U.S. DEPARTMENT OF TRANSPORTATION

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PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

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GAS PIPELINE ADVISORY COMMITTEE MEETING

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THURSDAY
DECEMBER 14, 2017

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The Advisory Committee met in the Galleria Ballroom, Hilton Arlington, 950 North Stafford Street, Arlington, Virginia at 8:30 a.m., David W. Danner, Chair, presiding.

GAS PIPELINE ADVISORY COMMITTEE MEMBERS PRESENT
HON. DAVID W. DANNER, Chair; Washington Utilities and Transportation Commission
STEPHEN E. ALLEN, Indiana Utility Regulatory Commission
RONALD A. BRADLEY, PECO Energy
MARK BROWNSTEIN, Environmental Defense Fund
HON. DIANE BURMAN, New York State Public Service Commission*
CHERYL F. CAMPBELL, Xcel Energy Incorporated
ANDREW J. DRAKE, Enbridge Gas Transmission
SARA ROLLET GOSMAN, Pipeline Safety Trust; University of Arkansas School of Law
ROBERT W. HILL, Brookings County Zoning and Drainage, South Dakota
RICHARD F. PEVARSKI, Virginia Utility Protection Services LLC/Virginia 811
TERRY TURPIN, Federal Energy Regulatory Commission
RICHARD H. WORSINGER, Public Utilities, City of Rocky Mount, North Carolina

CHAD J. ZAMARIN, Williams Companies

PHMSA STAFF PRESENT
ALAN MAYBERRY, Associate Administrator for Pipeline Safety; Designated Federal Official
ELOISE CASTILLO, Economist
AMAL DERIA, Attorney Advisor
JOHN GALE, Director, Office of Standards and Rulemaking
ROBERT JAGGER, Office of Standards and Rulemaking
KENNETH LEE, Director, Engineering and Research
JANICE MORGAN
CHRIS McLAREN, Transportation Specialist
JANICE MORGAN
SAYLER PALABRICA, Office of Standards and Rulemaking
DRUE PEARCE, Deputy Administrator
CAMERON SATTERTHWAITE, Office of Standards and Rulemaking
CHERYL WHETSEL, Advisory Committee Manager

ALSO PRESENT
ALBERTO ACUNA, Consumers Energy
SIMON BELLEMARE, PhD, Massachusetts Materials Technologies
DAVID CHITTICK, TransCanada
MELISSA GOULD, DNV GL
MICHAEL KERN, National Grid
RICHARD B. KUPREWICZ, Accufacts, Incorporated
ERIN KURILLA, American Public Gas Association
RICHARD LONN, Southern Company Gas
LANE MILLER, TRC; NORMAC
BRIAN MOIDEL, Dominion Energy Ohio
C.J. OSMAN, INGAA
LEE REYNOLDS, NiSource
LINDSAY SANDER, Sander Resources
LAUREN TOCZYLOWSKI, Consolidated Edison Company of New York (Con Edison)

*** Present via teleconference**

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P-R-O-C-E-E-D-I-N-G-S

(8:33 a.m.)

MR. MAYBERRY: If everyone will take their seats, we'll get started. I'm going to do the soup trick. That's pretty good. All right, we'll go ahead and get started. Good morning.

Good morning, everyone. Well, thank you for your attendance at this meeting of the Gas Pipeline Advisory Committee. As many of you, I think, were here yesterday, we had a joint meeting that I thought was excellent.

So today the focus is gas. Under the Federal Advisory Committee Act, I serve as the designated federal official and, as such, I'm presiding official of this meeting. My name is Alan Mayberry. I'm the Associate Administrator for Pipeline Safety.

Today's chairman for the committee will be the Honorable David Danner, Chair of the Washington Utilities and Transportation Commission. Before I turn it over to Chairman Danner, let me cover a couple of housekeeping

issues.

First off, most importantly, the restrooms are located to my left out the door. And straight across from the ladies' room, over to the left, the men's room.

Emergency exits, you can exit from the direction you came in, down the stairs to my left. You can also go to my right. When you go through these doors, take a right, and there's a stairwell at the end of the hallway there.

If you will please silence your mobile devices, just to eliminate disruptions, trains of thought and the like.

Also, you know, related to participation and decorum, in order to complete the business of the advisory committees, we ask that all parties hold their comments until we open the floor.

Please keep your remarks brief, less than five minutes. The presiding official may ask you to cut your comments short, if necessary, to keep the agenda moving.

Written comments may be submitted to the docket that's set up for this meeting or for this rule at PHMSA-2016-0136.

Now, I probably don't need to go over this with this group. I'm going to anyway, just to make sure. This is a Federal Advisory Committee meeting. Committee members and members of the public are asked to preserve order and decorum during this meeting.

No one shall, neither by a conversation or otherwise, delay or interrupt the proceedings or peace of the committee nor disturb any member while speaking or refuse to obey the instructions of the chair or the designated federal official or its presiding officer. If someone chooses to be disruptive, we will ask you to leave.

I guess related to participation, too, just to make you aware, we will do a similar order to the last time we met where, as we do briefings on the topics, we will first turn it over to public comment and questions before we

turn it over to the committee. And that'll allow the committee time to -- or the ability to consider the comments and the questions received.

So with that, I will hand off to our chairman today. Chairman Danner? Thanks.

CHAIR DANNER: All right, thank you very much. So I would like to call this meeting of the Gas Pipeline Advisory Committee to order. As Alan said, this is Docket Number PHMSA-2016-0136.

This meeting is being recorded, and a transcript will be produced for the record. The transcript and the presentations will be available on the PHMSA website. It's Meeting Number 127, and it's on the eGov docket at www.regulations.gov.

So I would like to ask that, when we have our conversations with the committee, the committee members introduce themselves each time they begin speaking so the comments can be acknowledged in the transcript. Set your tent card on its end, and I will find you and I will

call on you that way.

So why don't we begin with a roll call? I think I'll start down there on my left and work around the table. Thank you.

MR. HILL: Good morning. My name is Robert Hill. I'm from Brookings County, South Dakota. I'm an emergency management director in county development.

MR. PERVARSKI: Rick Pevarski, Virginia 811 representing the public.

MR. ALLEN: Steve Allen, Director of Pipeline Safety for the Indiana Utility Regulatory Commission, representing the Government.

MR. BROWNSTEIN: Mark Brownstein, Vice President of Climate and Energy for the Environmental Defense Fund, representing the public.

MS. GOSMAN: Sara Gosman, assistant professor at the University of Arkansas School of Law and Vice President of the Board of Directors of the Pipeline Safety Trust, representing the

public.

CHAIR DANNER: Okay. Yes, Chad, you're --

MR. ZAMARIN: Chad Zamarin, Senior Vice President with The Williams Companies, representing the industry.

MR. DRAKE: Andy Drake, Vice President of Asset Integrity and Technical Services for Enbridge Gas, representing industry.

MR. BRADLEY: Ron Bradley, Vice President of Gas Operations at PECO, representing the industry.

MS. CAMPBELL: Cheryl Campbell, Senior Vice President Gas, Xcel Energy, representing the industry.

MR. WORSINGER: Rich Worsinger, Director of Energy Resources for Rocky Mount Public Utilities, City of Rocky Mount, representing industry.

MR. TURPIN: Terry Turpin, Federal Energy Regulatory Commission, representing Government.

CHAIR DANNER: All right, thank you. We want to introduce the PHMSA staff as well.

MR. SATTERTHWAITE: Cameron Satterthwaite, Standards and Rulemaking.

MR. PALABRICA: Sayler Palabrica, Standards and Rulemaking.

MR. JAGGER: Robert Jagger, Standards and Rulemaking.

MR. GALE: John Gale, Director Standards and Rulemaking.

MR. NANNEY: Steve Nanney, Engineering.

MR. McLAREN: Chris McLaren, State Programs

CHAIR DANNER: All right, and, to my left, Alan Mayberry. And I'm going to turn it back over to Alan for his opening remarks, and then we will get moving on the briefing. So, Alan?

MR. MAYBERRY: Just to put you at ease, it won't be two hours. I think we had that on the agenda at one point, but -- I'm sorry?

CHAIR DANNER: I think that we forgot to introduce Cheryl.

MR. MAYBERRY: I'm sorry, yes.

MS. WHETSEL: I'm sorry. Cheryl Whetsel. I'm the Advisory Committee Manager.

MS. DERIA: Amal Deria, Office of Chief Counsel.

MR. MAYBERRY: All right, thank you very. Appreciate that.

much.

CHAIR DANNER: Okay, Alan?

MR. MAYBERRY: Okay, thanks. you know, today's agenda is the gas, safety of gas transmission and gathering pipelines. As you know, this is our third meeting related to this rule.

Today's topic, specifically, will be Sections 607 and 624. And my expectation, really, I think, if we get a vote on 607, I'll declare a success for this day and a half.

But 624, relayed integrity verification process and our discussion there,

really, is meant to just have a discussion and set up, perhaps, for the ability to vote at the next meeting.

I might add, too, that, just to reinforce the point, over the last few months -- or a year, really -- it's become apparent that there's probably a not as good of an understanding as we need to have out there as far as applicability of these two sections.

But these do -- while the rule is called Gas Transmission and Gathering, these two sections, really, are focused on gas transmission only and are not covered under the gathering or do not cover gathering -- or distribution, for that matter. So I just wanted to reinforce that point, and we'll probably reinforce that as we go along.

Also, just as, you know, I've talked to many of you about this related to the input we're seeking from the committee. And we do value the input of the committee, as we use it as we develop, you know, the final rule. But we are

looking for you advice.

And to that end, we really need to -- as a committee, we look for you to come to an agreement on the terms of the -- you know, or come to terms on an agreement for the go forward approach as opposed to details.

In other words, we're really not looking for edits of rule text, but we're looking for things that the committee can agree on -- terms, tenants, if you will, on the direction that you advise the Agency to take the rule.

We've been advised on the by our legal staff and by our Office of the Secretary that we really can't do word-smithing or rule-writing in this committee. While I know words matter and can truly appreciate that, we really need to focus the advice of the committee on, you know, really, terms or tenants that are given to us. And we take the rule -- you know, we'll take it from there.

We do, by the way, have openings for rule-writers, if you do want to help with writing

the rule. Okay?

And I might add, there is a process for reviewing regulations. It's very thorough within PHMSA, within DOT and even over at O&B if the rule is deemed significant. And this one, most certainly, is likely -- or has been deemed significant.

And even after that, there is a process in place for addressing any concerns with rules that are published through various mechanisms available to stakeholders for that. And so, with that, that was the extent of what I had to start off with out front.

I wanted to turn it back over to the Chair to run through the agenda. I think that will lead up to the first topic. Or do you want me to --

CHAIR DANNER: Well, why don't you --

MR. MAYBERRY: I can just turn it over. I'll just -- I'll turn it over to the staff. We're going to start the briefing in the order I mentioned. Section 607 will be the first

discussion.

But we have a little lead-in to that, and I will turn the microphone over to John Gale who will start the introduction. Then we'll turn it from him. John will go to Steve Nanney and Chris McLaren who will do a tag team on going through the rule. John?

MR. GALE: Well, good morning. My name's John Gale, Director of Standards and Rulemaking Office of Pipeline Safety.

Before we get into the rule, I would actually like to turn it over to Cheryl Whetsel, who's just going to go through a real quick overview of the voting process. As Alan said, we're optimistic that we'll actually get to a vote on one of the topics today, so we thought it would be very good to go through that voting protocol real quickly. Cheryl?

MS. WHETSEL: Good morning. Yes, I am in shock that you're making me do this first. So they've given an example up here of the committee action. So what we're considering the, as you

know, the safety of gas transmission and gathering pipelines as published in the Federal Register.

And you are considering it for the technical feasibility, reasonableness, cost effectiveness and practicality. And somehow, during all of our coming up with committee organization, we have managed to tell you that you have to -- we need to say that in every single vote. So it's a little wordy.

So the chairman will, when a decision or a recommendation of the committee is required, the committee chairman will request a motion for the vote. And any member, including the committee chairman, will -- can make a motion.

And a quorum is required for a vote. A majority of the current members of the committee are here, so we do have a quorum.

Okay, so, as we said, you know, with the first slide, the members do consider each proposed rule and the regulatory draft evaluation. The motion should include the

terminology from the statute, which is the feasibility and all of that stuff. It's been a long day already.

And all motions must originate from and be seconded by members of the committee. So there are three options for calling a motion. You can agree, as proposed. You can be not in agreement. Or you can propose a change.

And here's the sample language. If you agree, you know, that you agree that it's technically reasonable, feasible and cost-effective and practical. The second option is not to agree. And then the third option is if you wish to propose a change.

So, and it is -- we do appreciate that the members can please scribe their changes and then read them out loud. Thank you.

MR. GALE: Thank you, Cheryl. If we can get the rules, GPAC slides up. Thank you. Thank you, Sayler.

So we're very pleased to bring to the committee, again, the safety of gas transmission

and gas gathering pipelines NRPM. We've had several meetings already. We've made a lot of progress.

I think the committee has done a great job of getting the momentum going so we can actually see the light at the end of the tunnel here. And we actually are starting to see that.

As Alan said, we're very optimistic to get another vote. We've kind of, you know, organically created a process where we get feedback in in different topics and then kind of then present a recommendation for the advisory committee to consider at the next meeting.

That being said, we also need to keep, you know, the rule moving at some kind of pace. So just a quick overview of where we've been -- clicker's not working. Okay, let's go on to the second.

So at the first meeting back in January of 2017, we brought to the committee the following topics, and then we actually got a positive vote. We got a positive vote on the

statutory mandate provision on the 6-month grace period reassessments.

We got a vote passed on safety features for ILI launcher and receivers; another statutory mandate provision on seismicity; a provision that was also -- you could find in the hazardous liquid rule regarding inspecting pipelines following extreme weather events. We got agreement on, also, management of change.

We also had three other topics discussed where we deferred action and came back at a later time, which was on corrosion control records and IM clarifications.

We then, in June of 2017, were able to discuss and got a positive vote on the following areas. The corrosion provisions that were proposed in the NPRM, most but not all of the record provisions -- but, maybe not most, but some of the record provisions that were in the NPRM dealing with 192.5, 222.7 and 285.

Most of the provisions related to IM clarification were passed. And the reporting

requirements for MAOP exceedance was also passed.

There was a couple provisions still remaining that were discussed but not -- but a vote was postponed. Additional votes are still needed on records. Additional votes are still needed on some of the IM clarification provisions.

And we introduced the topic and began a discussion on the issue of material documentation or material verification.

So at this meeting, we're going to continue that discussion in those -- and two, really three, areas -- material documentation or verification in 192.67; the integrity verification process which deals with 192.624 -- and basically that section there identifies your methods that we've propose that operators can use to re-verify their MAOP given certain applicability requirements.

And then Steve will go over those main applicability requirements or in-service type incidents, lack of pressure test records or

grandfather provisions within certain areas of concern.

We also, if time permits, we'll get to strengthening assessment requirements. We could be optimistic, and hopefully get through those other two very difficult areas in a day and a half. And, we have time permitting, we'll start opening up discussion of these different areas. And we would probably have separate votes on those different areas if we get to them.

But if the other areas -- material documentation and IVP, require the time of the whole committee for this full day and a half, we're going to take that time and then move forward accordingly on those, the other areas at a later meeting.

But as you'll see, what we're trying to propose here, and what Steve will go over, is kind of setting the stage on material verification where, in lieu of it being kind of a larger discussion of material verification in a general context, it allows for that context to

occur in areas that are of concern, such as MAOP verification, integrity management, anomaly repair and records.

And we think that's a much better process than what we were trying to -- going through originally. So what we're looking at here now is basically a process that 192.67 could be to establish those records for those given areas and not necessarily its applicability.

So if we get through those three areas we still have some other areas to go through. We still have the areas that were tabled from Meeting 2 dealing with records and IM clarifications and some other topics that we haven't even gotten to yet.

We still have to discuss assessments outside of HCAs and associated repair criteria both for HCAs and non-HCA areas. And, of course, we also have gathering lines, the gathering line proposals that are contained in this rule dealing with reporting requirements, change in the definition and also regulating additional lines.

So we have proposed and thrown out some additional meeting dates in both March and June. We're actually contemplating maybe even an additional meeting within that time frame that could be maybe a telephonic vote on some of the areas that we think are less controversial, such as we think we could deal with strengthening IM assessments through the telephone or possibly even requirements that are related to assessing that outside of HCAs through a telephonic meeting.

Because we do -- we all know we need to get this to the finish line and we need to do it, you know, within a reasonable time frame. So as we get through this process and we get closer to the end of this meeting, we'll probably be looking for feedback on how we can get this rule across the finish line.

So, with that, I am going to turn it over to Mr. Nanney, who's feeling a little under the weather, and start our presentation.

MR. MAYBERRY: Hey, John, if I could

just add, Mr. Chairman would indulge me, what John had referred to as far as additional meetings, there is an interest in trying to, you know, speed these things -- speed things up appropriately to show progress.

There's some low-hanging fruit, I think, on those last topics that are less controversial that are good things, I think, that would lend themselves well to a phone call. So I think, to that end, we'd like to consider -- the committee to consider an intermediate meeting that would help for that.

There is interest, I know, from the stakeholders I talked with, and, you know, really finishing this, finishing the work we've begun, we have mandates on the table. And I know, you know, in speaking with the administration, too, there's an interest in really moving things forward, you know, at the appropriate level, considering our regulatory agenda and regulatory reform.

So I just wanted to throw that out

there, that there is interest in moving this, you know, with some sort of deliberate speed in the coming year so we can show some results. Because, actually, now, as many of you know, reauthorization is around the corner.

And we do need to show progress on, especially addressing Section 23, Section 7 and the last of the 2011 Act, no less, that relate to confirming materials strength, the pipelines and then relating to class location.

So, anyway, I wanted to mention that. I think there's a question over here.

CHAIR DANNER: Okay, yes, Mr. Drake?

MR. DRAKE: Andy Drake with Enbridge. In that interest, kind of as maybe a strategic note, could we possibly earmark 15 or 20 minutes in this agenda to talk explicitly about gathering, about where we're trying to go?

Because I think if we don't start strategically thinking about how this fits in and we wait till June, we're going to have a kind of a thorny conversation in June that may not end up

where any of us want it to be.

If we could talk a little bit about, now, about how we see that fitting in and how strategically we want to prepare ourselves to have a constructive discussion in June, I think that might serve everybody around this table a little bit better.

I just -- I'm not advocating anything specific at this moment. I'd just kind of like to have, at least preserve in the agenda a chance to have that conversation now. Because if we don't do it now, it takes another three or four months before we regroup and get a chance to deal with some of those strategic issues.

CHAIR DANNER: Well, okay, so I think I would have to leave that to PHMSA to figure out if there's time in the schedule for that discussion or whether you really think that 15 or 20 minutes would be sufficient to have that ground --

MR. DRAKE: That might be a little optimistic.

CHAIR DANNER: Okay, okay, so can you find a couple hours in the agenda?

MR. MAYBERRY: We're two hours for that, yes, I think --

CHAIR DANNER: Yes.

MR. MAYBERRY: Yes, I mean, the will of the committee is important to us, so I know we've -- we're prepared to talk the subjects at hand today. But, if there's time, I mean, if that's the will of the committee.

CHAIR DANNER: So what you're saying, though, is you just basically want to set the stage for the next conversation. So why don't we -- why don't the PHMSA folks talk offline and see what we can do about fitting that into the agenda?

I'm not optimistic that 20 minutes is really going to allow us to set the stage appropriately, but let's see how it goes. Are there any other thoughts on that from the committee members? Okay.

MR. DRAKE: The only other thought I

had on that was they're, you know, pretty much advertised as the topics at hand here today. And some stakeholders may have chosen not to be here that may have been interested in even that discussion there.

CHAIR DANNER: So my other concern is, is we do have some of the smaller items that, if we have time remaining, we could address some of those and get them, sort of clear the underbrush for the bigger ticket item which is coming later.

So why don't we hold that discussion for a later time and -- oh, Mark, I didn't see you.

MR. BROWNSTEIN: Yes, Mark Brownstein, Environmental Defense Fund. I think it would be a good idea to have that conversation, although I'm sensitive to the idea that you don't want to derail the agenda that we have, so that we have important topics. But maybe there's an opportunity to squeeze it in either at the beginning of tomorrow's meeting or something like that?

CHAIR DANNER: Okay, well, hopefully, this discussion didn't cost the vote on 607. All right. All right, move ahead, and back to John or --

MR. GALE: Thank you.

CHAIR DANNER: All right.

MR. GALE: Yes, go ahead, Steve.

MR. NANNEY: Well, I guess we're ready to vote on 607. Is that what I heard?

(Laughter)

CHAIR DANNER: I will entertain a motion.

MR. NANNEY: Just one note. As, I think as everyone knows here in the room, the early September meeting was canceled. And I was one of the ones that was recommending to Alan that we cancel the meeting.

I live just south of the Galleria in Houston. And I think the water got within about four inches of getting into my house. And many of my neighbors had their homes flooded. If you ever go through Houston, south of the Galleria is

where 610 loop turns.

And if you were watching The Weather Channel or any of those, most of the, of the shots they were taking, was from the bridges and everything along what they call Bray's Bayou there in Houston. It's where many of them because Channel -- some of the networks are down that way, and so it's easy for them to get there to take a lot of the shots.

But many of my neighbors were flooded. And it was like a -- I don't know what to say. They're whole house was out in the front yard. But we were very blessed -- lucky, whatever word you want to use -- that our home didn't flood. And I hope any of my friends here from Houston, I hope their homes didn't flood either and everything.

But it was a traumatic event going on there with 30 to 50 inches of rain. So from my point of view, I thought canceling the meeting was the right thing to do.

So, with that, going to -- we are

going over material documentation. We won't cover a few of the points we have talked about before because we're setting the stage, hopefully, to get a vote on the principles of how we'll going forward.

And one thing, to just go back, is the issue of the missing records started with the PG&E accident at San Bruno. And then PHMSA got from NTSB three recommendations that were to PG&E.

And what were those recommendations? Conduct immediate search for missing records, use verifiable records to determine a valid MAOP. And if a valid MAOP cannot be substantiated, conduct pressure tests to re-establish a valid MAOP.

And just to give you a context of the mileage that we're talking about that's addressed in the Act, Section 23, about 20 percent of the mileage is PG&E mileage. I don't know if you realized that or not, but about 20 percent of it.

