 27 going with that. The issues of recordkeeping

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are still open. We didn't try to address

1 those yesterday. Right. The broader issues 2 ALJ BUSHEY: 3 of recordkeeping are within sort of the 4 substantive component of the Order to Show Cause. Our focus here immediately is Line 5 147. 6 7 MR. ROBERTS: Correct. 8 ALJ BUSHEY: As I understand your 9 presentation, all of the issues that you have 10 been -- that the Office of Ratepayer 11 Advocates has raised regarding the safe 12 operation of Line 147 have been addressed, 13 and there are no outstanding issues related 14 to the safe operation of that line. 15 MR. ROBERTS: That is not correct. 16 ALJ BUSHEY: Okay. Please tell me what 17 issues remain. 18 MR. ROBERTS: So all we looked at 19 yesterday was hydrotest reports, the 20 hydrotesting of the line. So to the degree 21 that we were able to look at the documents 22 and confirm that the line had been 23 hydrotested, I can say that I believe the 24 line has been hydrotested to the pressure 25 that PG&E has stated. And so the MAOP of 26 test is as they've stated. 27 What we did not discuss yesterday 28 was what the quality control should have

1 been, what the records that were provided to 2 DRA, how well they support that assertion. And also there's also we have an issue of 3 4 what the other components of determining the MAOP would be, so for example, the MAOP of 5 design. We still have open issues with 6 7 regard to that that get into interpretation 8 of the federal regulations, which we agreed 9 in the meeting yesterday we couldn't go there 10 in the time we had. 11 And so we focused on the thing we 12 could do, and we did accomplish that goal, 13 but there's still an open issue about how you 14 interpret what's the safe and correct MAOP 15 for that line. And it's a legal 16 interpretation issue of the federal code 17 primarily. 18 ALJ BUSHEY: And this -- okay. Let's 19 try and put parameters around what -- where 20 we are. PG&E put forward their hydrotest 21 results as their demonstration of the safety 22 of the line. ] 23 You have no objection to their 24 hydrotest results, correct? 25 MR. ROBERTS: That's correct. 26 ALJ BUSHEY: So their evidentiary 27 presentation has been made and you do not 28 dispute, correct?

1	MR. ROBERTS: They have made statements
2	in the hearings about how one would establish
3	the MAOP that suggests the MAOP only can
4	be established based only on a hydrotest, and
5	ORA does agrees with that point.
6	ALJ BUSHEY: Right. But I'm just
7	focusing on the hydrotest.
8	MR. ROBERTS: So when you say
9	hydrotest, we resolved that yesterday.
10	ALJ BUSHEY: Okay, that's resolved.
11	MR. ROBERTS: Yes.
12	ALJ BUSHEY: Okay. So now, there's
13	this legal issue regarding the interpretation
14	of the code.
15	MR. ROBERTS: Correct.
16	ALJ BUSHEY: And tell me exactly what
17	that legal issue is.
18	MR. ROBERTS: Should I try?
19	MS. PAULL: Either way. If you would
20	like to.
21	MR. ROBERTS: I think where there
22	are two legal issues. One is with regard to
23	the SMYS you would apply to an unknown piece
24	of pipe. That's code section 192.107.
25	The more fundamental issue
26	ALJ BUSHEY: Back up. SMYS to an
27	unknown, that goes back to their forgotten
28	the name of it.

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1 MR. ROBERTS: PRUPF. ALJ BUSHEY: Procedure for unknown --2 3 MR. MALKIN: Procedure for Resolving 4 Unknown Features -- Pipeline Features. 5 Pipeline Features. MS. PAULL: 6 MR. MALKIN: PRUPF as it is. 7 ALJ BUSHEY: And PRUPF was part of the 8 PSEP, not to speak in complete acronyms, but 9 that was part of the plan put forward two 10 years ago. 11 MR. MALKIN: Correct. 12 ALJ BUSHEY: And approved by the 13 Commission last year; correct? 14 MR. MALKIN: Yes. It was actually 15 I believe approved by the Commission. Not 16 the specific document but the concept was 17 approved twice, once in the decision that set 18 off the formal PSEPs. That decision also 19 approved PG&E's proposed methodology for 20 doing the MAOP validation. I --21 ALJ BUSHEY: And then the general 22 concept sort of on a conceptual level. 23 MR. MALKIN: Right. 24 ALJ BUSHEY: Then it was brought down 25 to the detail level as part of the specific 26 PSEP plan. 27 MR. MALKIN: Correct. 28 ALJ BUSHEY: Okay.

MR. ROBERTS: I don't know that I agree 1 2 with that. The Ordering Paragraph 4 of 3 the decision said generically you can use 4 engineering assumptions on an interim basis. That's just a paraphrasing. 5 ALJ BUSHEY: I'm familiar with the 6 7 language, Mr. Roberts. MR. ROBERTS: What's that? 8 9 ALJ BUSHEY: I'm familiar with the 10 language. 11 MR. ROBERTS: Okay. What -- and I know 12 that the PRUPF was provided in the update 13 application and it's provided as 14 nonconfidential in that particular case. 15 I don't recall that the full PRUPF was 16 provided with the original PSEP application. 17 And certainly, the one that they're putting 18 forward in response to discovery now is 19 a different document than what they could 20 have possibly used for the PSEP, the original 21 PSEP filing. 22 ALJ BUSHEY: Why would it have to be --23 they had to have some sort of a protocol for 24 dealing with the unknowns. Two years ago, 25 they had to start --26 MR. ROBERTS: Correct. 27 ALJ BUSHEY: -- with something. 28 MR. ROBERTS: Yes.

There had to have been 1 ALJ BUSHEY: 2 some sort of a protocol. Has it been 3 updated, is that what happened? 4 MR. ROBERTS: Yes. 5 MR. MALKIN: The testimony on 6 September 6 was that it was constantly being 7 updated and improved. 8 ALJ BUSHEY: Okay. So this approach to 9 the unknowns has been approved at least twice 10 by the Commission. And sounds like it's up 11 again and the new details are up again in 12 the update proceeding. 13 MR. ROBERTS: Correct. 14 ALJ BUSHEY: So that issue has either 15 been resolved by the Commission or is before 16 the Commission in the update application. 17 MR. ROBERTS: Could we have a moment, 18 your Honor? 19 ALJ BUSHEY: Sure. We'll be off the 20 record. 21 (Off the record) 22 ALJ BUSHEY: We'll be back on 23 the record. Mr. Roberts. 24 25 MR. ROBERTS: I think what I'm trying 26 to characterize is that when we look at 27 the MAOP of the line using the design MAOP, 28 that use of the PRUPF entails more risk than

determining that number using the federal 1 2 minimum standard value. So that is the point I'm trying to make and that DRA -- that ORA 3 has a concern about it as it's related to 4 the -- you can't say that one is safe and one 5 6 is not. It's more a question of which has 7 greater risk. And so by using the federal minimum 8 9 standard, there is less risk to the people in San Carlos than if the PRUPF number was used. 10 11 So from our standpoint, every time 12 PG&E says we're using very conservative 13 values, it's difficult to hear that language 14 when the number they're using results in 15 a less conservative outcome than if 16 the federal minimum standard was applied. 17 ALJ BUSHEY: But this isn't anything 18 that's particular to Line 147. 19 MR. ROBERTS: It is an overarching 20 issue that does apply to 147. 21 ALJ BUSHEY: It applies to all 22 the lines that are contested pursuant to 23 the PSEP. 24 I've forgotten even what that 25 stands for. 26 MR. MALKIN: Pipeline Safety 27 Enhancement Plan. 28 ALJ BUSHEY: Pipeline Safety

1 Enhancement Plan. 2 Everything that's been tested 3 pursuant to the Pipeline Safety Enhancement 4 Plan has been tested in accord with that protocol for unknowns. 5 6 MR. ROBERTS: No. This -- so maybe it 7 will help if I mention the second legal 8 argument. 9 ALJ BUSHEY: Okav. 10 MR. ROBERTS: Because I think that 11 makes it a little more clear. What we've heard, it seems to be 12 13 that the perception at PG&E is that we can 14 establish an MAOP based solely on a hydrotest 15 outcome and that the design MAOP as provided 16 in section 192.619 is in some way irrelevant. 17 So that's probably the base issue. 18 When you -- if one assumes that per the 19 federal regulation the design MAOP does 20 matter, then this assumes SMYS value comes 21 into play because that determines the design 22 MAOP. 23 So it starts with, does 192.619 24 apply to all pipe in Line 147 or not? And 25 then if it does, how do we assign numbers for 26 unknown pieces of pipe or pipe with very 27 limited information that we now know to be in 28 the ground.

1 ALJ BUSHEY: But again both of these 2 apply to the entire enhancement plan effort. This is not -- there's nothing specific to 3 4 Line 147. So if this one's flawed, then all the rest of them are flawed; right? 5 6 MR. ROBERTS: Well, my understanding is 7 our primary objective in this hearing is to come out with what the safe MAOP for that 8 9 line is. Is that -- I believe I understood 10 that correctly. That when we're finished 11 with our hearing we can say yes, the 330 is 12 safe or no, it is not. 13 And so to do that, we have to have 14 determined does the design MAOP apply or not. 15 And if it does, is it correct to use PG&E's 16 PRUPF value of 33,000 psi as SMYS or is it 17 more correct to establish a design MAOP which 18 will drive the MAOP of the line based on 19 the federal minimum SMYS of 24,000 psi. 20 ALJ BUSHEY: All right. Well, I have 21 said enough on -- let's go back. 22 Mr. Malkin, what's your position on 23 this? MR. MALKIN: Well, your Honor, the 24 25 Commission's PSEP decision, first one that 26 your Honor authored, did away with 27 grandfathering in the following respect. 28 Under 619(c), the MAOP of Line 147 and all of

the other pre-1970 pipelines was established 1 2 based on the five-year high operating pressure from 1965 to 1970. And what 3 4 the Commission said was in the absence of a hydrotest on those grandfathered lines, 5 6 we're doing away with grandfathering, you 7 cannot rely simply on that historical 8 operating issue; you either have to go out 9 and validate it through hydrotesting or 10 replace that pipe. 11 So the whole purpose of 12 the exercise has been to conduct hydrotests 13 under modern subpart J standards with an 14 added spike test on the segments of high 15 consequence area pipe that had their MAOPs 16 established solely under the grandfather 17 clause with no hydrotest. 18 The Commission could have in that 19 decision but did not say that we're changing 20 the rules. We're not only saying you can't 21 establish -- rely solely on the historic 22 operating pressure, but you can't use that at 23 all. You have to go back and apply 619(a) as 24 if there were a brand new pipeline. And 25 contrary to the way GO 112 has always been 26 written and federal regulations were always 27 written, you now have to retroactively apply 28 those design factors including the section

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that Mr. Roberts has referred to, section 1 2 192.107 which the code says were not retroactive. PHMSA specifically said it was 3 4 not retroactive. The Commission specifically said was not retroactive. And the Commission 5 6 has never changed that. What the Commission 7 did change was to say you can't rely solely 8 on historic operating pressure. 9 PG&E, as you've heard, has gone 10 a step further with respect to Line 147, and 11 to Mr. Roberts' point, in fact is making that 12 line operate more conservatively than this 13 Commission's decision allows. Because you 14 heard from Mr. Rosenfeld, the hydrotest in 15 fact validates safe operation at the historic 16 400 psig. 17 PG&E isn't asking for 400 psig. 18 PG&E has conservatively applied the design 19 formula and come up with an MAOP of 330 that 20 it's asking for. 21 ALJ BUSHEY: Whose design formula? 22 It is the design formula MR. MALKIN: 23 set forth in the federal code, the part that 24 wasn't retroactively applied. PG&E has 25 retroactively applied. But pursuant to 26 the proposal it made to the Commission, that 27 the Commission has looked at twice, instead 28 of arbitrarily picking a 24,000 psig value

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1	for those pipe features as to which it does
2	not have complete verifiable and traceable
3	records, what PG&E has done is where it has,
4	for example, with AO Smith pipe, complete
5	traceable, verifiable historical purchasing
6	records that established that PG&E purchased
7	AO Smith pipe to different pipe
8	specifications, the least of which was 33,000
9	psi, others of which are 35,000, 42,000.
10	So PG&E, where it doesn't have
11	a complete verifiable, traceable record for
12	specific AO Smith pipe conservatively assumes
13	pursuant to the guidance of the June 2011
14	decision conservatively assumes the least
15	value of 33,000.
16	ALJ BUSHEY: Now Mr. Malkin, that
17	pipeline because of the leak, a portion was
18	removed and tested. Do we have an actual
19	number for that, for the tested pipeline so
20	we know what was really there?
21	MR. MALKIN: The piece that was cut
22	out?
23	ALJ BUSHEY: Yes.
24	MR. MALKIN: Where the leak was?
25	ALJ BUSHEY: Right.
26	MR. MALKIN: We know several things.
27	And this was in the Anamet materials.
28	We know it is AO Smith pipe. ]

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1	We know that when it was laboratory
2	tested, the actual yield strength was over
3	39,000 PSI. And we know that the yield
4	strength of the weld was over 40,000 PSI,
5	which as Mr. Singh said on Monday, if you
6	if you relied solely on that test result, you
7	would say a joint efficiency factor of 1 is
8	justified because the weld material is in
9	fact slightly stronger than the pipe body.
10	PG&E conservatively didn't use
11	those test results, and the Federal Code
12	wouldn't use a one-off test to change
13	specifications. PG&E conservatively used the
14	33,000. That's the lowest historical
15	purchasing record and applied a .8 joint
16	efficiency factor.
17	ALJ BUSHEY: Let me interrupt you for a
18	minute, Mr. Malkin. It sounds to me like
19	PG&E's assumption of 33,000 has been
20	supported by subsequent evidence that that
21	has been brought forward, and that is that
22	all of the evidence points to a much higher
23	number than what PG&E has been using. And
24	you may need to turn to Mr. Singh for this,
25	but other than on Line 147, has there been
26	any instances where PG&E has found A.O. Smith
27	pipe with less than 33,000?
28	MR. MALKIN: The answer to my knowledge

I know PG&E has had Exponent do a 1 is no. 2 number of burst tests on A.O. Smith pipe, which I'm not sure if Mr. Singh or 3 4 Mr. Harrison is the person with the most 5 knowledge about that. But my understanding 6 is those tests have uniformly shown the yield 7 strength of the A.O. Smith pipe to be above 33,000. 8 9 ALJ BUSHEY: Greater than 33. Do vou 10 want to confer with your clients for a moment 11 so that we can have one of them who knows the 12 answer to that come forward, or could the 13 person who knows the answer to that just walk 14 forward? 15 MR. MEYERS: Your Honor can I be heard 16 for a moment while this gentleman is coming 17 up. 18 ALJ BUSHEY: Certainly. 19 MR. MEYERS: I know Mr. Malkin is not 20 testifying, therefore, what he's saying, even 21 though it's in the record, is not evidence. 22 However, I heard Mr. Singh yesterday 23 specifically say that A.O. Smith pipe could 24 have come from other utilities. He testified 25 during the record that A.O. Smith pipe may be 26 A.O. Smith pipe purchased by PG&E, but it 27 also may be A.O. Smith pipe, quote, "from 28 other operators."

1	So if Mr. Malkin is saying they're
2	using PG&E's least specifications of 33,000
3	PSI, how do we know that that was the least
4	specifications for pipe that they acquired
5	from other utilities.
6	ALJ BUSHEY: Let's hold on that
7	thought, and let's follow-up on the actual
8	facts that have come forward subsequently.
9	Mr. Malkin, do you have a witness
10	that is that will
11	MR. MALKIN: Do you want to swear him
12	early?
13	ALJ BUSHEY: Yes, let's swear him.
14	DAVID HARRISON, called as a witness by Pacific Gas and Electric Company,
15	having been sworn, testified as follows:
16	
17	THE WITNESS: I do.
18	ALJ BUSHEY: Please be seated. State
19	your full name for the record and spell your
20	last name.
21	THE WITNESS: My name is David
22	Harrison. My last name is H-a-r-r-i-s-o-n.
23	ALJ BUSHEY: Okay. Mr. Malkin, we
24	don't want to get into everything. We just
25	want a narrow answer to a narrow question.
26	MR. MALKIN: I was going to seek
27	clarification of that and I appreciate that,
28	your Honor.

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1	DIRECT EXAMINATION
2	BY MR. MALKIN:
3	Q Mr. Harrison, you've been sitting
4	here and the specific question to you is are
5	you familiar with the testing of the yield
6	strength of A.O. Smith pipe that PG&E has had
7	performed?
8	A Yes, I am.
9	Q And could you please describe for
10	us the nature of the tests that have been
11	done?
12	A There's over the years, there's
13	been a variety of tensile tests,
14	yield-strength tests performed on A.O. Smith
15	pipe. There's records historical records
16	in, like, 1968, the 1980s of us doing tests.
17	We have and then we had Exponent burst
18	test the pipe this last summer. That was 7
19	to 9 pieces of pipe. I don't remember the
20	exact numbers. All of those cases, the test
21	results were all greater than 33,000
22	clearly greater than 33,000.
23	ALJ BUSHEY: That's all we need to know
24	for the moment, Mr. Harrison. So I'll let
25	you be excused for the moment.
26	THE WITNESS: Okay.
27	MR. MALKIN: May I respond to
28	Mr. Meyers' comment?

1	ALJ BUSHEY: Just hang on one second.
2	I want to get back to Mr. Roberts. So we
3	have a protocol. They've been following the
4	protocol. Every factor they've found in
5	apparently the last 30 years supports the
6	facts used in the protocol.
7	MR. ROBERTS: Can I respond?
8	ALJ BUSHEY: Sure.
9	MR. ROBERTS: So first of all, we have
10	certain lengths of pipe in the ground that
11	PG&E now says are A.O. Smith pipe that PG&E
12	has also said they can't say where it came
13	from. So we have this fundamental issue of
14	long lengths of pipe in the ground where we
15	don't have documentation saying where it came
16	from.
17	In that case, the Federal Code says
18	you can establish a minimum SMYS based on
19	tensile testing, but it also provides an
20	Appendix B, Section 2(d), which provides a
21	sampling protocol such that I'm not
22	disagreeing that the Anamet report says that
23	the tensile test of that sample was greater
24	than 24,000 or greater than 33,000 even.
25	But what the federal legislation has
26	acknowledged is that when you don't know
27	what's in the ground when it's hundreds of
28	feet of pipe, you can't draw a sample at one

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location and then carry that one piece of 1 2 data to represent the whole length of all the pipe that they've now classified as A.O. 3 4 Smith pipe. And I -- I have a line of cross for today which asks them specifically about 5 6 that protocol and if they followed it. Maybe 7 the testing they've done over the years has 8 in some way complied with that, but we haven't had a chance to ask that question. 9 10 MS. STROTTMAN: Your Honor, may I 11 comment, please, on behalf of the City of San 12 Carlos? It appears to me that the PRUPF if 13 I'm saying that correctly, results in unknown 14 pipe characteristics being given less 15 conservative MAOP values than newer segments. And it's -- it's our position and -- and I'm 16 17 going to cross-examine the witnesses on 18 this -- that PG&E still doesn't have 19 traceable, verifiable, and complete records 20 for every inch of Line 147. 21 We don't know where the A.O. Smith 22 pipe came from, and it's our stance that the 23 yield strength should be 24,000 PSI, which is 24 24 KSI. And we will put forward that 25 argument in our briefs but I just wanted to 26 let you know our position. 27 MS. PAULL: Your Honor, I'd like to say 28 something.

1	ALJ BUSHEY: Ms. Paull?
2	MS. PAULL: Clearly, there's a rather
3	complicated question of the correct
4	interpretation of the Federal Regulations of
5	192.619. ORA thinks that based on what
6	Mr. Malkin said and what PG&E witnesses have
7	said that they are not interpreting correctly
8	certain requirements of the regulation. We
9	would be happy to brief that. Maybe it would
10	be helpful to you if you could get we
11	could do this quickly, and it would be short.
12	But we could brief what we think is the
13	correct interpretation of these regulations
14	and how they apply in this case.
15	ALJ BUSHEY: But this isn't a new
16	issue. We've been applying this same
17	protocol for two years, and it's not just in
18	a Line 147 issue. If you're right, then
19	everything in the PSEP is wrong. So it's a
20	much, much bigger issue than just Line 147,
21	and that's why it's I don't see how we
22	resolve it in this re-pressurization
23	proceeding, which is the narrow issue before
24	us at the moment.
25	Mr. Malkin, do you have a response
26	to this?
27	MR. MALKIN: Yes, well, I think your
28	Honor is right. This is the way the

Commission has been interpreting it. 1 2 Mr. Roberts just I think revealed the -- what is -- he is not correctly understanding in 3 4 the code when he said that the code has a provision where if you've got some miles or 5 6 hundreds of feet of pipe in the ground, 7 there's a protocol for testing it. That is 8 exactly wrong. 9 The Code Section 192.107, which is 10 the pipe design section, applies to new 11 pipelines. If you look at 192.13, it makes 12 very clear that those pipe design 13 requirements apply to new pipelines installed 14 after a date in March 1971 and to 15 replacements of pipe installed after a date 16 in November of 1970. And so they -- they 17 were never intended by the Department of 18 Transportation -- Office of Pipeline Safety 19 at that time -- to apply retroactively to 20 pipe that was already in the ground. 21 As to pipe that was already in the 22 ground, it's the grandfather clause, which 23 this Commission has been wrestling with and 24 done away with as the sole basis for 25 establishing an MAOP. For two years, every 26 gas utility in this state has been proceeding 27 on the basis of the guidance provided by the 28 Commission in June of 2011. What PG&E did

1 here, as you've just rightly pointed out, is 2 no different from what PG&E has done through out its system and what the other utilities 3 4 are doing. Mr. Meyers didn't cite to the actual 5 6 transcript of Mr. Singh's testimony, and I 7 think his notes don't guite have it right. 8 What Mr. Singh said on Monday is where we 9 acquired a pipeline from another company --10 and as you know, PG&E over the years have 11 merged with and acquired companies, some of 12 which own pipelines. Where we acquired 13 another pipeline, we apply the federal 14 minimum because we don't know what their 15 purchasing standards were. Where it is our 16 pipeline that we designed and we installed, 17 we know what our minimum purchasing 18 requirements were, and we apply the historic 19 minimums. 20 In the case of Line 147, PG&E does 21 not have complete, verifiable, traceable 22 records to show which PG&E pipeline this pipe 23 came from and when. But there is every 24 indication that it came from Line 101 when 25 that line was redone. The one thing that 26 PG&E does know is it came from PG&E's system, 27 contrary to the inference that Mr. Meyers 28 drew that somehow this reconditioned pipe may

have come from elsewhere. The reconditioning 1 2 was always done to pipe that PG&E had in the 3 ground somewhere else and they had reused. 4 So the -- yes, it is -- it is true 5 that in terms of what Mr. Roberts is saying, 6 this is not the most conservative assumption 7 one could possibly make. The most conservative thing one could do would be to 8 9 shutdown all the pipelines. And that would 10 eliminate every conceivable risk except for 11 the risk of what happens to all of us without 12 natural gas service. And in the scheme of 13 things where this pipeline has operated 14 safely at 400 PSI, where it has been tested 15 to a pressure that justifies and validates 16 that 400, as you heard from Mr. Rosenfeld, 17 one of the leading experts in the world, and 18 the company proposes to operate it only at 19 330, there is a huge margin of safety. 20 And there is no conflict with the 21 code. There is no conflict with this 22 Commission's decisions about how to go about validating the MAOP and hydro testing lines 23 24 that have been historically grandfathered. 25 And given what you've already heard from the 26 parties about them now being satisfied, about 27 the hydro testing, I think as to Line 147 --28 putting aside records issues that you may

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1	well hear more about and let me say
2	parenthetically PG&E has always from day one
3	acknowledged it does not have complete,
4	verifiable, and traceable records of
5	everything in its system. That's why we do
6	the hydro testing. And the issue as far
7	as the issue of is this compliant with the
8	way this Commission has approached and
9	verified the safety of pipelines and was the
10	hydro test adequate, I don't think there's
11	any dispute.
12	MS. PAULL: Your Honor, may I respond?
13	ALJ BUSHEY: Yes, Ms. Paull.
14	MS. PAULL: Mr. Malkin spoke for a long
15	time. I'm not going to attempt to respond to
16	everything he said. Just three things.
17	One, the interpretation of the
18	regulations, it is somewhat complicated. I
19	think it's much easier to sort it out on the
20	basis of looking at the text of the
21	regulations and short written briefs, much
22	easier than hearing very long narratives
23	about it. So I again renew our offer for
24	to brief this particular issue.
25	The other thing is I want to correct
26	a misimpression that Mr. Malkin may have
27	created when he talked about things that
28	Mr. Roberts was saying about risk.

Mr. Roberts was not talking about lowest 1 2 possible risk. He was talking about less 3 risk if you use the values for unknown 4 pipeline features that are required by the 5 federal regulations as opposed to the ones 6 PG&E is using. That is -- was I clear, or do 7 you need to rephrase that? 8 ALJ BUSHEY: I understand your point. 9 MS. PAULL: Okav. And the final point 10 is very simple. I think everyone understands 11 this. But to bring it back to what really 12 matters, there's the MAOP established by the 13 hydro test. And that question is now 14 resolved for this line. There's the design 15 MAOP. There's questions about how that 16 should be calculated because of questions of 17 interpretation of the regulations. And the 18 assumption -- what assumptions must be used.] 19 The federal regulations, as you 20 know, require that if you have both the 21 design MAOP and the hydrotest MAOP, the 22 operator must use the lower of those values. 23 And that's not retroactive application of the 24 regulation. That is applying the regulation 25 to an MAOP validation being done now. That 26 is that the current criteria for establishing 27 design MAOP, those regulations apply to MAOP 28 validation being done now. And if PG&E

thinks otherwise, I think they're mistaken. 1 2 Again, we can brief this. We'd be 3 happy to brief it. 4 ALJ BUSHEY: We can brief this. And if PG&E is mistaken, then the Commission has 5 6 been mistaken for two years. And if it's 7 mistaken, it's not just Line 147 and it's not 8 just PG&E. It's every natural gas operator 9 in the state. 10 So if you want to pursue that issue, 11 it needs to be pursued in the sort of overall 12 perspective in this proceeding. That's the 13 place to make that argument and get 14 everybody -- get every natural gas system 15 operator's safety enhancement plan revised in 16 accord with your perspective on the 17 regulation, because right now all of the 18 operators are using the rules as adopted by 19 the Commission over the last two years. 20 MR. ROBERTS: Can I add something. I 21 believe that the added -- that the 22 requirements added by the decisions of this 23 Commission relative to PSEP, that basically 24 what it did is eliminate the grandfather 25 clause and required operators to go beyond 26 the federal standards by doing a Sub J test. 27 The use of engineering assumptions 28 in that decision is said to be used on an

interim basis for the purpose of prioritizing 1 PSEP work. I don't believe that that 2 decision in any way attempted to change the 3 4 MAOP of existing pipelines either before, during or after the PSEP-related work. 5 I mav have that wrong, but it doesn't seem in my 6 7 mind that we have done the PSEP 8 implementation wrong or that the Commission 9 has given the utilities direction to change 10 the way they calculate the MAOP of record on 11 their pipelines. 12 So I do agree that it's a bigger 13 scope than just Line 147 and it has serious 14 consequences systemwide. It doesn't seem 15 that it is quite as broad as your Honor has 16 suggested. 17 MS. STROTTMAN: Your Honor, the City of 18 San Carlos agrees with Mr. Roberts and Ms. 19 Paull's statements. Obviously there is a 20 difference of opinion on this issue, and we 21 feel like this should be briefed. And I just 22 wanted to note too and comment on Mr. 23 Malkin's statement that he said, you know, we 24 have every indication that the pipe came from 25 Line 101, but that doesn't mean that they 26 have traceable, verifiable and complete 27 records. 28 They have better than ALJ BUSHEY:

1	that. They have it on a yield strength test
2	that says it's 39,000. Why are you arguing
3	for 24 when we know as a matter of fact it's
4	39?
5	MR. ROBERTS: We know as a matter of
6	fact that at one point in that line that's
7	what the tensile strength of the piece of
8	pipe that they pulled out of the ground is.
9	ALJ BUSHEY: There's never been any
10	other piece in the last 20 years that they
11	have pulled out of their system that has been
12	below 33. You have no evidence to support
13	your assertion.
14	MR. ROBERTS: We have
15	ALJ BUSHEY: You have regulations that
16	the Commission has we have been at this
17	for two and a half years now. You know. And
18	if you want to pursue this, their updated
19	application is in. I expect it will be
20	assigned to me. And we'll put it in the
21	scoping memo, and we can litigate it there
22	and brief it there.
23	MS. STROTTMAN: But your Honor, what
24	proof do we have that every single inch of
25	147 is A.O. Smith pipe? What proof do we
26	have that they know what's in the ground,
27	every single inch of Line 147?
28	ALJ BUSHEY: That's why we did the

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pressure testing, because they don't. 1 We 2 decided that two and a half years ago. Thev 3 don't know. Therefore, we're going to at 4 great expense hydrotest or replace everything in the state. That's what we did two and a 5 6 half years ago. That's why we have a 7 hydrotest record right now that supposedly is 8 good to 400, 400 psi. 9 MS. STROTTMAN: That's fine. But it's 10 San Carlos's position that that line needs to 11 be replaced. ALJ BUSHEY: Well, the Commission 12 13 approved a PSEP plan last year that 14 segregated things between replacements and 15 hydrotesting. And if you want to -- I guess 16 you can't really relitigate the PSEP. 17 There's the update proceeding. You can 18 propose recat -- reprioritizing things. But. 19 to be honest, there are lots of segments of 20 pipeline in the state that have not been 21 hydrotested yet. So those are the next up in 22 priority. 23 MS. PAULL: Your Honor --24 ALJ BUSHEY: But we can litigate that 25 in the update proceeding if you want to 26 change the priorities. But a year ago we set 27 the priorities, we approved the plan, volumes 28 of plans. And everything was all laid out in

1 a three-year -- a three-year series of 2 priorities. This process is well underway, 3 and if you want to propose changing it, we 4 have a proceeding to do that, but this isn't 5 the one.

Your Honor, I'd like to 6 MS. PAULL: 7 make you aware of some information that has 8 been produced in this proceeding but not 9 offered into evidence. Possibly Mr. Harrison 10 would be able to speak to it. It's evidence 11 that -- well, as you -- once the company 12 found out what pipe it did have in the 13 ground, that cha -- under the PSEP decision 14 tree it may very well have been prioritized 15 for replacement rather than testing. And 16 this was a question that was discussed among 17 the engineers. It's a discussion in some 18 e-mails that, you know, have been produced. 19 Possibly Mr. Harrison could speak to 20 this, and it was one of -- I remember that 21 was one of the questions he raised. Now that 22 we know what's in the ground, now that we 23 know it has a joint -- a different kind of 24 seam and a lower joint efficiency, and I 25 don't remember about the SMYS, but now we 26 know that it has -- it's a different sort of 27 pipe, would it be prioritized under the PSEP 28 for replacement rather than testing.