And also, the results of the PG&E

review were billed that PG&E could not substantiate their MAOP for a significant amount of PG&E's transmission's system.

Going to the next slide, again, in response to the PG&E problems, Congress mandated Section 23 of the 2011 Act. And what that act said was that pipeline operators must conduct a records review for segments in HCAs in Class 3 and 4 locations and report those results to PHMSA, which, it has been done several years ago.

And the purpose of the verification was to ensure that the records accurately reflect the physical and operational characteristics of the pipeline and also to confirm the established MAOP of these pipelines.

And one of the things that, in looking at 607, as far as material documentation, that PHMSA took a look at and what we were proposing and what we would propose after listening to the committee is, what I think we all realize, it's used to establish your MAOP.

It's also used for integrity

management. And within integrity management, it's used for anomaly of evaluations for a safe operating pressure. And that can be within an HCA or in a non-HCA, if that's used.

And in the pictures we've got up here, is just some examples of mill test reports and other type reports as far as documenting yield strength, tensile strength, elongation and the chemical properties that operators normally get on pipe materials.

Slide 11, what are the implications to industry? And this is based upon annual report data that we got as of 2016, is that operators have reported approximately 4,500 miles of pipe in HCAs in Class 3 and 4 locations that had inadequate records.

And, as you can see there, it's about 2,100 miles with incomplete records in HCAs; about 2,400 miles are Class 3 non-HCAs, about 1,900 miles in Class 4 for about 4,500 miles.

Also, just to give another look, and when you look at grandfathered pipe with

incomplete records, that's 192.519(c) is the grandfather clause that's alluded to in the NTSB type recommendations.

And there you can see the Class 1 HCA pipe was 19 miles out of a total of grandfathered pipe of 87. We did not get data on non-HCA pipe. Class 2 HCA pipe was 15 miles. Class 3 HCA pipe was 475. Class 3 non-HCA pipe was 607; Class 4 HCA, 5; Class 4 non-HCA 18 for a total of a little over 1,100 miles of grandfathered pipe with incomplete records.

And, as you can see, most of it is in Class 3 locations. A little of it's in Class 1 and 2. But, again, most of it's in Class 3 with a little bit in Class 4.

Also, we went back to just, you know, some of the comments and some of the things we had discussed would be the cost and the impact as far as if an operator needed to get the material documentation. And I know there was some conversation we had had about what that cost would be.

And, again, we had talked about it being an opportunistic approach. And to give you an idea of the number of operators that are impacted, and there's about a 1,030 or 1,034 operators with operator IDs -- to give you an idea, when you add up the numbers.

And basically, there's nine operators that hire between a hundred and a thousand miles of pipe with missing records, 55 between ten and a hundred. And then the rest of them either have zero miles or between zero and ten miles. So it's not a big landscape of operators with missing records.

Also, again, looking at the Act, Section 23 of the 2011 Act, what did it say? Well, it said to require the operator to reconfirm the MAOP as economically as feasible and determine what actions are appropriate for the pipeline owner or operator to take to maintain safety until a MAOP is confirmed.

Also, again, if you -- here is actually an excerpt from the Act. As you can

see, the mandate on the testing regulations was that pressure testing or an alternative equivalent means, such as an ILI program, for gas transmission -- it's like Alan was saying earlier, we're focusing on gas transmission pipe, Class 3, 4 and all HCAs not previously tested.

And, realize, we've got the Act. Also, we're still concentrating on the NTSB recommendations. Those NTSB recommendations have not been pulled by NTSB. And those are delete the grandfather clause.

And what NTSB recommended from San Bruno or from the PG&E incident was that all grandfathered pipe be pressure tested including a spike test for HCA and non-HCA areas and also for seam stability, they recommended a pressure test of 1.25 times MAOP to treat the manufacturing and construction defects as stable. And that's for pipe in both HCAs and non-HCAs.

Considering what PHMSA has received from Congress and what PHMSA has received from NTSB, we deem that no action alternative is not

feasible based upon what we have in front of us and also what happened with PG&E and the citizens at San Bruno.

Congress has mandated an action that is now law. And actions require that the existing regulations be used to establish material properties for unknown pipes. That, as we know, would be prohibitively expensive.

There is a default. If you go look at Section 192.107, that if you do not know your pipe properties, you can take a lower strength of 24,000 psi. And PHMSA realizes that if operators started doing that it's a -- we cripple being able to deliver gas to the public.

And in this proposed regulation, that is not PHMSA's goal. The goal is safety.

Also, you know, we considered cutting out the cut-out pipe samples for testing. Again, we thought that would be very expensive if you tried to follow anything that's in the present code.

Also, simply pressure testing the pipe

does not address missing records needed for reasons other than establishing MAOP, such as integrity evaluations. And that's the areas that we're trying to focus on, where you have lost wall thickness or where you have cracking or where you have other anomalies that can restrict that safe pressure.

And, again, all pipe segments, whether it's an HCA or a non-HCA, are currently subject to repair requirements of some sort which would require material properties to be known.

Also, in 607, the proposed rule to establish material properties, PHMSA proposed that there be no mandatory excavation solely for verification of pipe material properties to be required.

And the reason we did that is, if a pipeline was operating safely; if the operator, whether they're running ILI or they're doing excavations, whatever approach they're using -- whether it's direct assessment -- whatever, based upon the code -- is we were not trying to tell

them to go dig on the pipe for the sake of going to go dig on the pipe to get material -- it's where there was a safety concern.

And, again, looking at the second bullet here, is we said verify material properties as those opportunities present themselves during the course of normal operations and maintenance.

Also, we were allowing for non-destructive testing to verify the material properties where feasible.

Also, the operator could elect to go back to the code, back to 5L and do destructive testing per the existing code, per existing 5L type requirements.

And then components such as valves, flanges and fabrications, they could be verified by code stamp and other markings.

Again, what PHMSA proposed as a process is based upon an opportunistic sampling approach. What we expect is that, over time, operators would gain the data and records for

these material properties. And we would also expect them to use the results for unknown segments.

We were not expecting every time you go dig that you would have to take a sample. And then after you get a specified number of segment properties verified, the program could be discontinued.

Also, one other thing that we looked at is, again, we were trying to address cost wise, impact wise, of doing this. So we went back and we looked at, since integrity management for gas, integrity management came into play in 2004 through 2016.

We looked at the number of HCA repairs over this 13-year totals. And, as you can see here, on the table, there's been over 10,000 HCA repairs, which is about an average of a little over 800 per year.

And then we went back and we started looking at what operators it would impact, just to get an idea if those operators did not have

material records. And the top two operators are doing an average of 55 repairs per year since IMP was put into place.

Of the top 15, whether you look at it based upon HCA mileage or HCA repairs, is an average between about 18 and 27 per year. And, again, if you look at the amount of mileage we're talking about, again, it'd be a small percentage or a smaller percentage of these numbers that would require material documentation.

And then, as you can see, the next group of operators was 178 that had only done two and only repairs per year. And then the vast majority of gas transmission operators with operator IDs over 800 had done no HCA repairs since integrity management came into play.

So that's why PHMSA, at the last meeting, said that we do not expect this -- the way we were proposing this opportunistic approach -- to be a big stretch to do.

Also, as far as the minimum required parameters that we were looking at, has PHMSA

considered the minimum material properties that must be known to establish MAOP and to operate and maintain the pipeline to ensure that the operating departure stays within the MAOP limits.

Also, if you look at 607, it does not apply -- it would apply when the rule requirements to establish unknown material properties.

Going to the next segment, the minimum material properties that are presently in the code, and if you look at 192.105 for design pressure, it would like diameter, wall thickness, yield strength, tensile strength, MAOP determination in 619(a) in the safe operating pressure for pipe with defects.

A combination of these code sections either require all or a portion of these items to be able to come up with either the MAOP, the design pressure or the safe operating pressure.

As far as the ultimate tensile strength, one thing we had a discussion the last meeting on was tensile strength and why PHMSA was

asking for that. Well, if you go back, and if you look in the anomaly repair equations, one thing they're based upon is not exceeding the tensile strength of the pipe.

If you look at B31G or if you go look at RSTRENG, those type things, is basically they take a yield strength and you add a number onto it. Normally it's 10,000 pounds.

And the key is, when you add that amount onto the yield, you want to make sure you don't go over the tensile because one reason that you can use RSTRENG and B31G is because you're not using the yield strength. You're using a number above the yield strength. And it's trying to get at what the actual strength of the pipe is.

Just to give the committee an idea, again, is if you went and you looked at 5L, realizing this is from a late -- it may even be the current addition of a 5L -- just shows a Table 6 type requirements.

And this has been the type

requirements for decades in the 5L type series of what you need -- yield strength, tensile strength, elongation are some of the things that are needed.

Some of the other things that we talked about at the last meeting -- and, again, we're just going back through, to be clear, is like Charpy v-notch toughness. PHMSA was never requiring that as being something that was needed every time.

The point that we were making is that if it is required for failure, pressure and crack growth analysis, we would expect the operator to get that information. We have gone back, we've looked to make sure we've reinforce that an operator can use other conservative methods of getting a v-notch toughness on the pipe.

As far as chemical properties, again, in welding, for Subpart E, the reason we had chemical properties was so that carbon equivalence is something you need for welding and also to know your pipe properties. That's the

reason we had recommended and had in the proposed regulation that there be a sample taken to come up with the chemistry of the pipe.

As far as seam type, seam type was a big issue at PG&G for San Bruno. They had classified the 30-inch pipe as being seamless. 30-inch seamless pipe has never been made in this industry and been installed that I'm aware of, so that was an issue at San Bruno. So, anyway, the seam type is needed in your design type of calculations, your MAOP type calculations to come up with MAOP.

Coating type is a current code requirement in 917 and also in some of the corrosion sections of the code, and then the tests for the presence of stress corrosion cracking, seam cracking or selective seam weld corrosion.

Going to the next slide, this just gives an idea, if you went to 5L, as far as some of the chemical composition requirements that are in a API-5L.

As far as some of the tests, this is some of the test results if you went out and you did non-destructive test results. This is from a particular service provider. This is the ball indentation type method. And it shows where, on yield strength, tensile strength, if you go and you take the test, that'll give you an idea of actually what it does.

It gives you the yield strength, the tensile strength and in a setup, like what we're proposing, you take five samples there of what your pipe yield and tensile was. And from that, you could come up with an average to see the actual yield and tensile of the pipe.

Also, there's a non-destructive test equipment to get the chemistry of the pipe. Or you can take a sliver of the pipe and have that tested for chemistry.

Some of the other issues or just talking again, what PHMSA proposed was to require operators to establish sample populations based upon similar or comparable pipe to address the

vintage, the manufacturer, the type of seam, the pipelines acquired from others.

In other words, if you buy a pipeline and you don't know what it is, we would expect an operator -- that to be part of the program -- segments of pipeline systems that have been replaced or other reasons for a variation in unknown pipe properties.

Just to rehash what we heard the committee tell us and what we are, what we will be considering on going through the slides was, is to clarify that they were two separate activities that drive the need for material documentation.

And we heard the committee say you felt like they needed to be addressed separately. And that was that MAOP reconfirmation for pipelines that do not have traceable, verified and complete records supporting the current MAOP including previously untested pipe and then the application of integrity management principles.

In other words, the material data

records needed to support anomaly response and the remediation calculations for those.

Also, some of the comments that we heard was the committee was supportive of the opportunistic approach for verifying material properties. Also, the industry commented to allow statistical cycling plan, develop the operators instead of specifying the number of samples. And we're -- you'll see that we're open to that in everything as we go through this.

Another, based upon the committee discussion, PHMSA suggests that the committee consider these items. And it's based upon its revised -- we would revise 607(a) to delete the applicability statements. In other words, where we said that you'd have to do it in certain locations, that 607 would be there for you to use when you need it.

In other words, the thing is that, from a PHMSA standpoint, we want there to be out there provisions to where there destructive and non-destructive type tests -- that you do not

have to do one-size-fits-all.

Also, in 192.607, it would be solid on material verification. It would simply provide the procedure for doing so, if and when required, by 624 or other code sections. In other words, if it's needed for, I mean, 624, you could use it. If it's needed for another code section, you could use it there.

Also, we would allow the procedure in 607 to be used whenever required or allowed by other sections in Part 192 to address applicable missing records. And PHMSA's goal in this is that if there's not records on the pipeline, for an operator to get the records. In other words, if you're doing digs, if you've got areas where the strength of the pipe has been comprised through corrosion or whatever and you don't have it, you get it.

That simple. We're doing the best we can to make sure that, whether it's a San Bruno type PG&E incident or some other type incident, that those records are gathered.

Again, and also provide confirmation that 607 does not apply to gathering or distribution of pipelines. Now, in saying that, we would be open to them using it if they needed to use it. But it's not telling them to go do it. If you -- just like Alan had said earlier in the meeting.

Also, based upon committee discussion, PHMSA -- oh, I'm sorry. I'm going along on my computer, looking at the same time. I forgot to move the slides. Thanks, John.

Anyway, based upon the committee discussion, PHMSA suggests also that we eliminate Paragraph B, again, the develop of a program plan. We're not saying you have to have a plan. And in the context of proposed changes to Paragraph A, Paragraph, B, of course, would be no longer needed.

Also, PHMSA would suggest that the committee consider revising proposed 607(c), the documentation to determine the minimum list of attributes. 607(c) would be silent on the

specific attributes that need to be verified. It'd be simply that the operators must keep records for the attributes documented under 607.

In other words, you get the attributes that you need. In other words, if you have some of the attributes -- we're not saying, every time you have to get every one of them. And, again, we would allow 607 to reverify any pipeline attributes as applicable.

And, as required in other sections of Part 192, each operator would have to retain for the life of the pipeline traceable, verifiable and complete records documenting the pipe properties such as diameter, wall thickness, grade, yield strength, tensile strength, seam type, pressure rating established under this section. Whatever you use this section to get, we would expect you, of course, to keep those records and everything.

Also, PHMSA suggests that the committee consider that in the context of considering the proposed changes to Paragraphs A,

B and C, that we consider retaining the basic aspects of the procedure specified in 607(d).

And that would be to retain the opportunistic sampling approach of retaining material properties when excavations are performed for repairs or other reasons using a one per mile standard proposed in the Notice of Proposed Rulemaking - in other words, if you do not have the records for that pipe vintage.

Also, if operators desire to use their own statistical approach, retain the requirement to allow operators to submit a notification to PHMSA with their proposed approach. For sampling programs developed by operators with notification to PHMSA, establish a minimum standard that sampling programs must be based on a minimum 95 percent competence level.

And also, we would reduce the notification time frame from 180 days to 90 days to assure more timely review by PHMSA for objection, no objection or reply back to the operator.

Also, based upon committee discussion, PHMSA would suggest that the committee consider in 607(d) that we would reorganize the requirements to separate the sampling aspects into a separate paragraph. And this would better accommodate situations where a single material verification test is needed.

We would retain the flexibility to use either non-destructive or destructive test methods for property verification. And also 607(d)(3(iv), we would drop the accuracy specifications and we would retain the requirement that the test methods must be validated.

Also, we would drop the mandatory requirements for multiple locations for large excavations. In other words, it would only be one test in two quadrants. And then, for NDE tests, like I just said, we would reduce the number of quadrants from four to two for the test.

Also, we would suggest that the

committee consider in 607(d)(3)(viii) with respect to how you'd address sample test failures, delete the specified program requirements for how to address sampling failures.

We would replace with the requirement for operators to determine how to deal with sample failures through an expanded sample program that is specific to their system and circumstances. And if that happens, we would require notification to provide the expanded sample program to PHMSA.

For sampling programs developed by operators with notification to PHMSA, we would establish a minimum standard that sampling programs must be based on a 95 percent competence level.

And that's what PHMSA would recommend, and that's what we thought we heard from the committee. And we tried to take wait what we had proposed before in the notice and we've looked and made these type changes to the proposed rule.

Chairman?

CHAIR DANNER: All right, thank you for that. I think we're ready to get public comment? All right. So are there members of the public who would like to speak to that? The microphone is in the aisle, so please step up to the microphone.

MS. SANDER: Good morning.

CHAIR DANNER: So, yes, and please identify yourself.

MS. SANDER: Sure, good morning. My name is Lindsay Sander, and I serve as a consultant for the industry and various operators. And I apologize for being the first guinea pig for the morning, but there was one slide that was just talked about by Steve, specifically, about achieving a 95/5 sampling or statistical validity.

And for large operators, that's not a problem. We've seen this issue with public awareness and in surveys that have to be generated in order to evaluate the effectiveness

of an operator's programs.

But for smaller operators with smaller segments of pipe, that statistical validity sampling is almost impossible, if not impossible to achieve.

So I would really encourage everybody to come up with an approach that would allow flexibility, particularly for the small operators, in terms of having a process in place to validate their data but not require them to achieve something so specific, because they're not going to be able to accomplish it, as you've outlined.

I'm happy to take questions. Otherwise, thank you for the consideration.

CHAIR DANNER: All right, thank you very much. There were others? Yes, sir.

MR. BELLEMARE: Hi. I'm Simon Bellemare with Massachusetts Materials Technology, and it's a little unusual for solution developers to be speaking here.

I spoke in June, so, if you recall, I

was the one who made the suggestion to testing two quadrants as opposed to four, plus the seam. And it seems like that was well accepted.

I have to say, I have to thank PHMSA, first of all, for doing this big, heavy weight lifting here because it's not easy to make a change. And I think there has been a lot of feedback that has been taken into consideration.

Just a little bit about us. So we are a group of 12 well-dedicated engineers, scientists, entrepreneurs. We've developed tools that, at this point, have been used for testing pipes for strength, exactly like what was discussed by Steve.

It's non-destructive. It's fast. It is part of the current program when you spend a lot of money digging out the pipe to look at. So when there's a question of cost here, there's also a question of a lot of benefit.

So what are the benefits? We know a lot by now -- we have 300,000 miles of high-pressure transmission pipelines. And we know a

lot about the remaining wall thickness of those pipes. We know a lot about what the anomalies are on them.

We know very, very little about the material properties. We do have some operators have a big stack of records. They're not necessarily specific to where the assets are. So this is just a big challenge. And the reason for the rulemaking, I think, has been discussed.

I do come from a background of failure analysis. I was on the team for the World Trade Center collapse. And within two years there was new rules for fire protection of buildings. Of course, we know because it was a high profile case. I worked on a bridge collapse in Minneapolis in 2007 and within two years they had new ways for inspecting those pipes.

I think one of the challenges in this industry has been the inability to do it as an affordable test. But for two, three years now, it is. So I would really encourage everybody to step forward.

There are a few things, of course, that I would like to point out with respect to the slides. Slide 17 mentioned, "where feasible" with respect to the non-destructive tests. Well, I've heard from a handful of people that this could be misinterpreted because the only other place in the presentation where feasible comes in is economically feasible.

And it is, absolutely, economically feasible to test the pipes, for two reasons. The first one is the main cost is to get to the pipeline, remove the dirt and remove the coating for inspection.

The second aspect is, by doing the test, you, operator, get to use your budget for repair and replacement or life extension of pipeline towards the pipes that need to be repaired. It allows for better decision making.

And there's going to be more discussion about this in the context of not having to do a pressure test but that's, I know, is the next topic.

So I hope that I -- so first of all, I want to emphasize, we're not the only solution out there for doing this. The ball indentation was mentioned. The chemistries was mentioned. There are other alternatives. So it is readily available today. It is extremely valuable.

And what I've been sensing, as an engineer, for the last three years is a normal process of inertia, but really we believe that this is not necessarily where the industry wants to be, knowing that the use of those pipeline is extremely cost-effective.

If you go to the pump station, the gas station, you pay about two and half cents for the fact that the gasoline went through the pipeline. It's one percent of the gas price. So those assets are very, very efficient -- 5 times more efficient than rail, 20 times more efficient than trucks with respect to liquid.

So they are the backbone of the oil and gas industry. We all need them, but we also want to care about safety. And that was

something that was mentioned.

So I would mention that there's a minimum requirement, and it's not a check-the-box. It's something that should be done, actually, more, in my opinion, than what the rule says it should be done. But that is in the context of avoiding the hydrostatic pressure test.

I do need to thank the National Science Foundation. They provide us innovative grants to get us to the point where we are today. Tools are available. I also want to really thank the handful of operators that worked with us over the past year so we can get a lot of experience. We've been in 60 digs, so I can stand here and really say that this works, and it will be valuable. Thank you.

CHAIR DANNER: Okay, thank you. Is there anyone else? Go ahead, sir.

MR. KERN: Good morning. Mike Kern, Director of Transmission Engineering, National Grid. I'm very encouraged by what I saw here.

When the rule was first crafted we had some concerns.

Just a couple points. So National Grid does support the way the proposed language is and would recommend, you know, for voting for it. There are a couple things, though, that I want to bring up.

So Sue Fleck is not here. Sue has, you know, been on this committee for several years. So she always says words matter here, right. So you got to think about what we're writing here is going to be interpreted by somebody else 20 years later, right, and also by state regulators. So words matter.

So one of the comments I had for -- it's for the applicability, really, and from Slide 29, is where are we going to use this? Because if it's applied or if you look at it, someone can think that I have to do this for all my pipe -- distribution, gathering.

Just make sure that it's clear. I know you have it more now this is a method that

can be used. But we have to make sure that somebody doesn't interpret this and say we need to do this for everything.

We fully support it. In fact, we've been doing, on all our excavations this year, IMP excavations. We've been doing at least the strength and tensile verification.

I do have some concerns with chemistry, just about it's very reliable in the lab, but in the field we have not found it to be reliable. I mean, we're all for it, understand the applicability of carbon equivalent, but we need to have a technology that's reliable in the field to do that.

So to mandate something, but not be able to deliver it, that's an issue. Very valuable, but you have to have a technology that can do it.

So a couple things as far as the wording for the opportunistic. We should make sure that there are certain types of excavations you may do under an emergency situation or small

keyhole technology that it may not be possible to do that. So we have to make sure that somebody doesn't view that as a violation and say that we've done it.

So, and then -- and I see you've addressed that. But we would like to see some kind of, as far as the in situ testing, a reference to this, to the sample amount, to a standard like API-5L or an ASTM standard.

But I see that you proposed going to two quadrants. So I think we can support that. We're okay with that.

And then, really two, a couple other things. So on the one, we show the population. So I want to just caution about the instructions and how to fill out the annual report.