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1	And there's at least one examination
2	under oath with one of the engineers who
3	works on the PSEP proceeding, has
4	responsibilities for the PSEP plan, said yes,
5	it would have been it would have been
6	prioritized as replace rather than test.
7	Maybe people think that doesn't
8	matter because it's been tested now.
9	Apparently that's what that engineer I'm
10	thinking of Mr. Manegold, who was one of the
11	engineers examined under oath by Mr. Shori.
12	Maybe engineers feel, well, it was tested.
13	So now it doesn't have to be replaced. But
14	had they had correct information, it looks
15	like it would have been replaced rather than
16	tested. So maybe this really does matter.
17	ALJ BUSHEY: Well, Ms. Paull, yes, this
18	does matter. That's why we're all here. But
19	we can't go back in time. If they would have
20	known then what they know now, the decision
21	tree would have led to a different result.
22	But it's not then. It's now. And in between
23	those two times at great expenses and great
24	inconvenience the line was pressure tested.
25	Now the information is available.
26	We've fundamentally changed the equation.
27	Now we have a piece of pipeline that has been
28	hydrotested and will come out in a very

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different place in the decision tree because 1 2 it's been hydrotested. 3 MS. PAULL: Yes. 4 ALJ BUSHEY: So that -- we have to work with what we know now. And what we know now 5 6 based on every -- every expert who has looked 7 at this agrees that this line is safe to 8 operate up to 400 pounds per square inch. 9 So. 10 MS. STROTTMAN: I'm sorry to interrupt, 11 but our expert, Dr. Stevick, did not testify 12 to that. 13 ALJ BUSHEY: Okay. 14 MS. STROTTMAN: So I just wanted to 15 highlight that. 16 Okay. So it sounds like ALJ BUSHEY: 17 ORA's objections go to the protocol for the 18 entire PSEP plan, which we can take up in the 19 broader proceeding. 20 MR. ROBERTS: I just received a note 21 that somebody looked -- one of our team 22 looked back at the decision and clarified 23 that the MAO -- excuse me -- the MAOP 24 decisions -- I'm assuming that's the 25 decisions to raise MAOP on these lines -- did 26 not address the interpretation of federal 27 regulations and that PG&E's what we think 28 mistaken interpretation of that code is being

1	raised here for the first time. So.
2	ALJ BUSHEY: Absolutely. The
3	repressurization decisions would not have
4	looked at that. They would look at the
5	supporting evidence which was specified in a
6	decision in 2011. We set it out, and it was
7	basically hydrotest results. That's what we
8	said. Bring us hydrotest results, and we
9	will authorize repressurization. They
10	brought us hydrotest results two years ago.
11	Authorized repressurization. They came back
12	with corrected ones now, and they're
13	requesting reauthorization to 330.
14	That's where we are. We're in a
15	very narrow review of a very narrow question
16	with a very specific evidentiary requirement.
17	And to the extent you want to challenge the
18	way, the protocol for the PSEP, that is
19	something that should be addressed in the
20	update application if you don't like the
21	interpretation there, because it goes it's
22	not just to Line 147. It's everything
23	throughout the state.
24	MS. BONE: Your Honor, if the
25	Commission is using an incorrect protocol to
26	set MAOP that is not consistent with federal
27	regulations, that is an issue that needs to
28	be addressed here when you decide to set the

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next MAOP for Line 147. It cannot be 1 2 ignored. It would be legal error to ignore 3 the fact that we have an improper application of the federal code to calculate the MAOP. 4 5 MAOP is not just based on hydrotest 6 records. You take the Subpart J record, and 7 you run it through the requirements of 619, and you look at the design MAOP as well. And 8 9 that section is the one that determines what 10 MAOP does. You cannot ignore that section to 11 set MAOP. And that is what appears to be 12 happening here. 13 ALJ BUSHEY: If it's happening here, 14 then it's happened throughout this 15 proceeding. I don't agree that it is 16 happening here. 17 But we need to get started. We've 18 spent an hour on this now. And it appears 19 that there are no factual disputes. If there 20 are any disputes, they're legal disputes. 21 MS. BONE: That's not correct, your 22 Honor. There are a number of factual 23 disputes. 24 MS. STROTTMAN: And I agree with Ms. 25 Bone. 26 ALJ BUSHEY: Okay. What are the 27 factual disputes? Let's get down to that. 28 MS. BONE: PG&E's showing in this case

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1 to support the 330 MAOP is not complete. Ιt 2 has not made that showing. It has not 3 provided data. 4 ALJ BUSHEY: Ms. Bone, that's argument. Give me a disputed issue of material fact. 5 MS. BONE: The material fact is that 6 7 Exhibits A and B do not contain data to support PG&E's assertion that every foot of 8 9 Line 147 has been tested. 10 ALJ BUSHEY: Mr. Roberts, this is your 11 counsel. 12 MR. ROBERTS: That's correct. 13 MS. PAULL: Traci Bone is co-counsel 14 for ORA. 15 ALJ BUSHEY: Right. I understand that. 16 But didn't you just tell us at the beginning. 17 MS. PAULL: What Ms. Bone was saying is 18 that the safety certification doesn't -- she 19 wasn't saying that the line has not been 20 tested. We now know -- we now much more 21 confident that it's been tested. What she 22 was saying is that you couldn't tell that 23 form the safety certification, which is 24 PG&E's evidentiary support for its pressure 25 restoration request. 26 ALJ BUSHEY: So what do you want them 27 to do? Do you want them to put more 28 information in the record?

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1	MS. PAULL: Their safety certification
2	to the Commission should, number one, be in
3	the records because a key piece of evidence,
4	and number two, when reviewing it one should
5	be able to determine that's the factual
6	confirmation of what PG&E executives are
7	saying. PG&E executives are testifying and
8	saying things. The information in that
9	safety certification, you're supposed to be
10	able to confirm what they're saying in there.
11	So if that doesn't if they don't
12	match, something is wrong with PG&E's
13	showing. I think that is the point that Ms.
14	Bone was trying to make.
15	MS. BONE: That is exactly the point.
16	This Commission, as we reminded in opening
17	statements, has an obligation to look at the
<u>т</u> /	beatements, has an obligation to rook at the
18	evidence on the record, and that the evidence
18	evidence on the record, and that the evidence
18 19	evidence on the record, and that the evidence should support its decisions. And in order
18 19 20	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
18 19 20 21	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
18 19 20 21 22	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
18 19 20 21 22 23	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.
18 19 20 21 22 23 24	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.
18 19 20 21 22 23 24 25	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.
18 19 20 21 22 23 24 25 26	<pre>evidence on the record, and that the evidence should support its decisions. And in order for PG&amp;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</pre>

1	satisfied that every foot has been pressure
2	tested?
3	MR. ROBERTS: I clar so PG&E in
4	their workshop statement said that we have
5	that we have certified the entire line has
6	been tested. What I said is that in my
7	opinion after that workshop that I believe
8	that the line was hydrotested.
9	I still stand by my testimony which
10	says that Appendix A to their October 11th
11	filing, which, as Ms. Bone said, is the
12	evidence that I thought I needed to look at
13	and analyze to determine the validity of
14	their statement, this still does not support
15	the assertion that every inch of pipe has
16	been tested.
17	On the one hand, I now I believe
18	the line was hydrotested. There is no
19	evidence in the record that it has been. So
20	that's the difference. We had a workshop
21	where I think all the experts that were there
22	for parties concurred that we don't
23	believe that we believe that the MAOP of
24	test is correct, that that is a different
25	thing from saying that PG&E has in this in
26	response to this OSC provided the evidence to
27	support that. And I did raise that point at
28	the end of the workshop yesterday as well.

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1	ALJ BUSHEY: Okay. This isn't an OSC.
2	So there's no dispute about the fact. The
3	only dispute is about what's been presented,
4	that they haven't presented the correct paper
5	to the Commission?
6	MS. PAULL: No, your Honor. They
7	haven't met their burden of show of
8	demonstrating that they have correctly
9	calculated the MAOP that they are requesting.
10	It's PG&E's burden to produce that evidence.
11	You will recall the NTSB, when the
12	NTSB in their accident report on San Bruno,
13	they said, they had a number of findings
14	where they said, PG&E says X, but our
15	investigation when we look at the data does
16	not confirm that.
17	ALJ BUSHEY: What does that have to do
18	with
19	MS. PAULL: That the safety
20	certification should is the key piece of
21	evidence to support the restoration of the
22	pressure of the line.
23	ALJ BUSHEY: Right. I understand that.
24	But Mr. Roberts has met with them and gone
25	over their information, and he factually
26	agrees that they have done it. The only
27	dispute I'm hearing is that somehow there's
28	some pieces of missing paperwork to make that

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demonstration. Is that what --1 2 MS. PAULL: No. 3 ALJ BUSHEY: That's not a disputed 4 issue of material fact. 5 MS. PAULL: No. There is a dispute, as you know, your Honor, about how to correctly 6 7 calculate the design MAOP. That is one 8 dispute. 9 ALJ BUSHEY: That is a legal issue. 10 I'm looking for a disputed issue of material 11 fact. I want a fact that PG&E has asserted 12 that ORA asserts a different fact, actual 13 fact in the real word. 14 MS. PAULL: Well, our assertion is that 15 the showing they have made in their safety 16 certification is not sufficient to support 17 their request. 18 MR. ROBERTS: I can add another one. Ι 19 believe it is a -- I believe this is a fact 20 that you're looking for. PG&E is asserting 21 that they can determine the SMYS of the line 22 based on the sample that Anamet tested. Ι 23 think it's a factual dispute whether that one 24 piece of evidence can stand to represent the 25 entirety of all the A.O. Smith pipe in Line 26 147 and other unknown -- other pieces of pipe 27 which their PFL says are unknown. 28 So in essence, in the safety

certification in the hearings we have seen I 1 2 believe two test reports, one within the section where 109 leaked, and the other where 3 4 they tied in between two hydrotests. We have two data points that --5 So it's a statistical issue. 6 When 7 they can't provide complete traceable records of what's in the ground, then we have to 8 9 somehow ascertain what's in the ground. And 10 the common engineering practice is if 11 something is unknown you sample with a 12 formula that allows you to say that a finding 13 in one point can be applied to the general 14 population. And the federal standards 15 actually account for that if you want to 16 establish a SMYS based on tensile testing. 17 So I think it is a factual dispute 18 whether the Anamet report, or I believe it's 19 reports, can be used to establish a SMYS that 20 is -- that accurately represents the unknown 21 pipe in Line 147. 22 ALJ BUSHEY: But you've now come in a 23 full circle back to the protocol for the 24 unknowns. We have a protocol for dealing 25 with that. And do you have any assertion 26 that PG&E is not complying with that protocol 27 that the Commission has adopted over two 28 years ago?

1 MR. ROBERTS: I can -- a factual 2 dispute that the document they provided to us 3 is dated October -- October of 2013. The 4 PRUPF that was provided to us as evidence was not the PRUPF that led to the PSEP filing. 5 6 They had a protocol. The Commission 7 adopted a very broad definition of the use of 8 engineering assumptions. That is not the 9 same thing as, in my mind, the Commission 10 taking a document which had been approved by 11 PG&E management and saying, yes, we agree 12 that you can use this on an interim basis to 13 establish characteristics for unknown pieces 14 of pipe. 15 PG&E has been modifying that 16 And I think evolution is a good process. 17 idea, but you do need to start from someplace 18 solid and change. 19 But I guess my central point was 20 that protocol itself, the one that they 21 provided in this venue, was not directly 22 approved by this Commission and your Honor in 23 the decisions relevant to the PSEP. 24 ALJ BUSHEY: Okay. So other than legal 25 argument about the unknown protocol, I 26 still -- what disputed --27 MR. ROBERTS: I'm sorry. 28 ALJ BUSHEY: -- issue of material fact

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is there? 1 2 MR. ROBERTS: A separate related issue is that if -- so we do have the PRUPF, and we 3 4 can now look at it because it was provided non-confidentially in the new PSEP 5 6 application. 7 We have evidence that it was -- that 8 PG&E's own process was not applied correctly 9 for Segments 107 and -- I'm sorry -- 108 and 10 Segment 108.7. 11 So setting aside what the federal 12 government says to do, it appears that PG&E did not correctly apply their own process, 13 14 which is something we saw many times in the 15 PSEP application. 16 ALJ BUSHEY: In what way? 17 MR. ROBERTS: My testimony went into a 18 lot of detail about where PG&E's decision 19 tree was not followed in determining the 20 mitigation that was performed on individual 21 pipelines, pipeline segments. 22 ALJ BUSHEY: Decision tree. 23 MR. ROBERTS: I'm going back in time to 24 the PSEP. What I'm saying here --25 ALJ BUSHEY: I need you to get 26 focused --27 MR. ROBERTS: Right. 28 ALJ BUSHEY: -- on Line 147 and the

specific evidentiary requirements for 1 2 repressurization authorization. It's very 3 simple, and it amounts to a hydrotest. 4 As I hear ORA's position, they, ORA has agreed with PG&E that the line has been 5 6 hydrotested. Is that an accurate statement 7 of your position? MR. ROBERTS: ORA does agree that the 8 9 line was hydrotested. 10 ALJ BUSHEY: Okay. 11 MR. ROBERTS: Complete, completely. 12 ALJ BUSHEY: And that consistent with 13 Subpart J, the Maximum Allowable Operating 14 Pressure of that line is 400 pounds per 15 square inch. 16 MR. ROBERTS: No. The determination of 17 an MAOP based on a test pressure determined 18 by Subpart L, I believe, which is 192.619. 19 So Part J just says how you do a hydrotest. 20 ALJ BUSHEY: Sorry. Okay. So in any 21 event, based on the hydrotest results, does 22 ORA dispute that PG&E has provided hydrotest 23 results to support their request for a 330 24 pounds per square inch MAOP? 25 MR. ROBERTS: Based on the workshop 26 yesterday, not on anything PG&E provided in 27 response to our extensive discovery process, 28 we are now -- I personally believe, and I

1 think my view represents ORA's position, that 2 Line 147 was hydrotested consistent with Subpart J to support an MAOP of test of 330 3 4 psi. 5 ALJ BUSHEY: Thank you. 6 MS. STROTTMAN: So your Honor, then is 7 it your position then that the hydrotest is the end-all-be-all for this determination? 8 9 ALJ BUSHEY: It's not. My position is 10 the position of the Commission in the 11 decision setting forth the requirements for a 12 repressurization authorization. There are 13 specific supporting information that the --14 that PG&E must present. The essence of that 15 is hydrotest results. 16 MS. STROTTMAN: Because I mean the City 17 of San Carlos has a lot of issues. I mean we 18 don't believe that the line even needs to be 19 operated as a transmission line. We believe 20 that PG&E's arguments that the upcoming 21 winter season requires them to raise the 22 MAOP, which is a reason why this proceeding 23 in our opinion has been rushed. And there 24 are several other issues that we have 25 relating to PG&E's operational practices that 26 relate to Line 147. So that's why I'm 27 asking, is hydrotesting, if that's all the 28 information you need, then this is the end of

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the story? Is this --1 ALJ BUSHEY: The Commission wrote the 2 3 specifics for the story in Decision 4 11-09-006. That's where it specified what PG&E needs to show to repressurize a line. 5 6 It's very specific. It's very narrow. And 7 the process is expedited. It's been that way 8 for two years. 9 MS. PAULL: But your Honor, there's a 10 requirement that is ongoing that I'm sure you 11 know that PG&E be in compliance with all 12 safety requirements, state and federal. 13 ALJ BUSHEY: And if you think that 14 they're not, then you should file a complaint 15 or we should take the issue up in the broader 16 rulemaking. The narrow issue in front of us 17 today is Line 147 and whether PG&E has met 18 the requirements of Decision 11-09-006. 19 That's all. 20 MS. PAULL: Does that decision only 21 require hydrotesting, nothing more? I don't 22 have it in front of me. That's the only 23 reason I'm asking. 24 ALJ BUSHEY: It requires a safety 25 certification. It requires the concurrence 26 of SED. There's a list of supporting 27 information that is required. It's very 28 specific, very well laid out, if I do say so

1 myself, and we've applied it at least five or 2 six times. That's what's required. And once 3 they've met that, those requirements, then 4 the decision is issued in fairly straight 5 order. 6 So why don't we take a break, allow 7 the parties to confer amongst themselves, and we'll reconvene in 10 minutes. 8 9 We'll be off the record. 10 (Recess taken) 1 11 ALJ BUSHEY: We'll be back on the record. 12 13 While we were off the record, 14 I distributed copies of Decision 11-09-006 15 that sets out the procedures and substantive 16 requirements for a repressurization 17 proceeding such as this one. I've directed 18 the parties' attention to Ordering 19 Paragraph 4 which sets forth the showing that 20 PG&E must make. 21 The parties have been reviewing 22 Ordering Paragraph 4, and it would assist us 23 in setting the schedule for cross-examination 24 if the parties would indicate which of these 25 items that they believe that PG&E has not 26 presented. 27 We'll start with ORA. 28 MS. PAULL: Your Honor, I'd just like

to note first that this is an Order to Show 1 2 Cause proceeding, not a pressure restoration 3 proceeding. 4 ALJ BUSHEY: No, it's not. This is not 5 an Order to Show Cause proceeding. This 6 component is a pressure restorization 7 proceeding. The Order to Show Cause on the 8 first part of that, the PDs are pending 9 before the Commission. The substantive part 10 of that we have cross-examination to do on. 11 Today, the issue in front of the Commission 12 is to restore pressure on Line 147. 13 MS. PAULL: Yes, I understand. 14 So we, ORA has already put on the 15 record or, rather, will put on the record 16 when you would like to move into evidence 17 Mr. Roberts' testimony which explains in 18 great detail the deficiencies in the safety 19 certification and other information that PG&E 20 has presented. Errors and so forth --21 ALJ BUSHEY: Right. 22 MS. PAULL: -- which PG&E has 23 acknowledged some of them on the record, 24 I believe. 25 ALJ BUSHEY: Acknowledged and 26 corrected. 27 Ms. Paull, Ordering Paragraph 4 28 sets out A through G. I'm sorry, A through

Which of these components is it ORA's 1 Η. 2 position that PG&E has not presented? 3 MR. ROBERTS: I would say that D, the 4 Complete Pressure Test Results. If this Ordering Paragraph is intending that 5 6 the complete pressure test results be part of 7 the showing, I think we would say that that is not in the record because of the issues we 8 9 raise with Exhibit A. 10 MS. PAULL: Exhibit A of the safety 11 certification. It's the first of two parts 12 of the safety certification. 13 ALJ BUSHEY: I'm trying to understand 14 this. 15 So is it your position that they 16 have not been done or that they are not --17 "they" being the pressure tests, is it your 18 position that the pressure tests have not 19 been done or simply that they have not 20 included all of the records? 21 MR. ROBERTS: I'm addressing the 22 completeness part of D. So --23 ALJ BUSHEY: So it's a documentation 24 problem? 25 MR. ROBERTS: Correct. 26 ALJ BUSHEY: And what documentation not 27 part of appendix A would you like to have as 28 part of appendix A?

MR. ROBERTS: First, the appendix A 1 2 would remove information that's contradictory that was raised -- that was highlighted in my 3 4 testimony. And based on our workshop yesterday of what the outcome was is that 5 6 what correctly documents the test are 7 as-built drawings. So in some way, the STPR package as I believe it's referred to should 8 9 accurately provide drawings that show where 10 the tests were performed so that you can 11 determine the segments that were tested. 12 ALJ BUSHEY: But it's your position 13 that they were tested, it's just a matter of 14 the proper documentation not having been 15 presented. 16 MR. ROBERTS: Correct. 17 ALJ BUSHEY: Okay. So a post-decision 18 compliance requirement that they provide 19 that? 20 Actually, appendix A isn't part of 21 the record, is it? 22 MS. PAULL: Your Honor. 23 MR. MALKIN: No. It's not, your Honor. 24 MS. PAULL: We, ORA feels strongly that 25 it should be part of the record. And 26 the confidentiality concerns really can be 27 easily resolved. We think it's a key piece 28 of evidence and it needs to be in the record.

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And it has to be corrected -- either 1 2 uncorrected or corrected, that's to be decided, but I don't see how the Commission 3 can -- the Commission's record will be 4 incomplete without it. 5 6 ALJ BUSHEY: Mr. Malkin, this is the 7 documentation that we have not --8 specifically decided not to include in 9 the record in all of our past pressure 10 restorations? 11 MR. MALKIN: That is correct, your 12 Honor. 13 ALJ BUSHEY: And the information has 14 been provided to the parties for their 15 inspection and clarification questions on, 16 but not included in the record? 17 MR. MALKIN: That is correct. 18 The materials were not filed, so they're not 19 part of the record. 20 ALJ BUSHEY: Is it a fair statement 21 that -- and you might need to confer with 22 your clients because I know you weren't there 23 yesterday at the workshop. But yesterday's 24 workshop, would that have provided the same 25 level of inspection and clarification as has 26 been offered in the previous pressure 27 restoration proceedings? 28 Yes. At least, if not MR. MALKIN:

1 substantially beyond. 2 That workshop was specifically held 3 in PG&E's offices in Walnut Creek in order to have all documentation available as 4 5 necessary. 6 ALJ BUSHEY: Okay. So then it would be 7 accurate to say that the procedural availability of information for parties in 8 9 this proceeding has at least been as high as 10 in the Commission's previous pressure 11 restoration proceedings. MR. MALKIN: That is correct. 12 With 13 respect to the inspection in all of 14 the proceedings, the procedure has been 15 inspection but not copying and --16 ALJ BUSHEY: Thank you. 17 MR. MALKIN: So certainly consistent 18 with that. 19 ALJ BUSHEY: So the documentation 20 availability has been at least as high in 21 this pressure restoration as has been in 22 the previous five or six. 23 Is there any other component of 24 this list that you believe PG&E has not 25 provided? 26 MS. BONE: Your Honor --27 MR. MEYERS: Are you addressing that to 28 all parties --

1 ALJ BUSHEY: Yeah. I'm starting with 2 ORA. But let's finish with ORA. 3 MS. BONE: What's concerning about this 4 list is it actually has a very significant 5 omission which is the issue that we're raising here today, which is that PG&E is not 6 7 required to show how it calculates the MAOP 8 based on the pressure test readings 9 consistent with 192.619. And that is 10 the problem that we have with PG&E's showing 11 today, or one of them. And that is what is 12 missing from this decision and is a very 13 significant error. 14 ALJ BUSHEY: This decision was issued 15 on September 8 of 2011. 16 MS. BONE: That may be. And what it 17 sadly means is that the Commission has been 18 doing this wrong for the last two years. 19 ALJ BUSHEY: Well, that is the process 20 that the Commission has engaged in. This is 21 the Commission's decision. And until it's 22 changed, it's the decision that I need to 23 apply in this proceeding. 24 MS. BONE: I understand that that's 25 your position, that's it's not an issue here, 26 that the Commission has not complied --27 insured that PG&E's MAOP calculation complies 28 with federal regulations. We understand that

1 that is your position, that we should not 2 explore that issue here. 3 ALJ BUSHEY: It is -- the Right. 4 Commission issued a decision two years ago. There's a list of things that are required 5 6 for PG&E to present and we are -- and I'm 7 bound to apply this decision until the 8 Commission changes it. MS. BONE: So --9 10 ALJ BUSHEY: So here we have 11 the decision. This is the evidentiary 12 presentation they need to make. Is there any 13 portion of this evidentiary presentation that 14 it is ORA's position has not been presented 15 by PG&E? 16 (No response) 17 ALJ BUSHEY: Hearing none, then I'll 18 move on to the next parties. 19 MS. PAULL: I'd just like to note that 20 the guestion about whether the entire line 21 was tested was answered at the workshop 22 yesterday, that's when that question got 23 answered to the satisfaction of the parties. 24 ALJ BUSHEY: But as we sit here today 25 the parties, or at least ORA is satisfied? 26 MS. PAULL: Yes. 27 ALJ BUSHEY: I'd like to hear from 28 the other parties now.

1 MS. PAULL: Yes. 2 ALJ BUSHEY: Okay, San Carlos. 3 Ms. Strottman. 4 MS. STROTTMAN: Thank vou, vour Honor. I just wanted to clarify first of 5 6 all, so this not an Order to Show Cause 7 proceeding. It's an adjudicatory proceeding. So does that mean that there is not a ban on 8 9 ex parte communications? 10 ALJ BUSHEY: That is correct. It is 11 a rulemaking proceeding though, so there is 12 an ex parte rule that applies. 13 MS. STROTTMAN: Yes. Yes. But it 14 doesn't ban the City of San Carlos from 15 making ex parte visits with commissioners, 16 correct? 17 ALJ BUSHEY: In compliance with --18 MS. STROTTMAN: Yes. 19 ALJ BUSHEY: -- with the regulations --20 MS. STROTTMAN: Under the rules. 21 ALJ BUSHEY: -- covering those, yes. 22 MS. STROTTMAN: Thank you. 23 Your Honor, the City of San Carlos, 24 we would want to -- we are requesting based 25 on due process bases to cross-examine 26 the witnesses on section C which is the 27 reason for the MAOP rejection. And then 28 subsection C, that says in the professional

1 judgment of the engineering officer that the 2 system is safe to operate at the proper or at 3 the proposed MAOP, as I stated earlier, 4 the City of San Carlos has cross-examination questions relating to whether the line has to 5 operate as a transmission line. We wanted to 6 7 ask Mr. Johnson and Mr. Singh some questions about the weather demands issues. 8 9 And we have an e-mail that we would 10 like to present to Mr. Singh and Mr. Johnson that states that this Line 147 issue is 11 a serious issue. It was serious to PG&E and 12 13 that they considered it a near hit from 14 a safety perspective. And I would like 15 the opportunity to cross-examine 16 the witnesses on this particular e-mail 17 because it seems now that PG&E's changing 18 course and doesn't think that the safety 19 implications for Line 147 are as serious that 20 they initially thought they were. 21 ALJ BUSHEY: Okay, so the safety 22 implications go to the safety certification. 23 MS. STROTTMAN: Yes. 24 ALJ BUSHEY: So that makes sense. 25 I'm lost on the weather, though. 26 MS. STROTTMAN: Your Honor, I recall 27 from the -- I think it was the October 21st 28 prehearing conference, PG&E said that they

1	needed to increase the operating pressure due
2	to weather demands because they had projects
3	in 2014 that needed to be completed. And
4	I'd just like the opportunity to
5	cross-examine them on that issue.
6	And then the last one is whether
7	the line can be operated at the distribution
8	line versus a transmission line.
9	And I know Mr. Rubens would like to
10	make some comments to you as well, your
11	Honor, if that's permissible. The city
12	attorney for San Carlos.
13	ALJ BUSHEY: I guess the weather goes
14	to sub F, the proposed MAOP.
15	MS. STROTTMAN: Yes.
16	ALJ BUSHEY: Okay. All right. Okay,
17	that makes sense.
18	All right, Mr. Meyers.
19	MR. MEYERS: Thank you, your Honor.
20	Did you want to allow Mr. Rubens to
21	make a comment?
22	ALJ BUSHEY: Oh. Right now?
23	MR. MEYERS: Ahead of me.
24	MS. STROTTMAN: Yes, please.
25	MR. RUBENS: I can comment later.
26	ALJ BUSHEY: I'm just trying to get
27	organized as to what is at issue here.
28	MS. STROTTMAN: Okay. Thank you, your

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1 Honor. 2 MR. MEYERS: Thank you, your Honor. 3 ALJ BUSHEY: You've made a good 4 presentation. I understand what's at issue 5 there. 6 Okay, Mr. Meyers. 7 MR. MEYERS: From the perspective of San Bruno, we have extensive cross-8 9 examination of these witnesses relative to 10 the overall issues encompassed in your 11 original OSC order. I recognize as we sit 12 here today that we're not going to get into 13 that. And so if we are then permitted 14 the opportunity to bring these witnesses back 15 and cross-examine these witnesses relative to 16 the issues raised by your original OSC order 17 with the exception of the repressurization, 18 then we will -- we have substantially reduced 19 our cross-examination. 20 We do have some questions of these 21 witnesses relative to the same things that 22 Ms. Strottman indicated concerning 23 the subpart c of paragraph G as well as 24 paragraph C and E, I believe. Same sort of 25 questions that Ms. Strottman has, but from 26 a different perspective. 27 ALJ BUSHEY: You said sub paragraph E 28 about MAOP validation?

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1	MR. MEYERS: No, I'm sorry. I was
2	wrong. It's F.
3	ALJ BUSHEY: F. Okay.
4	MR. MEYERS: My apologies.
5	ALJ BUSHEY: So C, F and, G sub c.
6	MR. MEYERS: Correct.
7	ALJ BUSHEY: Those are
8	MR. MEYERS: Just one thing further,
9	your Honor.
10	The issues implicated in
11	the restoration of pressure here have to do
12	with the adequacy, veracity of PG&E's records
13	for their pipeline.
14	And I recognize that in the
15	Commission's decision that the hydrostatic
16	testing of the line is sufficient evidence to
17	justify an MAOP that they're requesting
18	subject to the legal issues that ORA has
19	presented before your Honor this morning.
20	But those records issues go to
21	the larger issue relative to the OSC. And
22	I don't want to be in a position of not being
23	able to discuss and cross-examine these
24	witnesses prospectively on the records
25	discrepancies with respect to Line 147 as
26	a part of the overall issue of their
27	recordkeeping and their obligations under
28	both the Commission's rulings and the NTSB

findings to maintain adequate, accurate, 1 verifiable and traceable records. 2 3 So I just want to make that 4 statement for the record. 5 ALJ BUSHEY: Right. As a component or 6 as an example --7 MR. MEYERS: Correct. 8 ALJ BUSHEY: -- of inadequate 9 recordkeeping. 10 MR. MEYERS: Correct. 11 ALJ BUSHEY: Okay. Thank you. 12 MR. MEYERS: MR. LONG: Your Honor, could I just say 13 14 I'm completely in the same situation as 15 Mr. Meyers just articulated for the City 16 of San Bruno. We have questions of Mr. Singh 17 and Mr. Johnson and also for Mr. Harrison, 18 but they go to the larger issues of 19 the accuracy of PG&E's records and related to 20 OSC issues, not the Line 147 issues. 21 ALJ BUSHEY: Right. Good. It sounds 22 like we're getting focused. 23 Oh, Mr. Gruen. I'm sorry. 24 MR. GRUEN: Your Honor, SED Advocacy 25 has a couple of points. 26 Under Ordering Paragraph 4, 27 subpart D, if there are any complete pressure 28 test results -- we believe that PG&E has

1	marked the current pressure tests as
2	confidential and so if those are to come into
3	the record, and we believe they should, we
4	would ask that PG&E redact those and provide
5	a version that's available for the record.
6	ALJ BUSHEY: That's not how we've done
7	it in the past. These records because of
8	their the size of them and the information
9	that they contain have been available for
10	inspection by the parties and discussions
11	with PG&E. And as we've made clear here,
12	there's been substantial additional
13	clarification from PG&E regarding those
14	records.
15	So I don't anticipate taking
16	a different procedural step here than we have
17	in the past with the other pressure
17 18	in the past with the other pressure restoration proceedings.
18	restoration proceedings.
18 19	restoration proceedings. MR. GRUEN: Understood, your Honor.
18 19 20	restoration proceedings. MR. GRUEN: Understood, your Honor. ALJ BUSHEY: So
18 19 20 21	restoration proceedings. MR. GRUEN: Understood, your Honor. ALJ BUSHEY: So MR. GRUEN: In that case, one other
18 19 20 21 22	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
18 19 20 21 22 23	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
18 19 20 21 22 23 24	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
18 19 20 21 22 23 24 25	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
18 19 20 21 22 23 24 25 26	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

ALJ BUSHEY: Well, I don't know how --1 2 if I'm recalling correctly, Mr. Johnson is the certifying officer. 3 4 MR. GRUEN: I understand. ALJ BUSHEY: So you're going to have to 5 ask Mr. Johnson about certification because 6 7 he's the one who did it. MR. GRUEN: Well --8 9 ALJ BUSHEY: You can't ask Mr. Harrison 10 what Mr. Johnson was thinking. MR. GRUEN: If Mr. Johnson is familiar 11 12 with the documents that were provided by 13 Mr. Harrison. And I can lay foundation with 14 him. I'm happy to do that. 15 ALJ BUSHEY: That's entirely reasonable 16 cross-examination of Mr. Johnson. 17 MR. GRUEN: Understood. We can do 18 that, your Honor. 19 ALJ BUSHEY: All right. So it sounds 20 like we have three subparts C, F, G, and G 21 sub c, to focus on our cross-examination of 22 the witnesses; okay? 23 And the witnesses that we want to 24 cross-examine are Mr. Johnson and Mr. Singh; 25 correct? 26 MR. GRUEN: Yes, your Honor. 27 ALJ BUSHEY: All right, let's get to 28 that.