I think operators are taking credit, and there's a little discrepancy in how that information is reported as far as what falls into what bucket. So if we say we have so many miles without adequate pressure test records in Class 4, it seems awfully low because, just from being

an operator who has some of that mileage, it seems low.

And then the other comment I have is on the number of excavations. So you look at repairs versus excavations in the reporting instructions, so there's certain criteria for repair. And that's how that's being reported. But that doesn't reflect actual excavations.

So National Grid, alone, makes between 60 and a hundred excavations a year on its transmission system. So I would think that that would mean we would be doing between 60 and a hundred in situ tests. So just that point on that.

You know, the -- so the repairs are good, the number of repairs. It's good that it's a low number. But the number of excavations that actually lead to those repairs, I would think, would be ten times higher than that amount. So that's really what you would be testing. So for -- I just want to make that point. All right, thank you.

CHAIR DANNER: Yes? Hang on just a second. I don't see anyone else coming up to the microphone. So, Steve, why don't you respond to what you just heard?

MR. NANNEY: Yes, I'd just like to make a comment. We're very aware that we do not want sampling to get in the way of doing emergency operations, doing one calls, things such as that.

And that will be -- would be addressed in any type of rule language that came out because we're of the same opinion that he is, is that you don't let getting a sample for the sake of getting a sample to get in the way of what you need to do. So I just wanted to make that clear.

One other thing that we can consider is I understand on the chemistry we've seen results from some methods that are very good on the chemistries.

The reason we've got it in there is, as I think we all know, you need to know for welding or you can do other things with heating

and the type rods you use and things like that. But to make up for that, we could consider something there going forward. So we understand, again, where the gentleman from National Grid is coming from.

CHAIR DANNER: All right, thank you. Are there any other members of the public who wish to comment? Go ahead, sir.

MR. OSMAN: Good afternoon. C.J. Osman from INGAA. Just a supportive statement first here. We definitely support many of the changes that PHMSA is proposing here today to 607 particularly, you know, ensuring that operators have the material data needed to perform the work that they're doing when they need it for the pipe that they're working on and defining the applicability and the required attributes within the appropriate sections of the code elsewhere as opposed to trying to define it all in 607.

One point I wanted to raise for the PAC to discuss is that if the statistical evaluation process is going to require a

notification to PHMSA, the PAC should consider what happens if PHMSA doesn't respond within the time identified in the code.

The existing regulatory requirements in integrity management require notification to PHMSA if an alternative method or process is going to be used. And there's certainly some sense behind that. But we don't believe that a no objection letter should be required.

We believe that if, after the time period has passed, if the operator hasn't received an objection from PHMSA, it would be appropriate for the operator to proceed with the work as scheduled and to continue on with their material verification and with their confirmation integrity management, whatever the task is at hand. So we'd like the PAC to discuss that. Thank you.

COMMENTS FROM COMMITTEE MEMBERS

CHAIR DANNER: Thank you very much. All right, anyone else? All right, seeing no one else, let's turn to the committee. Any members

of the committee have comments on Steve's presentation this morning? Chad?

MR. ZAMARIN: Thanks. Chad Zamarin with Williams. Two points I was going to raise. One, I still struggle with some of the focus on specific attributes that would be collected at all excavations. I think the intent was to try to ensure that we're not collecting data that's not going to be useful.

And I know I still hear a lot of talk about chemistry being required and, you know, that's just not the case. I mean, sure, it's an important variable in welding, but we make conservative assumptions about chemistry across vast areas of our pipelines and weld, assuming that we might have high carbon equivalencies.

So it would make zero sense for us to go out and collect chemistry data on those pipelines when, very efficiently, we can just make conservative assumptions and alter our operating practices versus going out and doing unreliable tests or destructive tests or tests

that, frankly, don't have value.

So I just -- I want us to be careful that we're not continuing to advocate for data collection for data collection's sake -- that we're collecting it where it's needed in order to do good, valid integrity work.

There is a section that, I think, still remains in the language, and it's under 192.607(d)(iii) which still includes specific data elements. And I don't know if that was intentional, to be left there, but I would recommend that we look at removing that and driving the data that gets collected from the activities that are actually being performed in other parts of the code, but allowing this to be a good process to be followed when collecting that data.

And then the only other topic I would raise, it was raised by a comment in the public. This is the first time, I think, we're seeing this no objection letter, but it shows up in other areas, as I read ahead to the remainder of

the code.

It seems like we're creating a pretty burdensome process for PHMSA, potentially. And I just wonder if it might be better for us to consider, if PHMSA has an objection, PHMSA would issue an objection letter. But if PHMSA does not have an objection, then there would be no objection after some date -- or something that's just more efficient.

It just seems like if you look at how many circumstances where we're inserting kind of an unknown new regulatory process that would require some action from PHMSA every time an operator wanted to submit a plan or a proposed solution.

CHAIR DANNER: So you're suggesting an objection letter within a certain number of days?

MR. ZAMARIN: Right. So right now, it's the operator has 90 days in advance to provide a plan. And PHMSA must submit a no objection letter. I would propose some language where, if PHMSA were to object, they would object

within 90 days. And if they don't object within 90 days, the operator is free to go forward.

CHAIR DANNER: Okay.

MR. ZAMARIN: Something like that. So it's not every time you're submitting these, you're having to get PHMSA action. Thank you.

CHAIR DANNER: All right, thank you. Steve, your card's up?

MR. NANNEY: Yes. I would agree with what you're saying, Chad, is that the intent is that, if PHMSA doesn't reply back in 90 days, to go forward. That's the intent.

MR. ZAMARIN: Okay, I think we may need to clarify. It says we must obtain a no objection letter. So it reads like we have to get a piece of paper each time.

MR. NANNEY: Okay.

CHAIR DANNER: So I thought the 90 days was for you to submit a plan.

MR. ZAMARIN: It is. It's to submit a plan, but then it also says and must receive a -- "must obtain a no objection letter from the

associated Administrator of Pipeline Safety".

CHAIR DANNER: Oh, so that -- all of that must be done within the 90-day period?

MR. ZAMARIN: That's how it reads, yes.

CHAIR DANNER: Okay.

MR. ZAMARIN: Yes.

CHAIR DANNER: Got it. Thank you, sir. Anything further, Steve?

MR. NANNEY: No other than I agree, if PHMSA doesn't reply I 90 days, you should be able to proceed forward.

CHAIR DANNER: Okay, thank you. All right, Andy?

MR. DRAKE: Andy Drake with Enbridge. I think this looks really good, actually, just -- we're getting the mechanics to work better here based on some of the discussions we've had over the last -- well, that's now six months ago.

But I think this is starting to actually look like it functions really well. I agree with Chad's comments, you know, but I think

that, just mechanically, by separating MAOP confirmation from this, it helps, I think, create a practical document about opportunistic.

MAOP confirmation is not opportunistic. We haven't tested a pipe in HCA. I think INGAA's been on record now for six years. We need to test those pipes. That's not opportunistic. That needs to happen. That's how you would have caught the PG&E incident in San Bruno.

As we move forward with integrity management, I think you're talking about something that's an ongoing event over a lot of pipes, inside HCA, outside. I mean, it just continues to grow and be an obligation. And I think we gather that data over time.

I share the comment about (d)(iii) -- what is it -- (d)(triple I) or whatever it is. It defines all kind of tests that have to be done at every excavation. I think that's -- I would recommend that be removed.

I think what you're asking us to do is

this is the process by which we will use to fill in data over time. And we need to define what the need is and, corresponding, what the information we needed to collect to make those decisions.

I think the key that somewhere in this -- and it may not need to be in this document -- and that is the word opportunistic. The inverse of that is what do you do until you have it? You're going to collect this. It's going to take a long time. What are the assumptions we need to be using, in the meantime?

And I think operators -- to Chad's point about weldability, if we don't have a carbon equivalent, we would need to make a conservative assumption based on the data that we have about how to set that weld up for success. And the operator is accountable to develop that plan and have that information.

I don't think a lot of this is so binary, where operators have nothing or they have everything. They have a lot of information. It

may not meet the total requirements of TVC, but they use that and then they make conservative assumptions.

And that's why we should be submitting, I think, as a part of the conclusions that we're making in the interim. But, all in all, I think this is very positive.

CHAIR DANNER: All right, thank you. Steve, is your card up?

MR. NANNEY: Yes. And, again, Andy, just to address, what we were looking at -- and maybe in the slides it doesn't come out. We're wanting to -- the determination to be missing or unknown material data.

And the items we're listing would be such as or -- in other words, if you've got wall thickness, if you've got seam type, we're not expecting you to go get it, is we're -- the expectation the way we would write it would be, if it's missing or if you need it, to get it, not you got to get it, no matter.

And that's how we are writing the

revision, is that if it's missing or unknown and you need it for certain attributes that you're looking at for safety -- whether that's MAOP, safe pressure, whatever that you suggest.

So I think -- I mean, we're agreeing with what you're saying. We're not wanting every time you dig that you've got missing data, you've got to get everything. But you do need to get what you're missing.

MR. DRAKE: Yes, and I think that's -- it's just like you said, opportunistic over time. I think it's sort of a journey to collect information to kind of sharpen up the insights and the details over time. And I think we're in the same --

CHAIR DANNER: Okay. Can I go, Sara, first? All right, Sara?

MS. GOSMAN: Sorry, Sara Gosman. So I wonder, Steve, if you could help me understand, when you remove the applicability provision, where we're going to see this process being used?

So I understand the reason, which, I

think, is to create a process that can be used in other provisions of the act.

It's just not clear to me where those other provisions are and whether we have the text in the proposed rule already that's going to apply to it or whether we are going to consider that as part of our discussions later today.

CHAIR DANNER: Steve?

MR. NANNEY: Okay.

CHAIR DANNER: You can go ahead.

MR. NANNEY: Okay.

MS. GOSMAN: I have other questions, too. That's my first.

MR. NANNEY: Okay, can I answer it first? Is if you'll go back and remember, from our meeting in June, one of the things that the committee discussed with us was to do this or taking the applicability out.

And as we go through 624 and other sections, that if we needed to add it in there -- in other words, in a section of 624, let's say the engineering critical assessment -- if that's

needed in there, then we would reference it in there to do.

But also, again, it's where -- whether it's in integrity management, whether it's part of this rule-making or whether it's in a non-HCA, again, we based upon what we heard the committee say, we wanted this out there to where it could be used in all facets of safety on the pipelines.

Because we realize that if you had to go cut coupons, and it's not very clear, it'd be an argument on how many you have to take in the other. We tried to get something that we thought was reasonable, that you do when you don't know the properties and you've got an issue with the pipe, whether that's some type of anomaly, whether it's corrosion wall loss, whether it's cracking, whether it's -- whatever the issue is.

MS. GOSMAN: So just to follow up on that, so when you're -- you have this text here -- trying not to focus that much on the text, but where it says, "wherever required or allowed by this part" -- so when you say "allowed by the

part" what do you mean by that?

MR. NANNEY: That would be if, let's say, as we go through 624, we probably will wind up putting this in the 624 as a reference.

So if it says you got to do it, per 607, in a section of 624, we would expect it to be used. It would be required. And we would allow destructive or non-destructive type test to do that.

MS. GOSMAN: So one just general comment for the committee, to the extent that this is conditioned on text in, say, 624, I think we might consider voting on this collectively as opposed to just voting on this provision. And then -- because it seems to me important, very much important, right -- where the applicability provision is going to be in looking at that in the particular text of 624 to understand what this, what we're doing here.

So that's just a possibility. I don't know if --

MR. GALE: Just real quick, Sara. Our

recommendation is actually is to look at that applicability, as you, for example, go through each of the methods, right, so that we believe you can actually have a vote on the method.

And then when you get into 624, for example, Method 1, Method 2, Method 3, et cetera, you can then have a discussion. Should you then extend the applicability of 624 or to that method to 607.

MS. GOSMAN: I understand that. I think my worry is that if, during that discussion, we don't end up applying this provision, then I think was have lost both the applicability provision as well as the provisions in these other texts.

So, okay, so I'll continue on. If there's another way of handling that, I -- there probably is. The other thing that I wonder is in terms of removing the plan. So it seems to me like a plan is important regardless of where we are applying this particular provision.

So as I understand it, you know, we're

stripping out some detail here on some of the provisions. And it strikes me, then, that it's more important to document and plan how we're going to be doing this testing.

And then, finally, on the objection letter, so as I understand that provision, this is an alternative to what is otherwise put in this particular process.

And I think as a process regulatory person, where you have an alternative in which you are asking PHMSA to approve that alternative, I think it's more than just a notification. It's actually -- I would like to see it be an approval.

And so it strikes me that the no objection letter is important to that process, again, because I see this as an alternative to what we're generally saying should happen here.

And my concern is -- and perhaps this comes from me having worked in government -- is that there are times where you might just miss a deadline, not because you intentionally did that

but because that's the reality of the busy world of agencies.

And I think that would -- we don't want to be in a position of authorizing a situation where you might have just missed the deadline and somebody has a particular alternative that is -- would not be the best alternative or the safest alternative.

So I just don't want to put an agency in that particular situation. I think everybody acknowledges that you would be doing the best that you could. But I think a no objection letter is important, again, to any sort of alternative to or exception from a set of general provisions.

CHAIR DANNER: So let me, if I may -- I deal with this all the time. There is also the fear that an agency simply isn't going to get around to it and the company, then, is left waiting.

And it could be that some kind of response is necessary, even if it's just a

response to say that we need another 30 days. Would something like that satisfy?

MS. GOSMAN: Yes. I can see that or some process of further -- not an appeal in the sense of a formal appeal, right, but some process where you could go back and say, we need an answer, you know, again, to trigger that particular decision.

CHAIR DANNER: Okay.

MR. GALE: Yes, I just want to add, the reason we're talking about this is we had a prescribed approach in there and then there was a desire to create -- you know, there could be alternatives. And so that's why we developed that.

My concern with an approval is, just we're taking on some liability there and really wanted to focus, beyond the operator, we provide an alternative, but really it's the operator, up to them to determine.

I really would be concerned with creating agency liability, developing liability

there for an approval, if you will. But it's the -- really, the responsibility of the operator. We hold them responsible for operating safe systems. So, you know, want to keep the focus on the operator.

We'll review it. If we have concerns, we'll respond. But putting like a seal, PHMSA seal of approval, we really kind of -- that's a little concerning there.

CHAIR DANNER: All right. Thank you. Cheryl?

MS. CAMPBELL: Thank you. I actually would like to ask a question. And, Steven, I'm just asking for clarification, if I may. And I think, Andrew or Chad, we may have talked about it at one point and, again, just trying to make sure I understand.

So I think it's 607(d)(iii) where we talk about defining separate populations. I'm wondering, Steve, if you can clarify the intention because this feels like an infinite number of combinations, right, a very large

number of combinations.

And while I want to be very clear, I'm absolutely in agreement on the opportunistic approach, if I gaps in my records and I have a hole open, I should be working to fill those gaps and to understand the characteristics of my asset so that I can make the appropriate decisions and ensure the safety around my asset.

So I absolutely agree with that. I'm just trying to understand what your intent was with the way that this was proposed.

MR. NANNEY: I think I've got it on. Okay. First of all, okay. Let's see if that's the same, as the --

CHAIR DANNER: Cheryl, it was (d)(iii), right, ma'am?

MS. CAMPBELL: I think it's three --

CHAIR DANNER: The operator must have --

MS. CAMPBELL: Yes, it's three I, so --

MR. NANNEY: Okay, based upon the

slide and what we went over, the plan would need to have in it, what we're saying, number one, is that we would expect an excavation to be one per mile. In other words, to give you a specific, if you had a 50-mile system and you didn't have any documentation on it, first you'd start out at -- you'd need to do 50 examinations.

Okay, if you did have Class -- first this is set up for Class 3 and 4 pipe and HCAs. So, yes, the answer is you could have some portion of it could be one wall thickness for Class 3, a different wall thickness for Class 4; a different wall thickness for Class 1 or 2.

That may make, in -- and of it being 50, it may be 60 that you have to do or 55, depending upon how those divisions are set up. But normally we would expect it to be based upon a mile type excavation and to be set up on the various wall thickness, class locations that you have.

I mean, to go look at a Class 1 location and say that's what you've got in Class

3 or 4, in that Class 1 HCA, it would not be what we would expect you to do. But probably your Class 3 and 4, based upon the mileage, is going to be a lot smaller sample. So you're not going to be sampling the entire 50 miles. You're going to be sampling that part that's part of 624.

Does that make sense? Does that answer your question?

MS. CAMPBELL: It does. And I guess what I would ask is, you know, I think we're back to the words matter, right. And, obviously, we don't want to try to write code. I heard you loud and clear, Alan.

Let's be thoughtful, right. I'm asking that we are thoughtful in clarifying, right, what your intention is there so that people understand. I mean, part of this is people -- people actually do want to comply, right.

But sometimes it's challenging to understand exactly what you're looking for. So I would ask you to be thoughtful around that.

MR. NANNEY: Okay.

CHAIR DANNER: All right, thank you. It's 10:30. I think this is a good time for us to take a 15-minute break.

I've just been taking a list of issues that were raised this morning. There was an issue raised about whether a 95 percent confidence level was workable for small --

(Whereupon, the above-entitled matter went off the record at 10:32 a.m.)

MR. DANNER: Okay, let's get back to work.

Before we broke, I had a list of items that I had jotted down that I thought were still unresolved.

Steve, there were two of them that I thought I could ask you to address. One is the question about the 95-percent confidence level for small operators, and the other is scoping the definition of "where feasible". So, if I could ask you to -- oh, Steve?

Okay. Before we broke, I read a list

of the issues that I had identified as still unresolved or needing further discussion. Two of them were raised by the public commenters. One of those was the 95-percent confidence level for small operators, and the other was scoping the definition of "where feasible". And I was wondering, Steve, if you could address those two.

MR. NANNEY: Yes. On the 95-percent confidence level, first of all, that would just be when you came in to PHMSA for other technology. The one-per-mile criteria that we're talking about would apply under a normal procedure.

Also, if they needed something different than that, and as we looked at the other technology, we would evaluate it, if we could give a no objection the way it was sent in or if a special permit was needed.

The other thing, based upon the mileages and the operators that we've seen, we would not expect that to be anywhere close to the norm; that that would be the outlier, instead of

anywhere near the norm for the 95 percent.

MR. DANNER: Okay. So, you don't believe that any further revisions to the proposal is necessary?

MR. NANNEY: I would not recommend it right now, no.

MR. DANNER: Okay. And then, with regard to "where feasible," anybody from staff want to take that up? The issue was raised that we have some language in there, "where feasible," and that was on page 17. And this was the gentleman from Massachusetts saying, does this include economically feasible?

MR. NANNEY: I think the "feasible" wording probably would not be in there on any regulation that we write.

MR. DANNER: Okay. This is with regard to allow non-destructive testing to verify material properties where feasible.

MR. NANNEY: We would allow it to be used. The "where feasible" would come out.

MR. DANNER: Okay. All right.

MR. NANNEY: Can I say, there may be some properties that they need to get that non-destructive testing may not be feasible, things such as a Charpy impact. There may be some things there that it is not feasible to get. It may be feasible when we get to that point, but the only reason that was put in at the time the regulation was written was because there were things that it may or may not be feasible.

It's like the non-destructive testing versus the destructive. In the past five or six years that has gone from being something that everyone was skeptical about to being a very good process of determining material properties.

MR. DANNER: Okay. Thank you.

So, no cards are up at this point. So, let me point you to the front. We have some proposals from PHMSA with regard to the voting language with regard to 607.

Would you like to tee this up, Alan?

MR. MAYBERRY: Sure. I just want to really make a comment because you haven't moved

to vote on anything yet. But I know there was discussion earlier about whether or not we wanted to vote on this.

My perspective on that -- and I certainly appreciate the concern that we have taken out the applicability section and anticipating that it is covered as we move into 624 -- I'd really prefer, just from my perspective, that we would vote, just because we are fresh on it. We have some momentum possibly. Know that I'm anxious to deal with that in the preceding sections. We won't freak about it.

The other thing is we can come back, if we need to, after the vote. But it would be nice, while we're fresh on it, I think, if it's the will of the Committee to vote on 607, and then, we can have that off the table. And then, we'll keep in mind that we will deal with the issue of applicability as we deal with the relevant topics where that comes up.

So, that's just a comment I wanted to make, and it is subject to the will of the

Committee, however.

Thanks.

MR. DANNER: Okay. So, we have some proposal language in front of us, and it's up there. We can read that.

Now the one on the right looks like it's more than one page. So, we may ask you to go back and forth if there is additional language that we should be looking at.

Let me call on Chad.

MR. ZAMARIN: I don't know if we're ready, but I was going to propose to make a motion.

I did just want to address the comment about waiting to vote. You know, I did a very quick look, and there are over a dozen references to 607 already in other parts of the proposed rule. So, I think it would be impractical to try to tie all the different parts of the code and voting to a single vote. So, I would propose that we vote now and deal with those references as we move into those relevant sections.

So, I was prepared to make a motion. I don't know if we want to --

MR. DANNER: Let me come back to that.

MR. ZAMARIN: Okay. Thank you.

MR. DANNER: Sara?

MS. GOSMAN: I understand the points you're making, but I think because we're removing a general applicability provision and, then, basing this on other provisions that we have not voted on yet, I don't feel like I can vote on this without knowing exactly what the trigger for applicability is in these other provisions, notably, 624. Because I don't know whether that trigger or not is going to -- I mean, if we had already decided on 624 and I knew that all of those places were still going to be in, right, that would be one thing. But I don't know that right now. And so, for that reason -- I understand the issue around it being in our heads, but I feel like it will still be in our heads when we come to that section as well. So, I would like to delay the vote until we discuss

the applicability in the particular provisions.

MR. DANNER: So, all right, Chad, is your card up to respond to that? Okay.

MR. ZAMARIN: I mean, I would just say that, if there's a problem with 624, when we vote on 624, I think we would address it through that vote. So, I think we've got to decide what we want to do here, but I still would propose that we vote to try to keep progress moving. But that was it.

MR. DANNER: All right. So, yes? You want to see the second page on the right?

MR. GALE: Yes, members, just real quick, what you're looking at. On the left side is a very generic set of -- or a generic voting slide. On the right would be a more prescriptive voting slide. It's about three pages long. It kind of outlines what we've discussed and what was covered in the voting slide.

So, we're giving you two options, in other words. One is just a more generic phrase of "as discussed" or "in the meeting" or

"reflected in the slides," then to consider the comments made by the Committee members.