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1 Mr. Malkin, could you call your 2 witnesses, please? 3 MR. MALKIN: Yes. PG&E recalls Kirk 4 Johnson and Sumeet Singh. 5 KIRK JOHNSON and SUMEET SINGH, 6 recalled as witnesses by Pacific Gas and Electric Company, having been previously sworn, testified as follows: 7 8 9 ALJ BUSHEY: I'll remind you both that 10 you remain under oath. 11 WITNESS JOHNSON: Okav. 12 ALJ BUSHEY: Please be seated. 13 And we will begin, let's turn it 14 around and begin with Ms. Strottman for 15 San Carlos. 16 MS. STROTTMAN: Thank you. Thank you, 17 your Honor. 18 CROSS-EXAMINATION 19 BY MS. STROTTMAN: 20 Good morning, Mr. Singh and 0 21 Mr. Johnson. I'm Britt Strottman. 22 I represent the City of San Carlos. 23 WITNESS SINGH: Good morning. 24 So, I know we don't want to go into 0 25 a lot of detail about hydrostatic testing 26 since we've -- since Judge Bushey has 27 somewhat seems to have decided that issue. 28 Well, not decided. But it seems like we've

1 discussed it morning. 2 But I only have a few questions 3 about hydrotesting, your Honor, if that's 4 okav. 5 ALJ BUSHEY: Ms. Strottman, I can't 6 decide things. Only the Commission can 7 decide things. 8 MS. STROTTMAN: Okay. 9 ALJ BUSHEY: So if you have factual 10 evidence that you would like to elicit from 11 these witnesses, I suggest that you do that. 12 MS. STROTTMAN: Thank you. 13 So Mr. Johnson or Mr. Singh, are 0 14 you aware of any situation where a pipe has 15 failed notwithstanding the fact that the pipe 16 had been hydrostatically tested? 17 WITNESS JOHNSON: A I'm sorry. Would 18 you repeat the question. 19 Are you talking about PG&E's 20 system? 21 Yes. 0 22 Would you repeat the question? А 23 Ο Yes. 24 А Has failed. Failed being what? 25 I don't know. Exploded. Leaked. 0 26 Let's say exploded. Are you aware of any 27 situation where a pipe has exploded 28 notwithstanding the fact that the pipe had

been hydrostatically tested? 1 2 А I am -- I can't think at this point 3 in time, of any time in my career where I've 4 seen a pipeline hydrostatically tested and then rupture after the fact. Not to my 5 6 recollection. 7 WITNESS SINGH: A Same for myself as well. 8 9 And what about when you -- when 0 10 PG&E hydrostatically tested a pipe, did --11 are you aware of any situation where the pipe 12 had ruptured when you hydrostatically tested 13 it? 14 WITNESS JOHNSON: A Yes. We've had 15 pipeline ruptures as part of our hydrostatic 16 test program as part of the PSEP program. 17 And can you give me a ballpark 0 18 figure about how many pipelines are ruptured? I believe -- and I believe it's in 19 Α 20 documents somewhere. I believe there's been 21 seven. Subject to check, I believe there's 22 been seven ruptures associated with the PSEP 23 hydrostatic testing. 24 And subject to check, what time 0 25 period would that include? 26 The beginning of PSEP till today. А 27 Okay. Now, I wanted to ask you 0 28 about the records for Line 147. As you

testify today under oath, can you testify 1 2 that you have traceable, verifiable, and complete records for every length -- inch of 3 4 Line 147? No. I don't believe we testified 5 Α 6 that we have traceable, verifiable, and 7 complete records for everything on Line 147. I'm sorry. I didn't mean 8 0 No. to -- I didn't mean to ask that. I'm just 9 10 saying as you're under oath today, would you 11 under oath today, can you testify as to 12 whether you have traceable, verifiable, and 13 complete records for every inch of Line 147? 14 WITNESS SINGH: A Let me take that 15 guestion. 16 So we do have traceable, 17 verifiable, and complete strength test 18 records, and that was exhibited as part of 19 the workshop that we conducted yesterday. As 20 records is a broad categorization, there's 21 different types of records for the pipelines. 22 So we do have traceable, verifiable, and 23 complete strength test records. That was 24 the objective of yesterday's workshop, which 25 I believe Mr. Roberts on record has also 26 concurred to. 27 As it pertains to the pipeline 28 specifications --

1	Q Yes.
2	A we have always claimed as part
3	of our MAOP validation project we don't, and
4	don't anticipate to, have traceable,
5	verifiable, and complete records with
6	a perfect chain of custody for pipelines that
7	have been installed over 80, 90, hundred
8	years ago, which is the reason why we do
9	strength tests.
10	In fact, that question is specific
11	to Line 147. For every inch of the line and
12	every specification of the line, I can't sit
13	here in front of you and tell you we have
14	traceable, verifiable, and complete
15	specification records, but that's the reason
16	why we have a very successful hydrotest in
17	accordance with the Commission decision.
18	Q So what percentage of records if
19	you could tell me for Line 147 you do not
20	have traceable, verifiable, and complete
21	records for pipeline specifications?
22	A I do not have that information with
23	me here. And I
24	Q What about you, Mr. Johnson.
25	You're the vice president of gas operations.
26	Do you know?
27	WITNESS JOHNSON: A In terms of
28	a percentage, I don't know. You'd have to

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define what you're measuring. 1 2 Ο Okay. So you have --3 We'd have to look at the documents. Α And you know, we -- if you're talking about 4 on a footage basis, we can go back through 5 those documents and calculate it. I don't 6 7 have it as I sit here today. But you don't know as a vice 8 0 9 president of gas operations what percentage 10 of records you have missing for Line 147? 11 A On a percentage basis, no. What 12 I did review as part of this file is 13 I reviewed the entire Pipeline Features List, 14 but I didn't do it on a percentage basis. 15 WITNESS SINGH: А The one thing 16 I would like to add on to that is I believe 17 Mr. Roberts on Monday in the -- one of 18 the DRA's presented the percentage calculation that ORA did in terms of 19 20 the number of assumed specifications. That's 21 where we're making assumptions in accordance 22 with the methodology that we put forward. 23 That was also approved. That's 24 consistently -- has been consistently applied 25 not just for Line 147, but all of the lines 26 as part of the MAOP validation project. 27 Okay, thank you. 0 28 So will you agree that about

1300 feet of the pipe was installed in 1 Line 147 in 1957; is that correct? 2 3 WITNESS JOHNSON: A I don't know. 4 We'd have to look at the pipeline features 5 list on Line 147 to see how much footage was installed in 1957. 6 7 0 Well, do you know about how many feet in Line 147 you can say with absolute 8 9 certainty is AO Smith pipe? 10 А Not without going through 11 the Pipeline Features List in its entirety 12 and looking through it again. 13 But you don't know that --0 14 А Not off the top of my head, no. 15 I don't have it memorized. 16 May I refer you to Exhibit I, 0 17 please? 18 We don't have a copy of Exhibit I А 19 up here. 20 ALJ BUSHEY: We'll be off the record. 21 (Off the record) 22 ALJ BUSHEY: We'll be back on the 23 record. 24 Ms. Strottman. 25 MS. STROTTMAN: Thank you. 26 And I understand that Hearing 0 27 Exhibit I is not obviously the whole Pipeline 28 Features List but does that refresh your

1 recollection at all? 2 WITNESS JOHNSON: А Well, as I'm 3 looking through here, on the back table it 4 indicates 1327 feet in segment -- which is 5 Segment 109 of Line 147. 6 Q Okay. 7 А So there is at least 1327 feet or thereabouts. 8 9 Ο Okay. 10 А Does that answer your question? 11 Well, I mean, I just -- my question Ο 12 related to percentagewise --13 Or no, no. I'm sorry. Yes, that 14 does answer my question. Thank you. 15 I'm going to move on to a different 16 topic. I understand and I don't want to 17 18 argue with the two of you about the 19 interpretation of the federal code, but I do 20 want to give you a hypothetical relating to 21 yield strength. 22 So hypothetically speaking, if you 23 note in the database that the MAOP for 24 section 109 which is AO Smith pipe is 25 governed by the calculated design pressure; 26 is that correct? 27 WITNESS JOHNSON: A I am not following 28 your hypothetical. This is a hypothetical

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1 or --2 0 Yes. This is a hypothetical. 3 А -- is this a factual? 4 0 This is a hypothetical. 5 Hypothetically it could be. А 6 Q Okay. 7 А But I'm not -- I'm sorry. I'm not following your question. 8 9 Okay. So I'll just repeat it. 0 10 So let's say hypothetically 11 speaking in your database, in PG&E's 12 database, the MAOP for Section 109 AO Smith 13 pipe for Line 147 is governed by 14 the calculated design pressure; is that 15 correct? 16 Hypothetical -- is this А 17 a hypothetical question? 18 Yes. 0 19 А Hypothetically it could be. 20 That could be correct. 0 Okav. 21 А Hypothetically, yes. 22 I'll rephrase. I'll rephrase it. Q 23 А Okay. 24 And this is not -- this is part of 0 25 the hypothetical but I do want to ask you 26 this fact though. 27 Is PG&E policy, it dictates that 28 the MAOP is the lower of the hydrostatic or

hydrotest pressure divided by 1.5 or 1 2 the calculated design pressure; is that 3 correct? 4 А The -- I'm getting a little confused on hypothetical, but I want to try 5 6 to answer the question. 7 Q Okay. 8 А In regards to hydrostatic testing 9 or pressure testing pipelines, there is 10 a factor applied in translating that into an allowable MAOP. 1.5 I believe is the 11 12 number you just stated. 13 0 Yes. 14 Α That would -- I guess that would be 15 used on Class 3 pipelines. There's different 16 factors for different class pipelines. 17 Did I --18 0 Okav. 19 А I'm not sure I answered your 20 question, but I'll try to --21 0 No, that's --22 А -- answer best I can what I think 23 you're asking. 24 Then would you agree then that 0 25 a design pressure -- you're stating PG&E's 26 position that the design pressure calculation 27 is based on a minimum yield strength of 28 33 ksi which is 33,000 psi?

1 А I'm sorry. Are you asking 2 a hypothetical or are you asking a specific 3 question? 4 0 I'm sorry. I'm asking for PG&E's 5 position. MR. MALKIN: I'm not sure --6 THE WITNESS: I'm not --7 MR. MALKIN: -- it's clear what we're 8 9 talking about. Vague. 10 ALJ BUSHEY: Mr. Malkin, I agree. 11 We've lost our clarity here, 12 Ms. Strottman, so let's just focus on --13 let's try and take this one step at a time. 14 I think you're asking factual 15 questions, not a hypothetical. 16 MS. STROTTMAN: Yes. And I'm sorry for 17 making this confusing. I was asking 18 a factual question. 19 I guess what I'm getting to is that 0 20 if you change a vield strength from 33 ksi to 21 24 ksi -- and we don't need to argue about the interpretation of the federal code -- and 22 23 leaving all other factors the same, if you 24 recalculate the design pressure, does it come 25 to 240 psi? 26 I can't do the math in my head. А 27 I can say if you change the SMYS which is what --28

1 0 Yes. 2 А -- I think you're talking about --3 0 Yes. 4 А -- in a design calculation and don't change any other factors, it's going to 5 6 change. 7 Ο Okay. 8 А So the math is pretty 9 straightforward. You just have to run 10 the math. 11 Ο Okay, thank you. 12 So I wanted to ask you some 13 questions about PG&E's position on replacing 14 Line 147. 15 And your Honor, may I approach? 16 I only have two exhibits. 17 MR. MALKIN: Your Honor, I'm going to 18 object to that line of questioning as being 19 irrelevant to this proceeding. 20 ALJ BUSHEY: Yeah. 21 MS. STROTTMAN: Your Honor, it is 22 the City of San Carlos' position that whether 23 PG&E intends to replace the line is relevant 24 to the proceedings, we want to hear from 25 these two witnesses what PG&E's position is 26 on replacing the line. It's important to 27 city. And they've responded to data requests 28 on this issue.

1 ALJ BUSHEY: But what portion of 2 Ordering Paragraph 4 does that go to? 3 MS. STROTTMAN: I'm sorry. I don't 4 have it in front of me. 5 ALJ BUSHEY: How --6 MS. STROTTMAN: Well, it goes to 7 whether in the professional judgment of the engineering officer, which is 8 9 Mr. Johnson, that the system is safe to 10 operate at the proposed MAOP. If they think 11 that the line shouldn't be replaced, then 12 they think it's safe to operate. 13 ALJ BUSHEY: How many questions do you 14 have on this line? 15 MS. STROTTMAN: Maybe four. I can 16 narrow it to four. 17 ALJ BUSHEY: All right, let's move 18 expeditiously through those four questions. 19 MS. STROTTMAN: Okay. 20 ALJ BUSHEY: We'll be off the record. 21 (Off the record) 1 22 ALJ BUSHEY: We'll be back on the 23 record. 24 While we were off the record, 25 Ms. Strottman distributed two exhibits. 26 Exhibit L -- it starts with the PG&E's 27 response to SED Data Request 003-11. 28 Exhibit M looks to be copies of

The first one is dated 1 redacted e-mails. 2 Saturday, November 17th, 2012, at 1:35 p.m. 3 That's Exhibit M. 4 Ms. Strottman? 5 (Exhibit No. L was marked for identification.) 6 7 (Exhibit No. M was marked for identification.) 8 9 MS. STROTTMAN: Thank you. 10 0 Mr. Johnson and Mr. Singh, looking 11 at Hearing Exhibit L, if you could please 12 read -- you don't need to read it out loud, 13 but look at Question 11. It says, Does PG&E 14 anticipate repair or replacement of the A.O. 15 Smith pipe?" 16 And then the answer says, "Yes, 17 PG&E currently intends to replace the Line 18 147 and Line 101 A.O. Smith pipe that are 19 limiting the MAOP to 330 psig." 20 Did I read that correctly? 21 WITNESS JOHNSON: A I believe so. 22 So Mr. Johnson, what is PG&E's Ο 23 position on replacing Line 147 in San Carlos? 24 А I think you're referring to the 25 A.O. Smith pipe specifically? 26 Yes. Q 27 To my knowledge -- I mean, there's Α 28 certainly no reason to replace it due to

safety issues. I'm not sure why we'd be 1 2 replacing it unless there's some other 3 driving factor there. 4 0 Then why did you say yes in this data response that you were going to replace 5 Line 147 with A.O. Smith pipe? 6 7 А I would have to talk to the parties 8 who actually wrote as to why they were 9 planning on replacing it. I could only 10 speculate at this point in time. I would 11 have to make a call to folks as to why. It's 12 certainly not for safety reasons. 13 But you're the vice president of 0 14 gas operations and you don't know if Line 15 147 --16 I don't -- I don't know the reason А 17 for this specific segment of pipe. We are 18 replacing hundreds of miles of pipe, hydro 19 testing hundreds of miles of pipe. I don't 20 know every piece of every project we've got 21 going, certainly not for a future year. 22 Would you recommend to upper Ο 23 management that PG&E replace all A.O. Smith 24 pipe? 25 А No. 26 Why? Q 27 Because if the pipe has been tested Α 28 and it's safe, there's no reason to replace

1 it. There may be other reasons to replace 2 it, but it's certainly not for safety 3 reasons. 4 0 So while you're sitting here, you don't know -- you wouldn't know, then, when 5 6 PG&E plans on replacing Line 147 with A.O. 7 Smith pipe? As I sit here today, I -- I don't 8 А 9 know why PG&E would want to replace that 10 pipe. It's not for safety reasons specific 11 to the A.O. Smith Pipe Segment 109. So no, I 12 don't -- I don't know why we would need to 13 replace that pipe. There may be reasons 14 beyond my knowledge at this point in time, 15 plans people have, but I am not aware of it 16 and certainly not for safety reasons. 17 Okay. But, Mr. Johnson, if you 0 18 look at Answer 12, which is on the next page, 19 it says, "Replacement of the A.O. Smith pipe 20 is required to allow Line 147 and Line 101 to 21 operate at an MAOP of 365 psig or higher." 22 Did I read that correctly? 23 А Correct. 24 So then can you infer that you need 0 25 to have better pipe to operate at a higher 26 pressure of 365 psig? 27 I -- I can infer that if we need to А 28 raise the pressure to 365 pounds, we need to

1 replace any pipeline segments that do not 2 allow for operating at that pressure. And 3 that's what I believe this indicates. There 4 have been changes made on the system to accommodate the changes we've done on Line 5 6 147, and so we have to go back and ask 7 ourself do we still need Line 147 to operate 8 at 365 pounds. These -- these issues move as 9 decisions are made, so --10 Q Okay. Now -- now I'm going to take 11 your attention away from --12 MR. MALKIN: I believe Mr. Singh wanted 13 to add something. 14 MS. STROTTMAN: O Oh, I'm sorry. Go 15 ahead. 16 WITNESS SINGH: I just wanted to add Α 17 that at 330 pounds, there's no reason to 18 replace any section of Line 147. As we 19 talked about previously, we've had a strength 20 test, a spike test, traceable, verifiable, 21 and complete strength test records. There's 22 no reason to replace any section of Line 147 23 for operating the line at 330 psig. Ι 24 believe all of these data responses are 25 consistent. 26 So to that point, what is the Ο 27 current operating status of Line 147? 28 WITNESS JOHNSON: A Line 147, as I

understand it, is -- has got gas piped in it 1 2 at approximately or below 125 pounds. And it's not in a shut-in status; 3 0 4 correct? I don't know how you define shut-in 5 Α 6 status. It's got gas in it at 125 pounds or 7 less. But shut-in status -- what do you mean shut-in status? 8 9 The way that it was described to me 0 10 I believe by Mr. Malkin during the 11 October 21st prehearing conference is that 12 shut-in status is -- is akin to, like, gas 13 being trapped inside of a bottle. It's not 14 being moved. It's not dynamic. 15 If what you're referring -- let me А 16 explain where I believe Line 147 is today. 17 The block valves feeding that from the 18 associated transmission valves Line 101, 109, Line 132 are closed. And I believe the cap 19 20 valves are also closed. I don't know if that 21 means shut-in status, but I believe that's 22 the operational condition. I haven't checked 23 on that in the last week or two, but that's 24 my understanding where we are. 25 So then the four regulator valves 0 26 are not open? 27 I'm not -- I don't know -- I'm not А 28 sure what you mean by four regulator valves.

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I thought that there were four --1 0 2 I'm sorry, four distribution valves on Line 3 147. That's not the case? 4 Α Are you talking about district regulator stations potentially? 5 6 0 Yes, yes, yes. Thank you. 7 А I believe the district regulator station valves are closed, but I'd have to 8 9 check on -- on how it's operating today. Ιt 10 doesn't operate above 125 pounds is the 11 operating restraints we have on it right now. 12 Ο So what -- what are the reasons why 13 PG&E needs to operate Line 147 as a 14 transmission line? 15 А Well, Line 147 is a cross-tie 16 between the other major transmission lines 17 feeding the entire city of San Francisco and 18 everybody from Milpitas north. It is an 19 integrated system, and it allows us a great 20 deal of flexibility of operating our system. 21 It allows us to feed all the customer needs from Milpitas north, and it's just part of an 22 23 overall integrated system. 24 Like any segment on that pipeline 25 system, things need to be taken out of 26 service occasionally, and maintenance is done 27 or construction work is done or tie-ins are 28 made. And it is one of the integral pieces

1 in making that happen. It is one of the --2 it is one of the major cross-ties between those two pipelines -- between those three 3 4 pipelines. Excuse me. 5 MS. STROTTMAN: Your Honor, may I have 6 a moment, please? 7 ALJ BUSHEY: We'll be off the record. 8 (Off the record) 9 ALJ BUSHEY: We'll be back on the 10 record. 11 Ms. Strottman? 12 MS. STROTTMAN: Q So for Line 147, I 13 just want to talk about this -- this weather 14 and curtailment issue. So if -- and -- and 15 I'm sorry if I'm a little bit confused by 16 this. But if the gas is shut in or it's not 17 moving, how are you -- how are you 18 transporting gas to customers. 19 WITNESS JOHNSON: A They would be --20 if that's the exact condition it's in right 21 now, they would be fed by other district 22 regulator stations. 23 Ο Where? 24 I don't have the maps in front of А 25 I don't know where the exact other me. 26 district regulator stations are for all of 27 Redwood City and San Carlos. 28 And do you recall PG&E's position 0

1	as to the the two exceptions that PG&E
2	wanted to have in place for raising the
3	pressure at 125 psig? One was an unforeseen
4	event, which could be a dig-in, and the
5	second one would be safety work. Do you
6	recall that?
7	A I don't know that I I recall the
8	discussions, yes. I don't know the exact
9	wording behind those but go ahead.
10	Q Okay. What about you, Mr. Singh?
11	WITNESS SINGH: A So same as
12	Mr. Johnson articulated. I'm aware of those
13	discussions. I'm aware of what you're
14	referring to. I don't have the exact words
15	in front of me of what you're referring to,
16	but the concept and the discussion, I'm
17	familiar, yes.
18	Q What is your understanding, then,
19	as to why the pressure needs to be raised
20	back to 330 because of weather conditions?
21	A Well, it's as Mr. Johnson
22	articulated. There's Line 147 is a major
23	cross-tie between the three lines of 109,
24	132, and 101. And as stated and as I believe
25	you referenced as well, in the case of a
26	dig-in and what's that alluding to is there's
27	a dig-in or safety work that's going on,
28	which would involve Line 101 or have

1	done and 132 and 109, which we have a lot
2	of planned work for next year as well.
3	Taking those lines and shutting them in
4	requires us to use Line 147 to insure we can
5	continue to provide supply and provide gas to
6	our customers. It's a main part of our
7	operations and overall operational
8	flexibility.
9	Q And what projects are you speaking
10	of?
11	MR. MALKIN: Your Honor, we're getting
12	Ms. Strottman began this line of
13	questioning saying it went to safety and the
14	safety certification. We're now getting into
15	system planning issues. It seems pretty far
16	afield.
17	ALJ BUSHEY: Ms. Strottman, are we
18	going to get back to something that's listed
19	in Ordering Paragraph 4?
20	MS. STROTTMAN: Yes, but, your Honor,
21	it is relevant as to whether they really need
22	to operate this line due to weather
23	conditions. And they stated that they have
24	they needed to do safety work for 2014. I
25	just have a few questions asking them about
26	their safety work, and then I'll move on.
27	ALJ BUSHEY: All right.
28	MS. STROTTMAN: Thank you.

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1	Q So what type of safety projects or
2	work do you have I guess in queue for for
3	2014? Because it appears that that's one of
4	the reasons why you need to increase the
5	operating pressure on Line 147.
6	WITNESS JOHNSON: A Well, in terms of
7	the work and again, I don't have the
8	entire work list in front of me there is
9	actually work in 2013 that we can't complete
10	because of our operating flexibility right
11	now. That includes valve automation. So
12	there's some valve automation work, and there
13	is some work scheduled for later this year to
14	make a segment of Line 132 piggable, which we
15	are at risk of not being able to do if we
16	don't have the operating flexibility that we
17	need to remove that section of pipe from
18	service to we can change out some segments
19	there.
20	For next year on on the San
21	Francisco Peninsula, there is some there
22	is a significant amount of pipeline
23	replacement work on Line 109. I believe it's
24	approximately 10 miles worth of work to get
25	done. So we'll be taking clearances through
26	out the year to tie that work in. There is
27	some make-piggable work, if you will, on the
28	three different transmission lines. And I'm

sure there's a laundry list of -- of other 1 2 activities happening in the San Francisco 3 There's a lot of Pipeline Safety Peninsula. Enhancement Plan work that occurred under 4 PSEP on the San Francisco Peninsula. 5 6 I appreciate that list, but what Q 7 about projects that are gueued up ready for Winter 2014? 8 9 Well, all of them are queued up. А 10 0 Just for the winter months. 11 А All of the work is gueued up to be done in 2014. 12 13 But what -- what projects -- what 0 14 immediate projects does PG&E have that they 15 need to complete for Winter of 2014? 16 Well, all the projects have to be Α 17 complete by Winter 2014 other wise we can't 18 serve gas to our customers. Is that --19 Well, I guess I'm just trying to 0 20 get at -- yeah, well, it's -- it's Winter 21 2013, Winter of 2014. I'm asking about what 22 projects PG&E needs to complete in that time 23 period as to why they need to increase the 24 operating pressure on Line 147 to 330? 25 So -- so the -- it's an integrated А 26 system. And when we take one piece of pipe 27 out of service, we route gas around. And 28 this is a major routing point, if you will,

1 between the pipelines. It is a cross-tie. 2 So whenever we take a segment of pipe out, whether it's on Line 101, Line 132, 3 4 Line 109, we reroute gas. And we use our cross-ties to feed customers from different 5 6 directions. The work that I shared with you 7 is all work that is scheduled to be done in 2013 or if not done in 2013, 2014. And 8 9 that's the pipeline replacement work, the 10 valve automation work, the SCADA work, the 11 make-piggable work. 12 There is a significant amount of 13 work for the San Francisco Peninsula, all of 14 which require clearances, all of which 15 require taking pipelines segments out of 16 service, and all of which require us to route 17 gas to feed different customer needs. And 18 Line 147 is a significant link in the overall 19 transmission system in the San Francisco 20 Peninsula. But not all of those projects don't 21 0 22 have to be completed by Winter 2013, 2014; 23 correct? 24 А When you say, "Don't have to be 25 completed," they are Pipeline Safety 26 Enhancement Plan projects which we have 27 committed to completing. These are all 28 safety-related projects.

1 0 That have to be completed by Winter 20142 2 3 А Well, when you say, "have to be 4 completed by, " based on what? 5 Done. You're done. You -- vou've Ο 6 finished everything that you needed to do. 7 There's nothing else to do. Well, there's never a time where 8 А 9 there's nothing else to do. We need to get 10 -- we have 10 miles of Line 109 that we hope 11 to replace as part of the Pipeline Safety 12 Enhancement Plan work that we were planning 13 on doing in 2014. We want to get all that 14 work completed, tied in for 2014. It is very 15 hard to do work in the winter time because 16 the demands are higher and we can't get 17 clearances. 18 Okay. I. Just have a few more 0 19 questions on this. So what's the highest 20 demand for gas for PG&E? What time period? 21 А Well, you have to look at each segment differently, but for 90-plus percent 22 23 of the segments, it's the winter -- the 24 winter period. 25 And what -- what month -- what time 0 26 period? 27 It's probably early December А 28 through late January is when you see the

1	coldest weather. It's the shortest days, so
2	I think it's pretty much common sense that
3	winter time is colder and the coldest days
4	happen in the January December, January
5	timeframe.
6	Q And isn't it true that PG&E
7	discovered the Line 147 issues in October
8	of 2012; is that correct?
9	A The issues being the leak you're
10	referring to?
11	Q Yes, yes. I'm sorry, the leak.
12	A I believe it was October 2012.
13	Q And isn't it true that PG&E didn't
14	inform the CPUC of those issues until March
15	of 2013?
16	MR. MALKIN: Your Honor
17	ALJ BUSHEY: Argumentative.
18	MR. MALKIN: We're going into other
19	issues.
20	MS. STROTTMAN: Your Honor, I would
21	just like to note that PG&E didn't inform the
22	Commission nor the parties of these issues of
23	Line 147 during the highest peak of demand.
24	ALJ BUSHEY: Ms. Strottman, this is all
25	a matter of of record already in this
26	proceeding. I think it's all laid out in the
27	order to show cause.
28	MS. STROTTMAN: Okay. Thank you.

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1 0 And I'm sorry. I'm going to go 2 back to some questions about accuracy in 3 PG&E's database. 4 So Mr. Johnson, vou did confirm that Segment 109 is about 1320 feet? 5 WITNESS JOHNSON: A Based on the 6 7 document that we were looking at earlier. 8 0 Yeah. I'm sorry. That's document 9 -- it's Hearing Exhibit I. Yes. So based on this -- based on 10 А 11 the exhibit I'm looking at, it states the 12 length is 1327 feet of Segment 109. 13 O Okay. And then I'm going to 14 finally give you a hypothetical. Assuming 15 that Segment 109.3, which is adjacent to 16 Segment 109, is listed as seamless. Would 17 that raise a red flag to you? Do you think 18 that that's accurate? 19 А If I think anything on our system 20 is inaccurate, it's going to raise a red 21 flag. 22 But in your mind, if -- if I give Ο 23 you the hypothetical that in this pipeline 24 features list you have Section 109, which is 25 1320 feet and it's A.O. Smith -- and let's 26 assume that the section immediately adjacent 27 to it, Section 109.3 is listed as seamless. 28 Do you think that that's accurate?

Well, if that's what's listed in 1 А 2 our pipeline features list, I believe it's 3 accurate to the best of our knowledge. 4 0 But it wouldn't raise a red flag to 5 you? 6 Α No. No, if I -- if we believe it's 7 accurate and we -- as we've laid out in our 8 pipeline features list, then no it doesn't 9 raise a red flag. 10 Okay. Then I'll give you another Q 11 fact in this hypothetical. 12 MR. MALKIN: I think Mr. Singh --13 MS. STROTTMAN: O Oh, I'm sorry, 14 Mr. Singh. 15 WITNESS SINGH: A Can I add on to 16 that? 17 Yes. 0 18 It wouldn't raise a red flag to me А 19 either. And the reason for that is because 20 you could have a separate job that was done 21 for that respective segment that was 22 installed at some other point. You have to 23 look at the actual pipeline and look at the 24 actual situation. 25 It's not uncommon where -- and I 26 think I answered previously that Line 147 was 27 originally installed in 1947. And after that 28 there was work done on the pipeline in '57,

1	in '87, and in 1990. So it's not uncommon to
2	find different seam types and different
3	specifications along one length of the
4	pipeline. It's very common not just within
5	our system, but in the industry.
6	Q Okay. Where in the industry? Can
7	you point to me some examples where is that
8	common in the industry? I mean, I've heard
9	you say that several times in
10	cross-examination, but I'm asking you if you
11	could point to an example.
12	A Based on all the conferences I've
13	attended, based on my discussions with other
14	operators, based on my discussions with
15	industry experts such as Mr. Rosenfeld.
16	Q Okay. So if I added another fact
17	to this hypothetical if this pipe segment,
18	which is 109.3, which is adjacent
19	hypothetically to 109, and it's got an
20	install date of 1947, would that raise a flag
21	to you that it was listed as seamless?
22	WITNESS JOHNSON: A Not in itself.
23	You would have to go through the pipeline
24	features list and look what's on the pipeline
25	features list. It may show a different job.
26	It may show a different strength test
27	pressure report. There could be a lot of
28	reasons why it changed. Just because it's

the same year doesn't mean it wasn't done on 1 2 different jobs or something else wasn't 3 different there. 4 0 Okay. Thank you. WITNESS SINGH: A And it wouldn't be a 5 6 surprise to me because there was seamless 7 pipe made around 1947. We've got a purchasing record for this. We've actually 8 9 in fact done a field inspection on a segment of Line 147 installed in 1947 that was 10 11 seamless. And we actually took a look at a 12 stream of line manufacturing, which has been 13 authored by Kiefner and Associates. It talks 14 about manufacturing practices typically in 15 the industry of line pipe that was 16 manufactured. And it wasn't uncommon from my 17 understanding and we have some in our system. 18 The fact that it is 1947 seamless pipe does 19 not raise any questions in my mind. 20 I'm going to ask you some Okav. 0 21 questions now about safety factor. What --22 what is safety factor to you when you're 23 assuming or calculating a safety factor -well, I'm sorry. I'll rephrase that. 24 What 25 does safety factor mean to you? 26 WITNESS JOHNSON: А Well, as a -- as a 27 generalization, it usually means calculating 28 some structural issue at its maximum or its

-- it's 100 percent strength point and 1 2 dividing by a number. And that number would 3 be your safety factor. 4 0 What factor of safety are you assuming or calculating for Line 147 after 5 6 the hydro tests were conducted? 7 А Well, are we speaking specifically to Segment 109 or talking about the entire 8 9 pipeline now? Let's talk about the entire 10 0 11 pipeline. 12 А Well, the safety factors I believe 13 are probably different depending on the 14 segment of pipe you're looking at. 15 Okay. What's the range? 0 16 Okay. Well, we could get the А 17 pipeline features list out. But without 18 going through that whole document -- do we 19 have the pipeline features list here? You 20 can walk through and see each one of them 21 depending on the -- we have Class 1. So 22 we're looking at the hydrostatic test and the 23 test pressures. The lowest one is 607. Had 24 the highest one is 1440. That's just a quick 25 review of the pipeline features list, so I 26 may have missed something in there. 27 If you don't have the Okay. 0 28 correct pipeline specifications for a

1 particular segment in a line, what type of 2 safety factor do you have for that issue? Well, you're -- as we've discussed 3 А 4 here at length is we have a hydrostatic test pressure. So if it's one-and-a-half times 5 6 its normal operating pressure plus a spike 7 test, it's going to be in the range -- just 8 on the spike test alone, just on the hydro 9 test alone, it's -- it's -- you know, it's 10 the .5 or the .67, depending on how high the 11 spike went. 12 WITNESS SINGH: А And just to add on 13 to that, that's at least or greater. And the 14 reason why I make that statement is because 15 as part of the test -- and what we reviewed 16 at length on Monday and yesterday's workshop 17 was the pressure volume plus. And we did not 18 see any yielding on the 2011 test, which is a 19 clear indication that the strength of the 20 pipe is greater than what we tested. So it's 21 at least that value if not greater. 22 So what -- I guess what I'm getting 0 23 it at if you don't have the right records for 24 a segment -- and records I mean the right 25 pipeline specs -- that consideration isn't a 26 factor for you when you're analyzing the 27 safety factor? 28 WITNESS JOHNSON: A Well, I'm not sure

-- I'm not sure what you mean by that 1 2 question, but in the simplest terms, we've pressure tested the pipeline. We pressure 3 4 tested it well in excess of its operating pressures, plus a spike test. So just 5 6 hypothetically if the test is at 600 pounds, 7 we're very comfortable it can operate at 8 400 pounds. It's just a simple engineering call. 9 10 0 I guess what I'm getting at -- so 11 the hydro test to you is just the platinum 12 standard? It doesn't matter that you have 13 the wrong records or the wrong pipe specs for 14 a segment because you completed your hydro 15 test? 16 What I'm saying is -- I think I've А 17 said it's the gold standard. I'm not sure if 18 platinum is higher or lower. 19 I think it's higher. 0 20 That is the best standard that we А 21 have today to ensure that a pipeline can 22 operate safety at the pressure it's at. Ι 23 think for most engineers, we're very 24 comfortable that if I pressure test at 25 600 pounds hypothetically, operating at 26 400 pounds doesn't cause my any concern. 27 Mr. Kiefner I think -- excuse me, 28 Mr. Rosenfeld spoke for an hour-and-a-half,