On the right side, though, is a much more descriptive set of recommendations that would come from the Committee in direction to PHMSA staff.

MR. DANNER: Okay. So, before we actually entertain a motion, I think we should have some discussion about whether we want to -- do we want to entertain the longer motion? Do we want to have a more concise motion? Words matter. Sometimes fewer words matter. So, I'd like to see what the sense of the Committee is with regard to that.

And then, the other question I have is, would the Committee entertain -- and, Sara, would this be acceptable to you, if we simply, when we do vote on this, if we do approve this, that we make this contingent upon consensus or, basically, making it conditional upon agreement on 624?

MS. GOSMAN: I think that's a more

complicated scenario, a conditional vote. And I think it is just not as nice and clean for the record.

MR. DANNER: Well, what it means is, if we come to loggerheads on 624, and we don't achieve and acceptable or consensus outcome there, then, basically, it means that this vote is nullified; we need to come back and revisit this.

MR. MAYBERRY: We're adding just what that could possibly look like on the second bullet up there.

MR. DANNER: Okay. While we're waiting on that, Mr. Bradley?

MR. BRADLEY: Yes, thank you, Mr. Chairman.

I was just reflecting back to some of the comments that Cheryl made about, specifically, 607(3)(I). And I was hoping to see if it up in the clarifications, specifically the intent, that the intent wouldn't be that there would be an endless combination of possible digs

required; specifically, that we would excavate and find the material deficiency needed to make the calculations needed, versus the way some of the language is written. It's almost like it was implied in the conversation.

But, if we're putting sort of conditions up for voting, which seems to right, it seems that we would put something in there that would speak to the intent of what you were looking for in 607(3)(I). Yes, (d)(3)(I).

MR. DANNER: (d)(3)(I)?

So, sorry, Alan, it looks like we're wordsmithing.

MR. BRADLEY: No, I didn't want to wordsmith. I just wanted just to collect the way we had collected, that there was a consideration from an intent perspective that said, I'm not asking you guys to go on a witch hunt. I want you to find the information you need to make the calculations needed.

And if it's up there, that's great. I just didn't finish reading to see what's up

there.

MR. DANNER: Okay.

MR. MAYBERRY: I thought it was covered in the -- there is a point, and I think Stephen described it, where that stop when you achieve the confidence level. It's part of it. It's built into it.

MR. DANNER: Okay. Steve is looking right now.

John, is your card up?

MR. GALE: No, I'm sorry, we're trying to work some language.

MR. DANNER: Okay. All right. Then, Chad?

MR. ZAMARIN: Yes, I was just going to say, I mean, just looking ahead, this section, again, I want to reiterate, is a process that we intend to have referenced in multiple parts of the code, and in the proposed language that we're going to be looking at over the next several meetings. Just a very quick review, 619 references 607; 624 already references it five

times' 713 references 607; 929 references 607. So, I really don't think it makes sense to tie a vote on this section to other areas that we can discuss and determine whether or not they sufficiently reference 607.

So, I just want to again, you know, this was kind of to respond to the thought about whether we vote for it now or not.

MR. DANNER: Okay, and I don't know that you, Sara, were responding, or wanted to have those linkages to the other sections. You're just really focused on 624?

MS. GOSMAN: Yes. I guess what I would say is, as I read the general applicability provision, we would, as originally proposed, right, we were going to apply this to pipelines that do not have reliable, traceable, verifiable, and complete material documentation, that are located in an HCA or that are located in a Class 3 or Class 4 location. So, pretty broad applicability provision.

So now, we're taking that

applicability provision out and we're going to just focus on the specific references in other parts of the code. That's a big change to me. And so, for me to vote on that, I think it becomes more important, right, to look at those other provisions and decide whether they apply or not. So, that's why I have this concern.

I think it's a more complicated process to condition it on our acceptance of the triggers in the other provision. I mean, we can certainly do it that way. I just think it's not as clean.

MR. DANNER: So, this means that we are not dealing with 607 possibly until March or beyond, because that's when the 624 discussion would probably come to closure, unless we were to deal with it today and tomorrow.

MS. GOSMAN: But I think what we've heard around the room is that there is general agreement on a lot of these issues. So, it strikes me, I mean, unless people change their mind in the intervening time, which I suppose

they could, but I think we've come to a point where there's a general understanding of what we're doing here. It would follow naturally along after a vote on the other provision, it strikes me.

MR. DANNER: So, my response to that is, if we don't reach some kind of closure on 607, even if it's conditional upon 624, then it's left open. We're going to have this discussion all over again, and we'll be here next August discussing 607, where we have an opportunity to actually put it in a box. It doesn't mean that the box can't be reopened, but at least it's in the box. And that's my response. I don't know if you have a response to that.

MS. GOSMAN: Yes, I understand your concern. I'm fine with conditioning it. It's just, again, from a sort of clean process standpoint, I think it's a complicated vote and not as nice for the record. But that does address my concern, which is that we are conditioning it on the later discussion of 624.

MR. MAYBERRY: If I may, possibly another way to skin the cat would be to vote on 607 except for the applicability part, which we would deal with later in 624. I don't know if that would --

MR. DANNER: Okay.

MR. MAYBERRY: But it would be subsumed by 624. I'm just trying for another --

MR. DANNER: I understand.

MR. MAYBERRY: Yes.

MR. DANNER: Thank you. I think we're all trying to figure out the best way to deal here.

MR. MAYBERRY: All options.

MR. DANNER: Mark?

MR. BROWNSTEIN: So, I thought I heard the suggestion that another way maybe to handle this is to frame the motion on the expectation that this provision has broad applicability and is represented in other sections. It's ultimately up to PHMSA to go back and draft regulation that is consistent with the sort of

expectations of the Committee. And if you fail to do that, you'll hear about it. And that may be another way to do this.

Because I'm very much aware of the fact that, I mean, a general applicability provision is being struck here because there is the expectation that this section ties to a number of different sections, not just 624, right? And so, we don't want to make too much of a fetish of 624 because this is a general applicability provision that's being struck, with the understanding that this ties to a whole bunch of other stuff.

And if it doesn't at the end of the day -- and, in fact, we were talking in a sidebar during the break about the fact that at some point PHMSA may actually want to put together sort of a flowchart here.

(Laughter.)

Okay. That shows, in fact, how this fits together. And, in fact, a flowchart may not be a bad idea in the sense that it's a good check

on your work, No. 1, and, No. 2, it speaks to ways in which you might be able to simplify your processes, so the chart doesn't look as hideous as the laughs imply it would.

MR. DANNER: Alan, do you want to respond to -- we've heard some suggestions.

MR. MAYBERRY: I think it still gets back to what we have on the right there, where we're talking about addressing it in 624, I think that's really the same thing. So, I think you can rely on us. I mean, we will keep up with it. I know it adds a wrinkle to the vote, but, I mean, it's something that we're already planning to do. But it just documents for the record that the expectation is that it will be addressed in 624, as we see that it is, and that we need to come back to 607, we can do that. Certainly, it's the prerogative of a Committee member to raise an issue, if something is not addressed later, to say, "Hey, we need to revisit 607," and we could do that at a later point.

MR. DANNER: Does that language look

okay to the two of you over there?

And while you're considering that, Andy, do you want to --

MR. DRAKE: Sure. Andy Drake with Enbridge.

I actually like the red, to answer your question.

(Laughter.)

I think that I can appreciate the concern about applicability. You take it out and it vaporizes, and, all of a sudden, you wonder, is anything going to key this up? I get it.

I think maybe just the pragmatic part of this is, this is just a process. And when we take that part, the limiting part out, this actually is pretty broadly applicable. And so, I think the adding of the red makes sense to me, that we're just voting on the process that you would go through as it's queued up, wherever it's queued up. We still have to reserve the right to clarify that mechanic, but I think I would recommend that we review the process as a process

with a placeholder to come back to applicability and make sure we're comfortable with it in all the sections that it's in. And that may take a while.

I don't mean to be pessimistic here, but I think it makes sense to me that -- what you're concerned about makes sense to me, but I think we are just looking at the process. I think we can vote on the process as a process, as long as we remember we have to clarify what sections queue it up as its own discussion. There are several.

MR. DANNER: Okay. So, I'm getting the sense that we are focusing on the right side and not on the left. Is that the sense of this Committee, that we're looking at the longer alternative?

MR. BROWNSTEIN: It would be helpful to have a couple of minutes to read it.

MR. DANNER: Absolutely. Well, what I was thinking is, if we are not going to discuss the one on the left, maybe we can have two pages

up at the same time. Maybe that's not possible.

MR. NANNEY: Hey, David? There's four of five pages of this, three pages now, I guess. If you would like, we can go through each bullet or you can read them on your own.

MR. DANNER: What's the sense? Do people want to go through these bullet-by-bullet?

MR. NANNEY: By starting on page 1, as we had gone over earlier, "Clarify that material verification applies to onshore steel transmission lines only, and not distribution or gathering lines." And I think that was loud and clear. It's the title of the section, but we put it in other places, too.

The second bullet, as we've all talked about, is in proposed paragraph (a). "Remove applicability criteria and make material verification a procedure for getting missing or inadequate records or verifying pipe attributes, if and when required, by 624 or other code sections. The Committee will address the applicability of 607 under each of the methods of

MAOP verification discussed in 624 and other sections as appropriate."

In other words, as we go through 624 and other sections, if we need to come back to 607 and make some tweaks to it, as I will call it in my Southern accent, we will do that.

The third bullet is in proposed paragraph (b). "Delete the requirements for creating a material verification program plan." I would call that "plan or procedure". And that procedure is already called out in the regulations under 192.605, that the plans become procedures.

The last bullet in proposed paragraph (c), "Drop the list of mandatory attributes operators must verify, but require operators to keep records developed through this material verification method."

Going over to the left on page 2, it is "Retain the opportunistic approach for attaining unknown or undocumented material properties when excavations are performed" --

whoops; go on? Okay. -- "using a one-per-mile standard proposed by PHMSA, but allow operators to use their own statistical approach and submit a notification to PHMSA with their method. Establish a minimum standard of 95-percent covenance level for operators' statistical methods submitted to PHMSA."

The next bullet, "Retain flexibility to allow either destructive or non-destructive test when verification is needed." And I think, of everything, this is the main key in this that's needed, is to give the operators that flexibility.

The third bullet is, "Incorporate language stating that, if an operator does not receive an object letter from PHMSA within 90 days of notifying PHMSA of an alternative sampling approach, the operator can proceed with their method. PHMSA will notify the operator if additional review time is needed."

In other words, this happens with the states. This even happens with the 180-day

notification now. If the operator has not given PHMSA full information, issues come up, the 90-day goes further.

And as John had said earlier, there's only one case with a state that we ran into a problem, and that was due to something beyond PHMSA's control.

The last bullet is, "Revise the paragraph to accommodate situations where a single material verification test is needed." In other words, additional information is needed for anomaly evaluation repair.

And then, going over to the right on slide 3, "Drop accuracy specifications. In other words, retain requirement that test methods must be validated and that calibrated equipment be used."

In other words, while we would want that is, if you are using non-destructive test equipment, we want your equipment to be calibrated, and calibrated for the type material you're actually testing.

"Drop the mandatory requirements for multiple test locations for large excavations." In other words, multiple joints. There would be one joint and two quadrants, and that's what the next bullet says.

"Reduce the number of quadrants at which NDE test must be made." It's from four to two.

The next bullet is, "Delete the specified program requirements for how to address sampling failures and replace with a requirement for operators to determine how to deal with sample failures through an expanded sample program that is specific to their system and circumstances. Require notifications to provide expanded sample program to PHMSA and require operators to establish a minimum standard that sampling programs must be based on a minimum 95-percent confidence level."

And then, last, "Clarify the applicability in 607(d)(3)(I)."

MR. DANNER: All right. Thank you.

First, just a couple of the issues that were raised. Ron, does this language, do you think it captures what you were looking for with regard to that intent?

MR. BRADLEY: Yes, it works for me.

MR. DANNER: Okay. And then, if I could go back to the previous page, the no objection language, the objection letter within 90 days. And I wanted to ask if the people who raised concerns on that, if this language is satisfactory? Sara or Mark?

MS. GOSMAN: I'm fine with this language.

MR. DANNER: Okay. So, it looks like we are ready to entertain a motion. The only thing that we haven't heard yet is really the question about what does it mean to be overtime. What is the timeline for satisfying -- you know, we've got a process here. It's opportunistic. How long do we think it's going to take to get complete data?

Yes, Steve?

MR. NANNEY: Again, the timeline, again, I think I've stated what I think from my vantage point in looking at this. It is, as we apply it to 624, there are time mechanisms in 624 on the portions, as Chad had said. It's in numerous places there that it will be required. 624 has its timing. For other places that operators could use this in non-HCAs and non-applicability for this rule, it could be anytime. So that it would be the timeframe that, from a PHMSA perspective, I think we would expect it to be.

MR. DANNER: So, if somebody asks you, then, okay, how long do you think, as opposed to -- we're using an opportunistic approach as opposed to a mandate that you go out and gather this information. How long is this going to take? As opposed to having a mandate that says, you know, thou shalt get all this information within five years or ten years, or something?

MR. ZAMARIN: Mr. Chairman, this is Chad Zamarin with Williams.

MR. DANNER: Chad?

MR. ZAMARIN: Just as a preview, in 624 it would require it within 15 years, and the highest-risk segments would have to be in the first eight years.

MR. DANNER: Okay.

MR. ZAMARIN: So, there are very specific timelines in the sections we're going to be reviewing down the --

MR. DANNER: All right. Okay. Because I do think that's kind of the elephant in this room --

MR. ZAMARIN: Yes.

MR. DANNER: -- that we need to make sure that we're getting past.

Mark?

MR. BROWNSTEIN: And I recognize that that probably answers the more narrow question in terms of the specific congressional mandate. I guess sort of a more general question would be, for areas outside of HCAs, Class 1/Class 2? I mean, at what point do we have a good

understanding of the condition of our interstate pipeline system in this country as a result of the information-gathering processes that we're enshrining in this rule?

MR. DANNER: Steve or Alan?

MR. MAYBERRY: I would add that, of course, the focus here, you know, this is an outcome of an accident that occurred and recommendations that came as well. So, we're dealing specifically here, you know, Class 3/Class 4, HCAs, MCAs. And that's what we're trying to pick off here.

If you look at the larger program, however -- and this is a reminder I give to our people, and certainly when I talk to industry -- if we're assessing corrosion, for instance, you know, what good does it do to assess corrosion if you don't know the pipe you have?

So, it's up to us to ask the right questions. It's up to the operator to know what they have and to assess it properly. So, I think we have tools in place already to do that.

Right here, we're dealing with the highest-risk part of it, but, again, I think we have tools in place. We just need to all do a better job of implementing those tools.

MR. DANNER: Okay. Yes. I mean, but the question is, right, at what point do we know what we have in the ground and what its condition is? And I understand that we're taking a phased approach with the idea that the pipeline that is closest to populated areas or sensitive population, and so on and so forth, is prioritized. Certainly, no one disputes the logic of that.

But, at the end of the day, if a part of PHMSA's responsibility is to make sure that we have integrity in our pipeline system, right, the question is, do we know what the condition is of the pipe in the Class 1/Class 2 areas or areas, or 3 or 4s outside the HCAs? And what do we know and when will we know it, is the fundamental question.

Because it may not be an immediate

public safety risk, but it certainly is an economic risk, and I would dare argue an environmental risk, if the condition of that pipeline is not in good shape.

MR. ZAMARIN: Can I just --

MR. DANNER: Yes, Chad?

MR. ZAMARIN: Chad Zamarin with Williams.

I don't think it's the scope of this rulemaking or the legislation, but I would just offer that we do report what we do beyond just high-consequence areas. We don't pig a line and only analyze the section of it that's near population. We analyze the entire pipeline. We don't respond to just anomalies within the high-consequence areas that are required by code. We respond to all areas of our pipeline.

The legislation and the regulations have focused on those areas of highest consequence and priority, but we do report some prescriptively under the code and some voluntarily. We report the amount and we

consider it overtesting, but we've made a commitment that we apply these same practices across all pipelines.

And so, I think it's a great discussion to continue to having, I think, as we go forward, but the reality is, when you see numbers like what were reported, the number of repairs that are made, there's typically around 10 times that being made across the entire pipeline network, because we're capturing, when we do our assessments, we're capturing large areas of the pipeline, not just the area that is required by code.

MR. BROWNSTEIN: And I respect that, and I'm assuming that individual operators can probably speak to the question that I'm asking for their systems. I guess my question really is to the agency, as the overseer of the system, right? Do we have an answer for that? And maybe the answer is, no, we don't. Okay. And that's fine. That's an answer to the question, but I'm asking it.

MR. MAYBERRY: I think, certainly, we've seen that knowing a system is incredibly important, and there have been issues here. I think we're chipping away at that with the high risks over here, but I think it's just something that will continue to be needed to be addressed, again, to our oversight and operators, and asking the right questions, and operators implementing things as they were intended.

And that's where I see, also, a role of SMS to -- you know, it's another way to manage organizationally pipeline safety that goes beyond just high-consequence areas or Class 3 and 4.

MR. DANNER: All right. Steve, did you have your card up?

Okay. All right. John?

MR. GALE: John Gale, PHMSA.

Mark, as you pointed out, this is one small sliver of a very specific mandate that we're discussing. And also, this is one part of this rule.

I would like to also point out to the

members and remind members, right, there's also a provision in this rule related to assessing outside of the HCAs that we've proposed. And we are covering the things called MCAs, where we bring in areas that would be Class 1/Class 2, where we will begin to figure out what is the condition of those pipes.

So, we think we are starting to address those areas by expanding the concepts of assessments outside of HCAs and, of course, repair criteria, accordingly.

MR. DANNER: All right. Steve, did you have your card up? No, no, you.

MR. NANNEY: I was going to say the same thing that John said. But, also, with having this non-destructive approach, just like what Chad said earlier, on these other locations outside of HCAs, outside of the Class 3 and 4, and the moderate consequence areas that we'll be discussing later on, which will also expand the mileage, but outside of those, by having this, the expectation would be that, when you use

RSTRENG, when you use B31G, when you use those repair equations, that if you do not have the properties of the pipe, that you would get the properties. We're putting in the code a methodology that you should be able to conveniently get those.

That being said, does PHMSA know where all the records missing are? The answer is just like what John and Alan said. The answer is no, because the mandate from Congress in what we can go out and ask questions about did not include all of those areas. So, PHMSA was not able in the questions we asked to get everything that you're asking us to know today. That was not part of it, and we could not do that.

MR. BROWNSTEIN: And let me just say, I respect the work that has been done, and I'm certainly prepared to vote for this section. Okay? I just want to, for the record, all right -- because I think, from a general public perspective, right, I think the expectation is that we know (a) where our pipe is; (b) we know

what general condition it is, and (c) that we have maintenance practices in place to keep it sound. And that's a public safety issue. That's an economic liability issue. That's an environmental issue. Pick your favorite attribute.

So, this is progress in that direction, okay, but we aren't there yet in terms of, I think, needing what I would assume, what I believe is a basic public expectation. And there may be limits to what PHMSA can do with the budget it has and the authorization it has, but we should all be on the same page with what we're doing and, frankly, what we're not doing here.

MR. DANNER: All right. Alan?

MR. MAYBERRY: Yes, totally appreciate that. One thing I've learned in the last 11 years of working for the federal government as a policymaker is you make your incremental steps to advance the safety ball. And your focus is really putting -- because you're impacting the resources that people use to improve pipeline

safety, and we want measurable safety improvement, we want the resources to be put in the right place. So, we make incremental steps to that end.

And certainly, in this case we have a step given to us by Congress, and certainly with recommendations from the NTSB, to do that. We'll make this move. We'll see how it goes. And I think, through SMS, there will be other lessons learned that can give us ways to go forward down the road. But we'll just make incremental steps.

MR. DANNER: All right. Chad, did you have something to add?

MR. ZAMARIN: I was going to make a motion.

MR. DANNER: Okay. So, let me get to Steve, and I promise I'll get back to you. You're the motion guy.

MR. ZAMARIN: Yes, I'm ready.

(Laughter.)

MR. DANNER: Okay. Steve?

MR. ALLEN: Steve Allen, Indiana

Utility Regulatory Commission.

To your point, Mark, I think everyone recognizes and appreciates that, yes, we need, the public needs, has the right to know that we know what we have in the ground, where it is, what condition it's in. That's a journey. There's a lot there, and this is a step in the right direction.

I think Andy pointed out this is a process that will be referred to in other sections that we're going to be getting to today. And I think that's where the real lively discussion is going to be had.

So, thank you.

MR. DANNER: Okay. I keep thinking back to it's a journey, not a destination, but I think the destination has to be in mind.

Are we ready for a motion? Chad?

MR. ZAMARIN: Okay.

MR. DANNER: Go for it.

MR. ZAMARIN: Chad Zamarin, Williams.

This is a long one.

The proposed rule, I make a motion the proposed rule is published in The Federal Register and the draft regulatory evaluation with regard to the provisions for material documentation under 192.607 are technically feasible, reasonable, cost-effective, and practical if the following changes are made:

Clarify that material verification applies to onshore steel transmission lines only, and not distribution or gathering.

In proposed paragraph (a), remove applicability criteria and make material verification a procedure for getting missing or inadequate records or verifying pipeline attributes, if and when required by 192.624 or other code sections.

The Committee will address the applicability of 192.607 under each of the methods of MAOP verification discussed in 192.624 and other sections, as appropriate.

In proposed paragraph (b), delete requirements for creating the material

verification program plan.

In proposed paragraph (c), drop the list of mandatory attributes operators must verify, but require operators to keep records developed through this material verification method.

In proposed paragraph (d), retain the opportunistic approach of obtaining unknown or undocumented material properties when excavations are performed for other repairs or other reasons, using a one-per-mile standard proposed by PHMSA, but allow operators to use their own statistical approach and submit a notification to PHMSA with their method.

Establish a minimum standard of a 95-percent confidence level for operator statistical methods submitted to PHMSA.

Retain flexibility to allow either destructive or non-destructive tests when verification is needed.

Incorporate language stating that, if an operator does not receive an object letter

from PHMSA within 90 days of notifying PHMSA of an alternative sampling approach, the operator can proceed with their method. PHMSA will notify the operator if additional review time is needed.

Revise the paragraph to accommodate situations where a single material verification test is needed; e.g., additional information is needed for an anomaly evaluation or repair.