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2 hours yesterday, and Mr. Kiefner spoke at 1 2 the symposium. And I believe we think that's 3 a very large, adequate safety --4 WITNESS SINGH: А The only piece I would like to add to that is I think there's 5 a little bit of a source of confusion around 6 7 that in terms of the specifications. Thev only lowered that value, which is the true 8 9 safety margin that's established by the 10 strength test. Those specifications have 11 never been used to justify a higher pressure, 12 and that's again in accordance with 13 everything we've been doing in the last 14 couple years as part of our pipeline safety 15 enhancement. 16 I guess what I'm saying is if you 0 17 don't know what's in the ground, the fact 18 that you hydro tested it is good enough? 19 WITNESS JOHNSON: A Well, the fact 20 that -- if you're absolutely not sure what's 21 in the ground and you hydro tested and you 22 check for yield and ensured a safety margin and there is no yield, you can be assured 23 24 you're operating very safely under those 25 circumstances. 26 Okay. I may come back to that, but 0 27 I have just a few questions about, 28 Mr. Johnson -- in your verified statement --

I don't know if you have it in front of you? 1 2 Α I do have a copy in front of me. 3 0 It's on page 8. 4 А Okav. You stated that "PG&E discovered 5 0 human error in MAOP validation records for 6 7 one segment of Line 147." And specifically you stated, "Our MAOP validation 8 9 documentation -- " 10 А Can you share with me where you're at --11 12 Yes. Sorry. I'm just reading from Q 13 my notes. Let me get it. 14 А -- what line you're at? 15 Yeah. It's at the bottom of page 0 16 8. But the -- the -- on page 6, it's --17 А Page 6 or page 8? 18 Well, on page 6 -- I'm just Ο 19 directing you to page 6 of your verified 20 statement, the heading that's underlined 21 says, "Line 147, Segment 109," and then in parentheses, "Human Error"? 22 23 А Correct. Okay. 24 And then on page 8, it's at the 0 25 last two sentences of the page. It's 26 actually the last sentence. It says, "We 27 determined that our engineer had mistakenly 28 assumed," and then you turn the page to page

9, "DSAW pipe -- " 1 2 А Okay. 3 " -- when preparing the PFL in 0 4 October of 2011." 5 Does that look correct to you? ] 6 А Well, I mean we've all got the 7 document. So I didn't actually follow your word word for word, but the words are there. 8 9 So an engineer there had 0 Okav. 10 basically made a bad assumption about the 11 pipeline features of Line 147; is that 12 correct? 13 А I believe we said he made an error, 14 yes. 15 And you don't have to disclose his 0 16 or her name, but how many other pipeline MAOP 17 validations did this engineer work on? Do 18 vou know? 19 А I don't know. 20 Well, wouldn't all of his work be Ο 21 questioned based on this mistake? WITNESS JOHNSON: Go ahead. 22 23 WITNESS SINGH: A So let me add on to 24 that. I don't have the specific number of 25 features lists that he worked on, but keep in 26 mind that this is the work that was completed 27 in October of 2011. And as I testified in my 28 direct examination at the hearings for the

Order to Show Cause for the substance part of 1 2 the issues on September 6th of 2013, we stated that we actually went through and 3 4 re-reviewed all of the pipeline features 5 lists, MAOP reports as part of the 6 enhancements that we made to the processes 7 and the MAOP validation process starting in 8 January and February of 2012. 9 And we also included a independent 10 audit firm which provided a quality assurance 11 with the appropriate procedure, and the 12 procedure is a part of the filing that we 13 have made for the PSEP updated application, 14 which I'm also sponsoring. And there's also 15 clear delineation in terms of as part of that 16 QA that was done what was the sampling, the 17 sampling rate, the population, and the 18 associated error rate for all of that work 19 that was done as part of the MAOP validation 20 project. More than happy to entertain the 21 questions as part of that proceeding. 22 Yeah, that's fine. And I don't Ο 23 believe that that answered my question. I'm 24 just asking, did you pay any particular 25 attention to the engineer's validations, MAOP 26 validations that this particular engineer 27 worked on where he assumed the wrong value? 28 WITNESS JOHNSON: Well, go ahead. Did

you want to answer? 1 2 WITNESS SINGH: А Couple of things that we -- what we did is we found the error 3 4 in November of 2012, and I believe you're going to get to this in the next exhibit that 5 you have handed out, but what we did is we 6 7 did a root cause analysis right away to 8 identify what was the source of the 9 discrepancy and why did that discrepancy take 10 place and what are the corrective actions, 11 and have the work that we have already been 12 doing in terms of the number of corrective 13 actions, how many of those have already been 14 in place and implemented. 15 And the corrective actions that were 16 identified, a lot of those were already 17 incorporated as part of the enhancements that 18 we made to our quality assurance process 19 starting in January and February of 2012 20 where we went back and re-reviewed all of the 21 PFLs and associated MAOP reports during Phase 22 3 of the project. 23 So I don't have sitting here the 24 explicit number that this respective engineer 25 worked on. What I can assure you is that 26 whatever that number was and whatever work he 27 did in 2011, that work was re-reviewed as 28 part of the enhanced quality control and

1 quality assurance process which is 2 articulated as part of the PSEP updated 3 application. 4 0 So then you're testifying then that you essentially double-checked his work? 5 I believe that's what I stated. 6 Α 7 0 Okay. Thank you. And I have a few 8 questions about this. It appears that you 9 had, PG&E had some sort of additional third 10 party review for PG&E's MAOP validation; isn't that correct? 11 That is what I alluded to earlier 12 Α 13 in terms of a independent audit firm that did 14 the quality assurance testing. It's all part 15 of the PSEP updated application. There's 16 several pages of testimony. There's several 17 additional attachments that outline the QA 18 procedure. That's all outlined as part of 19 that application. 20 Who is the independent auditor? 0 21 Was it the one that you mentioned yesterday? 22 Was it Bureau Veritas? 23 А No, it was not Bureau Veritas. 24 Who was it then? 0 25 А It's one of the big four auditing 26 firms. 27 Which one? 0 28 А PricewaterhouseCoopers, PWC.

And how is this independent auditor 1 0 2 independent? Did the auditor report to you? 3 Who did the auditor report to? 4 А I'm not sure -- what do you mean by 5 that question? Okav. Well, maybe I'll phrase it a 6 Q 7 different way. Who directed the auditor or who gave directions to the auditor? 8 9 I can answer that question, but I'm А not sure how I see it's relevant to this 10 11 proceeding, but okay. 12 MR. MALKIN: I'll object that's 13 irrelevant, your Honor. 14 (Laughter) 15 ALJ BUSHEY: I think I'll overrule both 16 of you. 17 MS. STROTTMAN: I'm just getting to the 18 fact that -- I just want to know who directed 19 PricewaterhouseCoopers to conduct this work. 20 I mean it doesn't seem like this auditor is 21 independent, but that's okay. I'll move on 22 to something else. 23 ALJ BUSHEY: Good. 24 MS. STROTTMAN: Thank you. 25 Now I will direct you to the 0 26 exhibit -- I'm sorry -- I think it was M? 27 WITNESS JOHNSON: M. Do you have M? 28 Do you need a few minutes to review 0

it? 1 Well, if you want 2 WITNESS JOHNSON: Α to share with us what your question is about, 3 4 then we can just review. Otherwise this 5 thing is six, seven pages long. Yes. I'll give you some time. 6 Ο 7 WITNESS SINGH: A Did you want me to go through all the pages? 8 9 If that would make you feel 0 10 comfortable asking questions or answering 11 questions. I just want you to please review 12 the first page, or I'm going to ask questions 13 about the first e-mail on the first page. 14 А Okay. 15 Which I guess is technically the 0 16 last e-mail in the chain. 17 А Okay. 18 WITNESS JOHNSON: A Last e-mail in 19 the chain. 20 Are you ready? 0 21 WITNESS SINGH: A Yeah, go ahead. 22 So looking at Exhibit M, do you Ο 23 recognize this e-mail? 24 А Now that you've put it in front of 25 me, I recall this e-mail. I don't see my 26 name directly being included in from or to, 27 but I'll take your word that in one of the 28 redactions it may be -- my name may be in

1 here. 2 And what about you, Mr. Johnson, do 0 you recognize this e-mail? 3 WITNESS JOHNSON: A 4 I don't. Τ believe I have seen this e-mail. My name 5 normally wouldn't be redacted, but in some 6 7 capacity I've probably seen the information. Okay. And this e-mail, it looks 8 0 9 like it was sent on November 17th, 2012, at 10 1:35 p.m. And I'm going to direct you to the 11 first paragraph, last sentence. It says --12 and I'm sorry. I'll also just say that it 13 appears that this e-mail relates to the 14 issues that are -- or the issues that are at 15 hand right now during these proceedings. And it says, "At the executive level this 16 17 situation is considered a near hit from a 18 safety perspective that could have severely 19 damaged the company's credibility." 20 Do you agree with that statement, 21 Mr. Johnson? 22 А No, not necessarily. 23 Ο Why not? 24 Well, the term "near hit" is А 25 usually actually considered a safety issue. So I've never heard it used in near hit in 26 27 terms of data or engineering terms. And I'm 28 not sure that it severely damages the

1 company's credibility. We have been very 2 clear that we don't know everything about 3 every record. And so this is one person's 4 opinion. I don't know that I necessarily 5 share this opinion. 6 So the fact that we're all sitting 0 7 here in this proceeding talking about the same issues, the same issues with wrong 8 9 recordkeeping that was a proximate cause at 10 San Bruno that now occurred in San Carlos is 11 not something that you think damaged the 12 company's credibility? 13 MR. MALKIN: Objection, argumentative. 14 ALJ BUSHEY: Sustained. 15 MS. STROTTMAN: Your Honor. 16 ALJ BUSHEY: Ms. Strottman. 17 MS. STROTTMAN: I think it's important 18 to understand -- I would like to know Mr. 19 Johnson's opinion. I can rephrase it if 20 vou'd like. 21 ALJ BUSHEY: He's not here to represent 22 the company's public relations perspective. 23 He's here having made a safety certification. 24 Part of that certification is not his 25 perspective on the company's credibility or 26 whether it was a near hit. 27 MS. STROTTMAN: But your Honor, I'm 28 sorry. I just I feel like as a vice

president of gas operations he would have an 1 2 opinion on whether the situation that 3 happened in San Carlos hurt the company's 4 credibility and if in turn he feels completely comfortable, a hundred percent 5 comfortable that Line 147 is safe to operate 6 7 in San Carlos. 8 ALJ BUSHEY: The second part of your 9 sentence is absolutely relevant to this 10 witness's testimony. This witness has not 11 presented any testimony about the company's 12 credibility. So let's focus on safety 13 certification. 14 MS. STROTTMAN: O So Mr. Johnson, as 15 we're sitting here today you can testify 16 under oath that you feel a hundred percent 17 comfortable that Line 147 is safe to operate? 18 WITNESS JOHNSON: A I believe it's 19 safe to operate at 330 pounds as we have 20 requested and as I've stated in my verified 21 statement. 22 And what about you, Mr. Singh? 0 23 WITNESS SINGH: A I absolutely 24 support that. 25 MS. STROTTMAN: Your Honor, may I have 26 a few minutes, or just a minute, please? 27 ALJ BUSHEY: Just one minute. 28 We'll be off the record.

1 (Off the record) 2 ALJ BUSHEY: We'll be back on the 3 record. 4 Ms. Strottman. 5 MS. STROTTMAN: Thank you. 6 I just have one last question. 0 And 7 I'm not really sure I got an answer or a yes 8 or no answer to this question. 9 Is it PG&E's position that the MAOP 10 is the minimum of the hydrotest determined 11 MAOP and the design MAOP? WITNESS JOHNSON: A Go ahead. 12 WITNESS SINGH: A That's how we've 13 14 applied the methodology in the MAOP 15 validation project. 16 So the answer to that is yes? 0 17 А I'm not finished yet. 18 Oh, I'm sorry. 0 19 А So let me reiterate just so that 20 I've got a continuous answer in the record. 21 So that's how we've applied the conservative 22 methodology as part of the MAOP validation 23 project. But going back to the decision that 24 the Commission articulated, stated, ordered 25 PG&E to do was to validate the MAOP using a 26 strength test. And in this case for Line 147 27 that's been shared, discussed at length, and 28 without a doubt that MAOP that's been

1 validated through that strength test record 2 for every single foot of that line and all 3 the shorts operating at or above 20 percent 4 SMYS is at least 400 psig. But did that -- I'm asking for a 5 0 6 yes or no answer. Is it PG&E's position that 7 the MAOP is the minimum of the hydrotest determined MAOP and the design MAOP? 8 9 MR. MALKIN: Your Honor, I'm going to 10 object. That's asked and answered. The 11 fact -- Mr. Singh just explained PG&E's 12 position. 13 ALJ BUSHEY: In great detail. Ι 14 believe your question oversimplifies the 15 actual approach that they're taking. 16 MS. STROTTMAN: O Okay. Then the 17 answer would be no then. Is that what you're 18 saying, Mr. Singh? I'm trying to 19 understand -- I'm just asking if -- it sounds 20 like then that's not PG&E's position then that the MAOP is a minimum of the hydrotest 21 22 determined MAOP and the design MAOP? 23 MR. MALKIN: Same objection, your 24 Honor. Mr. Singh can restate his answer, but 25 it's in the record. 26 ALJ BUSHEY: That question has been 27 asked and answered. 28 MS. STROTTMAN: I believe it hasn't,

but if you -- that's fine. We'll let the 1 2 record stand where it stands. 3 ALJ BUSHEY: Okay. Further guestions? 4 MS. STROTTMAN: No, no. Thank you. 5 ALJ BUSHEY: Thank you. And I understand Mr. Ruben wants to make a 6 7 statement at the conclusion of today's hearings. Is that fair? 8 9 MR. RUBEN: Yes, your Honor. 10 ALJ BUSHEY: All right. And the other 11 parties have at least half an hour each, 12 right? 13 So let's take a lunch break. I have 14 several things I need to accomplish. So 15 let's say 1:15 we will resume. So we'll be 16 adjourned until 1:15. (Whereupon, at the hour of 12:02 p.m., a recess was taken until 1:15 17 18 p.m.) 19 \*] 20 21 22 23 24 25 26 27 28

AFTERNOON SESSION - 1:20 P.M. 1 2 3 4 SUMEET SINGH and KIRK JOHNSON resumed the stand and testified further as 5 follows: 6 7 ALJ BUSHEY: We'll be back on the 8 record. 9 Cross-examination continuation with 10 Mr. Meyers. 11 12 MR. MEYERS: Thank you, your Honor. 13 CROSS-EXAMINATION 14 BY MR. MEYERS: 15 And Mr. Singh, Mr. Johnson, I'm 0 16 Steven Meyers representing the City of San 17 Bruno. Good afternoon. 18 Mr. Johnson, when you started your 19 direct examination on Monday in response to a 20 question by Mr. Malkin you indicated that 21 your position at PG&E has changed. Could you 22 refresh my recollection of what your current 23 title is? 24 WITNESS JOHNSON: A I am responsible 25 for the project management and program 26 management of PG&E's gas operations. 27 And who took the position that you Ο 28 previously held?

Well, it was basically a 1 А 2 restructuring. So nobody, quote, took my position. It's just we moved things around 3 4 and organized differently. So there were some functions that went just in different 5 6 places. 7 0 For purposes of this particular 8 proceeding, the repressurization request of 9 PG&E for Line 147, you are the gentleman at 10 PG&E that signed the certification under 11 penalty of perjury that Ordering Paragraph 12 No. 4 in the decision sets forth as the 13 criteria that must be produced and shown by 14 PG&E to justify a repressurization; is that 15 correct? 16 А I have a verified statement, and I 17 signed the safety certificate. I didn't -- I 18 don't have a copy of the document you're 19 referencing right now. So I can't --20 But when I refer to the decision of 0 21 the Public Utilities Commission, Decision 22 11-09-006, you're familiar enough with that 23 decision to answer my question accurately today that you are the officer to whom the 24 25 company requested a verified statement for 26 submission to CPUC? 27 I am the one that signed my А 28 verified statement and the safety certificate

for this proceeding. 1 2 0 And you previously signed such a verified statement for the original 3 4 repressurization decision made by the CPUC before this current proceeding took place, 5 6 correct? 7 А You're referring to the ones for Line 101 and Line 147 previously? Is that 8 9 your question? 10 0 Yes. This proceeding results from 11 an Order to Show Cause why the previous order 12 the CPUC issued allowing you to repressurize 13 various pipelines in the peninsula, why that 14 shouldn't be rescinded. 15 So you previously signed a 16 certification under penalty of perjury that 17 led to the first repressurization following 18 the Executive Director's decision to lower 19 pressure; is that correct? 20 I'm not sure I'm following all of А 21 your question, but I signed the safety 22 certificate for this proceeding, and I signed 23 the safety certificate for what I believe was 24 for, the title was Line 101, Line 147, and I 25 believe it was Line 132A. 26 Thank you. And Mr. Singh, you have Ο 27 also signed a verified statement on behalf of 28 PG&E. I think the copy I have is dated

1 September 13th, 2003. And that is your 2 statement relative to the request of PG&E to 3 repressurize Line 147; is that correct? 4 WITNESS SINGH: A Is that the September 13th, 2013 document? 5 That's what I said. 6 0 7 А The declaration? Yes, it is. 8 Q I just wanted to say that --9 preparatory matter to make sure I was asking 10 the right questions to the right guy. 11 So with respect to Line 147, which 12 is all we're talking about today given the 13 quidance from Administrative Law Judge 14 Bushey, I'm looking at Exhibit I, 15 cross-examination Exhibit I, I as in India. 16 This is PG&E data response and attachment 17 that were submitted by the Office of 18 Ratepayer Advocates. Do you have that in 19 front of you? 20 WITNESS JOHNSON: А Is it SED 003 O 21 062 22 Yes, sir. Q 23 А Okay. 24 And on the last page, I believe 0 25 it's the last page, of that exhibit there was 26 a chart which is vertical across the page. 27 That chart purports to represent six segments 28 of Line 147 and then has various data with

respect to the October 2011 as-filed pressure 1 2 restoration, and then the next large column shows updated specifications. Do you see 3 4 that, sir? 5 Yes, we have it in front of us. А 6 Okay. My guestions are going to Q 7 relate to that. So in the prior 8 certification that you, Mr. Johnson, said 9 that you filed on behalf of PG&E for the 10 October 2011 pressure restoration 11 application, the data that was on this document was the data that PG&E had that it 12 13 used as part of its process of validating 14 MAOP. Is that a fairly accurate statement? 15 Well, if I understand you А 16 correctly, if you're talking about the 17 October 2011 section. 18 Yes. Ο 19 Α As filed for the pressure 20 restoration? 21 0 Yes. 22 А That's the document? 23 Ο Yes. 24 Yes, that information would have А 25 been in the previous filing. 26 Thank you. Now, if you go Q Okay. 27 to the next large portion of that spreadsheet 28 which is entitled Updated Specifications,

those are the updated specifications that you 1 2 have now submitted as part of your verified statement in support of the MAOP validation 3 4 and repressurization of Line 147? In other words, these are the corrected -- it's the 5 6 corrected information in your database for 7 this, these segments; is that correct? 8 А The -- I'm sorry. Would you repeat 9 the question? It is the what now? What was 10 your question again? 11 My question is, in the column, Ο 12 large column that says "updated 13 specifications." 14 А Okay. 15 There's a list of specifications Ο 16 starting with design factors, wall thickness, 17 SMYS, long seam, things of that nature, and 18 that data is now the corrected data that you 19 are using for purposes of making your 20 verified statement to the Commission to 21 justify the MAOP validation and restoration 22 of pressure; is that correct? 23 I think these are situations for А 24 the long seam. 25 Do you want to try to answer that? 26 You got to go back and make sure it matches. 27 WITNESS SINGH: I can answer that. Α 28 These are the updated specifications as the

1 title states. 2 0 Okay. So now that I have that 3 clear, I want to ask you a question about 4 Segment 109, which is the last segment in that column. And I'm asking this guestion 5 6 because I am cross-examining you with respect 7 to your safety certification and the 8 validation of engineering and construction 9 data that you are using for these 10 proceedings. 11 You list in this exhibit that you 12 have just authenticated a wall thickness of 13 .250, SMYS of 33,000, A.O. Smith SMAW, which 14 Mr. Rosenfeld testified to yesterday, joint 15 efficiencies, and MAOP design, MAOP test, and 16 MAOP of record. Is that correct? You follow 17 me? 18 That's what's included in the А 19 table, that's correct. 20 And I'm sorry. This is all 0 21 preparatory to a question I want to ask you. 22 No problem. А 23 So the MAOP of design -- let's 0 24 start with MAOP of test. The MAOP of test 25 would have been the results that you obtained 26 based upon your hydrostatic testing for that 27 line, correct? 28 That is correct. And that number А

is the same in both columns, both columns 1 2 being October 2011 and the updated specifications. 3 4 0 Okay. I didn't ask that question, but thank you for that editorial comment. 5 My pleasure. 6 А 7 Ο The MAOP of design to the immediate left of the MAOP of test, what does that 8 9 number represent? 10 А The MAOP of design represents our 11 conservative methodology and application as 12 part of the MAOP project to retroactively 13 apply the design equation for the 14 specifications as articulated throughout the 15 conversation we've had today. 16 And the MAOP of design that's shown 0 17 in that column for Segment 109 and the MAOP 18 of record are the identical figures 330; is 19 that correct? 20 That's correct. А 21 Okay. So the MAOP is what you're 0 22 asking for the Commission to authorize. My 23 question is simply this. If the MAOP 24 resulting from a hydrostatic testing, which 25 is the gold standard in the industry, results 26 in a figure of 404, why aren't you asking for 27 a MAOP of record of 400? 28 WITNESS JOHNSON: A We are asking for

1 a very conservative number at this point in 2 time. But we acknowledge that the MAOP of test is 404. And in theory we could be 3 4 asking for 404. But also as part of the PSEP program we said we would validate the 5 6 existing MAOP, which previously was 400. 7 0 And if you could just, summarily if you wouldn't mind, explain to me the 8 9 conservative factors that you're using that 10 results in your decision to only ask for 330 11 and not what your hydrotest shows this pipe is safe to run at? 12 13 Well, all the issues are А 14 conservative factors. So we have talked 15 about Segment 109 at length here. We've 16 talked about the fact that the SMYS that 17 we're using for that line has actually been 18 tested to be significantly higher than our 19 conservative assumptions. We have talked 20 about using a joint factor of .8, which under 21 the federal guidelines we wouldn't normally 22 use for calculating hoop stress. So that's 23 another conservative assumption. 24 WITNESS SINGH: A And the third one 25 I'd like to add on top of that is the point 26 that Mr. Malkin made earlier today is the 27 strength of the weld versus the strength of 28 the base metal at that specific location

where the leak occurred, which we analyzed, 1 2 which is part of Segment 109, validated that joint efficiency factor of 1.0. We still 3 4 continue to use the conservative assumptions. Mr. Singh, thank you for that. 5 0 Τ 6 don't think that Mr. Malkin is testifying. 7 So could you please explain in your own words 8 what you meant by that statement. 9 А Sure. So if you take a look at 10 the -- one of the Anamet reports, one of the 11 many documents we filed as part of this 12 proceeding, it includes the metallurgical 13 results for the section of the line that was 14 removed so we could conduct the root cause 15 analysis of the leak. 16 The metallurgical properties showed 17 that the minimum yield strength for the base 18 metal was lower than the minimum yield 19 strength for the actual weld metal, and the 20 weld metal is where the seam comes together 21 for the respective pipe as it's rolled. And 22 that's a proxy for or an indication where the 23 weld metal has a greater strength than the 24 base metal that the joint efficiency factor 25 does not have to be derated. 26 So if I understand your answer, Ο 27 there is a difference in the yield strength 28 between the base metal and the actual weld

itself, the longitudinal weld? 1 2 А That's correct. That's what's stated in the metallurgical report. 3 4 0 And you're using the most conservative of those two factors in doing 5 your verification for line -- for Segment 6 7 109? 8 А We are actually not using the 9 result from the metallurgical analysis, which 10 is higher than what's used here to do the 11 calculation. The reason we use 33,000 is the fact that it's been our historical 12 13 procurement practices and we have contracts 14 that state that the A.O. Smith pipe that we 15 procure and have procured, minimum value is 16 33,000 psi. Mr. Harrison, I believe, was 17 under oath when he did talk about that issue. 18 Okay. So just so I can make sure I 0 19 understand this. You could come to the 20 Commission with the information that you 21 have, the testing that you've done, and in 22 your engineering opinion you could ask based 23 upon the hydrotest, which again is the gold 24 standard we've all been talking about, you 25 could have asked for an MAOP of 400 psig. Ιs 26 that correct? But you chose to employ more 27 conservative assumption, and that's why 28 you're asking for less than 400?

1	WITNESS JOHNSON: A As I stated
2	earlier, I believe we have the right to ask
3	for 400 if we chose to based on everything
4	we've talked about previously at these
5	hearings. And we chose to be very
6	conservative in all of our assumptions, and
7	that's why we're only asking for 330.
8	WITNESS SINGH: A And I would also
9	actually like to reinforce that in an
10	assessment. It's not just PG&E's position.
11	One of the leading experts that's been a
12	witness and the letter that was submitted by
13	Mr. Rosenfeld on behalf of Kiefner &
14	Associates also speaks to this issue that the
15	line has been validated to 400 psig.
16	Q Some of the reasons for your
17	conservative assumptions are your
18	understanding and PG&E's records showing the
19	type of pipe that you purchased let me
20	rephrase that.
21	Is the reason that you have
22	employed a conservative assumption on your
23	otherwise hydrotested MAOP the fact that you
24	are aware of other pipeline feature
25	characteristics which you believe warrant a
26	more conservative approach to establishing
27	pressure?
28	For example, we know that one

1	portion of Line 147 is A.O. Smith pipe. In
2	yesterday's testimony Mr. Rosenfeld, excuse
3	me, testified that he didn't know where that
4	pipe came from, didn't know when it was
5	reconditioned, how it was reconditioned,
6	where it was purchased, who purchased it, but
7	it is A.O. Smith pipe, probably manufactured
8	before 1930.
9	Would your employment of
10	conservative assumptions take that into
11	consideration?
12	WITNESS JOHNSON: A I think you're
13	referencing, again getting right back to this
14	PRUPF conversation again. Is that what
15	you're in terms of how we apply our
16	conservative assumptions? Is that your
17	question?
18	Q I'm sorry. I'm just asking
19	where what's the source of your desire to
20	employ more conservative assumptions in
21	coming before the Commission asking for an
22	MAOP certification? What is the source of
23	that reason? Why in your engineering
24	judgment do you feel it's important as the
25	chief officer of PG&E to come in with a
26	certification that is below what the MAOP
27	would otherwise permit? ]
28	A Well, just as we did in the first

1	request at 365 pounds, we came below because
2	we agreed to use, and we believe we should be
3	using, conservative assumptions. We talked
4	about being conservative in our decision
5	making, and that is the whole basis of all
6	the discussion we had earlier today.
7	We said we would calculate MAOPs as
8	an interim safety measure prior to
9	hydrostatically testing pipelines. That is
10	the driver for going through that
11	calculation. And from our standpoint, we are
12	trying to be very conservative.
13	Q So the 330 psi is the appropriate
14	pressure based upon your expert engineering
15	judgment. Is that correct, Mr. Johnson?
16	A At this point it is the pressure I
17	am requesting based on everything I've seen,
18	and it is a conservative number. I believe
19	we still have the right to ask the 400. I'm
20	not asking for it at this point in time.
21	Q Okay, let me try a hypothetical.
22	Hypothetically, if Segment 109 of Line 147
23	were seamless pipe with a joint efficiency
24	factor of 1.0, would you still be requesting
25	an MAOP of 330?
26	A I would have to go back through and
27	look at any other constraints that might be
28	on this pipeline, different segments. And

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what we calculated there, and whether or not 1 2 we are sticking with our conservative 3 assumptions. It might change, it might go 4 up. You mentioned the seam -- it would 5 6 be a seam factor of zero, I mean 1, if it 7 didn't have a seam, quote, seamless pipe. 8 But I would want to look through that entire document again, and I would want to make sure 9 I understood all of our conservative 10 11 assumptions, and I would make my judgment 12 then. 13 So in your engineering opinion, Q 14 sir, as you sit here today testifying, the 15 existence of information regarding a 16 particular pipe segment does enter into your 17 decision regarding whether to imply 18 conservative factors in your overall 19 engineering judgment. Is that a correct 20 statement? 21 А Well, I'm not sure I understood. Ι 22 looked at all the issues that I mentioned at 23 the beginning of this in putting together my 24 judgment in what we are asking for. And 25 coming into this one, we decided to be, I 26 decided to be very conservative. 27 And so I've looked at all the 28 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 1 2 of what he is saying, I'm asking you this 3 question, sir. 4 As the chief engineer of PG&E who is responsible for this certification, do you 5 6 specifically look at things such as when you 7 have unknown pipeline features, purchasing 8 records of the company, what type of pipe you 9 purchased over what period of time when this 10 particular piece of pipe was installed? And 11 can you make general assumptions about the 12 quality of that pipe based upon that 13 information? 14 А What I have looked at, I have seen 15 some of the purchase documents when we 16 started the MAOP process and we started the 17 PRUPF discussion on how to put that together. 18 I saw some of those documentations. I didn't 19 look at all of them. 20 I do have a lot of conversations 21 with Mr. Singh, Mr. Harrison, and many other 22 people doing that work. And so we have had 23 dialogue about that, but I haven't personally 24 reviewed each one of those documents. 25 But you would expect the people who 0 26 report to you so that you could make a 27 decision to have reviewed that information? 28 Well, in terms of what is in the Α

PRUPF document? 1 2 Ο Yes? I mean I think that Mr. Singh has 3 Α 4 clearly articulated what has gone into those 5 documents in the past. 6 In terms of wanting to know the 7 strength, and if we are talking hypothetical 8 again about AO Smith pipe, if we are still on 9 that line, we had conservations with 10 Mr. Harrison. And Mr. Harrison has stated we 11 have tested this pipe under numerous 12 circumstances. And each and every time I 13 believe he stated that the strength was well 14 above 33,000 psi. 15 This particular test, adding again 16 to the confidence level, is we tested this 17 pipe and I believe it came out at 39,000, I 18 believe it was 300, subject to check. So that is the kind of -- that is the kind of 19 20 discussions I have had in preparing for 21 signing the document and reviewing all of 22 the -- all the information that went into 23 this filing. 24 Mr. Singh, you looked like you 0 25 wanted to add something to that answer? 26 WITNESS SINGH: A The only thing I 27 wanted to add is if there is a general 28 question about the quality of the AO Smith

pipe, how it was manufactured, how it was 1 2 developed over time, how it was tested over the mills, I think Mr. Rosenfeld spoke to 3 that on Monday, Mr. Rosenfeld is still here. 4 If there is any questions in regards to the 5 6 actual strength of the pipe, what type of 7 testing they did, I believe he testified, and go back and look at the transcripts. 8 We can 9 also look at the October 18th letter that 10 Mr. Kiefner, or Kiefner & Associates, and Mr. 11 Rosenfeld submitted. In that it states that 12 AO Smith pipe was one of the higher quality 13 manufacturers of line pipe during their era. 14 Mr. Singh, earlier today Mr. Malkin 0 15 objected to a characterization of your 16 testimony that I made in an off-the-record 17 comment, I believe. I can't find the portion 18 of the transcript where you actually said 19 these words, because we just got the 20 transcripts this morning. But I believe you 21 said something to the effect that, with 22 respect to AO Smith pipe, that that pipe may 23 have been pipe that was acquired from other 24 utilities. Do you recall making that 25 statement? 26 It would be great if you can point А 27 me to a specific section in my transcript. 28 I can't. To your knowledge has Ο

1 PG&E acquired AO Smith pipe from other 2 utilities? 3 А I think Mr. Harrison would be more 4 appropriate to answer that question. Because I haven't looked at every single purchasing 5 record associated with 6,750 miles 6 7 translating to more than 4 million individual 8 documents. I personally have not reviewed 9 every single document to be able to make that 10 statement. The fact that we had a successful 11 12 strength test, a spike test, does not concern 13 me. We monitored to ensure line doesn't 14 yield, which we also talked about at length. 15 So it does not concern me that that is weaker 16 pipe. And if it was weaker pipe, we would 17 have identified that as part of strength 18 That is why we strength test. test. 19 So I know we've talked about this 0 20 quite a bit. But basically what you are 21 saying, if I interrupt it correctly, while it 22 is good to find the original records for the 23 purchase of particular segments of pipe to 24 validate the information that you have in 25 your database with that information, 26 ultimately it is the strength test or the 27 hydrotest that is the standard by which PG&E 28 uses to file its verification by you guys

1 under penalty of perjury that the pipeline in 2 question is -- can be operated at the MAOP? 3 I mean it is ultimately the strength test, 4 the hydrotest you are relying on? 5 WITNESS JOHNSON: A So that we are very clear on this, Line 147 for the segments 6 7 that were built before 1970, that is the information we are using. 8 Okay. So isn't it true from an 9 0 10 engineering point of view that all pipeline 11 features are not validated by a hydrotest? 12 А I'm sorry, your question again? 13 0 Isn't it true from an engineering 14 perspective that not all features of a 15 pipeline are actually validated by a 16 hydrotest? 17 А There are multiple types of tests 18 that can take place on a pipeline. So 19 hydrotest is not the only one. 20 Would you -- would a hydrotest tell 0 21 you the load capabilities of a miter in a 22 pipeline? 23 Would it tell you the, I'm sorry, А 24 what capabilities? 25 Would a hydrostatic test provide 0 26 sufficient information for you to validate 27 the integrity of a miter bend on a piece of 28 pipeline? In other words, is hydrotesting

1 the way to test the integrity of a miter 2 bend? 3 Well, a hydrotest is a way to test А 4 the integrity of a pipeline to be capable of holding a pressure that it is operating 5 6 under. So, again, 400 pounds hypothetically, you test the 600, you know that pipeline 7 system from Point A to Point B is capable of 8 9 handling that pressure. That is what a 10 pressure test or a hydrotest in this case 11 does. 12 0 I understand that. Thank you for 13 that. 14 But are there structural elements 15 in a pipeline such as a miter bend or such as 16 a bell that -- a bell joint, where a 17 hydrotest is not the best means of assuring 18 the integrity of that particular feature, 19 that you do other testing? 20 When you refer to "integrity "what Α 21 are you representing? 22 Integrity of the line to withstand Q 23 the pressure that you are operating in? 24 А If you are looking to understand if 25 the pipeline can hold pressure, you do a 26 pressure test. 27 Did you happen to do any special 0 28 tests on miter bends on Line 147?

"Any special test"? 1 А 2 WITNESS SINGH: A So in the response that Mr. Rosenfeld also provided I believe on 3 4 Monday, he did mention that we did do a structural analysis on the open span which 5 included the miter bend. I'm not sure if 6 7 that is your question. 8 0 It is my question. Why did you do 9 that? 10 WITNESS JOHNSON: A Why did we do a 11 structural? 12 0 Yeah. 13 Well, it is just part of the А 14 overall assessment. You have a span, right? 15 It is aboveground. And so one of the things 16 you do on spans, you look at the structural 17 integrity of that span. You are aboveground. 18 So you will take a look at that. 19 And Mr. Rosenfeld, I think as 0 20 Mr. Singh pointed out, also included it in 21 his explanation that that included the miter 22 bend as well? 23 Yeah, I would have to reference А 24 back to it. But if that is what is in 25 Mr. Kiefner's, or Mr. Rosenfeld's statements, 26 then that is in his statement. 27 Gentlemen, I'm not trying to trap 0 28 you in debating the point here. But I'm just

trying to understand that hydrotesting may be 1 2 the gold standard for the circumferential pressure within a vessel. But it is not the 3 4 only test that you do to ensure the integrity 5 of the pipeline. Is that a correct 6 statement? 7 А There are other things that you do to continue to ensure the ongoing 8 9 capabilities of the pipeline, leak survey, 10 controls and inspections, monitoring for 11 dig-ins, cathodic protection, all those type 12 of things are the things you do on an ongoing 13 basis. 14 Okay. In your verified statement Ο 15 before this Commission you are saying that 16 you've done all those things necessary to 17 support your conclusions? 18 I am comfortable that we've done А 19 everything necessary to operate this pipeline 20 at 330 pounds. I believe that is the essence 21 of my verified statement. 22 Okay. Well, thank you for that. 0 23 Mr. Johnson, you are familiar with 24 the Decision 11-09-006 that we've been 25 referring here today? 26 I am not familiar with decisions by А 27 decision numbers. Those aren't things I put 28 to memory.

1	Q Well, it is the decision adopting
2	procedures for lifting operating pressure
3	restrictions. Are you familiar with that
4	document?
5	A I have seen it. I don't have it in
6	front of me. I'm not intimately familiar
7	with it, no. I've read it, but I don't have
8	it to memory.
9	Q Okay. I don't want to offend you,
10	but you are the guy certifying under this
11	order. I would think that you would know it.
12	But that is okay.
13	MR. MALKIN: Your Honor.
14	ALJ BUSHEY: Mr. Meyers, can we focus
15	on answering questions and leave the
16	editorial comments behind.
17	MR. MEYERS: Q Mr. Johnson, are you
18	aware that the City of San Bruno proposed in
19	this proceeding, and it is referenced in the
20	decision on page 5, the City of San Bruno
21	proposed to the PUC that they adopt a remedy
22	or a requirement that the operating pressure
23	be validated by independent experts and then
24	reviewed in a public process by the
25	Commission?
26	A I recall reading that in some of
27	the testimony. I don't remember the exact
28	words.

I think we've referred to the term 1 Ο 2 as "independent monitor." Have you heard 3 that term used? 4 А I have heard the term used, yes. Ι have not had any conversations about an 5 6 independent monitor. 7 0 Do you know whether PG&E supports the concept of an independent monitor to 8 9 validate MAOP? 10 А I don't believe we have any reason 11 to need an independent monitor to validate 12 the MAOP. We have the Commission, we have 13 PHMSA, we have SED as part of the Commission. 14 We have numerous parties looking over to try 15 to validate anything that PG&E does. 16 So as the chief engineer for gas 0 17 for Pacific Gas and Electric, if Mr. Johns 18 comes to you and asks you your opinion 19 whether you recommend that PG&E sign on to a 20 proposal to have an independent monitor, what 21 would your recommendation to him be? 22 Without understanding what the А 23 independent monitor was really going to do, 24 if you are -- hypothetically, I'm going to 25 hypothetically answer that question --26 0 Please. 27 -- I would say I don't think it is Α 28 necessary.

1	Q Thank you.
2	A I think we have plenty of agencies
3	that have already had the capabilities of
4	looking at anything we want to do. We have
5	the CPUC, we have the SED portion of the
6	CPUC, and we have PHMSA.
7	Q Mr. Johnson, we made a data request
8	of PG&E that unfortunately has not been
9	responded to as we sit here today. So I'm
10	going to ask you a question relevant to that
11	that bears on this issue of certification.
12	Mr. Singh, you can please answer this as
13	well, if you could.
14	Are you aware of any circumstances
15	with respect to your MAOP validation where
16	the field information is different than the
17	records maintained by PG&E concerning that
18	particular piece of pipe, or whatever it
19	might be? In other words, are you aware of
20	any circumstances where PG&E has discovered,
21	in the course of doing its MAOP validation, a
22	discrepancy, such as we have here on Line
23	147, between the data in your system and what
24	you found out in the field? Are there any
25	other circumstances like Line 147 that you
26	are aware of?
27	A Well, I think in respect to Line
28	147 we found that as part of, as we termed

1 it, a routine leak survey, somebody standing 2 by. I'm not familiar with any other time that we have found information in that 3 4 manner. I'll let Mr. Singh add to it. But we do data validation digs to exactly verify 5 6 what is in the ground. 7 So the answer would have to be yes, we have found things that may differ from the 8 9 records, and this whole purpose of those digs 10 is to validate that. That is the purpose of 11 a validation dig. 12 WITNESS SINGH: А Just to add on to 13 that, that is part of the MAOP project. That 14 was one of the things that we were doing. We 15 were -- performed excavations to identify 16 specifications. And that is part of the 17 process and the procedure that we laid out 18 previously as well. As we do excavations to 19 perform work on our system, safety-related 20 work as part of the Pipeline Safety 21 Enhancement Plan, or any other work, we validate the information that is in the field 22 23 with our records. It is a process, 24 continuous improvement process. 25 Again, it goes back to the same 26 aspect that we stated in terms our 27 methodology back in March 21st of 2011. 28 Nothing has changed since then.

1 0 Are you familiar with Line 210C, as 2 in Charlie, in Vallejo? 3 MR. MALKIN: Objection, irrelevant. 4 MR. MEYERS: Your Honor, my question is going to go to the veracity of the witnesses. 5 6 I'm going to ask a guestion about this 7 particular line because what was covered with 8 respect to that. 9 ALJ BUSHEY: Mr. Meyers, you are going 10 to impeach the veracity of these witnesses? 11 MR. MEYERS: I'm going to try. 12 ALJ BUSHEY: All right. MR. MEYERS: 13 Q Are you familiar with 14 line 210C, as in Charlie, in Vallejo? 15 WITNESS JOHNSON: A I am, in general, 16 familiar with the location of that line. 17 0 And is it correct that the -- that 18 PG&E inspected that line and determined that 19 the line interior walls were less than 20 expected and has now replaced that line? 21 А I believe what you are referencing 22 is we ran a tool, if I understand your 23 question correctly, we ran an ILI tool 24 through the line looking for wall thickness, 25 looking for information on the pipeline, 26 including external and internal corrosion, 27 and a multitude of other things, including 28 dents.

1 And during that ILI pig run, there 2 was some pipe found to be different than what 3 was in the records. And that pipeline 4 segment, I don't recall exactly how long it was, was replaced in relatively short order, 5 6 as I recall. I don't have all the details to 7 memory, but it was a project our team took 8 on. 9 Mr. Singh, anything further on 0 10 that? 11 WITNESS SINGH: A I have nothing else 12 to add to that. The tool, on just a 13 clarification point, the tool that was run as 14 part of that was an in-line inspection tool. 15 That is clearly a method, that is something 16 that is part of the Integrity Management Program that we have within PG&E. And that 17 18 is something that we are going to continue to 19 do on our lines that are piggable, and we 20 continue to make more of our lines piggable 21 to exactly identify those types of issues. 22 Is line 147 piggable? Q 23 WITNESS JOHNSON: A At this time I 24 don't -- well, one thing, no, Line 147 cannot 25 be pigged today at 125 pounds with no valves 26 open. I don't know of a tool right now that 27 could be run through that system, and 28 certainly not at the lower pressures that we

1 are talking about that it is currently 2 operating at. 3 As the head of Pacific Gas and 0 4 Electric's gas projects, sir, would you recommend to management that they reconstruct 5 6 Line 147 so it is piggable? 7 А We plan to get all -- in time, we will get all of our lines, certainly over 8 9 greater than 6 inch, piggable. It is simply 10 a matter of looking at which ones we make 11 piggable first. I think Line 147 would 12 ultimately be one of those lines. If there 13 is segments or things that need to be done to 14 the pipeline to make it piggable, we will go 15 about doing that work. 16 MR. MEYERS: One minute, your Honor. 17 ALJ BUSHEY: We will be off the record. 18 (Off the record.) 19 ALJ BUSHEY: Back on the record. 20 Mr. Meyers. 21 MR. MEYERS: One final set of 22 questions, if I might. 23 Mr. Johnson, you are aware of the 0 24 NTSB's urgent Recommendation P-10-3 issued to 25 PG&E as a result of the San Bruno disaster? 26 WITNESS JOHNSON: A They had numerous 27 recommendations to PG&E. I don't have them 28 memorized by number at this point. That was

1 quite some time ago. 2 0 Would it refresh your recollection if I told you that this recommendation had to 3 4 do with MAOP validation and traceable, accurate, and verifiable records? 5 6 Α I think there were several tied to 7 that concept. 8 0 And do you know whether that 9 recommendation has now been cleared by the 10 NTSB? 11 Which one are you specifically А 12 referring to? 13 P-10-3 MAOP validation. 0 14 WITNESS SINGH: A I can try. I am 15 familiar with that recommendation as well as P-10-2 and 10-4. And my understanding is, 16 17 subject to check, that P-10-2 and 3 have been 18 closed by the NTSB. 19 0 Mr. Singh, thank you for that. 20 Do you recall that Chris Johns, 21 President of PG&E, sent a letter to the NTSB 22 on January 31st, 2013, requesting that 23 clearance? Are you aware of that fact? 24 There is many letters that have А 25 been exchanged with our executives at PG&E 26 with the NTSB. So that may be one of the 27 letters. I'm presuming you are looking at 28 it. I don't have it in front of me. I will

have to take your word for it. 1 2 I guess my question, gentlemen, is 0 whether or not in retrospect now you believe 3 4 that your request to clear that recommendation to NTSB was made in good faith 5 6 based upon the knowledge that you had in 7 October, the information concerning Line 147 was not accurate? 8 9 WITNESS JOHNSON: A T believe if we 10 made that recommendation, we made it in good 11 faith. That recommendation was made in 12 Ο 13 January of 2013, and yet you had information 14 concerning the discrepancy in Line 147 in 15 October/November of 2012? 16 As Mr. Singh has stated and we Α 17 stated here many times, this is an ongoing 18 process to get records better and better. At. 19 no point does that necessarily invalidate all 20 the work that has gone on to improve records. 21 As we've said, we believe our records are in 22 very good shape, but it is a continuous 23 process to get better and better. As we dig 24 up pipelines, we will know more and more. 25 Mr. Singh, I ask you the question 0 26 whether or not you are aware of any efforts 27 that PG&E has made either orally or by 28 correspondence with the NTSB to correct the

1 record with respect to your MAOP validation? 2 MR. MALKIN: I'm going to object to the 3 question, your Honor, on two grounds. First, 4 it assumes facts not no evidence. Namely, the record, quote, needed to be corrected. 5 6 Secondly, we are veering further and 7 further from Line 147 which I thought Mr. 8 Meyers committed earlier he was going to 9 limit his questions. 10 ALJ BUSHEY: Mr. Meyers, the NTSB 11 declaration is not on the list in Ordering 12 Paragraph 4. 13 MR. MEYERS: I was wondering how long 14 you would let me go. 15 ALJ BUSHEY: Thank you, Mr. Malkin, for 16 saving me. 17 Who is next? Mr. Gruen. 18 MR. GRUEN: No, we don't mind if ORA 19 goes before us, your Honor. If that is okay 20 with you. 21 MS. PAULL: Because we have very 22 limited cross. 23 ALJ BUSHEY: Okay, go ahead. 24 MS. PAULL: I have a couple of 25 questions and Mr. Roberts has a few too. 26 CROSS-EXAMINATION BY MS. PAULL: 27 28 Looking again, you may not need to 0

refer to the table in Exhibit I again, but 1 2 look at it if you need to. The table with 3 the updated specifications. 4 So looking at the table again for Segment 109 of Line 147 in your October 2011 5 6 pressure restoration filing the MAOP of 7 design was 437. Is that right? WITNESS SINGH: A That is what is 8 9 stated here. WITNESS JOHNSON: A That is what is 10 11 stated on the document. 12 0 Okay. Now, the updated MAOP of 13 design is 330, correct? 14 А Correct. 15 Now let's look at the MAOP of test 0 16 for October 2011. It is 404, right? 17 А That is what is showing on this 18 table, yes. 19 0 And the updated has not changed, 20 right? It is the same? 21 Α That is correct. It wouldn't 22 change. They are based on the hydrostatic 23 test. The hydrostatic test didn't change. 24 Okay. But is it your testimony Q 25 that you are not now requesting 330 instead 26 of 365 because the MAOP of design is 330? 27 What I believe I stated, we are А 28 asking for 330 because we are being very

1 conservative on our request. We believe we 2 have the right to ask for 400 based on the previous MAOP. But based on our very 3 4 conservative assumptions, at this point in time we are asking for 330 pounds. 5 6 0 If the design MAOP is lower, I 7 thought we had covered earlier, I thought you 8 had agreed, you can correct me if I'm wrong, 9 that under federal regulations 619, 192.619, 10 the operator has to choose the lower. If you 11 have test MAOP and design MAOP and the design 12 MAOP is lower, you choose lower. Is that not 13 your understanding? 14 А I believe what we said earlier, 15 maybe I misunderstood the question, but when 16 you talk about design of a pipeline, that is 17 for pipelines built after 1970 when the code 18 went into place. So this line was built 19 earlier than that. 20 And that is the basis for your 0 belief that you are legally entitled to set 21 22 the MAOP at 400?

23AIbelieve we can request 400 based24on 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

1 decision that ordered PG&E to go out and 2 validate MAOP through testing or replacing, 3 are you? 4 А Well, at the federal level we have grandfather. We've already talked about 5 6 that. 7 It is clear, I'm not going to put words into the ALJ's mouth, but it was the 8 9 decision here that the State of California is 10 getting away from grandfathering. And to 11 validate the MAOP of the pipeline specific to 12 Line 147, MAOP of that pipeline prior to this 13 was 400 pounds. To validate the MAOP of that 14 pipeline, we would conduct the hydrostatic 15 test to verify that MAOP was safe. For this 16 pipeline it would be 600 pounds or greater, 17 which is what we've done for the pipeline 18 segments. As an interim safety measure, we 19 said we would go about a calculation of the 20 MAOP as an interim safety measure prior to 21 the hydrostatic test. That is, in essence, 22 my understanding what we've agreed to. 23 We've completed the MAOP activity, 24 and we will continue to get better at that. 25 Now we are going through the process of 26 pressure testing any of our pipelines that 27 have not been previously tested. 28 Thank you. We got far afield I Ο

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1
     though I think. My question is actually very
2
     simple.
 3
               You don't interpret the Commission
     order to require you to validate MAOP by
 4
5
     strength test only --
 6
           А
               No.
7
           0
               -- do you?
               No. We have been -- we are
8
           А
9
     getting rid -- the State of California wants
10
     to get rid of the grandfather clause, not
11
     strength test, pressure test. We've been
12
     ordered to pressure test all of the pipelines
13
     that have previously not undergone any
14
     pressure testing.
15
               Thank you for that correction,
           Ο
16
     pressure test.
17
               But do you --
18
               Under that order is the process we
           А
19
     are going through.
20
               So is it your belief that the
           0
21
     Commission ordered, directed PG&E to validate
22
     MAOP on the basis of pressure test only and
23
     gave PG&E permission to disregard design
24
     MAOP --
25
           MR. MALKIN: Your Honor?
26
           MS. PAULL: -- in the MAOP validation
27
     process?
28
           ALJ BUSHEY: Sustained.
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1	Ms. Paull, we have Ordering
2	Paragraph 4. There is a list of items in
3	there. Nowhere in that list does it say an
4	interpretation of Commission's previous
5	decisions.
6	MS. PAULL: This goes to F, your Honor,
7	the MAOP validation which we've been talking
8	about.
9	I'm just trying to understand the
10	basis for Mr. Johnson's as belief that PG&E
11	could, if it wanted to, set the MAOP at 400.]
12	ALJ BUSHEY: F says their proposed
13	maximum operating pressure and maximum
14	allowable operating pressure for each segment
15	in the entire line.
16	MS. PAULL: That's exactly what I'm
17	talking about.
18	ALJ BUSHEY: That's a number. We know
19	exactly what the number is. It's 330.
20	MS. PAULL: I was asking to clarify.
21	Q Are you proposing 330 because
22	that's a design MAOP? And I believe your
23	answer is no.
24	ALJ BUSHEY: Ms. Paull, it's not on the
25	list. He told you what the answer is. 330.
26	That's what they're proposing. That's Item
27	F. I'm sure there are probably thousands of
28	reasons why they propose 330. The point of

this list is what are they proposing. 330. 1 2 MS. PAULL: Okay. We know what they're 3 proposing. 4 ALJ BUSHEY: Good. That takes care of 5 Item F. 6 MS. PAULL: Do you really think so, 7 your Honor? 8 ALJ BUSHEY: That's what it says. 9 Proposed MOP and MAOP for each segment. 10 MS. PAULL: Doesn't what the Commission 11 need to determine what MAOP is required? 12 ALJ BUSHEY: No. We need to know what 13 their proposed is. This is what they have 14 proposed. 15 MS. PAULL: And I was asking the basis 16 for the number they're proposing just to 17 clarify because we have --18 ALJ BUSHEY: Ms. Paull, we've been over 19 this for now we're -- well, into our third 20 day of this. 21 MS. PAULL: I actually think I got an 22 answer to my question. I actually think it's 23 very relevant, your Honor. 24 ALJ BUSHEY: Okay. Thank you for that 25 opinion. Do you have any further questions 26 for this witness? 27 MS. PAULL: No, but Mr. Roberts does. 28 ALJ BUSHEY: Okay. Mr. Roberts.

1	MR. ROBERTS: I think these will go
2	hopefully very quickly.
3	CROSS-EXAMINATION
4	BY MR. ROBERTS:
5	Q Good afternoon, gentlemen. You had
6	just mentioned a moment ago, Mr. Johnson,
7	that the use of assumed values was an interim
8	measure. And the word "interim" in that
9	case, did I understand correctly that it's of
10	use until you hydro test. But then once
11	you've hydro tested, that interim measure
12	that's the end of the interim period? If I'm
13	not correct, please define "interim".
14	WITNESS JOHNSON: A I think I think
15	when we use the term, "interim," we're
16	talking about until the pressure test is
17	done. So I don't have the exact wording of
18	all the rulings that have gone on, but in my
19	words, we did the MAOP validation based on
20	very conservative assumptions as an interim
21	safety measure until we can pressure test
22	every piece of pipe that previously has not
23	undergone a pressure test. And I believe
24	that's the essence of the requirement.
25	Q Okay. Thank you. Now, I just have
26	a follow-up question on the City of San
27	Carlos' discussion about safety factor. And
28	I'd like to ask you to turn to page A-60 of

1 Exhibit A to PG&E's October 11th filing? 2 А I don't think we have Exhibit A up 3 here. 4 MS. PAULL: It's the safety certification. 5 6 WITNESS JOHNSON: Okay. Exhibit A. 7 Where is Exhibit A? The whole thing is 8 Exhibit A. Okay. What page was it? 9 MR. ROBERTS: Q Page A-80 -- page A-60. 10 11 WITNESS JOHNSON: A A-60. Okay. So 12 we're back to the PFL. 13 0 Correct. 14 А MAOP report. I'm sorry. 15 MAOP report, yes. 0 16 А Okay. 17 In the Decision that we've been Ο 18 talking about and the specific area that the 19 ALJ asked us to look at, Item A of that asks 20 for the percent specified minimum yield 21 strength at MAOP? 22 А I'm sorry. Item A being where now? 23 This is -- so I'm actually taking a Ο 24 small step back. Decision 11-09-006 had 25 asked that if you want to raise -- to restore 26 pressure, you need to provide the percent 27 specified minimum yield strength at MAOP. So 28 the judge handed out a copy of the Decision.

I thought you might have that or if that 1 2 sounds familiar --3 А I wasn't up here when it was handed 4 out. Go ahead. Your guestion. So the judge asked for that. 5 0 And 6 in the page I just asked you to look at the 7 one, two, three, fourth column from the right provides a column entitled, "Percent SMYS per 8 9 R." Do you see that? 10 А Yeah. 11 Okay. Is the percent SMYS an 0 12 indication of the factor of safety for each 13 of these features? 14 А It could be. 15 Okay. 0 16 It could be. I mean, we're using Α 17 very conservative assumptions; right? So 18 this would be a calculation, and so that 19 would be a starting point. We're using 20 specified minimum yield strength, that's a 21 safety factor there. That's the minimum 22 yield strength of the pipe. We're using 23 joint efficiencies that are below necessary 24 requirements, and we're using strengths 25 So there's safety factors on safety below. 26 factors on safety factors. This would be one 27 indication of a specific safety factor. 28 Well, that column in particular is 0

1	summing the information to from the left
2	of that, and aren't those values the overall
3	safety factor that is provided for each of
4	those features given your MAOP of record?
5	A I'm not sure I understood that
6	question again. So we've got
7	Q So all the assumptions
8	A a joint efficiency factor.
9	Q Correct.
10	A Right? So there's conservative
11	assumptions in there.
12	Q Yes.
13	A And then there's the test pressure.
14	Q Uh-huh.
15	A Right? So there's conservative
16	assumptions. We've tested well above the
17	operating pressure. Is that your question?
18	Q My question is I would understand
19	the percent SMYS per R to be a measure of the
20	factor of safety provided by the MAOP of
21	record that you've requested, which is 330,
22	and that that number encompasses all of the
23	other conservative decisions you've chosen to
24	make. So for example, the decision to use a
25	conservative SMYS, the decision to use a
26	conservative joint efficiency factor, and it
27	also incorporates the joint MAOP of test
28	because that is the higher than the MAOP of

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1	record.
2	So what I'm asking is is one
3	measure of the overall factor of safety for
4	the features of this line is the percent
5	SMYS per R a metric to tell us what the
6	factor of safety is?
7	A I guess in very rough terms you
8	could do that. Yes, there's a hundred
9	percent SMYS; right? So if you're at
10	50 percent of a hundred percent of SMYS,
11	you've got a safety factor, if you want to
12	use math, engineering terms it would be
13	two.
14	Q That was actually yes.
15	A That was the conversation. What I
16	don't think is incorporated in that the SMYS
17	itself a conservative number. I'm going to
18	use hypothetical numbers. If the SMYS was at
19	100 and we said this was operating at
20	50 percent, that would be 50 of a hundred,
21	safety factor of two. That SMYS because of
22	conservative assumptions may be 150. Does
23	that make sense?
24	Q Uh-huh.
25	A Because we've used conservative
26	factors together. So this is one very
27	conservative way to look at it.
28	Q Okay.

1	WITNESS SINGH: A The one thing I
2	would like to add on to that is in this
3	calculation Mr. Rosenfeld also spoke to
4	that there's also an inherent conservatism
5	built into the methodology. And that
6	methodology includes the use of the joint
7	efficiency factor. And the joint efficiency
8	factor is based on seam type as you can see
9	in this report. And this number represents
10	the actual hoop stress of the line.
11	And we've been talking a lot about
12	the federal code and the interpretation, and
13	Mr. Rosenfeld provided that. He cited a
14	specific letter in our workshop yesterday as
15	well, and it's publicly available on PHMSA's
16	website. It was a 1979 letter which PHMSA
17	clearly stated that the hoop stress equation
18	do not use the joint efficiency factors. The
19	joint efficiency factors is .8 to .6.
20	We're still using a value of 1.0,
21	but our conservative methodology uses the
22	joint efficiency factor. So to the point
23	Mr. Johnson made earlier, it's safety factors
24	on top of safety factors on top of a
25	conservative methodology to do the arithmetic
26	calculation.
27	Q So based on what you just said, are
28	you saying that the factor of safety for

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features in the middle of this page, which 1 2 currently show -- they show a percent of SMYS at 50 percent. Do you believe that the 3 4 actual factor -- and by 50 percent, that would imply a two time safety factor. 5 Because there's conservatism built 6 7 into some of these other numbers, is the 8 actual factor of safety in your mind higher 9 than two? 10 WITNESS JOHNSON: A Yes, I would 11 expect it to be higher than two if you use 12 the equations as Mr. Singh just pointed 13 out --14 0 Uh-huh. 15 -- and if you really look at what А 16 is really the strength of the material you're 17 looking at. 18 Ο Okav. 19 Α And I think we shared that on 20 Segment 109 we're using 33000. Clearly the 21 test showed -- 39,300 I believe is the 22 number. So right there you've got a 23 significant safety factor. 24 So now I'm -- and I'm almost done, 0 25 your Honor. 26 Now I'm going to ask a hypothetical 27 about a piece of pipe here that says A.O. --28 any of these in the middle of the page that

1 say A.O. Smith pipe. 2 А It's not a hypothetical if you're 3 pointing to a piece of pipe. Just tell me 4 what piece of pipe you're looking at. 5 ALJ BUSHEY: Mr. Johnson. 6 THE WITNESS: I'm sorry. 7 MR. ROBERTS: Q Let's start with a 8 real set of data on your element of the PFL, 9 which is any of the ones that say A.O. Smith 10 pipe that have a design MAOP of 330 and a 11 calculated percent SMYS of 50. There's many 12 of them. You can pick any one of them. 13 WITNESS SINGH: A Okay. 14 Now we're going to go into the 0 15 hypothetical situation. This table shows a 16 SMYS of 33 percent. What would the 17 calculated percent SMYS be, everything 18 else --19 WITNESS JOHNSON: А I'm sorry. This 20 table does not show 33 percent. 21 0 33,000 PSI, I'm sorry, for SMYS. 22 А Okay. 23 If instead of 33,000 we used a 0 24 stronger pipe with a SMYS of 66,000, 25 everything else being equal, would the 26 calculated percent SMYS now go to 25 percent 27 or would that stronger pipe provide a factor 28 of safety of four?

1 Α At least, yes. 2 0 Okay. Just one other question, And now I'd ask you to turn to page 3 then. 4 A-183, which is into the hydro test report. 5 Α Okay. 6 So we're not going to talk about 0 7 the slopes of this curve today. Thank you for going over that yesterday. What I want 8 9 to look at is the relative position of the actual line relative to the calculated 10 11 expected yield curve, the straight line. And 12 my question is fairly -- I hope it's simple. 13 We -- we agreed in the workshop 14 that this curve does not show yielding, that 15 the -- that the pipe did not yield during the 16 spike test on Test T43B; correct? 17 А Correct. There has been no 18 yielding in any of the hydro static testing 19 that we've done. 20 Does the PV plot or any other data 0 21 in the test report show how close you came to 22 yielding? 23 Well, I don't -- I don't know that А 24 you can say how close you came to yielding. 25 I mean, you're looking for yield. We have no 26 reason to believe we're even close to yield. 27 So I mean, if you wanted to roughly look at 28 it, you can probably, you know, look

1	across and what is that? 700 and 740,
2	750 pounds.
3	Q Uh-huh.
4	A And the line that was expected
5	that in theory would yield at; right, in
6	theory and there's a lot of issues with
7	that is the red line. So you've got
8	what? 200 and 200-plus pounds before
9	yield in this particular case.
10	Q So if all the pipe were as expected
11	when they calculated that expected yield, you
12	are very far from what you expected yield to
13	be in this test?
14	A Oh, yes, absolutely.
15	Q Okay.
16	A I mean, this is this is we
17	only tested to 600 pounds; right? Other
18	than there's some segments we tested to
19	1,200 pounds I believe was the number we saw
20	earlier. So yeah, it's not it's not
21	it's not anywhere close to where we expect to
22	have yield.
23	Q But if and now I will go
24	hypothetical. If there were a piece of cast
25	iron or something with a very low yield
26	strength, this curve wouldn't tell us how
27	close we got to that. It would only tell you
28	you did not achieve yield; is that correct?

1 WITNESS SINGH: A Let me answer that 2 question. First of all we don't use cast 3 iron pipe. 4 0 It's a hypothetical. And if we had a material like cast 5 Ά 6 iron pipe, it would not be able to withstand 7 this type of pressure. It would actually not 8 pass the hydro test --9 Okay. 0 10 А -- according to my understanding. 11 And we have to look at the material 12 properties. And I'm not going sit here and 13 have that engineering discussion about what 14 the material properties are of cast iron, 15 what the minimum yield strength is, what is 16 the wall thickness. Maybe there's pipe 17 manufactured that can withstand that, but we 18 do not use cast iron pipe at they pressures. 19 Okay. So I did preface my question 0 20 by saving this is a hypothetical. I was just 21 trying to look for my data to what type of 22 pipe would have a significantly lower yield 23 strength. So forget about the type of 24 material. But if there was a material in 25 there that had a significantly lower yield 26 strength, this plot doesn't show how close 27 you same to that. It only shows you did not 28 achieve yield?