Drop accuracy specifications.

Retain requirement that test methods must be validated and that calibrated equipment must be used.

Drop mandatory requirements for multiple test locations for large excavations, multiple joints within the same excavation.

Reduce the number of quadrants at which NDE tests must be made from four to two.

Delete specified program requirements for how to address sampling failures and replace with a requirement for operators to determine how to deal with sample failures through an expanded sample program that is specific to their system

and circumstances.

Require notification to provide expanded sample program to PHMSA.

And require operators establish a minimum standard that sampling programs must be based on a minimum 95-percent confidence level.

And clarify the applicability of 192.607(d)(3)(I).

MR. DANNER: Thank you.

Is there a second?

MR. HILL: Robert Hill would like to second that.

MR. DANNER: Okay, Robert Hill has seconded it.

Is there any further discussion before we take a vote?

(No response.)

All right. Cameron, I understand you're responsible for the vote-taking.

MR. SATTERTHWAITE: Yes, I will do a roll call for a vote on the motion. Your options are aye, nay, or abstain. And I'll just go

straight through.

Andy Drake?

MR. DRAKE: Aye.

MR. SATTERTHWAITE: Chad Zamarin?

MR. ZAMARIN: Aye.

MR. SATTERTHWAITE: Cheryl Campbell?

MS. CAMPBELL: Aye.

MR. SATTERTHWAITE: David Danner?

MR. DANNER: Aye.

MR. SATTERTHWAITE: Mark Brownstein?

MR. BROWNSTEIN: Aye.

MR. SATTERTHWAITE: Richard Worsinger?

MR. WORSINGER: Aye.

MR. SATTERTHWAITE: Richard Pevarski?

MR. PEVARSKI: Aye.

MR. SATTERTHWAITE: Bob Hill?

MR. HILL: Aye.

MR. SATTERTHWAITE: Ron Bradley?

MR. BRADLEY: Aye.

MR. SATTERTHWAITE: Sara Gosman?

MS. GOSMAN: Aye.

MR. SATTERTHWAITE: Stephen Allen?

MR. ALLEN: Aye.

MR. SATTERTHWAITE: Terry Turpin?

MR. TURPIN: Aye.

MR. SATTERTHWAITE: It's unanimous. The vote passes.

MR. DANNER: All right. Thank you, everybody, for a productive morning.

All right. Is this a good time for us to -- it's an early lunch.

All right. Let me give the floor to Alan for a moment.

MR. MAYBERRY: I just wanted to bring up, call your attention -- Andy had mentioned possibly having a 15-minute discussion on gathering. And I think it would be best really -- we would recommend, implore the Committee to save that until, I would suggest -- I had mentioned June, which June I think we'll be in full swing discussing gathering. But I would suggest we bring that up, at least keying up and strategize of it for the March meeting. By that time, I anticipate we'll have more participation

by the stakeholders and, hopefully, a new member that may be able to weigh-in on that as well. So, that's what I would suggest to the Committee, if we could.

And we have enough business to go through today, anyway. But, if we could do that, I would think that would be the way to go.

MR. DANNER: All right. What is the will of the Committee on that?

Andy?

MR. DRAKE: Since I brought it up -- this is Andy Drake -- I think that's appropriate. I think this gives us a chance to be a little more collected and make sure the right folks are all here and ready for that conversation.

I just don't want to see it cascade all the way to June. I think we just need to start talking, where are we going to go, how do we want to address the issues that have become obvious in the context of the meetings over the last couple of months?

MR. DANNER: All right. Your point is

taken.

Anything further?

(No response.)

So, your reward for good work this morning done early is that you get a longer lunch. We will break now and return at 1:30.

Thank you.

(Whereupon, the foregoing matter went off the record for lunch at 11:42 a.m. and went back on the record at 1:33 p.m.)

MR. MAYBERRY: All right. Thanks, everyone. I hope you enjoyed lunch.

We had a very successful morning, voted on 607. Thank you.

Maybe we have some momentum to vote on 624. Do you think we could sneak that in? Let's try it, yes.

(Laughter.)

I'll quit while I am ahead.

(Laughter.)

Anyway, thank you.

And I'll turn it back over to our

Chair.

MR. DANNER: All right. Thank you very much.

So, we'll get right into it this afternoon.

I want to reiterate, I have been told we're recording this, so that we have an electronic record of this meeting. So, it's very important that the members speak into the microphones, not around them, so that all the sounds will get picked up appropriately.

I also want to say I am pleased that Commissioner Diane Burman from New York is going to be joining us on the line this afternoon.

Commissioner Burman, are you there?

MS. BURMAN: Yes, I am. Thank you so much.

MR. DANNER: All right. Welcome.

All right. With that, I will turn it over to Alan for any remarks you want to make before we hand it over to Steve.

MR. MAYBERRY: Actually, I just made

my remarks. So, I'll turn it back over to you, Chairman.

(Laughter.)

MR. DANNER: We're making great progress this afternoon.

(Laughter.)

All right. So, Mr. Nanney, take it away.

MR. NANNEY: Well, right now, we're on slide 38.

Hold on one second. I don't have a control.

Okay. What I plan to do is I will be going over from about slide 39 to slide 60. And then, at that point, we'll take probably a quick break or at least I'll take a break. And Chris McLaren will be going through the slides probably for the remainder of the day.

With that, I think we're now getting to the point where probably most of you came to hear and to be a part of. It's to talk about integrity verification, and that would be what

would be mainly in new proposed code Section 192.624, but also with noted Sections 619(e), which would be part of the MAOP portion of the code, and 192.506, which is in the pressure testing part, subpart (j).

And again, we'll be talking about the mandates, the NTSB recommendation. We will be referring back material documentation, as we said we would be earlier, and, of course, MAOP determination, which is the big portion of this.

Again, just to rehash the parts that we had talked about -- I'm on slide 40. Again, to rehash what was in the Pipeline Safety Act of 2011, again, it required operators to identify pipe segments for which they do not have records to substantiate MAOP for all gas transmission steel pipe, Class 3/4, and all HCAs. And, also, any exceedance of MAOP buildup allowed by pressure-limiting device must be reported within five days.

And then, the (c) part of that law was determination of MAOP is to reconfirm MAOP for

pipe segments with insufficient records.

Also, there was a testing part, a part (d) of that. We called it the testing regulations. It requires conducting tests to confirm the materials strength of previously-untested natural gas transmission steel pipelines in high-consequence areas and operating at a pressure greater than 30-percent SMYS that were not previously pressure tested. And tests can be either by pressure testing or other alternative methods, including inline inspections which are determined by the Secretary to be equal or greater effectiveness.

Also, PHMSA, from the PG&E, San Bruno, incident, had some NTSB recommendations, which is P-11-14: Delete the grandfather clause, and it recommended all grandfathered pipe be pressure tested, including a spike test. And this would be pipe normally that would not have records on material properties or a pressure test, and it normally would be qualified based upon the five-year operating pressure before the code came into

effect. And that's basically the five-year period between 1965 and 1970.

Also from NTSB, we had a recommendation on seam stability. And that recommends that the pressure test be at least 1.25 times MAOP before treating the manufacturing and construction defects as stable.

Then, the last recommendation that PHMSA got from the PG&E incident was piggable lines and to configure all lines to accommodate smart pigs with priority on the older pipelines.

In doing this -- and I know many of the probably folks in this room, but we know not everyone probably has seen this -- but, back before we went out with this proposed rulemaking, I know we had several webinars and public meetings, and everything. We went through what PHMSA was considering here as being what we would call the basic principles for IVP approach, based upon what we had gotten from the congressional mandate and from NTSB.

And IVP was based upon four principles

or four areas. One was for it to apply the high-risk locations; in other words, HCAs, Class 3 and 4 locations, and moderate consequent areas. Also, to screen the segments for categories of concerns; in other words, where it was grandfathered, where there were no records or bad records, and where there had been a history of failures based upon manufacturing and construction defects. Also, it was to assure that there was adequate documentation of material; in other words, of the pipe.

And four is to perform assessments to establish the MAOP where these records were lacking.

What we plan to do, and what the rulemaking has in there, is for these high-risk locations, was it for it to apply the pipeline segments with grandfathered pipe that was in HCAs, Class 3 and 4 locations, and piggable MCA lines that lacked material documentation and pressure test records, and that has a history attributable to manufacturing and construction

defects. And we estimate that there's probably around 8,000 miles of gas transmission pipe that meet this based upon the data that we have.

Again, just what I had stated earlier is, we just put up these bullets so that everybody would know what the grandfather clause, which is 192.619(c), is. Basically, it's MAOP pressure restrictions in 619(a) do not apply. And 619(a) has four items listed. One of them is based upon the Class location, the material properties, in other words, the wall thickness, grade, seam type. It's also based upon the pressure test. It's also based upon prior operations, and it's based upon is the pipe safe or not; in other words, based upon excavations and other things the operator has done that, in their judgment, is it okay for that MAOP.

The segment must be in satisfactory operating condition, and you may use the highest, if you don't do it per 619(a), which you would not be doing if you are under 619(c) -- again, as I have stated earlier, you can use the actual

highest operating pressure between 1965 and 1970. And then, if you had Class location changes, you would still have to comply with 611 in the code, 192.611.

In looking at that, PHMSA went out for an annual report for data to try to see if we could understand how much pipe had these incomplete records. And you can see, based upon what we've stated earlier when we were talking about 607, for incomplete records, from Class 1 to Class 4, there's about 4500 miles. As far as the grandfather clause portion of it, in HCAs you can see whether it's Class 1, 2, 3, or 4, it's 1664 miles, for a total of approximately 6200 miles.

And just for anyone here that's listening that may not know what a Class 1, 2, 3, or 4 location is, again, the definition of it is it's dwellings along a one-mile link of pipe. And this would be a sliding-type mile. It's looking at 660 feet on either side of the pipeline. And if it's 10 or fewer dwellings in

this one-mile stretch, they would be Class 1 pipe. If there's 11 up through 45 dwellings for human occupancy, it would be Class 2. And Class 3 would be 46 or more dwellings or occupied sites. And then, Class 4 would be buildings with four or more stories are prevalent.

And you can see we put a few pictures down to give you an idea of Class 1, 2, 3, and 4 locations, is what we've got. It's just to give you an idea.

The one that's got Class 3, as you can see, there's a school there, a playground, and then, subdivision right by it. And it goes, basically, the pipeline, in between all of them. Based upon our definitions, that is a Class 3 area. And then, the Class 4 would be somewhere like in a downtown area where you've got a lot of multistory buildings.

Also, we looked at, again, just looking at the incomplete records and grandfathered pipe. What we were trying to do here is get an idea about the size of the pipe,

the impact of the potential impact radius, and also, looking at the 30-percent SMYS and greater, or below 30-percent SMYS, just to get an idea of some of the footages and everything.

If you look, if we look here at greater than 8-inch and greater than or equal to 30-percent Specified Minimum Yield Strength, with incomplete records, there's about 3200 miles; operating under the grandfather clause without some of the records, 1100 miles, for a total of about 4400 miles. And you can see less than 8 inches or equal to or less than 8 inches, and less than 30-percent SMYS, we've got about 1761 miles of both incomplete records and the grandfather clause. When you add up all of these, it's about 6200 miles here.

What we were trying to do as we go through, and the way we constructed the rule, meeting the mandates, we did give a distinction between 8-inch and smaller diameter and a potential impact radius of 150 feet, mainly because we felt like that these were pipelines,

No. 1, that would have fewer dwellings around them. As far as the capacity with them compared to a 30-inch or 24, if there was an incident, the impact would be a lot less.

We also looked at what type incidents we were having on steel gas transmission pipelines. And we looked at from 2010 through November of this year. There's been 104 total incidents where it was caused by a crack or a material defect. Just to give you an idea, 68 of those were constructed before 1971, 18 were constructed after 1971, and 18, we didn't have the year of construction reported. But, anyway, we wanted to just give you an idea of it, as we go through IVP, and based upon the mandates and NTSB recommendations, of why we're looking at manufacturing and construction and the cracking-type defects as we go through this.

Also, the Principle No. 3 that we looked at was to know and document the pipe material. As you know, we've already reviewed the material documentation in the previous

section. But, as we go through on IVP, on sections that may need it to be invoked, we will have those discussions as we go through.

If missing or inadequate validated traceable material documentation in HCA or Class 3 location, the principle is to establish material properties by an approved process. Again, as we've talked about before, the code approved process would be cut out and test pipe samples, which we're recommending and which everyone voted on earlier today in 607, was to allow the non-destructive testing method. And then, as far as valves, flanges, and fabrication, to still verify them based upon the code stamp. Also, note that in B31.8S, Section 4, Table 1, that has required this type of information since the inception of the Integrity Management Rule.

In Principle 4, it's methods to establish MAOP. Again, as we've stated, we want to allow the operator in the six methods that we have proposed to select the best option to establish the MAOP. The main options for doing

this is to pressure test and spike test, if needed.

No. 2 would be a pressure reduction. No. 3 would be Engineering Critical Assessment using inline inspection. The operator always has the option of replacing the pipe with new pipe. And then, a 10-percent pressure reduction for this 8-inch or smaller pipe that's operating at the lesser PIR. And then, the last would be other technology.

Just to give a few more details on that, it's in 624(c) for MAOP determination on the pressure test, it would need to be the greater of either 1.25 or the Class location test factor times the MAOP, spike test segments with reportable in-service incident due to being legacy pipe/construction cracks, things such as that. And if it is a crack-like defect, estimate the remaining life of the segment, if it needs to have a future pressure test.

Also, Method 2 would be a pressure reduction. Reduce the MAOP to the highest

operating pressure divided by the greater of 1.25 or the Class location test factor. From that, estimate the remaining life, if it is a pipe that has something such as crack defects that can be anticipated to grow as the pipeline stays in service.

Method 3 is the Engineering Critical Assessment, ECA, analysis. And that would be based upon running inline inspection. The MAOP would be based upon the lowest predicted failure pressure. And again, the segment-specific technical and material documentation would be needed, and you would need to analyze cracks, metal loss, interacting defects remaining in the pipe and determine the predicted failure pressure of those. And the MAOP would be established at the lowest of the predicted failure pressure divided by the greater of 1.25 or the applicable Class location factor.

Method 4, again, as I stated earlier, would be pipe replacement.

Method 5 would be the low stress, in

other words, less than 30-percent SMYS, small potential impact radius with a PIR of 150 feet or less and a diameter of 8 inches or less. There, we had proposed a 10-percent pressure reduction, enhanced patrols, and leakage surveys.

Method 6 would be an alternative approach, a 30-day notification to PHMSA.

Again, on all of these approaches, as you all know, as we go through this, we would expect to hear comments on anything that we would need to adjust, based upon your thoughts on this.

To give you an idea on the 8-inch and smaller pipe, some of the small, what I would call Method 5, the pipe with low stress, small potential impact, what we were looking at there is, if you look at 150-feet impact -- and to give you an idea of what the potential impact radius is, and what the pipe would have to operate at, if it was an 8-inch pipeline, it would have to operate up to about 730 pounds to have 150-foot impact. If it was a 6-inch MAOP pipeline, it would be 1300 pounds, and if it was a 4-inch, it

would be 2900.

My point is, there may be a few 8-inch lines that may operate at 300 or 400 pounds, but I think there would be very, very few at 730. And I know the 6-inch or 4-inch at the 1300 and 2900, that would be very unlikely in what we're talking about here.

So, I just wanted to give you an idea, to have an impact of 150 feet, that would be the type pressures that these pipelines would have to operate at. That's what we wrote up Method 5 like we did, was to give some outs. So, we felt like that the mandates that we had gave the Secretary or gave PHMSA the obligation of looking to put in frames in here where we looked at that. Let's just a 4-inch or 6-inch, it's probably going to have very little impact if you had a leak or a rupture, where if it was a 20 or 24 or 30 operating at the same, it's going to be multiple times more.

And so, on this, as we go through, like on Method 5, is a 10-percent pressure

reduction, do you think we've got it right there? What should we be looking at? Doing additional ground surveys, things like that? That's all that we're expecting to comments on as we go through.

Also, in looking at compliance deadlines, I know that was one thing we were talking about earlier today. On 624 and in 624(b), the plan development is the first year. And then, 50 percent of the mileage would be at the end of year eight, and then, 100 percent of the mileage at year 15.

Also, in looking at the requirements in the recommendations we had from NTSB, we put in a fracture mechanics modeling for failure stress and for cyclic fatigue crack growth. In other words, if you've got cracking in your pipe, what do you need to do to make sure that your pressure test, or what you're doing with ECA or some of the other methods, that you're looking at over the life.

I know in a lot of cases on gas

pipelines you may not have the cyclic issues that you have on a liquid line. But the thing is, one of the things here I would hope we would be talking about is, should we go, like we've got in the proposed regulation, to look at that and make sure we do not have that issue? In other words, should this stay as a requirement? PHMSA put it in. We think it should, even if it's not applicable for all pipelines.

Again, some of the points there are it would be for pipe that's susceptible to cracks and crack-like defects. But you would need to run a fatigue analysis. You would analyze the micro-structure based upon would you expect it to be ductile, brittle, or what type fracture; the location; the type of defect, and your operating conditions. And then, you would need a second reevaluation before 50 percent of the remaining life has expired, but within seven years. And then, the results would need to be confirmed by a subject matter expert.

Also, another item that we had in here

is spike test, which would be in 192.506. Again, that would apply to pipelines that are required to be assessed that have a hoop stress of equal to or greater than 30-percent SMYS and have integrity threats that cannot be addressed by ILI, or their MAOP established in accordance with Method 1.

Again, for the spike test, the thing that we had proposed within the rule was either a test up to 105 percent of SMYS or one-and-a-half times the MAOP. Also, a spike duration of 30 minutes. I know if you go and look at various literature, various research, you can see proposals on the spike test anywhere from 10 minutes to an hour, and everything. Total test duration, which would be a subpart-(j)-type test, would be eight hours.

As far as the proposal, we had in at the 105-percent SMYS. Again, it was based upon a research program that we had that was done by Battelle with input from Kiefner and DNV and their databases. And we had proposed 105-percent

SMYS simply, in looking at these failures, where you needed to be as far as a failure pressure ratio for cold welds, stitched welds, selective seam corrosion, and hook cracks in the ERW-type pipe.

Now whether that should be 100-percent SMYS or 105 or 1.39 times MAOP, which is for Class 1 pipe 100-percent SMYS, PHMSA is opening to listening to everyone's comments there, and going back and taking a look at that, because we've looked at it a lot since the notice.

With that, we will, then, go to Section 503, and I'm going to turn it over to Chris because I'm getting hoarse a little bit.

MR. McLAREN: Thank you, Steve. Sounds like we ran that horse as far as we could.

(Laughter.)

And for the next 50 or so slides, we're going to discuss the NPRM comments and some of our discussion of them. And then, at the end of that 52 slides or so, we'll have some of the topics proposed by PHMSA for consideration by the

Committee.

So, we've got quite a long run to do here, and I appreciative that the slide deck went out to the Committee early, so everybody could prepare for it.

One of the comments regarding 192.503 proposed that it includes a cross-reference to proposed 624. Because proposed 624 is limited in applicability, a cross-reference to that section in a portion of the regulation with broader applicability without a corresponding limitation consistent with the applicability of 624 is inappropriate. And the commenter recommended removal of the cross-reference to 624 in 192.503 or reword to stress that 624 applies only if applicable. And PHMSA concurs and proposes to withdraw their proposed revision to 192.503(a)(1).

The next comments are about the scope and applicability specifically with 619(e) and 624(a) applicability. With regard to the changes proposed to 619(e)(5), the terms for small

potential impact radius, PIR, and diameter should be defined. PHMSA commented that the criteria specified in 624, Method 5 applies to lines less than 8 inches diameter and less than 150 feet potential impact radius and less than 30-percent SMYS, and which cannot be assessed using inline inspection or pressure tests.

The next comment is that PHMSA is proposing a new paragraph, 619(e), that, as written, would invalidate the rules of (a) through (d) of 619. One hopes that this was a clerical error on PHMSA's part, and PHMSA should consider changing the wording of the proposed paragraph (e) to not exclude or invalidate paragraphs (a)(1) and (a)(2).

PHMSA believes the proposed rule is correct as written and does not exclude or invalidate (a)(1) or (a)(2), since 192.624 only applies in limited cases where operators don't comply with 192.619(a) through (d), or else the pipe is grandfathered in a Class 1 and 2 HCA or located in a Class 3 or 4 location. An operator

that established MAOP in accordance with 619(a) would not have to reestablish the MAOP unless the criteria in 196.624 is met.

The next comment is that the interplay between the MAOP determination in 619 and 624 is not clear as presently proposed. The concern is uncertainty that compliance with 624 would not be viewed as compliance with the requirements of 619, and that the industry should add a section to 619 that indicates compliance with the requirements of 624 to verify a pipeline's segment's MAOP satisfies the requirements of 192.619 to establish the MAOP of the pipeline segment.

PHMSA's response is that compliance with 192.624, when required, complies with 192.619. PHMSA proposes to add a new paragraph, 619(e), to provide this clarification.

The next comment is that PHMSA should recognize in the regulation that existing pipeline segments with traceable, verifiable, and complete pressure test records necessary to

establish an MAOP for subpart (j) do have a valid MAOP through 619(a)(2) and using material records to verify MAOP through 619(a)(1) is duplicative and unnecessary for pipeline safety.

PHMSA's response is that 619(a)(1) and (a)(2) are not duplicative. MAOP is the lowest of 619(a)(1), (2), (3), and (4). The operator must know all four and have records for all four to demonstrate MAOP in accordance with 192.619(a).

The next comment is that PHMSA should clarify the distinction between MAOP determination and MAOP verification. This clarification should confirm the fact that MAOP verification, like MAOP determination, is a one-time requirement for specifically-defined transmission pipelines and that only one method is required to verify the MAOP.

PHMSA's response is that this is the intent, and PHMSA will clarify in the preamble to the final rule that both are a one-time process to establish the MAOP.

The next comment is that 619(a)(2) is based on the most recent pressure test or the historical highest pressure test. PHMSA responds that it depends. A pressure test may be used to establish MAOP if the test pressure divided by the applicable Class location test factor is the lowest of all four of the 619(a)(1), (2), (3), and (4). Operators must know all four in order to establish the MAOP which is the lowest of the four. Note that (a)(4) requires operators to consider history of the segment, including known corrosion.

The next comment is that 619(a) applies to establishing maximum allowable operating pressure for all pipelines, and revise the proposed (a)(4) to state clearly that material verification is applicable only to transmission pipeline segments that are subject to 192.607 and include an implementation date to clarify the proposed requirements apply going forward, and any previous test, subpart (j), sufficiently validates the MAOP.

PHMSA supports clarifying this by adding "if applicable" after the reference to 192.607 in the Section 192.619(a)(4). Implementation date is specified in 192.624, and operators that are required to verify the MAOP in accordance with 624 have 15 years from the effective date of the rule, as described in 624(b)(3).

Commenter recommended that 619(e) be removed entirely from the regulations. Alternately, the language of the proposed 619(e) should be revised to simply direct operators of onshore steel transmission pipelines that meet the criteria of 192.624(a) to that section for verification of the MAOP.

PHMSA supports revising 619(e) to read as follows: "Notwithstanding the requirements of paragraph (a) through (d) of this section, onshore steel transmission pipelines that meet the criteria specified in 192.624(a) must establish and document the maximum allowable operating pressure in accordance with 192.624."

If anybody would like me to go back a slide at anytime, please give me a note as we read through them. Otherwise, we will keep pressing forward. I'm happy to go back, though.

The next commenter suggested that PHMSA revise 192.619(e) to be more conservative for those pipelines that have had a reportable in-service incident since its most recent subpart (j) pressure test due to an original manufacturing or construction-related defect.

PHMSA's response is that this is one of the criteria in 192.624.

A commenter was concerned that the proposed 624 goes significantly beyond the congressional mandate contained in the 2011 Act, driving significant additional costs that have diminishing pipeline safety benefit.

PHMSA's response is that, in addition to the Act of 2011, Section 23, which addresses grandfathered pipe in HCAs as well as Class 3 and 4 locations, and pipe without MAOP records, PHMSA is addressing numerous other NTSB recommendations

and pipeline safety issues, such as was discussed previously by Steve in this section. The entire estimated mileage to which IVP would apply is approximately 5 percent of the gas transmission mileage, based on our PHMSA estimates.

A commenter provided that the inclusion of every reportable in-service incident and the requirements for verification of MAOP is overly broad and should be removed from the final rule, or at least limited to a more contemporary timeframe, such as a rolling 15-year window, or to those incidents occurring since 2003.

PHMSA's response is that every incident is not included. The proposed rule limits the incidents to certain causes, manufacturing, construction, installation, or fabrication-related defects, and cracking-related defects, and only for segments in HCAs and Class 3 and 4 locations that have occurred since the most recent successful pressure test. This is a subset of all reportable incidents.

Another commenter suggested that

624(a)(1) be revised to apply only prospectively and not retroactively.

PHMSA's response is that the intent of the rule and the congressional mandate is to address preexisting pipe without adequate basis for MAOP and grandfathered pipe.

Another commenter said that the 2011 Act does not require MAOP reconfirmation for MCAs. PHMSA should modify 624(a) so that the MAOP reconfirmation is only required in moderate consequence areas that operate at greater than 30 percent of SMYS and can accommodate an instrumented inline inspection tool.

PHMSA's response is that the congressional mandate does not allow exceptions to avoid MAOP reconfirmation. All applicable pipe and HCAs and all non-HCA Class 3 and 4 locations, regardless of MCA location or piggability, must have an MAOP verification. Line segments less than 30-percent SMYS were not excluded to support addressing NTSB recommendations P-11-14 and 15, as described

previously in this section, for those lines that are included in the scope of 624(a).

Commenter urged PHMSA to make modifications that allow the ECA, or Engineering Critical Assessment, ILI, and other alternative technologies, to be feasible alternatives to reconfirm MAOP for moderate consequence areas. Without these modifications, operators will have to reconfirm MAOP solely by hydrostatic pressure testing.

PHMSA's response is that only segments meeting the applicability criteria must reconfirm MAOP. Operators may choose any of the six allowed methods to reconfirm the MAOP. This includes the use of alternative technologies, Method 6, with notification to PHMSA.

Commenter recommended that PHMSA remove the applicability in 624(a)(1) and address this concern through 917(e)(3) and 192.1119, proposing a new subpart Q. This would provide clarity for pipelines that have had a reportable in-service incident due to manufacturing and

construction-related defects, both in the past and in the future.

PHMSA's response is that 192.917 applies to HCAs and would not be responsive to NTSB's recommendation P-11-15, which recommended that PHMSA amend regulations to require that manufacturing and construction-related defects can only be considered stable if a gas pipeline has been subject to a post-construction hydrostatic pressure test.

192.917 is not an applicable method for establishing MAOP, and 917(e)(3) establishes criteria for determining if seam defects were stable under integrity management.

192.917(e)(3), PHMSA proposed to allow tests conducted under 624 for establishing MAOP to be credited for the same stability determination under 917(e)(3).

Commenter said that PHMSA should remove pipeline segments that have experienced a reportable in-service incident from its proposed MAOP confirmation requirements under 624(a)(1).

After an in-service failure, a pipeline operator is required to perform corrective actions and sufficiently demonstrate a restored level of safety before being allowed to return to service and/or to full pressure.

PHMSA's response is that such an approach may not address the fact that the incident suggests that the MAOP may be too high for the entire pipeline. Confirming MAOP at the incident location after an incident is too late. The purpose of 192.624 is to proactively establish valid MAOP for the entire pipeline to avoid future accidents.

All right. And we'll now move on to the comments related to 624(b) or that schedule for completion.

A commenter was concerned with implementation timeframes following the effective date of the rule. The proposed timeframes for MAOP verification of 8 and 15 years are not feasible when considering the coordination of resources necessary to replace pipelines.

PHMSA believes 15 years is adequate. Longer than 15 years belies the urgency and seriousness of the situation for which Congress, NTSB, and GAO have all advocated for change.

A commenter said that, in addition to the completion dates required by 624(b), PHMSA should consider a requirement for operators to prioritize the actions required by this rule and on a basis which requires the operators address the highest-risk segments first.

PHMSA believes that such prioritization is unnecessary because 624 would only apply to a relatively small amount of pipeline.

A commenter said that the proposed MAOP verification for 192.624 does not address how the completion plan and completion dates required by 624(b) would apply to pipelines that experience a future failure and are not subject to the proposed 624(a)(1) or for pipelines that are not currently located in an MCA but may be in the future.

PHMSA agrees that this is a valid point and supports revising the proposed rule to address this scenario. 192.624 does not apply to MCA pipelines that are not piggable.

Now moving on to the methodologies for verifying the MAOP, a commenter recommended that clarification be provided in regards to the six methods that are listed to establish a pipeline's MAOP. If one of the six methods is chosen, the operator should have a valid MAOP, and an operator should not also have to pressure test.

PHMSA's response is that the proposed rule clearly states that the operators may choose any of the six methods to establish MAOP.

A commenter voiced concerns regarding the efforts to combine varying aspects of MAOP testing with the expansion of the Natural Gas Transmission Integrity Management Program. These two processes have completely separate objectives, and integration into a single process may create unnecessary confusion and complexity.

PHMSA's comment is that we are not

expanding applicability. PHMSA intends the MAOP testing to be a separate process. PHMSA also intends that an operator has to perform testing to verify MAOP, that if an operator has to perform that under 624, that such assessments could also or should also serve as an integrity assessment under IM for HCA segments or under 192.710 for non-HCA segments.

Specifically now going into the methods, a Method 1 commenter said that a spike test is not required to establish an adequate margin of safety for MAOP reconfirmation, and PHMSA should eliminate the spike testing from 624(c)(1)(ii).

PHMSA's response is that spike testing is suitable for cases where pipe has stress corrosion cracking or other crack-like defects, to address critical and near-critical flaws that a standard pressure test does not address.

A commenter also said that 624(c)(1) should refer to subpart (j) rather than 505(c), and PHMSA agrees with this comment and would

support incorporation of this correction.

A commenter said that clarify if paragraph 624(c)(1)(iii) is intended to capture fatigue analysis and pressure test pipelines outside of HCAs, MCAs, or Class 3 or 4 pipe.

PHMSA responds that the requirements in 192.624 only apply to pipelines that meet the applicability criteria in 624(a).

A commenter said that a pressure test would traceable, verifiable, and complete documentation should be regarded as a valid and compelling test, regardless of when it was conducted. The test parameters, not the test date, should be considered for the establishment of MAOP.

PHMSA agrees except in cases where the pipe has experienced an incident due to cracking or seam issues since the date of the pressure test. Such failures indicate the inappropriateness of relying on historical pressure tests in those cases. This is consistent with the existing IM requirements in

917(e)(4) which requires an integrity assessment for seam threats if the segment has experienced a failure in the preceding five years.

Looking at Method 2, pressure reduction, a commenter recommended that 192.624(c)(2) be revised to calculate the MAOP based on the existing MAOP, not the 18-month operating pressure, unless an incident has occurred on the pipeline since its last subpart (j) pressure test caused by a material-related defect or construction-related defect, the cracking.

PHMSA's response is that 192.624(c)(2) is based on usage of operating pressure to which the pipeline segment is exposed as a de facto pressure test or confirmation. Pipelines that have not operated at MAOP have not actually been subject to MAOP pressures; thus, have not demonstrated strength at those levels. Operators may submit a notification under 192.624(e) if it desires to establish MAOP via pressure reduction using different criteria than provided in Method

2.

On Method 2, a commenter said that PHMSA proposes that operators search their operating records for the highest actual sustained pressure reached for eight hours during a continuous 30-day history. There should be no limitation on when this pressure was achieved, whether 18 months or 20 years. The pipeline has proven to safely operate at these pressures for many years.

PHMSA would support changing the look-back period from 18 months to five years. Five years is consistent with the look-back period previously used for grandfathered pipe in 192.619(c).

Again on Method 2, a commenter said that operators who have already reduced MAOP on pipeline segments in an effort to be proactive should not penalized by having to take further unnecessary reductions in MAOP.

And PHMSA would support, again, increasing that look-back period to five years.

A commenter provided that, for 624(c)(2), that it clarify that the pressure reductions taken from the immediate past 18 months or five years from the time the pressure reduction is contemplated, may actually be several years after the rule's effective date. Tying the baseline pressure to the effective date of the rule is completely arbitrary when evaluating the merits of these actions on pipeline safety.

PHMSA would support a revision to clarify this requirement. Operators could also use five-year look-back from the period when the pressure reduction is contemplated as long as the pressure does not exceed the maximum allowable operating pressure during the five-year period before the effective date of the rule.

Still on Method 2, pressure reduction, a commenter recommended limiting the requirements of 624(c)(2) to those pipelines operating 30-percent SMYS or greater.

PHMSA believes it's inappropriate to

include lines less than 30-percent SMYS -- that it's appropriate to include, sorry, less than 30-percent SMYS to address the intent of the NTSB recommendations and because ruptures have occurred in such lines at below 30-percent SMYS. However, note that pipelines operating below 30-percent SMYS may take a lesser pressure reduction, or Method 5, if certain other conditions are met.

Moving on to Method 3, the Engineering Criticality Assessment, PHMSA should allow operators to perform ILI to reconfirm MAOP.

And PHMSA's response is that the use of ILI in conjunction with ECA is allowed in 624. However, ILI alone is not considered equivalent to a pressure test and would not meet the equivalence requirements in the congressional mandate. ECA is required to substantiate that the condition of the pipe, as determined by the inline inspection, is sufficient to safely operate at the maximum allowable operating pressure.

A commenter stated that operators have long relied on sound engineering judgment and conservative assumptions to account for record gaps. If stripped of the ability to use sound engineering judgment and conservative assumptions, it would require substantial investment in process, procedures, testing, and project engineering and support to develop and implement a comprehensive material documentation plan, as outlined in the proposed regulations.

And PHMSA appreciates this comment. However, the accident at San Bruno, the PG&E incident at San Bruno illustrated that this practice is not always effectual or consistently applied, and this rulemaking provides more definite standards for addressing gaps in records.

Still discussing the ECA, a commenter requests clarification on the utilization of Grade A pipe with a SMYS of 30 ksi in 624(c)(3)(i)(C) if the SMYS or actual material yield and ultimate tensile strength is not known

or not adequately documented by traceable, verifiable, and complete records, versus the use of 24 ksi for unknown SMYS, as noted in 192.107(b)(2).

PHMSA's response is that in the IVP process operators may assume Grade A, 30 ksi or lower if pipe grade is unknown for the purposes of establishing MAOP. Please note that operators may not uprate pipe by assuming Grade A in cases where the pipe is currently assumed to be 24 ksi, per calculations in 192.107.

Commenter suggested regarding the ECA in 624(c)(3)(i)(B) that the ECA analysis prescribes a body toughness of 5-foot-pounds and seam toughness of 1-foot-pounds, and that these values are arbitrary and very conservative when foot-pound is below any toughness possible in a low-alloy carbon steel.

Vintage pipelines will not have Charpy v-notch data, and requiring an overly-conservative assumption of toughness is not reasonable. Toughness can vary depending on

manufacturer, the method, and vintage, and should not be prescribed in the code. Use of conservative defaults, especially the overly-conservative default values in PHMSA's proposed rule may result in an acceptably-short remaining life for critical and subcritical flaws -- or subcritical flaws.

PHMSA responds that, based on research, the values proposed represent a 95-percent confidence level that results will be conservative. PHMSA believes that this is an appropriate safety goal, and PHMSA will consider modifying the rule to allow other appropriate technologies or technical publications that an operator demonstrates can provide conservative Charpy energy values of the crack-related condition in the line pipe body and seam as appropriate.

Commenter described that the fracture mechanics discussed in 624(c) is an integral piece in addressing the threat of cracks and crack-like defects within integrity management.

Fracture mechanics should not be included anywhere under 192.624.

PHMSA believes that the ECA with fracture mechanics analysis is important to IVP and the cracking issues, and should be applied to all pipelines that have an MAOP verified under 192.624, which includes selected non-HCA segments. IMP only applies to high-consequence areas. Fracture mechanics analysis is an essential part of ECA in order to establish if the crack defects found in the pipe from the ILI will withstand operation at MAOP, and is required to validate that the ECA method is of equal or greater effectiveness to a pressure test.

Again on the ECA, Method 3, a commenter requests removal of paragraph 624(c)(3) and (d).

The response is that ECA using fracture mechanics is an important option for verifying MAOP and this standard addresses the congressional mandate 49 USC 601.39(d)(2)(B).

Commenter encouraged PHMSA to

significantly revise the ECA method and, instead, provide for an inline inspection MAOP verification method. There needs to be a pure inline inspection solution within the methods for MAOP verification.

PHMSA's response is that ILI alone without an ECA is not sufficient to verify MAOP in a way that conforms to the congressional mandate, previously stated in the previous slide, to be of equal or greater effectiveness as a pressure test. ECA utilizes the ILI results in conjunction with other data and fracture mechanics analysis to assure that the MAOP verified under the Engineering Critical Assessment is as equally effective as a pressure test.

One of the last ones on Method 3, the ECA. In cases where a pipeline has been pressure tested, but not to a level of 1.25 MAOP, PHMSA should not require the retest but, instead, allow for the original test, for example, a 1.1 time to MAOP, to be augmented with other ECA analysis

such as what PHMSA proposed under Method 3 for reconfirming the MAOP under the proposed 624(c)(3).

PHMSA's comment is the 624(c)(3) as proposed by PHMSA would allow such an approach.

Regarding Method 6, other technology, the commenter encouraged PHMSA to adopt a process under which a no objection letter is deemed issued after 60 days.

PHMSA's response is that the notification process in the proposed rule is the same as the current integrity management notification process, which has worked for over 12 years or more of IM, integrity management, without a problem. However, PHMSA would support changing the notification timeframe from 180 days to 90 days to assure timely review by PHMSA.

We've already discussed, continue to discuss that point, and have taken in some of the Committee's comments, and look forward to more on it.

(Laughter.)

Okay. Now moving on to 624(d), fracture mechanics, some of the specific comments related to it.

One of the mitigation methods listed under 624(d), fracture mechanics, is to perform a subpart (j) pressure test, item 5, which would have already been performed under 192.624(c). This creates an endless loop of pressure testing and fracture mechanics. The commenter suggests PHMSA remove the requirement for fracture mechanics under 624(c)(1)(iii), (c)(2)(ii), and (c)(5)(vii), and note these exclusions under the fracture mechanics section in 624(d).

PHMSA's comment is that fracture mechanics addresses crack growth that could grow over time such that the MAOP is compromised over time. In some cases, repressure testing might be required to demonstrate continued safety and validity of the MAOP before the next Integrity Management Assessment interval.

A commenter stated that it's unclear why fracture mechanics analysis, remaining life

calculations, and retest or reinspection interval determinations are included in the proposal for MAOP verification. Section 23 of the 2011 Act required PHMSA, in developing the regulations, that the Secretary shall consider testing methodologies, including, at a minimum, (a) pressure testing; (b) alternative methods, including inline inspection determined by the Secretary to be of equal or greater effectiveness. Establishing MAOP by ECA is based on analysis of remaining cracks after ILI repairs or previous pressure testing.

Fracture mechanics analysis of these latent defects provides the basis for determining the flaws remaining in the pipe would have passed the pressure test, had a pressure test been conducted. It also establishes the basis for monitoring the potential for crack growth.

Comments related to 192.624(e), notifications. Require notice to PHMSA rather than a no objection letter from PHMSA, was one commenter's response.

PHMSA again states that the no objection letter has been effectively implemented in integrity management notifications for many years.

Comments related to 624(f), records. One commenter said that the requirements to retain records as well as the quality of the records must only be applied prospectively.

PHMSA responds that 192.624(f) only applies to records needed in order to document compliance with 624. 624(f) is not a retroactive records requirement for activities that are not used to comply with 192.624.

In light of those comments, specifically all the comments that we reviewed and those that we noted here representative of a body of comments and/or of importance singularity, and our responses to them, we suggest that the Committee consider these topic areas in the next three slides:

Revise proposed 192.624 as indicated in the PHMSA response to public comments:

One, to withdraw the proposed revision to 503(a)(1).

A second is to shorten and clarify 192.619(e) to remove text that duplicates requirements with 624 to read, "Notwithstanding the requirements in paragraphs (a) through (d) of this section, onshore steel transmission pipelines that meet the criteria specified in 624(a) must establish and document the maximum allowable operating pressure in accordance with 192.624."

Also, revise 192.264(b) to address how the completion plan and completion dates required in 192.264(b) would apply to pipelines that experience the future failure and are now subject to the proposed 624(a)(1) or for pipelines that are not currently located in an MCA but may be in the future.

Clarifying that 192.607 does not necessarily apply to all segments when determining MAOP by adding "if applicable" after the reference to 607 in 192.617(a)(4).

Revise 192.624(c)(1) to refer to subpart (j) rather than 192.505(c).

Change the look-back period for Methods 2 and 5, pressure reduction, from 18 months to five years.

And change the notification timeframe from 180 days to 90 days to assure timely review by PHMSA.

Thank you, Mr. Chairman, for that time to go over those.

MR. DANNER: Well, thank you. You've covered a lot of ground here.

Are we turning now to public comment? Additional public comment? John?

MR. GALE: Yes, Chairman Danner. Just a recommendation for the Committee to consider. You know, this is a lot of material in this section to cover. So, what we have up on the screen here is just a way of kind of breaking apart the different discussion points. We don't want to have a discussion where we're jumping from Method 5 to the applicability, et cetera.

So, maybe if we had a discussion both with the public and the members, broken out by applicability and, then, a discussion through the separate methods, that might be a way of moving forward.

Within the methods, you could just go down Method 1 through 6, or if you want to take on some of the easier methods first, and then, move on to the tougher ones, that's also an option. For example, you could discuss pipe replacement and alternative technology early on and move past those and give more time to things like pressure-tested ECA, for example. But this is just an option for the Committee to consider.

MR. DANNER: So, then, what you're suggesting, then, is that we would deal with applicability first, take public comments on that, then go to methods, take public comments on that?

MR. GALE: I would recommend taking public comments in an area, then have the Committee discussion, and then, move on to the

next topic area, sir.

MR. DANNER: All right. So, again, what you're saying is let's take public comment on applicability?

MR. GALE: Yes.

MR. DANNER: And then, we'll have a conversation about applicability?

MR. GALE: Exactly.

MR. DANNER: And then, we will take public comment on methods?

MR. GALE: Yes.

MR. DANNER: All right. Unless there are other suggestions, okay, let's do that.

Are there any public comments on No. 1, applicability?

Please go to the microphone in the aisle. Go ahead, sir.

MR. MOIDEL: Good afternoon.

Brian Moidel with Dominion Energy Ohio.

Dominion Energy Ohio supports the comments filed by industry regarding

establishment of MAOP and agrees that it is critical to have a sound engineering basis to establish MAOP to ensure safe operation of its pipeline system.

In addition, I would like to concur with the statements made today from all previous industry speakers. We are committed to reconfirming MAOP and transmission pipelines that have not been tested to subpart (j) pressure tests in HCAs and Class 3 and 4 locations. We believe that pipelines with test records supporting at least a 1.25 MAOP pressure test, regardless of date, have a valid MAOP and that additional documentation or testing is not necessary. Furthermore, PHMSA clarify that compliance with any of the six methods to reconfirm MAOP satisfies the requirement for a TVC pressure test record.

If material data is needed to support integrity management requirements, operators will obtain that data specific to the task at hand. Many of our pipelines were installed prior to

1970, when the DOT code came into existence, and there were material recordkeeping requirements or, for that matter, MAOP records required at that time, other than the pipeline's highest actual operating pressure between 1965 and 1970. We at Dominion Energy Ohio are currently testing materials on pipelines taken out of service where we have missing and/or unknown records.

Lastly, we don't believe there's justification that the intended benefits of expanding the MAOP material verification would justify the costs. If PHMSA establishes this requirement as part of the MAOP verification process, we believe there will be many pressure-tested transmission pipelines across the country lacking sufficient material property records.

Thank you.

MR. DANNER: All right. Thank you very much.

MR. ACUNA: Alberto Acuna, Consumers Energy in Michigan.

I'm not sure who's running the slide

deck, but if we could go back to slide 68? And if at all possible, could we have on the other screen 192.619(a)(3)? That would keep me from having to read it. 192.619(a)(3).

So, while that is coming up, I'll speak to the slide that's up.

My concern is with that last paragraph, "Operators must know all four in order to establish MAOP." When we see the current code come up, you'll see that there is what I believe to be an exception.