1 WITNESS JOHNSON: A Well, if vou 2 hypothetically were looking for a lower -- a 3 lower SMYS piece of pipe, which is what I 4 think you're stating -- is that what you're 5 stating? 6 0 Correct. 7 А This red line would drop down. The theoretical -- based on that information, the 8 9 theoretical yield on that pipe would drop. 10 Here I said roughly it's 200-plus pounds. Τf 11 that red line dropped, it would be less than 12 200 pounds. You would get a relative feel 13 for it. 14 0 That would be if you knew what the material was and could calculate this value. 15 16 You just hypothetically told me Α 17 what it was. 18 I didn't. All I said was Ο 19 hypothetically if a material is in there that 20 you don't know has a significantly lower 21 pressure at which it would yield, this curve 22 wouldn't tell you -- you wouldn't have a 23 valid red line. You wouldn't know where the 24 red line was. And this curve doesn't tell 25 you how close you came to the actual red 26 line. It only tells you you did not cross 27 the red line; is that correct? 28 I don't know if it's correct. А Ι

1 didn't quite follow you. Was there a 2 question? 3 Yes. Does this yield tell you --0 4 does this curve tell you how close you came to actually yielding every part of the pipe 5 under test? 6 7 Α Well, so the yielding of a piece of pipe under test -- the weakest link will 8 9 vield --10 Q Correct. -- the one with the lowest SMYS in 11 А 12 theory. This curve clearly shows there's no 13 vield. And I think we've gotten through 14 that. 15 Yeah. Ο 16 Where you draw your red line is А 17 where you -- where you believe you have 18 potential yield based on the information you 19 have. 20 Understood. 0 21 А Okay. Good. 22 But what -- what you didn't address Ο 23 is if we don't know the material -- so in the 24 case -- when this test was performed, you had 25 not yet had the leak on 109 and you didn't 26 know some of the characteristics of pipe in 27 this test, T43B, were different than you 28 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 T
differential equations type question. But I
think that it's a straightforward questions
think that it's a straightforward questions

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1 segment; right? 2 WITNESS JOHNSON: Right. 3 ALJ BUSHEY: Right. That's all. 4 MR. ROBERTS: Thank you. No further 5 questions, your Honor. ALJ BUSHEY: Mr. Gruen? 6 7 MR. GRUEN: Yes, your Honor. Thank 8 you. 9 CROSS-EXAMINATION BY MR. GRUEN: 10 Q Good afternoon, gentlemen. If we 11 12 could turn back to the popular Exhibit I, 13 last page? I'll go with the crowd. And the 14 line that -- that indicates Segment 109, do 15 you have that in front of you? 16 WITNESS JOHNSON: A Yes, we have the 17 same document in front of us. 18 Same document. That's right. 0 And 19 under the second column where it says, 20 "length," the number there indicates 1,327; 21 is that correct? That's correct. 22 А 23 And that's in reference to feet; is 0 24 that correct? 25 Yes, that would be in reference to А 26 feet. 27 Okay. So continuing over on that 0 28 line, I'm going to skip past the October 2011

1	as filed for pressure restoration broad
2	column and go to the updated specifications
3	column that Mr. Meyers defined earlier. And
4	under that broad column looking at long seam,
5	for Segment 109, the long seam is identified
6	as A.O. Smith SMAW; correct?
7	A That's correct.
8	Q Okay. So we see here referenced,
9	then, that the updated specs show 1,327 feet
10	of A.O. Smith SMAW long seam. And I want to
11	ask you how many actual feet of pipe from
12	1957 job installation can you absolutely
13	without doubt state is A.O. Smith pipe?
14	A Is I'm sorry. You want to try
15	that question again?
16	Q Sure. How many feet of the job
17	installation from 1957 can you without doubt
18	state is A.O. Smith pipe within Segment 109?
19	A Say without doubt? I I would
20	if you're asking me to go back and pull the
21	as-built drawings out and measure is that
22	what you're asking me?
23	Q Let's ask it this way. Based upon
24	visual inspection, what you have seen of the
25	pipe either you or your staff has seen of
26	the pipe, how much of it can you be certain
27	that you have seen is A.O. Smith pipe?
28	A Well, we have I think the facts

1 behind this particular segment is we have the 2 job. We have the job indicating how many feet it is. We did dig up one section at the 3 4 front as you very well know; right? And we've seen segments at the back, so I think 5 6 we're pretty comfortable that based on our 7 records 1,327 is -- is accurate. WITNESS SINGH: A Could I add 8 9 something? 10 ALJ BUSHEY: Hold on. Mr. Gruen, 11 what's the question? 12 MR. GRUEN: Q The question is actually 13 how many feet have been observed within the 14 section as being A.O. Smith pipe? I'm not 15 asking about your records. I'm asking about 16 what you've seen or your staff, the field 17 personnel, have actually seen on the segment 18 as being A.O. Smith pipe. 19 WITNESS SINGH: A So as part of the 20 leak repair process, we would excavate a bell 21 hole. On this particular one I don't have 22 the actual inspection form in front of me. 23 It's typically 8 feet by 8 feet or 10 feet by 24 10 feet. We have to go back and look at the 25 actual inspection form. That also identifies 26 what the actual length of the pipe was that 27 was exposed as part of the repair process. 28 WITNESS JOHNSON: A So to answer that

question fairly, you would have to go back 1 2 and pull all the jobs previously where you've 3 specifically dug up the pipe. Is that your 4 question? How many feet have we dug up and looked at? Because in order to do that, I 5 6 would have to go pull the drawings and look 7 and see what the size of our bell holes are 8 for that job and the section of pipe and add 9 it up for you. 10 Q So at this point though --11 А We have not dug up all 1,327 feet 12 if that's what you're asking. 13 So you cannot confirm all 0 14 1,327 feet are actually A.O. Smith SMAW pipe? 15 WITNESS SINGH: A That goes back to 16 the conservative assumptions. At the point 17 that the repair was made, we identified that 18 this section of the pipe was A.O. Smith, had 19 a .25 wall thickness as part of the 20 nondestructive examination and and the 21 inspection work that we do. 22 We went back, as Mr. Johnson 23 articulated, to identify the pipe that was 24 installed as part of that 1957 job, and for 25 that entire section of the -- the length of 26 that pipe, we assumed a lower SMYS value and 27 a lower long seam value. 28 I understand. 0

1 А And that's exactly what we do, 2 continuously apply the conservative 3 assumptions. 4 Ο That was -- that was far more than my question asked for but thank you for 5 the --6 7 А I apologize. -- for the additional information 8 Ο 9 Mr. Singh. 10 At this time, your Honor, I've 11 prepared a packet of handouts so that they 12 can be referenced. We only have to circulate 13 them once, and they're provided so they can 14 be referenced in an expedited fashion. 15 ALJ BUSHEY: We'll be off the record. 16 (Off the record) 17 ALJ BUSHEY: We'll be back on the 18 record. 19 While we were off the record, we 20 identified Exhibit N. It's comprised of 21 seven different data responses from PG&E. 22 We're on the record. 23 Mr. Gruen, would you like to begin 24 asking guestions? 25 (Exhibit No. N was marked for identification.) 26 27 Yes, your Honor. Gladly. MR. GRUEN: 28 I'm sorry. You said this MR. MALKIN:

was N? 1 2 ALJ BUSHEY: N as in Nancy. 3 MR. GRUEN: Q Gentlemen, Mr. Johnson 4 and Mr. Singh, do you have a copy of Exhibit 5 N in front of you? 6 WITNESS JOHNSON: A Yes, we just 7 received it. WITNESS SINGH: A I do as well. 8 9 And referencing the first e-mail, Ο 10 this is a data response to Energy Division's 11 Data Request 5, Question 2, Attachment 48. 12 Do you see that? 13 WITNESS JOHNSON: A Well, I'm looking 14 at the first e-mail, so that's where I'm at 15 now. 16 Top right corner. 0 17 Top right corner. Okay. А 18 Are you familiar with this Ο 19 document? 20 А I'm -- I don't know. I have to go 21 through and read it. 22 Mr. Singh, are you familiar with Ο 23 this document? 24 WITNESS SINGH: A I have to go back 25 and read it as well. 26 MR. MALKIN: Your Honor, the question 27 is ambiguous when Mr. Gruen asks this 28 document. It is six and seven pages of

e-mails and attachments. 1 2 MR. GRUEN: Your Honor, I recognize that Mr. Malkin would like to harp on the 3 4 volume of this document, but I actually just specified that this was Energy Division's 5 Data Request 5, Question 2, Attachment 48. 6 7 And the witness recognized it. There's not much question here about what the 8 identification of the document is. 9 10 ALJ BUSHEY: But what part of this is 11 relevant, Mr. Gruen? If you could just ask 12 the substantive question? 13 MR. GRUEN: Yes, your Honor. 14 The -- could you read the first --0 15 ALJ BUSHEY: No, Mr. Gruen. Don't lead 16 them into the document. Ask them a 17 substantive question. 18 MR. GRUEN: Okav. 19 Did you know that Mr. Harrison 0 20 asked whether the pipe was at the Mile Post 21 2.2 was X-rayed? ] 22 WITNESS JOHNSON: A At what point? 23 Ο At the point where the pipe was 24 excavated. 25 You're talking about when we first А 26 found the weld? I don't remember the 27 exact --28 When you first found --Q

Excuse me. First found the leak? 1 А 2 0 Yes. 3 When we first found the leak I Z 4 recall there was an e-mail of some sort floating around where somebody, and it may 5 6 have been Mr. Harrison, asked, did we do any 7 x-rays at that point in time. So I do recall 8 that issue coming up. But again, the leak 9 has been repaired and that whole segment has 10 been cut out. So it's got nothing to do with 11 the safety of the pipeline system. 12 Ο Moving to the next document in 13 turn, it's got the next cover page. 14 А Next cover page. 15 It says R.11-13-019 and Safety Ο 16 Enforcement Division. After that cover page 17 it's an e-mail from Joe Medina to Bennie 18 Barnes sent September 11th, 2013. 19 ALJ BUSHEY: Again, Mr. Gruen, it's not 20 important that we read the e-mail into the 21 record. 22 MR. GRUEN: Okay. 23 ALJ BUSHEY: What substantive issue? 24 MR. GRUEN: O The substantive 25 question, note from Sumeet on the second page 26 that talks about the traceability regarding 27 the potential installation and installation 28 location of reconditioned pipe along Line

1	147.
2	And just a clarification for Mr.
3	Singh. Does PG&E know whether it has
4	reconditioned pipe on Line 147 in other
5	locations beside Milepost 2.2?
6	WITNESS SINGH: A The only indication
7	we have is what we've already stated through
8	all the data requests. We don't have
9	definitive, traceable, verifiable and
10	complete records that it's reconditioned
11	pipe. Based on all the testing that we have
12	done, based on subject matter experts that
13	have opined on this such as Mr. Rosenfeld, we
14	believe that it is reconditioned pipe, but if
15	you're asking, do we have traceable,
16	verifiable, complete records that show the
17	installation of that reconditioned pipe, the
18	answer is no.
19	But do we believe now based on all
20	the testing that we've done that it's likely
21	reconditioned pipe? Yes. And this is the
22	only location that we've come across on 147
23	with this indication. But again, we have
24	stated this so many times, I don't have any
25	concerns about the safety of the line. It's
26	successfully strength tested. It's good
27	pipe.
28	Q I appreciate that from both of you.

I haven't asked about the safety of the line 1 2 here or any opinions. I'm just asking very narrow focused questions here. 3 4 А Okav. So moving to the next document 5 0 6 again, there's a placeholder that talked --7 that is labeled R.11-02-019 Safety and 8 Enforcement Division Hearing Exhibit is the 9 next cover page for the next exhibit. 10 Α I'm sorry. You moved on to the 11 next cover page? 12 The next document. Ο 13 WITNESS JOHNSON: A It's 11-02-019. 14 Is that what you said? 15 They're all the same cover pages. 0 16 That's very helpful. А 17 MR. MALKIN: It's the third stapled 18 batch. 19 WITNESS JOHNSON: A So is it the 20 e-mail from Sumeet saying Wednesday, November 21 21st at 9:24 a.m.? 22 MR. GRUEN: Q That's right. 23 WITNESS JOHNSON: A Very good. 24 Exactly. And on the first page for 0 25 this, the particular job file for -- related 26 to the segment where the leak was located in 27 October 2012, is there a complete job file, 28 was there a complete job file identified or

found for that particular section of pipe? 1 2 WITNESS SINGH: A How would you define 3 complete in your terms? 4 0 Well, here it says, "We can't find any additional job file information." And 5 6 that was provided to you from Mr. Harrison. So could you find any job file information on 7 the line? 8 9 Α I think you're going to have to ask 10 Mr. Harrison that guestion. He did the 11 records research, and the records we 12 identified for that segment were reviewed by 13 our engineering team. And I've already 14 stated previously that, did we have 15 specifications that stated that that segment 16 was reconditioned in the job file? No, we 17 did not. 18 I'll just ask if you're familiar 0 19 with this document then? 20 With this, I'm sorry, this document Α 21 being the one? DRA 86, Question 13, Attachment 22 Ο 23 499. The e-mail dated November 21st, 2012, 24 at 9:24 a.m. from you to Mr. Harrison. 25 I absolutely responded to it at А 26 that point in time. Now you're jogging my 27 memory in terms of the details. So I'm sure 28 I read it at that point in time before

1 responding. 2 Ο Thank you. And moving to the next 3 cover page then. 4 А Sure. 5 Ο Moving to the third page of the 6 document. 7 MR. MALKIN: May I ask your Honor for clarification. Is that the third point 8 9 counting the cover or excluding the cover? 10 ALJ BUSHEY: Mr. Gruen, where are we 11 and why are we there? MR. GRUEN: Your Honor, it says page 3 12 13 at the bottom of the page and it is excluding 14 the cover. Your Honor, at the first page of 15 the document it stated it's an e-mail from Kirk Johnson dated November 27th, 2012, 9:54 16 17 a.m. 18 So you're in the next ALJ BUSHEY: 19 pack. 20 Yes, the next pack. MR. GRUEN: 21 ALJ BUSHEY: All right. 22 Q Page 3 going down there MR. GRUEN: 23 are a couple of other things going on with 24 this issue. And again, this is focusing on 25 whether there is -- this is showing 26 uncertainty as to whether there is 27 reconditioned pipe on Line 147 that was --28 that came from Line 101 in 1929; isn't that

1 correct? 2 WITNESS JOHNSON: А Where are you 3 reading that again? The top, are you on the 4 top of the page 3? 5 Q Page 3. 6 Α What do you want us to read? 7 Q Where it says, "There are a couple 8 of other things going on with this issue." 9 А Okay. 10 0 And it says, the second point down, 11 "We think we have established a weak link." That's how it starts. 12 13 А Okay. 14 Would you like me to ask the 0 15 question again? 16 Yes, please. А 17 So didn't this sentence show that 0 18 there was uncertainty as to whether 19 reconditioned pipe was taken from Line 101 20 and put into Line 147? 21 А Well, I think, as Mr. Singh has 22 pointed out numerous times, we don't have a 23 traceable, verifiable record, but we believe 24 that this is reconditioned pipe in Line 147 25 in Segment 109 based on what we have now 26 seen. 27 The date of this document was -- I 28 can't find the date, but this is now -- it's

after November 16th, right? So we would have 1 2 made the repair on or about that time. 3 0 Great. Thank you. And moving on to the next cover page. Let me know when 4 you're there if you would, please. 5 6 А Is it the -- I got a different one. 7 What's the page? This is the document that's a 8 0 9 response to DRA 86, Question 13, Attachment 475. 10 A Review of risks MAOP validation? 11 12 0 That's right. That's the title of 13 the document. Thank you. And going to page 14 2, the sentence right above Section 2.3. 15 А I'm sorry. What section? What are 16 we reading here? 17 Ο Let me back up. Do you know who 18 wrote this document? 19 А I don't know specifically who wrote 20 this document. 21 WITNESS SINGH: A I don't know 22 definitively. I can --23 Are you familiar with the document? 0 24 I may have reviewed it at some А 25 point. I can't attest to that. Maybe some e-mails with this attachment. I don't know 26 27 definitively. Subject to check. Do you want 28 to reread this whole document at this point

in time? 1 MR. GRUEN: Your Honor, would PG&E 2 stipulate to this going into the record since 3 the witnesses don't seem to be familiar with 4 the document. This is a PG&E --5 ALJ BUSHEY: Mr. Gruen, that makes 6 7 absolutely no sense. If the witnesses aren't familiar with it, then they can't 8 9 authenticate it and we can't move it into the 10 record. Why would they stipulate to 11 something they can't --MR. GRUEN: Because if Mr. Harrison 12 13 were on the stand, your Honor, I believe he 14 would recognize it. 15 ALJ BUSHEY: He's next up. 16 MR. GRUEN: I misunderstood. Т 17 understood that I was to cross the panel with 18 this particular set of documents. Okay. 19 ALJ BUSHEY: Not of Mr. Harrison's 20 information. 21 MR. GRUEN: No problem. I can cross 22 Mr. Harrison with it then. Thank you. 23 I'll move on to the next document. Ο 24 Next cover page and going to -- this is a 25 document entitled L147 Seam Type Joint 26 Deficiency PFL Error. And turning to page 3 27 of this document, let me ask you again, are 28 you familiar, are either of you familiar with

this document? 1 T am familiar with 2 WITNESS SINGH: А the final version of this document, which I 3 4 think we've previously discussed. And one of the e-mails was at my request, the MAOP 5 6 validation team, I requested them to do a 7 root cause analysis of why we had a discrepancy between our features list and 8 9 what we found. This looks to be like a draft because there's several insertions in here 10 11 that say, "explain, rewrite, define, explain 12 why" on page 1. 13 So with this particular specific 14 document if that's the guestion, I have to 15 reread it. I have seen a final version of 16 this document, but it didn't have some of 17 these insertions. 18 Okay. Let me ask you, if you turn 0 19 to page 3, please, are you familiar with the 20 concept that the completed pipeline features 21 lists and the resulting MAOP validation 22 conclusions are not a hundred percent error 23 free? 24 I am absolutely aware of that. А Not 25 only am I aware of that, I filed a testimony 26 as part of the PSEP updated filing, and I 27 spoke to that earlier. And if you want to 28 know the error rate, we can actually look at

that table, which is .9 percent. 1 2 Ο Okay. Thank you, Mr. Singh. 3 Α Pleasure. 4 Ο And I want to just direct your attention to the process of achieving a zero 5 6 error rate for PFLs just on page 3 just below 7 the section entitled Data Quality. And it identifies several things. 8 9 So is this a complete set of steps 10 that are identified for correcting the errors on the PFL for Line 147? 11 12 А Again, I have to go back and 13 compare this to the final draft or the final 14 version of this that I reviewed. I can't sit 15 here today and validate that for you. If you 16 want me to go through this and read it and 17 say and validate, did we apply this for Line 18 147 as part of the recertification process, I 19 could do that for you. 20 Yes, please. 0 21 А Okay. 22 ALJ BUSHEY: Wait a minute. Mr. Gruen, 23 you presented a document that's obviously a 24 draft. A final version exists. So the 25 witness can't authenticate this. 26 MR. GRUEN: Let me ask it this way, 27 your Honor. 28 If all of the things that PG&E is 0

1 doing to achieve a zero error rate for the 2 PFL on Line 147, has PG&E retroactively 3 applied all of those measures to the PFL for 4 Line 147? 5 WITNESS SINGH: А For Line 147, I 6 mentioned this earlier, as part of the MAOP 7 validation process we made enhancements to the process. And I discussed that at length 8 9 at the September 6th direct hearings. And 10 what we also identified was at that point in 11 time, that point being when we identified the 12 discrepancy in October of 2012, the Line 147 13 PFL had not gone through the enhanced 14 process. As a result of the discrepancy we 15 identified, we did what any prudent operator 16 would do. We identified the root cause and 17 we went back and reevaluated and assessed the 18 records for every foot of that pipe, every 19 inch of that pipe. 20 So when will the process be 0 21 complete for updating the PFL on Line 147? 22 А I'm not sure I understand your 23 question. The process of updating the PFLs 24 for all of our systems is ongoing. It's part 25 of our mapping process. As we go out and 26 make modifications to our system, what Mr. 27 Johnson testified to earlier in terms of the 28 valve automation work that's going on within

those stations, that's new construction. 1 We 2 will go and update our PFLs as we go in and make updates and physically do construction 3 4 or replace certain assets or install new assets. It's an ongoing process. 5 6 Am I understanding correctly that 0 7 PG&E is uncertain as to when it will complete the error corrections on Line 147 for the 8 9 PFL? 10 Α I'm not sure I'm following your 11 question. What I've stated is that the PFLs 12 are a source of our asset knowledge 13 information on a going-forward basis. We 14 will stop updating those PFLs once we never 15 do any work on our system, which is 16 impossible. 17 Just talking about correcting the 0 18 errors on the existing, the existing PFL. 19 When will PG&E complete the error corrections 20 on the existing PFL for Line 147? That's all 21 I'm asking. 22 MR. MALKIN: Objection, assumes facts. 23 ALJ BUSHEY: Sustained. Mr. Gruen, you 24 know, they've been telling us for three days 25 now that it's an ongoing process. They don't 26 know everything that's in the ground. Ιf 27 they find out more things, they'll update 28 their records.

MR. GRUEN: Understood, your Honor, 1 2 T'll move on. Moving to the next document, the 3 0 4 next cover page, and this is the last, the last one. And if you -- this is data 5 6 response DRA 086, Question 13, Attachment 548 7 entitled Line 147 October 15th Leak Repair 8 Summary. Are you familiar with this 9 document? 10 WITNESS JOHNSON: A Assuming it's the 11 final one, yes. 12 WITNESS SINGH: A Are you alluding to 13 this, okay, October 15th leak repair summary, 14 and that's got the date of 21 November 2012? 15 Yes. Ο 16 Okay. We've got that in front of Α 17 us. 18 And you're familiar with this 0 19 document? 20 А I'm absolutely familiar with this 21 document. 22 WITNESS JOHNSON: A Seen it. 23 Ο If you turn to page 2 under the 24 Recommended Next Steps, point No. 4 that PG&E 25 retroactively reviewed all PFLs completed as 26 part of the MAOP validation project to 27 identify and address any similar instances. 28 I'm assuming that means similar

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1 instances to the leak repair that PG&E did on 2 Line 147; is that correct? 3 WITNESS SINGH: A In this context it 4 was instances where we have PFLs that have not gone through our enhanced quality control 5 6 process, the revisions that we made. So keep 7 in mind, this document was dated 21st November 2012. You also provided a draft 8 9 version of the root cause analysis. There's 10 a final version of the root cause analysis 11 report. There were concrete recommendations 12 within that root cause analysis report in 13 terms of what the cause was of the error. We 14 validated that, does -- and asked the 15 question, does our enhanced process address 16 those errors? 17 MR. GRUEN: So am I understanding 18 correctly that you are still -- strike that. 19 That's fine. Your Honor, I have one 20 or two more questions. 21 ALJ BUSHEY: All right. 22 MR. GRUEN: Q Did you have any records 23 showing that the October 2012 leak identified 24 in approximately Post Mile 2.2 on Line 147, 25 did you have any records showing that that 26 leak existed prior to when it was discovered? 27 WITNESS JOHNSON: A We wouldn't have 28 any notification of a leak existing prior

until we discovered a leak. 1 2 0 But once you discovered it, you went back and looked at the records; isn't 3 4 that right, to see if there were -- if there was a leak in the location that the records 5 6 showed prior to that time? 7 Α Well, we would go back and look at 8 the records, but if there was a leak prior, 9 we would have fixed it prior. 10 0 But were you able to identify any records that showed a leak in the location 11 prior to the October 2012? 12 13 Α In that exact location? 14 0 Yes. 15 No. There were no records Δ 16 indicating a leak in that exact location 17 prior. 18 MR. GRUEN: Thank you, your Honor. No 19 further questions at this time. 20 ALJ BUSHEY: Thank you. Final 21 questions from any party? 22 (No response) 23 ALJ BUSHEY: Mr. Malkin, redirect. 24 MR. MALKIN: Can we take a personal 25 convenience break? 26 ALJ BUSHEY: Yes. Ten minutes, 5 27 minutes after 3. 28 (Recess taken)

1 ALJ BUSHEY: We'll be back on the 2 record. 3 Mr. Malkin, redirect. Thank you, your Honor. 4 MR. MALKIN: REDIRECT EXAMINATION 5 BY MR. MALKIN: 6 7 0 Mr. Singh, I want to clear up a 8 point of confusion. The transcript at page 9 2691 through 2692 guotes you as saying the 10 following: In those circumstances where 11 12 we have acquired pipe from 13 third party operators and we 14 didn't have that 15 information, absolutely we used the federal minimum 16 17 standard. 18 What did you mean in what's guoted 19 there as saying "where we have acquired pipe 20 from third party operators"? 21 WITNESS SINGH: A It should be 22 acquired pipelines, not acquired pipe, and 23 that would have been corrected as I would 24 have reviewed my transcript and had the 25 opportunity to submit the errors that are 26 included in that transcript. 27 Thank you. I have nothing MR. MALKIN: 28 further.

1 ALJ BUSHEY: Thank you. Questions for 2 the witness? 3 (No response) 4 ALJ BUSHEY: Hearing none then, the witnesses are excused. 5 6 Mr. Malkin, would you like to call 7 your next witness. MR. MALKIN: I would, your Honor. PG&E 8 9 calls David Harrison. ALJ BUSHEY: Mr. Harrison was called 10 11 earlier today and sworn earlier today. He remains under oath. 12 13 DAVID HARRISON 14 resumed the stand and testified further as 15 follows: 16 17 ALJ BUSHEY: Mr. Malkin. 18 MR. MALKIN: Thank you, your Honor. 19 Just have a few questions for Mr. Harrison. 20 REDIRECT EXAMINATION 21 BY MR. MALKIN: 22 Q For the sake of time, Mr. Harrison, 23 I'm not going to ask you about your current 24 position, responsibilities, educational and 25 work background. Somebody else may want to, 26 and if so, that's fine. 27 I want to ask you directly --28 MR. MEYERS: Pardon me, your Honor.

Point of order. Has Mr. Harrison been sworn? 1 2 ALJ BUSHEY: Yes. We did that this 3 morning. 4 MR. MALKIN: 0 I want to ask you directly about an e-mail that you wrote, 5 6 everybody here has read because it was on the 7 front page of the newspaper. It's a November 8 17th, 2012 e-mail in which you wrote in part, 9 quote, "Could the recent hydrotest contributed to additional cracking in this 10 11 pipe and essentially activated a threat? Are 12 we sitting on a San Bruno situation?" 13 When you wrote that e-mail on 14 November 17th, did you think that there was a 15 then existing safety hazard on Line 147? 16 Α No. 17 Ο Then what was your purpose in 18 writing the e-mail? 19 А The purpose in the e-mail was sort 20 of due diligence. I wanted to make sure that 21 we had thought of all the issues and any 22 possible concerns with the pipeline at the 23 time. And I was trying to get the other 24 people to think about those possibilities. 25 My reference to San Bruno is not in 26 the sense of a failed pipeline. It's what we 27 learned from an engineering point of view, 28 from an MAOP point of view from San Bruno,

1 and that is that the pipe wasn't what we 2 expected it to be. So it was thinking about 3 it from that point of view, that if this pipe 4 wasn't what we expected it to be, then could it be something that would be a problem for 5 6 us. 7 0 Now, this and other e-mails that 8 you will probably be shown on 9 cross-examination, you raised a number of 10 questions and issues with respect to Line 11 147. Were those issues resolved? 12 А Yes, they were. So the e-mail went 13 out like the 17th, and then soon after, you 14 know, within days of that we had some 15 conference calls and calls among the groups. 16 And there's a variety of e-mails around. And 17 we basically came to the conclusion that we 18 were going to keep the pipeline at 300 pounds 19 until we had the leak -- piece of pipe for 20 the leak removed and examined to make sure 21 that we didn't have any potential problems on 22 it. And that was perfectly safe as far as I 23 was concerned. That was the right decision 24 to make. 25 Who were the groups that were 0 26 involved in these conference calls? 27 It was all the major groups. Α There 28 was integrity management, the pipeline

engineers, gas control, MAOP validation. 1 So 2 those were all the major groups. Was the PSEP, Pipeline Safety 3 0 4 Enhancement Plan group also involved? 5 А I believe so, yes. Yeah. 6 Do you have any regrets about 0 7 writing that e-mail? 8 А It made it to the papers. So 9 that's one I regret heavily. If I had to do 10 it over again, I would have worded it 11 differently, especially if I knew it was 12 going to end up in the papers. It created a 13 lot of swirl, a lot of work that's been 14 unnecessary. 15 But the idea again behind it was to 16 make sure that we were doing the right thing. 17 That's what I was trying to get across. And 18 so that I don't regret asking the question 19 that we want to make sure we do the right 20 thing to the pipeline. ] 21 Among other things, at one point in 0 22 the dialog about this you asked whether the 23 pipe where the leak had occurred had been 24 x-rayed. Do you recall that? 25 Right. А 26 And that wasn't done, was it? Q 27 No, it wasn't. А 28 Are you concerned about the fact 0

that it wasn't done? 1 2 Α I mean at the time we were talking 3 about taking the pressure back up, so that is why I was asking the question. And the end 4 result, again there within days, we decided 5 6 no, we are going to maintain the pressure at 7 the lower pressure. So, no, I wasn't 8 concerned if we were maintaining the pressure 9 until we got the piece cut out and examined. 10 Q You mentioned getting the piece cut 11 out and examined. There has been prior 12 discussion about that. To your mind, was 13 cutting the piece out and examining it in the 14 laboratory, as Anamet and Exponent have done, 15 as good as, not as good as, better than 16 x-raying the pipe? 17 А Way better than x-ray. So, yes, 18 cutting the piece of pipe out and examining 19 the laboratory is much more informative than 20 doing the x-ray. 21 Let's talk briefly about AO Smith 0 22 pipe. You gave some testimony earlier this 23 morning about testing that pipe. And I want 24 to ask you: Generally, do you have a safety 25 concern about the presence of AO Smith pipe 26 in PG&E's system? 27 No, the AO Smith pipe has been very Α 28 reliable for us. It has been, you know, good

pipe for us. It is older pipe, but it has 1 2 been very good. We've done the test. In the 3 historical documents I've seen tests over the 4 vears of it. We reexamined it every 10 to 20 years. All the tests are consistent. We had 5 6 it retested again this summer, like I stated 7 earlier. So I think AO Smith pipe is good 8 pipe for us. 9 Mr. Singh mentioned earlier that 0 10 you were the person who would know most about 11 whether -- what PG&E's purchase records 12 showed with respect to the minimum, specified 13 minimum yield strength of AO Smith pipe. Was 14 he right about that? 15 А That is right. So the minimum, 16 specified minimum yield strength that we show 17 in contracts with AO Smith dating from '29, 18 they show -- some of the contracts show 19 33,000, some of them show 35,000, and some of 20 them show 42,000. So we bought a variety of 21 pipe from AO Smith, and the lowest value is 22 33,000. So that is why we sort of 23 automatically go back to 33,000. Independent of whatever PG&E's 24 0 25 Integrity Management Program does or the 26 Pipeline Safety Enhancement Plan does, do you 27 believe that PG&E needs to dig up all 28 reconditioned AO Smith pipe in its system?

1 А No. 2 Ο Why is that? 3 The reconditioned pipe is, like I А 4 said, is fine pipe. Actually, the 5 reconditioned pipe is better pipe, in a way, 6 because the earlier pipe had different girth 7 welds on it. This pipe has the girth -- the original girth welds are gone now. So this 8 9 is actually better pipe, because those 10 original girth welds are gone. It has been 11 reconditioned. It has been looked at again, 12 and put back in the ground. 13 Thank you. I want to ask you a few 0 14 questions about hydrotesting. 15 First, do you consider yourself to 16 be an expert in hydrotesting? 17 А No. 18 Who would you consider to be a 0 19 hydrotesting expert? 20 А Mr. Rosenfeld. 21 So do you have any concerns today 0 22 about the hydrotesting that was done on Line 23 147? 24 No, I don't. I think hydrotesting А 25 was done correctly. Again, my point of my 26 e-mails and the communication was to make 27 sure that Mr. Rosenfeld or somebody of his 28 caliber did review it.

I mean the time when I wrote the 1 2 e-mail, I had just come off testimony in the records OII. And so I knew people would be 3 4 interested in what we found out, and they would be interested in this. And I wanted to 5 make sure we gathered all the information 6 7 that we could and answered all the questions 8 before other people started asking them. 9 Do you have an opinion about 0 10 whether Line 147 is safe to operate today at 11 330 psi? 12 А Yeah, I think the line is fine at 13 330. The pipeline is tested to twice that. 14 We've never -- you know, the documentation 15 that I've seen doesn't show any kind of a 16 problem with those kind of pressure test 17 ratios. Mr. Rosenfeld testified to all that. 18 He is really the expert on it. Everything 19 that I know is consistent with that. 20 And so, yeah, I think it is 21 perfectly safe at 330 pounds. 22 MR. MALKIN: I have nothing further, 23 your Honor. Mr. Harrison is available for 24 cross-examination. 25 ALJ BUSHEY: Thank you, Mr. Malkin. 26 Who would like to go first? 27 MS. PAULL: I have just a few 28 questions.

1 ALJ BUSHEY: Ms. Paull, okay. 2 CROSS-EXAMINATION 3 BY MS. PAULL: 4 0 Mr. Harrison, I'm Karen Paull for the Office of Ratepayer Advocates. I have 5 6 just a few questions. 7 You said earlier you don't regret raising the questions you've raised when you 8 9 found out about Line 147, right? 10 Α That is correct. 11 So do you feel that the concerns Ο 12 that you've raised then were valid concerns? 13 А At the time, yes. I think so, yes. 14 And one of those concerns was that Ο the -- if the pipe is different from what 15 16 PG&E thought, it could -- that could affect 17 how it was prioritized for purposes of the 18 PSEP program. Is that true? 19 А Well, yes. Yes, it could affect 20 the PSEP priority potentially. That is why I 21 was asking the question about the PSEP 22 priority. 23 I am not that familiar with their 24 decision tree. I know they have a decision 25 tree. I know it considers AO Smith pipe, I 26 believe, somewhere in it, but I don't know 27 the logic of it exactly. So that is why I 28 was asking that question.

1 0 Yes, but you knew enough to know it 2 could affect whether the pipe was slated for 3 testing or replacing? 4 А That is right, yes. Do you know if in fact -- if PG&E 5 Ο 6 had known what the pipe -- the true 7 characteristics of the pipe, if it would have 8 been slated for testing as opposed to 9 replacement, do you know? 10 Α I mean I got the answer back from 11 my e-mail that given it was tested, it would 12 not be slated for replacement. But beyond 13 that, you know, it is a better question for 14 PSEP. I don't know the decision tree that 15 well. 16 But it is your understanding --0 17 now, we know that 147 has been hydrotested, 18 so that is done. But if we are talking about 19 pipes that have not yet been tested or 20 replaced. 21 MR. MALKIN: Objection, irrelevant. 22 ALJ BUSHEY: That isn't within the 23 scope of our hearing. We are talking about 24 Line 147. 25 MS. PAULL: Okay then, I'm done. 26 ALJ BUSHEY: Thank you. 27 Mr. Gruen. 28 MR. GRUEN: Yes, your Honor.