Is it going to be coming up? All right. Yes, that's it. Just a little bit back up.

The second sentence in (a)(3) there, "The pressure restriction applies unless the segment was tested according to the requirements in paragraph (a)(2)." Well, I can tell you, as the Program Manager for our Verification Program, back in 1970, or maybe even before, we, as a company, understood that we didn't want to have to limit our MAOP to our highest operating

pressure. The highest operating pressure is rarely as high as the MAOP that we established through (a)(1) or through our post-construction pressure tests.

And so, we undertook a program from 1967 to 1977 to repressure test. Our fathers, almost grandfathers for some of us, didn't understand the need to retain the highest operating pressure, and I still don't understand why we would need to know the highest operating pressure if we took this exception. And so, I would just have the PAC consider that.

Any questions?

(No response.)

Thank you.

MR. DANNER: All right. We've noted it. Thank you.

Go ahead, sir.

MR. MILLER: Good afternoon.

My name is Lane Miller, and I'm with TRC.

Let's change gears just a second,

because as we move into the applicability part of the conversation it hadn't gone here yet, but it's very pertinent to this particular section.

I'm representing North McMurray Manufacturing, commonly known as NORMAC, one of the largest manufacturers of compressive fittings. I appreciate the opportunity to address the Committee concerning the proposed 624 and the related definition under 192.3 for legacy construction techniques.

From a manufacturer's perspective, NORMAC and others feel that the proposed definition encompasses many construction practices that are still being used and allowed by the regulations in the pipeline industry. As has been elaborated in greater detail in our written comments to the docket, construction repair pipelines using properly-installed compression-type joints is one of these practices. Properly-installed compression joints are fit for life of service for the life of the pipeline, and we agree and support statements

made by AGA, DTE, and others concerning this definition.

Additionally, there are concerns based upon the proposed definition being written into 192.3, that it implies that it is also applicable to distribution lines as well as transmission lines.

Our recommendations to the Committee, to PHMSA, include:

The first one, do not add the proposed definitions of legacy pipe and legacy construction practices in 192.3. This will help eliminate the implication that they are applicable to distribution lines.

No. 2 is to write a definition into 192.624 that specifically addresses the threats, based upon conclusive technical evidence, which PHMSA is trying to address. We encourage the Committee and PHMSA to adopt AGA's recommendation to substitute legacy pipe and legacy construction techniques into proposed 192.624 with the following:

Joint factor of less than 1.0 is defined in 192.113. It was known to be installed using construction techniques which are no longer acceptable or recognized under Part 192 for new construction.

In addition, General Electric, commonly known for their dresser couplings, have collaborated with NORMAC in the preparation of my comments and the position paper which will be provided to the docket. GE joins NORMAC in urging that the definition of legacy construction techniques, as proposed for a final rule, be eliminated and replaced by an accurate and appropriate alternative phrase detailed in these comments.

Thank you for the opportunity to provide comments to this very important rulemaking.

MR. DANNER: All right. Thank you.

MR. CHITTICK: Hi there. I'm Dave Chittick with TransCanada Pipelines.

I would like to make some comments on

the inclusion of the smaller diameter pipes with the lower hoop stresses less than 30 percent.

But I think I should also thank PHMSA for the opportunity to make the comment.

As highlighted in the presentation, this grouping of pipes, you know, typically, small diameter, 2-inch forward and 6- or 8- small pressure pipelines, really do represent small risk. As identified in the presentation, about 25 percent of the mileage of pipe that requires reconfirmation is within this grouping, small diameter, low pressure, low risk.

When I look at the TransCanada system, on one of our pipelines we have 750 segments spread out amongst 250 pipelines that fall into this category. And the option of derating by 10 percent just isn't practical. These pipelines form part of overall networks, and we just can't derate them readily by 10 percent.

And the other option of replacing pipe or pressure testing just isn't commensurate with the risk exposure. I was very pleased yesterday

with the opening comments by the Administrator really encourages us to ensure we put our focus where we will make an impact, and these small diameter, low pressure pipes aren't where we should be focusing.

So, thank you.

MR. DANNER: All right. Thank you.

Yes, sir?

MR. KERN: Mike Kern, National Grid, Director of Transmission Engineering.

National Grid appreciates PHMSA revising requirements from 505(c) to subpart (j). However, there needs to be further clarification that any test that meets the required pressure and duration of subpart (j) where their records are TVC, that these tests are acceptable.

In several states that National Grid operates in, there have been pressure-testing requirements in place long before federal rules were developed. The validity of these tests must be clear within the rule.

This also needs to apply to Section

619(a)(3), where companies that do not have operating pressure records, but do have pressure-testing records, that these are valid.

And further comment is, in this section where we use terms like "legacy pipe" and "construction methods," that's open to interpretation, so it has to be clear. You could have someone interpreting this to mean any legacy pipes. So, anything prior to 1970, then, could be potentially pulled into this section, which would, for us, be a game-changer. That would put significant amounts of inventory into 624 and in likelihood need to be replaced.

Thank you.

MR. DANNER: All right. Thank you.

There's more. Good afternoon.

MS. TOCZYLOWSKI: Hello. My name is Lauren Toczylowski. I'm with Consolidated Edison Company of New York.

Con Edison generally supports this rulemaking, but urges PHMSA and the Committee to consider the following topics related to MAOP

reconfirmation:

In comparison to the proposed rule, which affects Con Edison's entire transmission system, the congressional mandate to focus on pipelines operating at greater than 30-percent SMYS would only affect 20 percent of our system. As proposed, Con Edison's only viable option to comply with this proposed regulation is to replace our entire transmission system.

Con Edison has records that show that all of our transmission lines were previously pressured tested. However, the pressure test records would not satisfy these new requirements.

Con Edison is concerned that the proposal rule underestimates the use of pipeline replacement as the method to reestablish MAOP and, therefore, underestimated the cost and time needed to comply.

As written, the cost to comply with this section of the rule will cost Con Edison and our customers over $2.5 billion in current-day dollars. In comparison, if the rule was applied

to pipe greater than 30-percent SMYS, the cost would be $400 million.

For Con Edison, the proposed 15-year schedule is not feasible to accomplish such a large-scale replacement program, given the dense urban environment in which our transmission facility is located. We are concerned that we may need to disconnect large segments of the system simultaneously to complete large, complex construction replacement projects. This could impact our distribution customers as well as the connected electric and steam generation and our interconnected neighboring LDCs.

Moreover, Con Edison's electric and steam generation customers would be forced to burn fuel oil during these extended outages, which will not only have adverse environmental impacts, but may also contravene existing environmental regulations. Accordingly, the potential impact on electric reliability is a concern.

In comparison, if the rule applied to

pipe greater than 30-percent SMYS, Con Edison believes we could achieve pipe replacement for this portion of our system within the proposed timeframe.

Con Edison encourages the Committee and PHMSA to consider these factors and consider that an industrywide timeframe may not be feasible for all gas utilities; in particular, LDCs that have transmission in their service territory and those utilities that will be selecting pipe replacement as a means of complying.

Thank you.

MR. DANNER: Thank you.

MR. REYNOLDS: Good afternoon.

Lee Reynolds with NiSource. We're a company that operates primarily a distribution company, but we do own and operate about 1,000 miles of transmission class pipeline in seven operating states. But, being primarily distribution, we're about 55,000 miles of distribution main.

I wanted to point out I support the comments made previously by the industry members on this issue. As a person who also writes procedures on behalf of our company, I can appreciate the complexity of the rulemaking process here. In turn, when we have to, as industry members, go back and have to write our procedures in order to comply with the code, we rely upon the appropriateness of the regulations. So, again, we thank you for the opportunity to be able to offer our comments on this.

NiSource certainly supports the efforts of PHMSA and the GPAC discussions of all of its members.

Specifically in regards to, I think Mr. Miller pointed out previously in regards to the slide deck, talked briefly on legacy pipe, legacy construction techniques, but in responses it did not bring it out. So, I wanted to go on record to indicate that NiSource does support the AGA comments as part of the industry in regards to appropriately addressing the legacy

construction techniques and legacy pipe.

Although 624 does specifically speak to onshore transmission pipelines, by placing the definitions up in 192.3, it can create some confusion in regards to when you place those types of terminologies that are specific to a particular section in the primary definitions of 192.3. So, it's recommended that, if definitions are needed, to adopt the industry position to place those, then, maybe specifically in 624, since that's where the particular terms do reside under that code section, in place of 192.3.

In addition, I support Mr. Miller's comments around the specific type of couplings, and so forth, that were called out, I believe, in the term, in the proposed rule, specifically address dresser couplings. I think the intent, at least through industry, is that really is maybe more the mechanical non-restraint or sealed-only style. So, we just ask to reframe by not drawing out specific type of manufacturers' names, or so forth, but specifically speak to the

overall general type of couplings, if that is the intent.

Thank you again for the opportunity for comment.

MR. DANNER: All right. Thank you very much.

MR. LONN: Richard Lonn, Southern Company Gas. We serve 4.5 million customers around the eastern and southern portions of the country as well.

I'll be very short. Mr. Lee Reynolds spoke very eloquently on the issue I wanted to speak on as well. I think as it relates to the legacy issue, we need to be very, very focused on that, if we can. I understand PHMSA's need to address certain issues, but we don't want to incorporate in processes and techniques that, in fact, are in use today and are very successful in that regard.

So, I'll keep it short. Thank you.

MR. DANNER: All right. Thank you.

Anyone else?

(No response.)

All right. Seeing none, I understand that if you have comments that are not in the docket, we ask that you do submit them in the docket.

Go ahead, Alan.

MR. MAYBERRY: Yes. No, I was just going to ask, to the extent what you had just described, all of you, was not put on the docket. If you could do that, that would really be helpful. So, I would appreciate that. Thanks.

MR. DANNER: Okay. So now, I would like to open it up to discussion among the Committee members, but I see no cards. Oh, okay, Chad?

(Laughter.)

MR. ZAMARIN: Thank you.

MR. DANNER: Chad, go ahead.

MR. ZAMARIN: Chad Zamarin, Williams.

Just a point to clarify, we're going to focus discussion right now on applicability, is that right?

MR. DANNER: Yes.

MR. ZAMARIN: Okay. One, I struggle with the in-service incident being a driver for MAOP reconfirmation. I don't think that was the intent of the legislation. I do think that we have to deal with post-incident response in other parts of the code, but I just struggle with that being one of the drivers for MAOP reconfirmation when the intent of the legislation, and I believe the intent of the rulemaking, should be on addressing pipelines that had not been previously tested and pipelines that didn't have records demonstrating a sufficient subpart (j) test. So, I just want to raise that I would propose that we not include that in this section of the code, and that that be left for post-incident response and be addressed in the other pertinent parts of the code.

And then, the other item that I would like to address, there were some comments in the public. I do think that the 30-percent SMYS issue got tucked away kind of in the solution

side. I would propose that we consider moving it to the applicability portion of this change.

Again, the legislation was very clear. This was targeted toward pipelines that were operating at stresses above 30 percent. It was targeted toward pipelines that posed a risk to the public or at least the greatest risk to the public. And so, I do think we introduce a whole host of problems when we extend this section beyond what that original mandate required.

So, those are my only two comments on applicability. Thank you.

MR. DANNER: All right. Are there any other comments on applicability? Is there anyone who -- all right, Sara?

MS. GOSMAN: Sara Gosman.

Just in response to Chad's comment, do you have an estimate of the miles of pipeline we're talking about in that one particular section where there is an incident that, then, triggers the applicability? Are we talking about a large amount of pipeline mileage here or a

small amount? Or we don't really know?

MR. NANNEY: I didn't come today prepared to address that one specific question. We may know, but we don't know today.

MR. ZAMARIN: Part of my concern is it's kind of this strange, it is a strange factor for how we would select areas we would do MAOP confirmation, when I think it was pretty clear our goal was to address pipelines that weren't previously tested because they were grandfathered or didn't have sufficient records to support the tests. So, I struggle with how it fits in this section. That's my concern.

MS. GOSMAN: So, I understand the trigger from a -- sorry, Sara Gosman. I understand the trigger as a risk trigger for applicability. And from that perspective, it makes sense to me. I just wonder how -- my guess is that this is not affecting a lot of miles of pipeline, but maybe I'm wrong on that.

MR. ZAMARIN: Chad Zamarin again. If I could just respond?

The integrity management section of the code requires us to assess all of our HCAs and to perform risk assessment and implement corrective measures, assessment measures, based on the threats to those unique sections. If, in doing so, we identified pipelines that had a history of failure due to a certain threat type, then we're obligated to implement assessment and mitigation measures to address those particular threats, which, again, is why it just doesn't feel right to me that we're taking on a threat-specific MAOP, you know pressure-testing requirement in this section of the code. That's exactly what integrity management is designed to do, to require us on every HCA to assess for every potential threat to the pipeline safety, and for those threats that are identified as a potential for concern, we have to implement assessment and mitigation methodologies. So, I'm just trying to keep it as clean as possible.

Thank you.

MR. DANNER: Sara?

MS. GOSMAN: So, I understand that. I think, as I read this, we're also applying this to Class 3 and 4 locations as well as moderate consequence areas. So, it's going beyond integrity management.

MR. DANNER: Okay. Stephen?

MR. ALLEN: Steve Allen, IURC.

Could we go back to slide 49? I had a question on that at the time. I just want to look at it again.

Okay. So, the 49 incidents, 49 percent that had occurred after a post-construction pressure test, do we have any details on how long after those post-construction pressure tests those incidents have occurred? I mean, did they occur five years after the pressure test or 20 years after the pressure test?

MR. DANNER: Steve?

MR. NANNEY: Well, we'll have to answer at another time, Steve. We don't have that information today specifically.

MR. ALLEN: Okay. Okay. Thank you.

MR. DANNER: Alan?

MR. MAYBERRY: I think I'm hearing like a couple of homework assignments --

MR. DANNER: Right.

MR. MAYBERRY: -- that we'll come back with.

I have one point on one of the points you had made. And I don't know, one thing, if we stick with the mandate, then we get sideways with NTSB. And yet, I hear the economic impact, too, for Con Ed. So, how would you suggest we balance that?

MR. ZAMARIN: I'm Chad Zamarin with Williams. One quick comment and I'll jump to that, just to follow up on what Steve had asked.

I would also ask that the incident data that was presented parse out stress corrosion cracking. I just wonder if it says crack and manufacturing-related defects. Stress corrosion cracking I think is something that confuses the issue of establishing MAOP to

understand latent construction and manufacturing issues. And if that includes stress corrosion cracking, I think it will be a lot of the population of post-test failures. So, I think it would be helpful to parse that out.

My only comment on the NTSB comment, I would see if others have any. We spent quite a bit of time at least as an industry talking to NTSB and trying to understand their recommendations, so that we, as an industry -- and we haven't been doing nothing in the last five years since their recommendations came out. We respond very, very actively to NTSB recommendations.

And I think in a couple of cases we have to make sure we understand the intent of what they were trying to accomplish. The NTSB is not the foremost expert. They are not. I don't think they would claim to be a standards organization. I don't think they would claim to be a technology development organization.

In our meetings with the NTSB, they

make it clear that there is an intent that they are trying to drive us to achieve. In many cases, when we raised the issue of spike testing, for example, being proposed by NTSB on all pressure testing -- you know, the industry has worked on that issue. There have been dozens of research programs dedicated over decades on spike testing and stress corrosion cracking. And I think NTSB's point was get untested pipe tested. I mean, at the end of the day, that's what they were driving towards.

And I think with respect to 30-percent SMYS pipe, I think we have to be practical on what is the population of pipe that poses the threat. I think in other portions of the code we've been very, very clear on low stress pipelines posing a very, very de minimis risk of major incident. And so, the effort and the cost associated with going out and addressing those pipes, you know, the juice just isn't worth the squeeze, I think, in a lot of cases.

So, I think we can meet the intent of

the NTSB recommendations, without speaking for them, but that would be my thought. Thanks.

MR. DANNER: Further comment?

Cheryl?

MS. CAMPBELL: Thank you, Mr. Chair.

Do we have any data on -- and I think I saw it somewhere in here -- data on how much are we talking about between the 20-and-30-percent and the 30-percent-and-over rate? And then, for instance, Con Ed's comments about the cost differential, is that the way to structure it, right, when working with our friends at the NTSB? I mean, I agree with Chad, when I've talked to them, they're interested in getting pipes that pose a significant risk tested.

And so, one of our mandates is cost-effective solutions. To your point, Alan, I'm looking for a way to make that balance and find that balance.

But do we have any of that data? I thought I saw it somewhere. Oh, there it is.

So, the way that PHMSA has proposed

this rule, all 6200 miles would need to be pressure tested? Am I reading that correctly? Am I thinking about it correctly? Maybe I should ask.

MR. NANNEY: It would need to go through one of the methods, but necessarily pressure tested.

MS. CAMPBELL: All 6200 miles?

MR. NANNEY: The 6200?

MS. CAMPBELL: Yes.

MR. NANNEY: Yes, yes.

And just to say on the 8-inch and 30 percent, you know, we had the small diameter pipe requirement.

MR. DANNER: All right. Anything other -- yes, Ronald?

MR. BRADLEY: Hi. Thanks, Mr. Chairman. Ron Bradley.

Could PHMSA -- I think you may have done this -- could you spend some time speaking to the cut? So, specifically, in my mind I have a belief that there's a reason for that cut, the

8-inch, smaller than 8-inch and less than 30-percent SMYS. But could you expand on, someone, maybe why you did that striation of smaller than 8-inch diameter and less than 30-percent SMYS, and then, a batch of larger than 8-inch diameter and greater than 30-percent SMYS? Is there something that led you to a place that says that the risk inherent in -- and maybe it's using maybe Chad's words. I think he said something like the juice wasn't worth the squeeze.

(Laughter.)

I think I'll use that somewhere else later.

(Laughter.)

Could you talk about that a little bit, please?

MR. NANNEY: Well, when we were going through looking at it, first of all, we had gone around with various meetings and had had what we were looking at doing on the docket. And so, we went through and looked at various PIRs. And if you just look at the Class locations 1, 2, and 3,

and you look at a PIR of 150 feet, well, it's going to be low risk because you can't get enough houses in 150-feet radius on the circle. So, that's why we looked at it as, if you just count and think in your mind, if you had a 300-foot radius, how many homes can you get in there, how many dwellings?

Also, then, we looked at, started looking at pressures. That's why I showed the pressures that we did. Think back on your systems and the systems at National Grid. That's why I was showing the 2900 pounds for 6-inch -- or 4-inch, and whatever the amount I had shown on 6 and 8.

First of all, probably none of the systems operate even at 730 on the 8-inch. So, they're probably going to be 500 or less. Those PIRs even go down further than that. They're less than 100. We were probably looking at 50 feet to 100. And then, when you look at 100-foot PIR, it even gets where it's like being in a Class 1 location or less.

So, that's why we put that out on the table, and that's why, in going through this, we were asking to have the discussion and the input. It is because we understand where you're coming from on that.

We have had very little input on whether it should be 8-inch or 10-inch, or any other items in there we should consider. We're looking for that input.

MR. DRAKE: This is Andy Drake with Enbridge.

I am trying not to get into the words, but Sue Flack is kind of echoing in the back of my mind here.

(Laughter.)

The devil is sort of in the details here. I think when I look at the congressional mandate, it says, requires conducting tests to confirm the field strength of previously untested natural gas transition lines on high-consequence areas and operating in a pressure greater than 30 percent of SMYS that were not previously tested.

That's actually the congressional mandate. That's slide 37.

I just want to make sure I'm getting this right. If we have a valid 1.25 hydrostatic test, and we're grandfathered for any number of reasons, that test is valid? I mean, I think that's really an important concept.

What I'm starting to hear is, well, if you've had an incident, which we haven't defined exactly what that means, then that test is now not valid. Is that your intent? Or is the intent, sort of the overarching intent, that if you have a valid hydrostatic test on this pipe, that that MAOP is valid?

MR. NANNEY: Well, first of all, the mandate -- and I haven't got it in front of me to look at -- on the NTSB recommendations was, if you had a valid pressure test and you were operating in accordance with the code, whether that was a 1.25 or a 1.5 test, then you would not be applicable here.

Now, as you said, the devil is in the

details of what we've written and what the mandate said on what we're getting at. But, if you had a system that had an applicable pressure test, and everything, you probably would not be applicable to this, to answer your question.

MR. DANNER: All right. Steve?

MR. ALLEN: Steve Allen, IURC.

I thought I heard, it sounded as if you said, if there was a valid pressure test, you're okay. If there was a valid pressure test and, then, there was a subsequent incident, it almost sounded like that incident invalidated that pressure test.

MR. NANNEY: Would you say that one more time?

(Laughter.)

MR. ALLEN: Well, I'll try.

I thought I heard that, if you had a valid pressure test, you went through and you had a valid pressure test, then you didn't have to go back through all this. But, then, I think under applicability, No. 1, it talks about, if the

pipeline segment experienced a reportable in-service incident, that you would need to establish, reestablish MAOP. It almost sounds as if an incident, then, nullifies, I guess, the previous pressure test. And help me understand this. I think I've got this messed up, but help me out.

MR. NANNEY: Well, why don't you let me do this? Let me look at it and I'll answer you back a little bit later. Just give me a second on that.

MR. DANNER: All right. Andy?

MR. DRAKE: I think, just to get to it, I think 192, what you've got here is (a)(1), is I think where I'm getting a lot of concern about the ambiguous nature of that statement. I think, actually, we need to consider, is that appropriate in an MAOP determinations? Or is that an integrity management discussion?

And I'm a little bit concerned with how broadly do you apply that. If I have a 1200-mile pipeline, does that mean that the whole 1200

miles of that pipe is now not valid because I've had one incident?

So, I think that section, we need to be very deliberate to understand what do you mean and why is that here.

MR. DANNER: All right. Chad?

MR. ZAMARIN: Thanks. Chad Zamarin, Williams.

And just to follow up on this conversation, I mean, I'm advocating for that to be removed. We have pipelines that are qualified, that have MAOPs that might have been built five years ago that, if they were to experience an incident, the MAOP would not be invalidated, but the maintenance and upkeep of that pipe would have to be called into question, and you would have to understand what caused the incident and what's required to get it safe to operate at the MAOP.

So, the code and integrity management and the rest of the code has kind of processes for managing that. So, again, I'm kind of back

where I began. I think this is why I just really don't feel like it fits as a gating factor for MAOP confirmation.