1	CROSS-EXAMINATION
2	BY MR. GRUEN:
3	Q Mr. Harrison, do you have in front
4	of you Exhibit N as in Nancy?
5	A Yes.
6	Q And during the break I approached
7	counsel and just asked them to provide you a
8	copy for purposes of review. And I just
9	wanted to ask you if there is any document in
10	this exhibit that you are not familiar with?
11	A I believe that I'm familiar. I've
12	seen them all before, yes.
13	Q Okay, thank you. And just
14	regarding a couple of one of the
15	documents. Can have you found the job
16	file related to the piece of pipe that was
17	that where the October 2012 leak was found?
18	A Well, we had a job file but it only
19	had about 6 to 8 documents in it. It had the
20	most critical stuff. It had the strength
21	test pressure report. It had a drawing in
22	it. It was obviously not the full job file.
23	So that is what we went on the hunt for.
24	That is where we found there was a 1963
25	lawsuit and pulled the job file for the
26	lawsuit, and the job file never made it back
27	to us.
28	Q And of the job file that was

remaining that you did seek, were the 1 2 as-builts left in that particular --3 Yes. As I remember, there were А 4 as-builts in there for the job, ves. Turning to, it is the 5 0 Okav. document that is DRA-86 Question 13A 6 Attachment 475. I believe it is the second, 7 no, third to last in the set. It is entitled 8 Review of Risks MAOP Validation. 9 10 А Okay. 11 Are you there? Ο 12 А Yes. 13 On the second page above Section 0 14 2.3 that says leak on recently tested pipe, 15 it says: If we cannot show the reconditioned 16 pipe is indicated in the job files, we may 17 want to say that all unknown long seam pipe 18 installed prior to 1965 must be excavated to 19 determine the long seam. 20 Do you still agree with that 21 statement? 22 Well, I didn't agree with it at the А 23 time that I wrote it necessarily. These 24 are -- you are looking at a very draft 25 document. And I prepare these, and they get 26 edited. 27 So the -- sort of my job in 28 preparing them is to make sure that I include

everything in there. So anything that might 1 2 possibly need to be done, somebody want to do, somebody would order us to do, all those 3 4 get included in the documents so that they can then get edited and evaluated. 5 6 And it is sort of like my e-mail to 7 begin with, that is why I sort of think in 8 those modes, making sure that everything is 9 covered. And so this document was written in 10 that sense. 11 Thank you. And just -- I can refer Ο 12 you back to Exhibit I, but I don't think it 13 is necessary. There was a spreadsheet on the 14 last page where we were identifying the 1300 15 or so feet of pipe in Segment 109. 16 Just regarding that, are you 17 comfortable with the assumption that all 18 approximately 1300 feet of pipe in Segment 19 109 are AO Smith? 20 I'm comfortable with it, yes. А Ι 21 think that is a valid assumption. 22 It is sort of like Kirk and Sumeet 23 referenced. Until we replace it or dig it up 24 or something else, we can't be absolutely 25 sure what that is. But based on all the job 26 files we've gone through, all the 27 information, the documentation and the field 28 work that, you know, that people have done

1 digging those things up, a given job is 2 typically the same type of pipe. And so we 3 would expect to be that same pipe for the 4 1300 feet. 5 MR. GRUEN: No further questions at 6 this time. 7 ALJ BUSHEY: Thank you, Mr. Gruen. 8 Ms. Strottman. 9 CROSS-EXAMINATION 10 BY MS. STROTTMAN: Mr. Harrison, good afternoon. I'm 11 0 12 Brit Strottman on behalf of the City of San 13 Carlos. 14 Do you have Exhibit N in front of 15 you? 16 Which one? А 17 That is the large packet of Ο 18 e-mails. 19 А Right. 20 In looking at the e-mail at issue 0 21 which is the Saturday, November 17th, 2012, 22 e-mail. 23 First document? А 24 Q First page, yes. 25 So when you drafted this e-mail --26 Just to be sure, you are talking Α 27 about? 28 Where it starts with: I'm guessing Q

1	that you didn't x-ray anything on this pipe?
2	A Bottom of the first page?
3	Q Yes.
4	A Okay.
5	Q So when you drafted this e-mail on
6	November 17th, 2012, did you know that a 2011
7	hydrotest had been completed?
8	A Yes.
9	Q And you still raised these issues
10	listed in this e-mail, even though you knew
11	that the 2011 hydrotest had been completed?
12	A That is right. My concern, again,
13	was to make sure that somebody like Rosenfeld
14	evaluated it. We had a hydrotest. We had a
15	leak two years later. It is unusual. The
16	pipe is something that we didn't expect.
17	I felt that it was safe, but I'm
18	not the expert. So I wanted somebody like
19	Rosenfeld or Zach Halbert to evaluate what we
20	found and have them make a judgment about
21	whether they thought there was a problem
22	there, or not.
23	Q But you still raised all these
24	concerns even though you knew a 2011
25	hydrotest had been completed?
26	A Yes. Again, I wanted to be sure.
27	Q And I just wanted to break down a
28	few things from this e-mail. You raised a

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1 concern about the X -- that the pipe had not 2 been x-rayed? 3 А Right. 4 Ο Is that correct? That is correct. 5 Ά 6 0 And now that is not a concern for 7 you? No, because the issue would be that 8 А 9 you've got this small area of a leak. And so 10 you could potentially x-ray the area around 11 the leak to see if there was additional wall 12 thickness loss, or other problems around there that were interior to the pipe that you 13 14 couldn't see from the outside. That would be 15 what my concern was. 16 And at this point in time, you 17 know, we basically have cut out that piece 18 and completely removed it and examined it. 19 There was no internal kind of damage. And 20 so, no, at this point there is not a concern 21 about that. 22 And so you also raised a concern Ο 23 about cracks in any other way other than 24 visual, which is your second question. Now 25 you don't have any concerns about that issue? 26 А Right. Same thing again, because 27 now the piece has been taken out, it has been 28 examined. People have looked at it and

1 determined there was no crack growth. You 2 know, there was no crack, active crack or anything in the area that wasn't related. 3 4 There wasn't any cracks related to the leak. 5 And so, again, that is what I 6 wanted to -- that is what I was asking about, 7 and we have those answers now. 8 0 Then you asked another -- you 9 raised another concern is this whole 10 backfill. Now you don't have any concerns 11 about that issue? 12 А Well, no, that is just reference to 13 whether they backfilled the hole, or not. So 14 basically if the pipe was still -- if the 15 hole was still open and the pipe was still 16 exposed, it would be relatively easy for them 17 to x-ray. But if the hole is already 18 backfilled, then you would have to go get, 19 pull a permit again and get the hole dug up. 20 That is all I was referring to. 21 And then you flagged another issue Ο 22 that this was a 1929 pipe that was recently 23 tested to 1.5 time the MAOP in 2011. 24 So you no longer have a concern 25 about that issue? 26 No. The -- I mean that kind of А 27 goes into the AO Smith discussion in that it 28 is 1929 pipe. We've had good luck with 1929

pipe, but I still wanted to make sure that 1 2 somebody like Rosenfeld didn't know of anything else that we don't know about. 3 4 But, no, at this point I don't have any more concerns about that. 5 6 0 Then you also flagged a concern 7 that it is a thin wall pipe, and now we found external corrosion. 8 9 Now you don't have concern about 10 that issue? 11 А Right. Because, again, the pipe 12 was dug up. We evaluated it. There is no 13 unusual corrosion. There is no internal 14 corrosion at all virtually on this pipeline. 15 And the reference to thinner wall 16 pipe, people have asked me about that. That 17 is just that this is .250 wall pipe. The 18 other pipe around it was .281 wall and .312 19 wall. So all the surrounding pipe was 20 heavier wall than this pipe. That is what my 21 reference to thinner wall pipe is. 22 And then you raised another 0 23 concern, could the recent hydrotest 24 contributed to additional cracking in this 25 pipe, and essentially activated a threat. 26 And that is no longer a concern to 27 you? 28 That is the whole issue with А

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1	bringing in Rosenfeld and having the piece
2	cut out, Anamet and Exponent examination of
3	it. It is sort of due diligence. We checked
4	it all out. There is no cracks. There is no
5	issues there. And we ran that to the ground.
6	That was what I wanted to get done, see done.
7	Q And then the statement are we
8	sitting on a San Bruno situation. Now you
9	are saying that you didn't mean a potential
10	rupture. So you are backtracking on that
11	statement?
12	A No, I'm not backtracking. Because
13	what I'm saying is that I'm referring to
14	it as an engineer. I wrote the e-mail to two
15	other engineers. So I'm talking about it
16	from an engineering perspective.
17	Again, what did we learn on San
18	Bruno? What we learned there from an MAOP
19	evaluation and engineer point of view, is
20	that the pipe is not always what we think it
21	is. And so is there a possibility that the
22	pipe is different in any way?
23	And the way that really comes out
24	is, you know, how to prove that to yourself
25	is, again, the things we've been talking
26	about with the yield. We took the pipe. We
27	tested it to yield. We didn't test it to
28	yield, we tested it and it didn't yield. And

so, you know, at the pressures we tested it 1 2 at we are talking about running it at 330 pounds. So we tested it to more than twice 3 4 what we were going to be operating at and that is a substantial test margin. 5 6 Essentially what the test is, you 7 know, you are doing a strength test. You are 8 testing it. So you want to try and make the 9 pipe fail. So could -- the question you have 10 to ask yourself is could anything have 11 survived this strength test that would then 12 be a problem at the operating pressure? And 13 this operating pressure, like I said, we 14 tested it at two times ratio. 15 And so, no, I don't believe 16 anything would be a problem. But I wanted, 17 again, industry experts to take a look at it 18 because -- to make sure that there wasn't a 19 problem, there wasn't anything going on. 20 Okay. I'm going to have you, 0 21 please, it is 16 pages after the first page, 22 if you wouldn't mind. These e-mails aren't 23 numbered. There are no page numbers on here, 24 so I apologize you have to count. The 16th 25 page after the cover page. 26 Which package is that? А 27 I'm sorry, Exhibit N, the one that 0 28 is in front of you.

MR. MALKIN: Your Honor, could I ask 1 2 Ms. Strottman to identify which of the stapled groups it is in? 3 4 ALJ BUSHEY: We will be off the record. (Off the record.) 5 ALJ BUSHEY: We will be back on the 6 7 record. Ms. Strottman. 8 9 MS. STROTTMAN: Thank you. 10 Q Mr. Harrison, I'm going to have you 11 please look at, it is -- like I said, it is 12 16 pages after the title page. And the 13 e-mail is from Jane Yura to Francis Yee. Ιt 14 is at 8:55 e-mail at the middle of this page. 15 А Yes. 16 It says: Francis, I'm concerned 0 17 with, it says David's 11/17 note raising 18 integrity issues. Particularly since he was 19 our key engineering witness on the records 20 OII and answered multiple guestions related 21 to pipe. Can you please call, and it is 22 redacted, and speak to him. Then we need to 23 have our recommendation. 24 Have you seen that e-mail before? 25 I've seen it here. I don't believe А 26 I ever saw it prior to the last month or so. 27 And did Ms. Yee call you to let you 0 28 know that -- or did Ms. Yee call you about

the issues that you raised in the e-mail? 1 2 Α I believe so, yes. I don't have 3 specific recollection of it, but... 4 0 You don't have any specific recollection of that conversation with 5 Ms. Yee? 6 7 А No. Anyone else call you and ask you 8 0 9 about that -- the November 17th e-mail? Well, like Sumeet and I had several 10 А conversations back and forth about it and a 11 12 variety of other people. I talked to the 13 pipeline engineers involved. You know, there 14 is definitely a lot of phone calls that don't show up in the e-mail streams. 15 16 Okay. Then can I have you then 0 17 please refer to Exhibit M. I'm not sure if 18 that is in front of you. 19 А No. 20 0 M as in Mary. 21 А All I have is the packet, the N 22 packet. 23 Mr. Harrison, before I ask you 0 24 questions about Exhibit M, did any executives 25 at PG&E call you in response to e-mail that 26 you drafted on November 17th, 2012, to 27 discuss your concerns about Line 147? 28 Well, like I stated, I talked to А

Sumeet. So I'm not sure whether you consider 1 2 Sumeet an executive, or not. Maybe he is. 3 Kirk definitely is. 4 I would not expect a call from an executive. This stuff should be going up 5 6 through Sumeet, pretty much, yeah. That is the chain of command. And so I'm following 7 the chain of command as far as who I would 8 9 expect to talk to about these issues. 10 Q Looking at Exhibit M, do you 11 recognize the first e-mail where it says Jim 12 Tong? 13 А Right, I do. 14 And the second, sorry, the last 0 15 sentence of the first paragraph says: At the 16 executive level, this situation is considered 17 a near hit from a safety perspective that 18 could have severely damaged the company's 19 credibility. 20 Did you draft that statement? 21 Α I did. 22 So what did you mean by that if you 0 23 didn't speak to any executives other than 24 Mr. Singh? 25 Well, the executive level is just А 26 a -- you know, it is not capitalized. It is 27 generally referring to the higher levels in 28 the company.

And the "near hit," was, this is 1 2 going to some guys that are working on the 3 MAOP validation. So this is focused on the 4 MAOP validation. I'm trying to kick them in 5 the fanny to get them to give us a good 6 thorough root cause write-up on this. So I'm 7 trying to spur them on. The "near hit," the point there is 8 9 that we had a mistake on the MAOP validation. 10 And I get accused of being too much of a 11 perfectionist. But, by God, I want the 12 records right. I want them as good as we can 13 get them. In this case, we had a mistake on 14 the MAOP validation. At this time, you know, 15 it didn't cause a reduction in MAOP, but it 16 could have very well caused a reduction the 17 MAOP. 18 And so that is what I was referring 19 to as a "near hit." It is, you know, it is a 20 phrase that we use at the company. Usually 21 it relates to an automobile accident, or 22 something. In this case, it is the same kind 23 of thing where, you know, this is a mistake 24 we made. It could have been a problem, and 25 so we need to make sure that it doesn't 26 happen again. 27 But at that point, even though you 0 28 said this is a near hit from a safety

perspective, no one at the CPUC knew about 1 2 this issue on November 17th. Isn't that 3 correct? 4 А That is right. You drafted this e-mail it looks 5 Ο 6 like 2-1/2 hours after you drafted the are we 7 sitting on a San Bruno situation e-mail? 8 А Right. 9 And I just wanted to ask you a few 0 10 questions about your root cause analysis. So 11 did the thought ever cross your mind that the 12 winter season is coming up so you should keep 13 the line in service and then wait, or do the 14 root cause analysis and not take this line 15 out of service because of the winter months? 16 So when you say "root cause А 17 analysis," there have been some write-ups. 18 Can you refer to exactly what you are talking 19 about? 20 Well, you state here in your e-mail 0 21 Exhibit M on November 17th at 1:35 p.m. that the formal root cause, you said a "formal 22 23 root cause analysis." I'm assuming that you 24 were requesting that a formal root cause 25 analysis be conducted, correct? 26 Yes, I understand. There is a А 27 couple of root causes here that, you know, 28 some of it had to physically do with the

So if we are focused on the root cause 1 pipe. of the mistakes in the MAOP validation. 2 So I understand that that is what 3 4 vour guestion was in regards to, so now can you reask your question? Sorry. 5 6 Q Yeah. No, I'm sorry. 7 But I guess what I'm asking you is: Did vou think it was okay to keep this line 8 9 in service, Line 147, because of the winter 10 months? Instead of saying, hey, you know, 11 what, we need to -- we need to flag this to 12 the CPUC and have them determine what to do 13 with this line? 14 А Well, the -- I felt it was okay to 15 leave it in service. Because we -- well, at 16 this date it wasn't -- it hadn't been 17 decided. But within a week we decided to 18 leave it at 300 pounds through the winter 19 which, again, is fine. 20 As far as the CPUC goes, those are 21 things sort of out of my purview. I mean 22 that would be some lawyers decide that, 23 somebody else. As far as sending information 24 to the CPUC, those are all things that I 25 would not be making a decision on. 26 Did you ever recommend to Mr. Singh 0 27 that the CPUC be advised of this situation? 28 No, I would expect him to make А

those decisions. It wouldn't be something 1 that I would be involved in. 2 3 I just have a few more questions, 0 then I'm done. 4 5 Α Okay. 6 So you are a technical consultant 0 for PG&E, correct? 7 8 А That is right. 9 So you are not an employee of PG&E? 0 10 А That is right. 11 And how much do you make an hour as 0 12 a consultant? 13 А 200. 14 And then do you have a consulting 0 15 agreement with PG&E? 16 А I do have a contract. 17 So PG&E could call you up and say 0 18 your services are no longer needing, correct? 19 А That is right. 20 Your contract is subject to 0 21 termination at any time? 22 Yeah, generally. ] Α 23 And how many hours a week let's 0 24 just say in the last year have you dedicated 25 to working for PG&E? 26 I don't know if Sumeet really wants А 27 to know. I typically work 12 to 14 hours a 28 day.

1 0 So -- I'm sorry. And that's all for PG&E? 2 3 Α That is all for PG&E. 4 Okay. Did the thought ever cross 0 your mind that if you testified adversely to 5 6 PG&E, that that could result in the 7 termination of your contract? 8 А Yes, it's crossed my mind. Yes. 9 MS. STROTTMAN: Thank you, I have 10 nothing further -- I'm sorry. 11 You do still work for PG&E; Ο 12 correct? 13 А I do still work for PG&E. 14 Thank you? 0 15 The only piece I can add on there А 16 is they can get rid of me, and I can get rid 17 of them. If they were doing something that I 18 feel is really unsafe, to me that is a 19 personal, ethical dilemma. And I would 20 leave. I don't need a job that bad. 21 MS. STROTTMAN: Okay. Thank you. 22 ALJ BUSHEY: Thank you, Ms. Strottman. 23 Mr. Meyers? 24 MR. MEYERS: Thank you, Judge Bushey. 25 CROSS-EXAMINATION 26 BY MR. MEYERS: 27 Mr. Harrison, I'm Steven Meyers. 0 Ι 28 think we met previously on the OIIs for San

Bruno. Good afternoon, and thank you for Can you briefly tell me what exactly your role is with respect to the MAOP validation process at PG&E? Well, my role has shifted over time. So initially with MAOP validation, I I

8 basically designed the original process. 9 designed the PFL spreadsheet. I was -- I was 10 the chief engineer responsible for the MAOP 11 validation, did a lot of the technical 12 pieces -- did almost all of the technical 13 pieces. I was -- served and I still pretty 14 much serve in this capacity where I'm sort of 15 the final judge on MAOP-related questions. 16 So policy, you know, gets decided by the 17 higher-ups at PG&E, but then if we have 18 questions that come up, they basically bubble 19 up to me. And I'll make a final decision on 20 how it goes within the policy. 21 Thank you. To whom do you report? 0 22 Right now I report to Joe Medina. А 23 0 Okay. And are you in a position 24 where you can direct PG&E employees to 25 undertake certain studies or analyses related 26 to the scope of your services? 27 Α Yes, somewhat. I -- in reality, 28 the group is almost entirely contractors, so

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there's only, like, one employee in the 1 2 entire group. So --3 0 What is your relationship with 4 Mr. Singh? Sumeet, as he alluded to earlier, 5 А 6 has now moved on to another position. So I 7 used to work directly for Sumeet, and Joe used to work directly for Sumeet. And now 8 9 positions have shifted around, so Joe is now 10 responsible for MAOP validation. 11 0 Thank you, Mr. Harrison. 12 Mr. Malkin asked you a number of 13 questions about A.O. Smith pipe, and in 14 response to those questions -- and I'm 15 characterizing your testimony here, so if I'm 16 inaccurate please correct me. But you 17 basically said you don't have particular 18 safety concerns about A.O. Smith pipe. It's 19 generally good pipe, and it's reliable; is 20 that a fair statement? 21 Α That's fair. 22 In making that statement, you did 0 23 not mention anything with respect to A.O. 24 Smith pipe that is reconditioned pipe though. 25 Do you have the same position about A.O. 26 Smith pipe if it's reconditioned pipe? 27 Yes, I do. Usually reconditioned А 28 pipe is actually better because it has been

reconditioned and reexamined and the girth 1 2 welds have been replaced on it. And when was the reconditioned A.O. 3 0 4 Smith pipe that exists in Line 147 actually 5 reconditioned? 6 Α Well, I can't really tell you 7 because we -- we have a weak link to 8 potentially reconditioned pipe. And so I 9 don't have anything that I can really put my 10 finger on and tell you when it was 11 reconditioned. Reconditioning of pipe was 12 very common during the 1950s. Pipe was in 13 huge demand. We have records in the file 14 that shows 60 truckloads of pipe a day being 15 shipped out of plant to PG&E, which is just a 16 huge amount of pipe coming out of the pipe 17 plant. So they were running out of pipe. 18 They reconditioned a lot of pipe, and -- I 19 don't know if that got your question, but --20 That's very close to it. 0 Thank 21 you, sir. 22 So it would be an assumption on 23 your part -- perhaps an educated assumption, 24 but an assumption nonetheless that this piece 25 of A.O. Smith pipe that is of 1929 vintage, 26 as you stated in your e-mail, was in fact 27 reconditioned by PG&E? 28 Technically it is an assumption, А

1	yes. An educated assumption is a fair
2	evaluation of it, yes.
3	Q And it would also be your
4	assumption, again, a a an assumption
5	based upon your expertise as an engineer and
6	as a consultant to PG&E, that the
7	reconditioning of that pipe by PG&E at the
8	time of this significant amount of
9	construction work in their system was
10	consistent with the reconditioning
11	regulations that were applicable at that
12	time?
13	A That's right.
14	Q So that's an assumption as well.
15	You also answered some questions
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16	from Mr. Malkin concerning contracts that
16	from Mr. Malkin concerning contracts that
16 17	from Mr. Malkin concerning contracts that PG&E entered into to purchase A.O. Smith
16 17 18	from Mr. Malkin concerning contracts that PG&E entered into to purchase A.O. Smith pipe. And you referenced various SMYS values
16 17 18 19	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
16 17 18 19 20	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
16 17 18 19 20 21	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
16 17 18 19 20 21 22	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
16 17 18 19 20 21 22 23	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
16 17 18 19 20 21 22 23 24	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
16 17 18 19 20 21 22 23 24 25	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
16 17 18 19 20 21 22 23 24 25 26	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.

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don't have a specific record for the A.O. 1 2 Smith pipe that exists in 147, we will assume a value of 33,000. Is that a fair statement? 3 4 А That's a fair statement. 5 Okay. So you're using the most 0 conservative values of documents that are 6 7 relevant to that type of pipe but not 8 necessarily particular to that pipe? 9 А That is right. 10 0 Okay. So do you recall the segment 11 of pipe referred to as Segment 180 in Line 132 in San Bruno? 12 13 А T do. 14 And what did the purchase records 0 15 show regarding that piece of pipe? 16 MR. MALKIN: Objection, relevance. 17 ALJ BUSHEY: Purchase records for 18 Line --19 MR. MALKIN: For Segment 180 in Line 20 132 is what he's asking about. 21 MR. MEYERS: I'm trying to reach a 22 conclusion here. 23 ALJ BUSHEY: Okay. But it better 24 include something that is relevant to Line 25 147. 26 MR. MEYERS: Q Do you recall that 27 piece of pipe? 28 I do. I recall the segment, yes. А

1 0 And did that piece of pipe have 2 purchase records? 3 I do not recall right off the top А 4 of my head today. I -- I really can't remember right now. I don't believe we did, 5 6 but I'm not really sure. 7 0 So if there were no purchase records, what -- what conservative value 8 9 would you assume for that piece of pipe? 10 Yes, I know, Mr. Malkin, you have a 11 concern about relevancy. But what I'm trying 12 to get to here is that an assumption that is 13 made by a witness who is testifying under 14 penalty of perjury should be validated. And 15 we're making an assumption here about pipe 16 for which we have no purchase records. I'm 17 trying to make a comparison between the 18 absence of purchase records for Line 132, 19 Segment 180 that exploded and killed eight 20 people and the lack of purchase records for 21 this piece of pipe. 22 MR. MALKIN: Very dramatic, very 23 irrelevant, particularly in light of the 24 hydro test that everybody agrees validates 25 the 330 psig. 26 Well, it completely ALJ BUSHEY: 27 changes the factual scenario. 28 MR. MALKIN: That too.

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1 ALJ BUSHEY: So your comparison doesn't 2 work, Mr. Meyers. I'm wondering if you're testing me again, so I'm going to sustain 3 4 Mr. Malkin's objection. 5 MR. MEYERS: Very good. I'll move on. 6 Mr. Harrison, you said in your Ο 7 testimony that -- that you had regrets 8 concerning your November 17th, 2012, e-mail. 9 And I understood you to say that your regrets 10 were about the consternation, if you will, 11 that that e-mail had as opposed to the actual regrets of the factual points that you made 12 13 in that e-mail. Is that a correct statement? 14 MR. MALKIN: Objection, 15 mischaracterizes the testimony. 16 MR. MEYERS: Q Can you characterize 17 your testimony for me with respect to the 18 issue of regrets? 19 А Again, I regret writing the e-mail 20 with those words because it's generated a lot 21 of consternation and -- and work that wasn't 22 necessary. The point of the items that I 23 brought up in that e-mail was to just ask 24 those questions and make sure that we had 25 dealt with those questions and performed due 26 diligence on what we found. 27 As you sit here today and as you 0 28 read your e-mail of November 17th, which is

Exhibit N, do you feel that the issues you 1 2 raised were legitimate issues at that time? They were legitimate issues in that 3 А 4 we needed to make sure that we had answers to those questions, yes. I think the pipeline 5 was safe then, and I still think it's safe, 6 7 but I wanted to make sure there were no issues that -- that we could find out that 8 9 somebody like Rosenfeld would know of that we were not aware of. 10 11 In the body of the e-mail you make Ο 12 the statement, "Could the recent hydro test 13 contributed to additional cracking in this 14 pipe and essentially activated a threat?" Ιn 15 your testimony thus far, you have referred to 16 the cracking of the pipe in relationship to 17 the leak site and the segment of pipe that 18 was been removed by PG&E for further testing 19 from the system; is that correct? 20 That's right. А 21 In your e-mail, were you referring 0 22 to any other cracking within that pipeline, 23 which is about 1,400 -- that section of pipe 24 that's about 1,400 feet that has not been 25 removed? 26 I mean, I don't have any knowledge А 27 of any other damage or cracking or any of 28 that kind of information. And again, the

hydro test should have flushed out anything 1 2 that was a problem on the rest of the 3 pipeline. 4 0 So you're satisfied based upon your review of the hydrostatic testing that there 5 6 is not a likelihood that the hydro test 7 contributed to additional cracking or activating a threat within the remainder of 8 9 the pipeline that has not been removed for 10 destructive testing? 11 А That's right. Just to be clear 12 here, you're asking me for my opinion, but my 13 opinion is also based on what -- what the 14 experts have said. I'm not an integrity 15 management engineer. I asked about the 16 threats. I know integrity management has 17 nine different categories of threats, but I 18 don't know all the details. So again, that's 19 why I was raising the question, so the other 20 people who are experts, such as the integrity 21 management engineers, can -- can weigh in on 22 what they feel. 23 The next sentence is actually a 0 24 partial sentence. "Are we sitting on a San 25 Bruno situation?" Again, I understood your 26 explanation of that to be not so much a 27 question of the failure of Line -- of 132 and 28 the resulting fire that caused damages, but

rather the absence of records. Is that what 1 2 you meant by that, "Are we sitting on another 3 San Bruno situation?" Again, I believe what we 4 А Yeah. learned from an engineering MAOP perspective 5 6 in San Bruno is a pipe is not always what we 7 think it is. If it's not what we think it is, then what is it and have we done what we 8 9 need to do to ensure it's safe. 10 Q Well, why do we care if we do a 11 hydro test? 12 А Well, that's just it. The hydro 13 test did make it safe, but I wanted to make 14 sure that we still felt -- somebody like 15 Rosenfeld felt that the hydro test was still 16 That was the point of the e-mail. safe. 17 There's the things that I brought up in the 18 e-mail, pressure reversals, those kind of 19 issues are unusual phenomenon that have 20 occurred, very rare under certain 21 circumstances, and I'm not the expert on 22 them. I want the expert to weigh in on them. 23 So when you said, "Are we sitting Ο on another San Bruno," you were not referring 24 25 to the possibility that the original hydro 26 test of Line 132 caused a fatigue crack which 27 grew over time? You were not referring to 28 that?

No, I was not referring to that. 1 А 2 Ο Your final statement in this e-mail -- I'm sorry, the final statement of that 3 4 paragraph of the e-mail says, "I don't want to panic people, but it seems like we should 5 6 consider this and possibly possible -- and 7 probably move this pipe up the PSEP priority for replacement." 8 9 If MAOP validation process operated 10 as you thought it was operating and if PG&E 11 was testing to 1.5 MAOP and that hydro test 12 was satisfactory, why would you suggest in 13 your e-mail that this piece of pipe be 14 replaced? 15 А Because at the time we were 16 considering -- operating it at 365 pounds 17 and/or higher. And so depending on what we 18 were going to do with that pipeline, we might 19 want to consider replacing it. 20 You were here in the hearing room 0 21 when Mr. Johnson testified that this pipe 22 could be operated at 400 psig; correct? 23 А Right. 24 If the pipe is operated on 400 0 25 psig, would you recommend that it be 26 replaced? 27 I would have to evaluate it, go А 28 back and look more closely at it. But again,

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I would rely on people like Rosenfeld and the 1 2 integrity management people and what their views were on it. And they're saying that 3 4 it's safe at 400 pounds. 5 MR. MEYERS: Mr. Harrison, thank you 6 very much. 7 ALJ BUSHEY: Thank you very much. 8 MR. LONG: Your Honor, can I just ask a 9 follow-up guestion on one of Mr. Harrison's 10 answers to Ms. Strottman? 11 ALJ BUSHEY: Sure. 12 CROSS-EXAMINATION 13 BY MR. LONG: 14 Mr. Harrison, Tom Long with TURN. 0 15 Exhibit M, Ms. Strottman asked you 16 a guestion about that. Do you have that in 17 front of you? 18 I do. А 19 0 And it's the -- it's the "near hit" 20 sentence that I wanted to ask you about. And 21 if I -- if I jotted down your answer 22 correctly, you said that what you meant by --23 words to the effect that what you meant by 24 near hit was there was a mistake in MAOP 25 validation for this segment, 109, but at the 26 time it didn't cause a reduction in the MAOP, 27 and that's why it was a near hit? 28 А Right.

1 0 So does that mean that if it had 2 caused a reduction in the MAOP, that would be 3 a hit? 4 А I would have termed it that way, 5 yes, in comparison. Yes. Okay. So now you remember this 6 Q 7 exhibit. I think you were asked questions about this earlier today, Exhibit I, with the 8 9 chart about the changes in MA -- various MAOP 10 parameters from October 2011 to the current? 11 А Right. 12 Okay. In fact, the -- for Segment Ο 13 109, the MAOP of design in October 2011 was 14 437, and the MAOP of record was 396. And now 15 by virtue of the mistake in MAOP that was 16 discovered, the MAOP design has gone down to 17 330. And as a result the MAOP of record has 18 gone down to 330. 19 Α That's correct. 20 So in fact, isn't this a hit? 0 21 А That is correct, yeah. So at the 22 time -- again, you're asking about when I 23 wrote this e-mail, and the time I wrote the 24 e-mail, that's why I wrote it that way. And 25 in effect, we have taken that into 26 consideration. And as we've discussed, we've 27 taken a conservative value for the line, 28 including the joint factor, so you arrive at

a 330-pound MAOP. 1 2 If you remove the joint factor 3 impact, you end up with a design pressure I 4 believe at 412. So you're back over 400 pounds. And so that, again, is -- you 5 know, that's what we've been discussing here 6 7 that we've been taking a conservative joint factor. We don't really think it needs to be 8 9 applied, but --10 0 So from your perspective, this is 11 exactly what you don't want to happen in an MAOP validation. You don't want to find out 12 13 that a supposedly validated MAOP needs to be 14 corrected to a lower MAOP; isn't that right? That's right. Absolutely. 15 А 16 MR. LONG: That's all I have. Thank 17 you. 18 Thank you, Mr. Long. ALJ BUSHEY: 19 EXAMINATION 20 BY ALJ BUSHEY: 21 Mr. Harrison, I have a couple of 0 22 questions for you on a completely different 23 topic. How are you? 24 А All right. 25 You've been -- you've been through 0 26 a lot, and I wanted to know about morale and 27 about how this ensuing controversy has 28 settled among the working-level engineers at

1	PG&E. I'm very concerned that it may have
2	undermined your I think you call it your
3	questioning culture. Could you could you
4	talk to me about how you've experienced this
5	in the last couple of months?
6	A Well, it does get challenging in
7	that I I I talked to Sunil in the
8	interview with Sunil about it a bit. And
9	yeah, the biggest comment that I get that I
10	can say is, you know, the other engineers
11	talk about me and say, "Oh, I'm not writing
12	any e-mails."
13	And I think that's a bad thing.
14	It's definitely a bad thing because the
15	people are much more wary of e-mails, and
16	it's going to be harder for them to share
17	safety-related concerns. I think the company
18	does support them, though, and are trying to
19	encourage people to bring them up. And they
20	are bringing up issues. But it does get more
21	challenging I think as we you know,
22	because my e-mails made it into the newspaper
23	and then, you know, I have to testify. And
24	nobody wants to go through the grilling.
25	Q Right. And is there anything that
26	we can do to make the grilling less
27	grill-like?
28	A I don't I don't know right now

off the top of my head. I can't think of 1 2 anything, but --3 But you're aware of all the 0 4 whistleblower protections and you felt like your management was supporting you? 5 6 А Right. Yeah. 7 0 And so other than enabling you to 8 survive the process and go back and say that 9 it's --10 Α Survivable. 11 0 -- survivable, that's all we can do? 12 13 А Yeah, I think so. I mean, the 14 management did respond. There was debate 15 about the issues. We got a variety of groups 16 together. So I mean, I think the process did 17 work, and so I -- I think that's -- that's 18 good. 19 ALJ BUSHEY: All right. Thank you. 20 Redirect, Mr. Malkin? 21 MR. MALKIN: May I have a moment, your 22 Honor. We'll be off the record. 23 ALJ BUSHEY: 24 (Off the record) 25 ALJ BUSHEY: We'll be back on the 26 record. 27 Mr. Malkin, redirect? 28

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1	REDIRECT EXAMINATION
2	BY MR. MALKIN:
3	Q Okay. Mr. Harrison, I just have a
4	few questions for you on two points.
5	One, in response to a question from
6	Ms. Strottman, you testified that if you
7	testified adverse to PG&E, PG&E could
8	terminate your contract. Do you recall that?
9	Do has that fact that your contract is
10	currently terminable at will in any way
11	influences your testimony today?
12	A No.
13	Q Has anyone from PG&E threatened you
14	in any way about either your e-mail, your
15	testimony, or anything having to do with Line
16	147?
17	A No. They tease me about taking
18	away my e-mail, but they're just teasing me.
19	Q Do you as you sit here today have
20	any concerns about any retaliatory action
21	being taken against you either for the
22	e-mail, the questions you've raised or your
23	testimony, or anything related to Line 147?
24	A No, I don't.
25	Q You've mentioned in connection with
26	that that the termination right goes both
27	ways?
28	A That's right.

1 0 Do I understand correctly that if 2 you felt there was a safety issue with respect to Line 147 that you raised that PG&E 3 4 refused to address, that would you exercise that right and stop working for PG&E? 5 That's right. 6 Α 7 0 Okav. The last thing I want to ask you about is the questions from Mr. Long 8 9 about your e-mail talking about a near hit. 10 And then you went on to testify that when the 11 MAOP changes, as Exhibit I reflects for 12 Segment 109, in your terminology, that's a 13 hit. Do you recall that testimony? 14 А That's right. And as I recall, you explained also 15 0 16 that if -- even with the changed 17 specifications on Line 109 that if you did 18 the MAOP calculation literally according to 19 the code without the joint efficiency factor, 20 the MAOP of design would be 412; is that 21 right? 22 MR. LONG: Objection, vague. I didn't 23 hear that testimony. That is a leading 24 question. It would be better if it were 25 phrased in a less leading fashion. 26 ALJ BUSHEY: Try and tie it back to 27 something that he said previously. 28 Q Did you testify to what MR. MALKIN:

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the MAOP of design for Segment 109 would be 1 2 if you literally followed the code and didn't include the joint efficiency factor the way 3 4 PG&E does? And yes, I did it on the telephone, 5 А so I'm not sure I got it exact. But I 6 7 believe it's 412. 412 pounds would be without the joint efficiency factor. 8 9 Last question. Despite the fact 0 10 that you consider a change of MAOP on Segment 11 109 to be a hit in your terminology, do you 12 have any doubt in your mind about the safety 13 of that line over the past two years? 14 А No, I think the line is fine. 15 330 pounds is perfectly safe operating 16 pressure for the pipeline, and so the line I 17 think is fine. 18 No further questions, your MR. MALKIN: 19 Honor. 20 Thank you, Mr. Malkin. ALJ BUSHEY: 21 MR. LONG: Your Honor, could I just ask 22 about that 412 calculation? I must have 23 missed that. 24 RECROSS-EXAMINATION 25 BY MR. LONG: 26 So Mr. Harrison, tell me what 412 0 27 represents? 28 So if you calculate the -- the SMYS А

-- the pressure that you could operate the 1 2 pipeline at, not operating it out of class, but ignore the 0.8 joint efficiency factor, 3 4 taking what the code savs at 1.0, then you get a 412 pressure I believe. 5 Okay. And that was earlier today 6 Q 7 that you said that? Well --8 А 9 MR. LONG: Anyway. Okay. I understand 10 what you're talking about. Thank you. That 11 answers my question. 12 CROSS-EXAMINATION BY MS. BONE: 13 14 O A clarification. Which code 15 section are you referring to? 16 Well, we're talking about the А 17 design formula essentially without the joint 18 efficiency factor in it, so it's two times 19 the SMYS times the wall thickness divided by 20 the diameter and then take 50 percent of 21 that. 22 So that's 192.105? 0 23 А Yeah, in effect. But again, 24 without the joint efficiency factor in it. 25 MS. BONE: Understood. Thank you very 26 much. 27 ALJ BUSHEY: Any final questions for 28 the witness?

1 Ms. Strottman. 2 MS. STROTTMAN: I just have one. 3 RECROSS-EXAMINATION BY MS. STROTTMAN: 4 5 Thank you, Mr. Harrison. You -- it 0 6 seems like -- and please let me know if I'm 7 mischaracterizing this -- your testimony --8 that you feel badly because you think you've 9 generated a lot of work that's not necessary 10 as a fallout from your e-mail; is that 11 correct? 12 А That's right. 13 So if PG&E reported these issues of 0 14 Line 147 and 101 right away to the CPUC, we 15 wouldn't all be sitting here; is that 16 correct? 17 MR. MALKIN: Objection. 18 ALJ BUSHEY: Speculation. Try again. 19 MR. MALKIN: It's also outside the 20 scope or redirect. 21 ALJ BUSHEY: We just need one reason. MS. STROTTMAN: I don't think that is 22 23 outside the scope but --24 So Mr. Harrison, we are all here, Ο 25 isn't that correct, because PG&E waited four 26 months to tell the CPUC of these issues and 27 nine months to tell the parties involved; 28 isn't that correct?

1 MR. MALKIN: Objection, argumentative, 2 speculative. MS. STROTTMAN: I don't think that's 3 4 argumentative, and I'm not sure that's 5 speculative. I mean, we all know why we're 6 here. 7 ALJ BUSHEY: Well, then why do we need 8 to ask? 9 MS. STROTTMAN: It would be nice for 10 him to answer but --11 ALJ BUSHEY: Yes, we're here because of 12 some rulings I wrote. 13 MS. STROTTMAN: My point is that if 14 PG&E had been forthcoming -- it's not 15 Mr. Harrison's fault that he thinks he generated a lot of work. PG&E should have 16 17 reported these issues to the Commission and 18 then to the parties, and then we wouldn't all 19 be sitting here. 20 Thank you for your ALJ BUSHEY: 21 perspective on that, Ms. Strottman. 22 MS. STROTTMAN: Thank you. ] 23 ALJ BUSHEY: Anything final for the 24 witness? 25 (No response) 26 ALJ BUSHEY: Hearing none, then the 27 witness is excused. 28 Ms. Strottman, your client wanted to

1	make a statement.
2	MS. STROTTMAN: Yes. Thank you.
3	STATEMENT OF MR. RUBENS
4	MR. RUBENS: Your Honor, I suppose I
5	have a unique role here as representing a
6	party, and I'm the city attorney for the
7	city. I've been the city attorney for five
8	years. It's not really in the record, but I
9	was the interim city attorney for the City of
10	San Bruno when the disaster happened there.
11	So I'm intimately involved in what can happen
12	when a pipeline fails. It's catastrophic.
13	The City of San Carlos didn't seek
14	this process. It was imposed upon us when we
15	were presented with an e-mail on October 3rd
16	of this year. Your Honor reacted to that and
17	issued an order which resulted in this
18	proceeding. And it's an expedited
19	proceeding. We have asked for time to have
20	our expert further evaluate, and that hasn't
21	been granted. Perhaps there is still time
22	depending on when the CPUC considers it.
23	Special counsel mention that request for
24	further review on that.
25	The public is very concerned about
26	the safety of Line 147 in San Carlos. It
27	runs through the heart of the town. It
28	passes thousands of residences past. I've

walked the line. Many of the places where 1 the line is it's less than 25 feet from the 2 front doors of homes. Sometimes it goes 3 4 between people's vards. Sometimes it's right behind their house depending on where it is 5 6 in the line. It passes a city park. It goes 7 through a city park. It goes through a 8 nature preserve. It passes over the Hetch 9 Hetchy Aqueduct. It's a very serious line. 10 Its safety must be assured. 11 I think the credibility of PG&E is 12 relevant, with all due respect to your Honor, 13 and that's because the reason we're here, and 14 I know this is argument, but the reason we're 15 here is because it was 11 months until the 16 City of San Carlos was given the e-mails that 17 we consider red flag e-mails. They may be 18 able to be explained after the fact, and 19 there are sworn statements that try to 20 explain that, but the fact is when you look 21 at the e-mails and you see them, there were 22 serious concerns raised. 23 And PG&E, instead of reporting it to 24 the CPUC and taking immediate action to 25 communicate it to the City of San Carlos, 26 which might have created a different 27 procedure here, they decided to hide it. And 28 they decided to hide it because the winter

That's all the sworn statements. 1 season. 2 And because of this rushed proceeding I spent the whole weekend reading them all. They all 3 4 say from PG&E employees the winter season was a major factor in their decisionmaking 5 6 process. 7 So what I see when I look at these sworn statements is that PG&E decided, rather 8 9 than go through a safety process because of 10 what they discovered about the type of pipe 11 there and the leak, they decided, we're just 12 going to go with system rather than safety. 13 That's what I see. Because that's what they 14 were -- that's why they delayed. There can 15 be only one explanation why they delayed, and 16 that's it. 17 The city -- the one point that I saw 18 today in these hearings that I think needs to 19 be underlined is PG&E is relying on a 20 standard that doesn't make any sense. 21 They're saying because it's pre-1970 pipe 22 that was operated before 1970 that it can 23 have a higher standard than known pipe that's 24 in the ground. And that makes no sense to me 25 at all. Unknown pipe has -- can run at a 26 higher operating pressure than known pipe. 27 That just doesn't make any sense. I think 28 that's part of why the public is so upset

about this because PG&E does not know what's 1 2 in the ground there, and they still don't. None of the testimony in these hearings have 3 4 shown that they know what's in the ground. In fact, they admit they don't know what's in 5 6 the ground. 7 So in conclusion, we have requested 8 this hearing that we want safe pipeline 9 through San Carlos. If that includes 10 replacing the pipe, if it includes proper --11 applying the proper standard until PG&E can 12 get the resources and mobilize to get the 13 pipe repaired, that's what we're after in 14 this proceeding. 15 So I wanted to say that for the 16 I know that I'm not testimony. I'm record. 17 fully aware that I'm argument, but because 18 I'm the city attorney and, you know, local 19 government is closest to the people, I think 20 I need to make that statement for the record. 21 Thank you. 22 All right. Thank you. ALJ BUSHEY: 23 Your Honor, if we may. MR. MALKIN: Ι 24 don't want as a lawyer to take on Mr. Rubens' 25 statements, but the point that he makes that 26 is really important is the concern of the 27 public. And we would appreciate it if you 28 would allow Mr. Rosenfeld to briefly address

that question to put the mind of the public 1 2 at ease as to the safety of this pipeline. ALJ BUSHEY: Mr. Rosenfeld, are you 3 4 prepared to make such a statement? 5 MR. ROSENFELD: Yes, I am. 6 ALJ BUSHEY: Yes. Let's do that. Mr. 7 Rosenfeld, please come forward. MS. STROTTMAN: Your Honor, I'm sorry. 8 9 I'm going to object to this. He's already 10 testified. I don't know. It's like --11 ALJ BUSHEY: No. I let Mr. Ruben make a speech about the interest of the public. 12 13 I'm going to ask Mr. Rosenfeld to come back 14 here and address the public. Don't address 15 Address the public and tell them what us. 16 his response as a nationwide expert is on 17 these issues. I think that's exactly to the 18 point of what we're doing. And Mr. Rosenfeld 19 is uniquely in a position to address the 20 public. So please come forward, Mr. 21 Rosenfeld. 22 MR. MALKIN: Would you like him to take 23 a seat up there? 24 ALJ BUSHEY: Yes. Please be seated. 25 MR. MALKIN: Or have my seat? 26 ALJ BUSHEY: Mostly for the convenience 27 of the court reporters. 28 You remain under oath. You have

1	heard the statement. And I'd like you to
2	conceptually address your comments to the
3	members of the public who live near Line 147.
4	MICHAEL ROSENFELD
5	resumed the stand and testified further as
6	follows:
7	
8	THE WITNESS: Sure. You know, the
9	concerns are understandable, but, and I think
10	it's reasonable that, for example, that David
11	Harrison was asking the questions he was
12	asking. I think the kinds of there are no
13	bad questions. The issue is, you know,
14	what's how do we know that it's safe. How
15	do we you know, is PG&E being prudent in
16	the way they're approaching things?
17	I think that, well, I've tried to
18	look at the safety aspects of this pipeline
19	from a number of different angles including
20	what was provided for in the regulations
21	historically and currently. What do I
22	interpret the CPUC's expectations to be in
23	terms of re-verifying the integrity of the
24	pipeline. You know, certainly a lot of
25	questions have come up about is the
26	hydrostatic test effective because there was
27	a leak afterwards.
28	And so I tried to look at it from

I

the standpoint of what do we know about --1 2 what can we say about the safety of the pipeline having been hydrostatically tested 3 4 to essentially twice what PG&E proposes to 5 operate it at. And this is not, you know, a 6 hydrostatic test. It's a proof test. It's 7 called a proof test because it proves the 8 ability of the pipe to do what it's supposed 9 to do. You know, conceptually it's like 10 saying if the bridge can hold an 80-ton 11 truck, it's logical that it can hold up a 12 40-ton truck, and it doesn't matter what the 13 bridge is made out of. Whether it's wood, 14 stone, wrought iron or, you know, high test 15 steel, it can do that job. 16 So the hydrotest, and this is --17 this is not radical new science. It's pretty 18 well -- well trod ground in terms of 19 understanding how something like a pipeline 20 or a pressure vessel or things like that can 21 be safe. So we know it works. It's been 22 done, practiced for decades. So, and a 23 successful test can make up for or can help 24 compensate for some things that aren't known 25 such as every -- the complete description of 26 every piece of pipe. And that relies on the 27 fact that the hydrotest was performed to a 28 pretty high level over and above what the

1 pipeline operates. 2 So taking -- you know, I know that 3 the City of San Carlos has asked for a 4 fracture, fracture mechanics or fracture control approach to this. Well, the 5 6 explanation for why what happened in San 7 Bruno would not happen here as a result of 8 due to damage caused by the test or due to 9 some fairly -- fairly uncommon sorts of 10 metallurgical concerns such as pressure 11 reversals comes -- the assurance of that 12 actually comes from a fracture mechanics 13 analysis of what you get out of a hydrostatic 14 test. And that's very well documented in the 15 technical literature as well if you wanted to 16 do your own research. 17 So I feel very comfortable about 18 what the hydrotest proves. The fact that a 19 leak occurred sometime afterwards is 20 interesting, but you know, it is not proof 21 that the hydrostatic test doesn't demonstrate 22 the strength of the pipe. 23 So, and then the other -- another 24 approach that I took here was that I know 25 that the hydrostatic test is not a -- it's 26 not a silver bullet. I mean it does not deal 27 with every possible concern that could happen 28 with the pipeline over time. There are

things that it doesn't address. So I tried 1 2 to look at it from the standpoint of what -what are the integrity threats or integrity 3 4 concerns that do affect natural gas pipelines as demonstrated through cumulative industry 5 6 experience, through reportable incidents that 7 are presented or that are reported to PHMSA 8 and what industry guidelines say about 9 dealing with that and just tried to work 10 through each one of those. 11 Do we have evidence that there's a 12 problem, or do we have evidence that any 13 condition has worsened in the last two years 14 with respect to those particular things. And 15 I don't -- I don't see evidence that 16 there's -- that there are other problems 17 affecting the pipeline. 18 So you know, and then finally, I 19 think I alluded to this on Monday, I thought, 20 well, knowing what I know about A.O. Smith 21 pipe or about hydrotesting or pipelines in 22 general or risk assessment, how would I feel 23 if I were living near this pipeline? There's 24 a pipeline that goes through my neighborhood. 25 It's not next to my house. It's a propane 26 pipeline, but if it failed it would be --27 certainly be a bad thing. I'm conscious of 28 its presence. So I certainly am able to I

think put myself in the point of view of how 1 2 would I feel about living next to this 3 particular pipeline. 4 I think all of the evidence points to it being a safe pipeline. I don't think I 5 6 would feel terribly concerned about that. Ιn 7 fact, there are many, many, many other things 8 that pretty much everybody here in this room 9 is exposed to in terms of risk, whether it's 10 traffic accidents or food poisoning or, you 11 know, poor medical treatment or things of 12 that nature that are much more likely, 13 present much higher risks I think than this 14 particular pipeline. So that's my take on 15 it. 16 ALJ BUSHEY: Thank you. Thank you, Mr. 17 Rosenfeld. All right. Is there anything 18 else to come before the Commission on this 19 matter? You have your objection on Line 147. 20 MS. BONE: We need to enter documents 21 into the record, and if possible we'd like a 22 few minutes off the record with PG&E to see 23 if we can stipulate to most of them and make 24 this easier. 25 ALJ BUSHEY: Okav. We'll be off the 26 record. 27 (Off the record) 1 28 ALJ BUSHEY: We will be back on the

1 record. While we were off the record we 2 3 identified Exhibit O. That is going to be the Felts testimony. SED advocacy is going 4 5 to provide me a copy of that. 6 (Exhibit O was marked for identification.) 7 ALJ BUSHEY: Exhibit P is the Roberts 8 9 testimony. 10 (Exhibit P was marked for identification.) 11 12 ALJ BUSHEY: And Exhibit Q is the 13 Roberts support. (Exhibit Q was marked for 14 identification.) 15 16 ALJ BUSHEY: Are there any objections 17 to Exhibits A through N? Any objections to 18 receiving A through N into the record? 19 MS. BONE: We are still working on 20 that. 21 MR. MALKIN: I believe we may have some 22 objections. I'm trying to -- I have no 23 objection to A. Although, we are talking about whether we need to redact. 24 25 MR. VALLEJO: No, I was thinking 26 Exhibit A to the safety --27 MR. MALKIN: Oh. 28 MS. BONE: Oh.

1 ALJ BUSHEY: Hearing Exhibit A through 2 Ν. 3 MR. MALKIN: No objection to A. No 4 objection to --5 MS. BONE: Can I fill in, Joe, are you 6 working on that? 7 MR. MALKIN: Yes. MS. BONE: On K? 8 9 So PG&E has stipulated to the entry 10 of K into the record, the ones you are asking 11 about, but we are going to need to redact it. 12 So we will do a late filing to get that copy 13 to you. And we've agreed that it can be 14 filed with the redaction of the second and 15 third columns. 16 ALJ BUSHEY: So the version of K that I 17 have should be removed? 18 MS. BONE: Correct, and we will get you 19 a new one. 20 ALJ BUSHEY: Any objection to any 21 others? 22 MR. MALKIN: We are going through. 23 We've gotten up to F, and we have no 24 problems. 25 ALJ BUSHEY: Okay. 26 MR. MALKIN: G is good. 27 ALJ BUSHEY: We will be off the record. 28 (Off the record.)

ALJ BUSHEY: Back on the record. 1 2 While we were off the record 3 Exhibits A through J which have been 4 previously identified have been received into 5 evidence. 6 (Exhibits A thru J were received into evidence.) 7 We will be off the record. 8 ALJ BUSHEY: 9 (Off the record.) 10 ALJ BUSHEY: We will be back on the 11 record. While we were off record we 12 13 addressed Exhibit K. It has been removed 14 from the documents offered in hearing. 15 MS. BONE: That is not exactly right. 16 The K that we talked about earlier is still 17 there. The one on the marine standards. 18 MR. MALKIN: That was my error. It had 19 originally been marked as K, but then it was 20 withdrawn and K was used for this other 21 exhibit that we have no objection to with the 22 agreed redaction of two columns. That would 23 allow one to precisely identify locations of 24 the pipe. 25 That is what I understood. ALJ BUSHEY: 26 So Exhibit K that has been provided to me has 27 been removed from the record. A late-filed 28 revised Exhibit K with two columns redacted

1 will be provided to me. 2 We will be off the record. (Off the record.) 3 4 ALJ BUSHEY: We will be back on the 5 record. While we were off the record we 6 7 discussed Exhibit N. The only portion of Exhibit N that was used as a 8 9 cross-examination exhibit was the first page. 10 I'm removing the other pages from Exhibit N. 11 We will receive the first page only into the 12 record. 13 (Exhibit N was received into evidence.) 1 14 15 MS. BONE: Your Honor, there's an 16 additional exhibit that we don't have that 17 needs to be given a -- a letter. 18 ALJ BUSHEY: Okay. Can we do that when 19 we get to the end of the letters because 20 we've got things that have a letter that 21 aren't in the record? 22 Exhibit N? 23 MR. MALKIN: Exhibit N we object to. 24 It's a mishmash of things, very little of 25 which was the subject of any questioning. Ιf 26 it gets boiled down to the things that were 27 actually used in the hearing, then -- and I 28 -- I don't include the one where the witness

said, "I don't recognize it," then we 1 2 wouldn't object. 3 MR. LONG: Your Honor, I don't 4 understand this principle that PG&E is using. They're e-mails. Is there something that 5 6 they're worried about? 7 MR. GRUEN: Your Honor, in addition to that, I asked Mr. Harrison explicitly if 8 9 there was any document in here with which he 10 was not familiar. ALJ BUSHEY: That's not the basis for 11 12 getting something in the record as a 13 cross-examination exhibit. You have to ask 14 cross-examination on it. 15 MR. GRUEN: And I did ask 16 cross-examination on each and every document 17 in this exhibit, your Honor. And I asked 18 Mr. Harrison. I asked extensive questions of 19 both Mr. Johnson and Mr. Singh. I'm not 20 following the exact grounds of the objection 21 -- the basis for Mr. Malkin's objection on 22 this. 23 ALJ BUSHEY: So Mr. Malkin, you're 24 disputing counsel's assertion that questions 25 were asked regarding each one of these seven 26 packets. 27 MR. MALKIN: Yes. I think the record 28 will accurately reflect that there were

1 questions about some of these. There was the 2 blanket question, which as you said doesn't 3 establish the basis for admission. There 4 were some questions about certain of these documents, and as I said, if this gets boiled 5 down to those, we would not have an 6 7 objection. 8 ALJ BUSHEY: And who would you envision 9 doing this boiling-down process? 10 MR. MALKIN: I would envision SED 11 advocacy doing it in the first instance, and 12 our looking at it and concurring. 13 ALJ BUSHEY: Okay. How soon can you do 14 that, Mr. Gruen? 15 MR. GRUEN: Your Honor, I'm not clear. 16 I explicitly -- and the record will reflect 17 that I asked questions about every document. 18 ALJ BUSHEY: Then it will be very 19 quick. And you'll just go through the -- the 20 transcript with page citations for each one 21 and you'll send it into them and the whole 22 thing will come in. MR. GRUEN: Understood, your Honor. I 23 24 will work to turn that around by the end of 25 the week. 26 ALJ BUSHEY: Okay. All right. So that 27 will take care of Exhibit N. 28 And O is the Felts testimony. P is

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1 Roberts' testimony. Q is the Roberts 2 support. That brings us to an unallocated 3 letter, which would be R. Ms. Bone? 4 MS. BONE: R. And PG&E has now stipulated that the exhibit Mr. Roberts 5 6 sought to put in on Monday, which had an 7 excerpt from the PRUPF can now be admitted because the entire document was included in 8 9 the recent PSEP update proceeding. 10 ALJ BUSHEY: So that's going to be 11 Exhibit R. 12 (Exhibit No. R was marked for identification.) 13 14 (Exhibit No. R [late-filed] was received into evidence.) 15 16 MS. BONE: Yes. 17 ALJ BUSHEY: Can I have a copy of it? 18 MS. BONE: I don't have it now so it 19 will be late-filed. 20 ALJ BUSHEY: Okay. Any other 21 documents? 22 MR. GRUEN: Your Honor, may I just 23 clarify that in the case of Exhibit O, it 24 includes both Ms. Felts's testimony as well 25 as the exhibits that are referenced by her 26 testimony? 27 ALJ BUSHEY: Okay. 28 MS. STROTTMAN: And your Honor we want

to late-file Dr. Stevick's testimony. 1 2 Apparently there is some confidential 3 information in there. 4 ALJ BUSHEY: What are you going to do about that confidential information? 5 MS. STROTTMAN: Give it to PG&E to 6 7 redact it. Although we don't think it is confidential, but apparently just two lines 8 9 need to be redacted. ALJ BUSHEY: So Dr. Stevick's 10 11 testimony. MS. STROTTMAN: Mr. Malkin did 12 13 stipulate to us entering it into testimony, 14 but I just want to make sure you see it and 15 make sure all the redactions are in there. 16 ALJ BUSHEY: You've got five days to do 17 that. It will be late-filed Exhibit S. 18 MS. STROTTMAN: S? 19 ALJ BUSHEY: File it as redacted I 20 don't want it under seal. Just everything 21 redacted. 22 (Exhibit No. S was marked for identification.) 23 24 (Exhibit No. S [late-filed] was received into evidence.) 25 26 MS. BONE: Your Honor, I had an 27 oversight. With regard to Mr. Roberts' 28 testimony, which is now marked as Exhibit P

1 and entered into the record, there is one 2 very minor errata that I wanted to bring to parties's attention. I'm not going to do a 3 4 formal filing on it. It's Footnote 75 should be the same as Footnote 74. 5 6 ALJ BUSHEY: What page is that on? 7 MS. BONE: Towards the end on page 19. ALJ BUSHEY: So Footnote 75 should be 8 9 ibid. 10 MS. BONE: Yeah, ibid. 11 ALJ BUSHEY: All right. I made that 12 correction in the official record. 13 Any further exhibits? 14 MR. MALKIN: Yes, your Honor. We have 15 We would like to mark the workshop one. 16 summary that we sent out that was commented 17 on by both Mr. Roberts and Mr. Singh in the 18 discussion this morning given that they both 19 talked about it. 20 ALJ BUSHEY: Okay. Exhibit T. Ιs 21 anybody going to object to that? 22 We object and if it's going MS. PAULL: 23 to come in we've prepared a version --24 ALJ BUSHEY: We'll be off the record. 25 (Off the record) 26 ALJ BUSHEY: We'll be back on the 27 record. 28 While we were off the record, we

1 agreed to mark as Exhibit T the workshop 2 summary presented by PG&E. It will only be 3 marked for identification and not moved into 4 the evidentiary record. 5 (Exhibit No. T was marked for identification.) 6 7 ALJ BUSHEY: We'll be off the record. 8 (Off the record) 9 ALJ BUSHEY: We'll be back on the 10 record. 11 Exhibit U is ORA's version of the 12 workshop summary. It's identified for the 13 record, but not received into evidence. 14 Is there anything further to add 15 into the record? 16 (Exhibit No. U was marked for identification.) 17 18 MS. BONE: Your Honor, if there are no 19 further exhibits to add to the record, I 20 thought it would be helpful to get some 21 confirmation about certain other things just 22 to ensure that we all agree that they are on 23 the record, that there might be some open 24 issues here. Is PG&E's verified statement 25 26 considered to be on the record of this 27 proceeding? 28 It's been filed and ALJ BUSHEY:

1 served. 2 MS. BONE: So the answer is yes? 3 ALJ BUSHEY: Yes. 4 MS. BONE: And the same with SED's concurrents? 5 6 ALJ BUSHEY: Yes. 7 MS. BONE: Okay. And all of the 8 documents that Mr. Singh also filed following 9 up on PG&E's verified statements? Mr. 10 Singh's documents --11 ALJ BUSHEY: His supplements that were filed and served. 12 13 MS. BONE: Supplements, et cetera. 14 ALJ BUSHEY: Yes. 15 MS. BONE: And lastly with regard to 16 the documents that are generally in the PSEP 17 proceeding, this rulemaking, are they 18 considered to be part of the record of this 19 proceeding? Or do you separate -- do you 20 designate the OSCs as something different? 21 ALJ BUSHEY: This is not an OSC. This 22 is a re-pressurization. 23 MS. BONE: So you believe that all the 24 records that are in the PSEP proceeding are 25 part of the records of this proceeding? 26 ALJ BUSHEY: I don't see why not. 27 MS. BONE: Wonderful. Thank you. 28 Well, that -- that opens MR. MALKIN:

1 up two-and-a-half years worth of things that 2 -- whatever. ALJ BUSHEY: We can't ignore them. 3 4 They're here. 5 Anything further? 6 MS. PAULL: Yes, your Honor I would 7 like the record to reflect that while we were off the record, I renewed my request to have 8 9 the safety certification -- PG&E's safety 10 certification consisting of Exhibit A and B, 11 the two exhibits that were filed October 11th and -- rather, served October 11th and 12 13 16th -- that they be made part of the record 14 and that you denied that request. 15 ALJ BUSHEY: Yes, consistent with our 16 past practice in dealing with pressurization, that information is not included in the 17 18 formal record. 19 Is there anything further to come 20 before the Commission? 21 MS. STROTTMAN: Yes. 22 MR. GRUEN: Your Honor, may SED do a 23 late-served -- late service of Exhibit O, 24 which is Ms. Felts' testimony. 25 ALJ BUSHEY: Yes, I already indicated 26 that. 27 MS. STROTTMAN: Your Honor, I'm sorry. 28 Are you going to outline a briefing schedule?

ALJ BUSHEY: No, there's no briefing. 1 2 MS. STROTTMAN: Oh, that's right. You're going to issue your Proposed Decision. 3 4 ALJ BUSHEY: Right. MS. STROTTMAN: And then we can file 5 6 comments --7 ALJ BUSHEY: Comments on it. 8 MS. STROTTMAN: -- on the Proposed 9 Decision. 10 ALJ BUSHEY: At this point, I don't 11 know how realistic hitting the December 5th 12 agenda will be. 13 MS. STROTTMAN: Okay. 14 ALJ BUSHEY: But certainly no later 15 than December 19th. When the proposed 16 decision comes out, you will have -- our practice has been a few days. And by a few, 17 18 I mean between three and five days to file 19 one round of comments on it. 20 MS. STROTTMAN: And, your Honor, I have 21 a procedural question. The City of San 22 Carlos is interested in some sort of order 23 that if PG&E discovers some sort of leak on 24 Line 47 that PG&E report it to San Carlos. 25 Do you suggest a way --26 ALJ BUSHEY: I suggest that the Mayor 27 of San Carlos Carl Kirk Johnson and make that 28 request.

1 MS. STROTTMAN: So that order cannot 2 come from the CPUC? 3 ALJ BUSHEY: Well, it could, but 4 they'll almost certainly voluntarily tell you 5 that. MS. STROTTMAN: I don't know about 6 7 that, but --ALJ BUSHEY: Well, why, don't you start 8 9 with --10 MS. STROTTMAN: Especially after --11 ALJ BUSHEY: Why don't you start with a 12 simple request to their executives, and if 13 they turn you down, then you can file a 14 motion in this docket. 15 MS. STROTTMAN: Okay. Thank you. 16 ALJ BUSHEY: Anything further? 17 Hearing none then, the record is 18 closed on the Commission's consideration of Line 1 --19 20 MS. PAULL: No. Aren't there 21 late-filed exhibits scheduled to come in? 22 ALJ BUSHEY: We just went over that. 23 With the late-filed exhibits, the record is 24 closed. 25 MS. PAULL: Oh, with the late filed 26 exhibits. 27 ALJ BUSHEY: With the late-filed 28 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.) \* \* \* 

## 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

## OF THE

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Rulemaking 11-02-019

### CERTIFICATION OF TRANSCRIPT OF PROCEEDING

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

## 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, 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

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Rulemaking 11-02-019

#### CERTIFICATION OF TRANSCRIPT OF PROCEEDING

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