And I would also say that, when we have incidents, especially in high-consequence areas, we're typically having to work with PHMSA on corrective action orders and return-to-service plans that require a variety of different things, not just pressure testing to reconfirm safe operating pressure. So, it just doesn't feel like it's in the right place, and it doesn't belong here.

Thank you.

MR. DANNER: All right. Sara? And then, Steve.

MS. GOSMAN: So, I guess my question, perhaps to PHMSA, perhaps to the industry members, is, what happens after this type of incident in Class 3 and 4 locations? And what are possible moderate consequence areas? That is, if the MAOP here is the speed limit, right, wouldn't that be an important consideration after

an incident?

I hear you talking about integrity management. What I don't hear is this other set of areas where you have these incidents. What's the followup on that? Is there another set of safety measures you are taking?

MR. ZAMARIN: Yes, to respond to that, yes, a great question. I think PHMSA can also add response to this.

When an incident occurs, typically irrespective of whether or not it's a high-consequence area, but if it's in a Class 3 or 4, a high-consequence area, we have to take immediate corrective action. Typically, PHMSA will also take corrective action and issue expectations on what needs to be performed prior to returning the line to service.

So, not only do we have to factor in the history of a pipeline in integrity management to identify potential threats, even if we haven't had an incident near-term, if it's been in the history of the pipe, we have to factor that into

types of assessments and mitigations we do. But, if an incident were to occur, we can't return that line to service without working with our regulators. We have to report that the incident occurred, and we have to work with the regulator to create a return-to-service plan that requires the corrective actions that we take, not only for bringing that portion of the line back into service, but for ensuring that that condition doesn't exist elsewhere that could cause a safety concern.

Again, this section is about confirming the MAOP of pipelines that haven't been previously tested or grandfathered, or don't have records for MAOP. It just doesn't feel like it's the section to address this issue.

Now your question about HCAs not including Class 3s and 4s, I think there's another part of the rulemaking where we're going to talk about extending integrity management. That may be an area where we want to talk about what we should be doing beyond the traditional

HCA definition. But, again, it just doesn't feel like this is the right place to be having this requirement.

MR. DANNER: All right. Steve?

MR. ALLEN: Steve Allen, IURC.

Steve, I think Chad answered my question. So, there's no need for you to get back to me on that last question. All right? Thanks.

MR. DANNER: All right. Andy? And then, Alan.

MR. DRAKE: Yes, I think Chad brings up a good point. Your question is a good question. And that is, so what do you do about this? And I think what we're talking about doing here is you're talking about doing integrity management. I think the point here is that we're talking, also, in the next discussion about extending integrity management to MCAs, which is even more relevant.

I think my concern is that we're actually trying to set the MAOP for pipes and do

integrity management. What we've done is we keep integrating integrity management into the discussion about setting the MAOP. If we have a valid test and we have an MAOP, that's good, and we need to do integrity management. And we're going to do integrity management beyond HCAs, which picks up, I think, the point of this ongoing effort to make sure we figure out what happened there and what are we going to do about it, not just one time, but on an ongoing basis. Because we could have a hydrostatic test failure tomorrow after we set the MAOP. This is happening, in essence, in this section of the code one time. Integrity management goes on.

So, the point is, what do we do about a material failure on a pipe two years from now? We wouldn't go back and rejig the MAOP calculations and determination. We actually deploy integrity management. And I think that's the cart and the horse we keep intertangling. But that's my answer to your question as well.

MR. DANNER: All right. Alan? And

then, Steve Nanney.

MR. MAYBERRY: Now, here again, I think we have some -- we've gotten feedback, and we'll take this back.

We just adjusted the applicability section of 607. We talked in terms of taking each issue individually.

Establishing MAOP, I think we agree that the pressure test, that's a premiere record for that. But in terms of an in-service failure, okay, yes, that should be covered under integrity management, kind of a different section.

I think we hear what you're saying. We just need to make sure that we consider that and come back to you. I think it's a valid point. We just need to look at it just to make sure.

MR. DANNER: Is that the last word on applicability for today?

All right. Steve?

MR. NANNEY: Now just to follow up on what Alan has said, and just listening to

everybody, when we wrote this and we were looking at it, it was because not everything is under integrity management. And we also realized, just like what Andy and Chad have said, we do expect our compliance CAOs and Notice of Probable Violations, and making operators go back and test, would comply with this, if you have an incident.

But the key is, do you put it in there or not? Because putting it in there means that it will definitely be done if you have an incident. That's part of the discussion here today, is to get your input, should we go back and consider pulling that or do we leave it in? So, that's part of what we want to hear.

As far as giving an answer yes or no today, like Alan said, we'll go back and look at it, and we'll address it back to the Committee at our next meeting.

MR. DANNER: Okay. Any further comment on this?

Cheryl?

MS. CAMPBELL: Thank you, Mr. Chair.

I do want to just make sure that we don't lose track of this 20-to-30-percent category as part of applicability. And I'm hopeful, Alan, that PHMSA will take a look at what we've got in there, what has been causing the failures that PHMSA has noted in that category.

The way I read the report, there were some very specific circumstances, not broader material issues. So, given the cost compared to the benefit, is there another way to address that issue that might do a better job of managing the risk and the cost of that piece of the program, and, yet, still meet NTSB's intent? So, I just want to make sure we don't lose track of that particular issue.

MR. DANNER: Okay. Alan? And then, Sara.

MR. MAYBERRY: I can appreciate that and actually anticipated this exciting kind of conversation -- (laughter) -- because, of course,

the accident, the PG&E accident out there dealt with one end of the spectrum, some high-risk pipe. Here we're dealing with the broad spectrum of what we call transmission, because the recommendation really told us look at that. And, of course, we have what's in the mandate, which has the 30 percent. But we'll take a look at that.

But I know we're dealing with a full range, the full spectrum. I knew a lot of our argument would be over the bottom end, the 20 percent to 30 percent, or in that range. So, we'll take a look at it.

MR. DANNER: Go ahead, Steve.

MR. NANNEY: When we wrote the rule, and like the individual from Con Ed and National Grid, all of them, said, it's a small diameter, low stress, low impact. But we understand and agree it's probably a big portion of this. That's why we had the slide showing the 8-inch and below.

With what we've been given, what we've

gone back and forth with is what do you do. Do you just say you don't do anything because it's too costly? Do you do more? Do you reduce the pressure some amount? Do you do more inspections, whether that's some type of a DIMP-type procedure, more patrols, more surveys for leaks and repairing those?

You know, PHMSA is open to this Committee, the audience, any recommendations there, because that's why we put out the 10 percent; we put out the patrols, and everything. But we've been at a loss not to require anything. But we're open to suggestions and taking that back.

MR. MAYBERRY: If I might add, you know, one of the challenges is, I mean, we do close recommendations, alternative action. That happens quite often. The challenge here, it just seems so black and white, but I know there are options for closing, but it's just the wording here is fairly specific related to the recommendation. But we'll look at it.

MR. DANNER: Okay. Sara?

MS. GOSMAN: So, I want to just, first, close out the discussion around the in-service incident. It seems to me, if the incident tells us that the original MAOP determination is incorrect, right, that's the point in time in which that needs to trigger, then, this provision. And I wonder if there's language we can't come up with that would essentially focus on that.

And then, in terms of the SMYS issue, this relates to the grandfathering set of issues, right, because we have two provisions in the statute, one that talks about, basically, lack of records, and then, the other one that talks about these testing regulations that focus on grandfathered pipe. So, I just want to make sure I know which category we're talking about when we talk about SMYS. Am I right? No?

MR. McLAREN: Well, the 30-percent SMYS has traditionally been identified as the ratio where you would go from a leak to a

rupture, not wanting a rupture.

MS. GOSMAN: So, Cheryl, when you raised the concern about SMYS, are you saying that that applies both where we don't have records and where we have grandfathered lines?

MS. CAMPBELL: It possibly could. The data -- and again, there is some data, right, on this concept of leak versus rupture. I think in a perfect world we would have all records for all pipes, and we would have nice subpart (j) pressure test records for all pipes.

I think that different utilities and operators, right, transmission operators, depending on their path, right, have some kind of interesting anomalies and challenges, depending on where they operate across the country. So, I mean, you could have a grandfathered pipe that operates at 20-percent SMYS that's unlikely to rupture when it fails. It would be a leak.

And let me be really clear, Sara. Blowing gas in an urban area is not a good day, and I think everybody in this room would agree

with that. And nobody wants to do that.

I think that the cost of solving it is, you know, you have consider that at some point. And then, I guess I feel strongly that you should be able to take some other actions to remediate it to keep it from happening, is another way to put it, right?

I mean, companies have got the message loud and clear. I think my peers would agree you cannot allow this to happen, right? You just cannot allow it to happen.

So, people are working hard to do that. But replacing the pipe or pressure testing the pipe isn't always the answer. So, what other things can we do? I think that's what I heard Steve say, is give us some suggestions on other things we can do to protect the safety of the people around these assets, where it might not make as much sense to perform a full pressure test.

MR. DANNER: Okay. Alan? And then, Chad.

MS. GOSMAN: Could I? I'm sorry.

MR. DANNER: Oh, I'm sorry, Sara, you have more?

MS. GOSMAN: Yes, just to follow up.

So, at least on the grandfathering side of things, I've gone back and looked at the original Federal Register notice with the federal minimum standards. I've read the discussion of grandfathering. It really was about 31.8 and the particular testing requirements that were from the thirties to the fifties, right? And that period of time was rather recent in 1970, but it's not recent here in 2017.

So, I look at the mileage that we are looking at, and I think in some ways we've made amazing progress, that we're only at that mileage for thinking about these grandfathered miles. But I think we're at the point where I think all of them should be -- we should follow the NTSB recommendation.

And I think, also, it's just, I would say from the public perspective, right, it's hard

for the public to understand why we would be not testing these particular miles. Because, I mean, I think it was an economic issue back in 1970 or '71 because it was such a large part of what was out there. It's not as much a major part of what's out there now. And it strikes me that this is one of those situations where to close that loophole is really a win in terms of sort of the public confidence in pipelines, and we're just in a different place than we were back then, when it made a lot more sense.

MR. DANNER: All right. Chad?

MR. ZAMARIN: Thanks. Chad Zamarin, Williams.

I hear you. I just do want to reiterate -- and Chris mentioned it -- I mean, I don't think it does the public any good to be implementing the same aggressive techniques on pipelines that pose little to no threat to public safety as we are on pipelines that do. And that's what we've long tried to do as an industry.

The 30-percent SMYS criteria is a criteria that has been established through a lot of research and a lot of analysis that demonstrates that, for the vast, vast majority, there is a de minimis amount of risk below that stress level that a pipeline would fail catastrophically and cause a significant impact to life and property.

And so, I just want to be careful that the idea of doing everything everywhere is a great idea, but at the same time channeling our resources towards where we'll have maximum impact I think is a really important way to demonstrate to the public that we're looking to solve the issues that really matter. We're not just looking to have a feel-good kind of set of actions.

And the reality is, it was expensive in the seventies. It's gotten much more expensive to dig up pipe. It's gotten much more environmentally disruptive. It's gotten much more dangerous to do excavation, construction

activity, when you don't need to. And so, I would just encourage the PHMSA team to continue to look at this issue, because that's been, I think, a filtering criteria that's been employed very successfully that kind of sets aside the things. And it's why it's in the legislation. It sets aside those areas that aren't of significant safety risk and focuses us on the ones that are.

MS. GOSMAN: Sorry. Okay, so to complete it, I mean, I think there's an applicability issue and, then, there's a question about what you do once those pipelines are in, right, and how you test in a way that's cost-effective.

So, I guess, from my perspective, I think they should all be in. But, then, I think there's a question about what we do in terms of the possible alternatives. And that's where I would want to see PHMSA focus.

MR. DANNER: Okay. Mark?

MR. BROWNSTEIN: Yes, I'll make it

short because I think Sara just hit on my point.

I was listening to this conversation. I was trying to figure out what the hangup was. And if the issue is one of cost and --

MR. DANNER: Sorry, Mark, can you get closer to the microphone, so that we can pick that up?

MR. BROWNSTEIN: Sure.

If the issue was one of cost and difficulty, then it speaks to the procedure that you would use. But I think I'm with Sara on the applicability issue. I mean, once again, I think we've got to -- the public actually likes feel-good stuff, right? And so, to the extent that we can make them feel good, we should be doing that, right? And so, the question, then, becomes, right, what are the steps that we can take to address their concerns in a cost-effective way, but not simply categorically take stuff out of the process? That's all.

MR. DANNER: So, what I'm hearing from you is leave it in, and then, we'll figure out

another way or a new way to address how we deal with those?

MR. BROWNSTEIN: Yes.

MR. DANNER: All right. Okay. Andy?

MR. DRAKE: This is Andy Drake with Enbridge.

I like this conversation, actually. It brings back memories of when we talked about the Integrity Management Rule 17 years ago and we came up with -- or nightmares of that conversation.

(Laughter.)

But I think it harkens me back to, why are we doing this? And we made a commitment, INGAA did, and I think it was appropriate technically, that we would test untested pipes starting in high-consequence areas, period.

And why are we doing that? What we're trying to look for are material flaws that are not readily identified through inspection techniques or other readily-available tools. We need to develop those technologies. They're not

here right now. The code, this recommendation kind of picks up provisions for that.

The other thing is construction defects that also may not be readily identifiable through current tools and technologies. So, why 30 percent? I mean, so why do we give this group an exemption? Because what we're looking at is distress levels that those pipes operate at and do not tax those threats that heavily.

And we look at, we look really hard at what is the way those things are going to manifest themselves. We've seen a host of incident data that PHMSA hasn't made access through -- Kiefner and Associates did some work. The largest part of those are things that we would identify through our integrity management programs. Outside force, external corrosion, those are things that we would manage. They're not typically failing because of manufacturing flaws. I wouldn't say never, but it's very, very unusual that that would be the case. And we're not trying to give them an exemption.

I think we're trying to focus our energies into where is hydrostatic testing going to serve us well for that threat where other tools do not work well. And I think that's really all the discussion is about. It is the same conversation we had 17 years ago. Why is DIMP different than GIMP, or whatever it's called? Gas integrity, transmission integrity management, why are they different?

And a lot of that is because of how is that threat manifesting itself and how does that tool work on that threat. It is not intended to give an exemption. It's really intended to focus energies in places that are productive. And I think that's the best explanation I can give. I don't think, frankly, it's intended to try to pass something under the radar screen or get away with anything. It's how do we marshal energies constructively to the things that those pipes, what risks those pipes create.

I don't really know that broad hydrostatic testing is going to identify

significant material flaws that would manifest themselves as a threat in operations. And that's the conclusions we've drawn over years. But I'm open to talk about that, but that's where this criteria has come from and that's why it's actually in the code currently. And that's why it's in DIMP and GIMP, and that's why it's here again.

I just try to connect how that discussion keeps manifesting itself. And that's, I think, a little bit why we keep going back to we really need to make sure we're clear about integrity management, because integrity management is the threats that are manifesting themselves usually on those pipes. We need to get very clear about what we're going to do about that. And that's not exempted here.

MR. DANNER: All right. Rich?

MR. WORSINGER: Rich Worsinger, City of Rocky Mount.

I appreciate the discussion between the 30-percent SMYS and the 20-percent SMYS, and

where should that cutoff be, but I just want to throw out for you just another concern. We have some lines that are considered transmission, some of our smallest operators. They're 2-inch diameter or 3-inch or 4-inch diameter. And they're merely classified that way because of that definition that says a line between a storage facility and a distribution center is a transmission line.

And so, there are some states that will consider, if you have a storage facility on a transmission line, and there's nothing -- a storage facility, transmission line, and then, the line that connects to that city, that municipal system, that small, little line which is probably a 1-percent SMYS is considered transmission. I just wanted, Steve, to throw that into the mix for you also to consider, and I see you shaking your head yes, so you got it.

MR. DANNER: Okay. Chad?

MR. ZAMARIN: Yes, I think my last comment is -- Chad Zamarin, Williams -- I just

want to reiterate, I think we need to be careful that we don't allow scope creep to happen and we remember what we're trying to do.

I understand the NTSB recommendations, but I believe the intent of both the legislation and the NTSB recommendations, having been there for both, was to prevent the next significant incident. And that's why this rulemaking I believe is in front of us.

Extending and creeping it to pipelines that operate at low stresses that don't pose a risk of causing the next significant incident, it just seems like creeping the scope to an area that provides no benefit. And I think we need to -- I think when we wake up in the morning, our goal is to prevent the next incident. Including less-than-30-percent SMYS pipe in this requirement doesn't contribute to preventing the next major incident.

MR. DANNER: Okay. All right. Thank you.

I don't see any other cards up. So, I

think this would be a good time for us take a short 10-minute break, and we'll come back and we'll vote on this.

(Laughter.)

No. All right. Well, come back in 10 minutes.

(Whereupon, the foregoing matter went off the record at 3:49 p.m. and went back on the record at 4:06 p.m.)

MR. DANNER: Okay, let's reconvene.

All right, everybody, that was a little more than 10 minutes, but we're back.

And I'd like to now invite public comment on item 2, methods. So, if there are public comments, please come to the microphone in the aisle.

And on all methods, pressure tests, pressure reduction, ECA, pipe replacements, small diameter PIR, and alternative technology.

MS. GOULD: Hi. This is Melissa Gould with DNV GL.

With regard to spike testing, Report

TTO No. 6 to the U.S. Department of Transportation in 2004 concluded that the length of hold time has no discernible impact on the effectiveness of a hydrostatic test in establishing an adequate safety margin. They stated that the most important consideration is attaining the highest possible test pressure, even if only for a few minutes.

There are also recent studies by Kiefner and Associates which concluded that peak pressure hold times greater than 5 to 10 minutes can actually be harmful. They could cause flaws to grow in a stable manner, but not fail during testing. The work by Kiefner and Associates was presented at PPIM in Houston in February 2016.

The current NPRM wording requires spike testing to have a hold period of 30 minutes at peak pressure. So, it's recommended that the hold time for spike testing be evaluated by PHMSA and the Committee and be shortened in accordance with this published work.

Thank you.

MR. DANNER: All right. Thank you very much.

MR. KERN: Michael Kern, National Grid, Director of Transmission Engineering.

This relates to ECA. National Grid is in full support of inclusion of fracture mechanics in the proposed rule. This would open the door for types of analysis such as ILI in place of hydro testing.

These analysis techniques are information-dependent and can only be applied where datasets are available. The full values can be used, but a full understanding of critical flaw size and the probability of occurrence can be difficult to quantify if the pipeline is not ILI-enabled.

The proposed rule needs to clearly define when fracture mechanics is required and that it does not apply to all transmission pipelines.

National Grid has been involved with a number of initiatives, including GTI. The work

that they have done to develop some algorithms, that can be used for ILI in place of hydro. We find it a very useful tool, but in doing so, we also understand the types of information that are needed. So, we just want to caution that it's not a cure-all, but it's very useful. But to apply it across large sections of your system when you don't have adequate information or ILI information, it doesn't yield the results that you think it does.

Thank you.

MR. DANNER: All right. Thank you.

Go ahead, sir.

MR. OSMAN: Good afternoon.

C.J. Osman, INGAA.

A couple of issues with respect to the methods I would like the PAC to consider.

First is the PAC should consider eliminating the requirement that operators use a spike test to reconfirm MAOP for certain segments. Spike testing was developed as a targeted management tool for time-dependent

linear defects such as stress corrosion cracking. Spike tests are designed as one option to prove the stability of specific types of defects as part of ongoing operations, maintenance, and integrity programs, not to reconfirm the maximum allowable operating pressure of the pipeline.

A single subpart (j) pressure test or testing to subpart (j) pressure test levels is sufficient to establish a safety margin that is fundamental to MAOP. A spike test exposes pipe to pressure levels higher than what the pipe experienced during testing at the mill and well above the pressure that the pipe will ever operate, consistent with some of the comments from DNV.

Additionally, the PAC should consider the different requirements for the ECA method. PHMSA should look at the practicability of this method for reconfirming MAOP and remove requirements related to operations, maintenance, and integrity management that are necessary for and inconsistent with MAOP reconfirmation.

There's a variety of examples, but the ECA is going to be a very important method that operators will use that will provide a lot of information about the original pipeline manufacturing/construction features, including information on anomalies that could survive a pressure test. It also provides information with the least environmental impacts and service disruptions.

Testing a pipeline's material strength validates the maximum operating pressure for the pipeline and is very different than the ongoing process of managing the threats and risks to a pipeline.

Lastly, as part of that ECA methodology, PHMSA has provided some conservative values for Charpy toughness. INGAA submitted a report to the docket that was prepared by Structural Integrity Associates that recommends alternative conservative values for Charpy toughness levels. That would be 13-foot-pounds for body toughness and 4-foot-pounds for seam

toughness. And the PAC should consider using those values as conservative assumptions for the ECA calculations.

Thank you.

MR. DANNER: All right. Thank you.

MS. KURILLA: Hi.

MR. DANNER: By the way -- I'm sorry.

MS. KURILLA: Go ahead.

MR. DANNER: Before you start, I've had a request that folks who have spoken this afternoon or will speak this afternoon, members of the public, if you could, if you have a business card, if you could leave a card with the court reporter whose hand is going up over there, it should be very helpful because she doesn't know everybody's name.

MS. KURILLA: No problem.

MR. DANNER: You may now proceed.

MS. KURILLA: Hi. I'm Erin Kurilla with American Public Gas Association. I have a comment pertaining to Method 5, small diameter PIR.

First of all, the industry supports a specific methodology for pipelines with small diameter or small PIR or a low-percent SMYS. However, we would like to call attention to the fact that that methodology actually seems more onerous than the methodology outlined for those larger diameter and larger PIR in Method 2.

So, Method 2 for large diameter and large PIR says that you are to take a pressure reduction of 1.25 or the applicable Class location factor. But, when you turn to Method 5 for small diameter, first of all, the lines have to actually meet four criterion. They have to meet the fact that -- I am on the wrong page. Hold on.

It has to have an MAOP less than 30 percent and have a PIR less than or equal to 150 feet and have a nominal diameter less than 8 inches, and it cannot be able to accommodate an ILI. So, not only do you have to meet all four of those to be able to do Method 5, but, then, when you do Method 5, you have to take a 1.1

times MAOP pressure test, and conduct ECA, and conduct ICDA, and develop and implement procedures to conduct non-destructive tests, and do monthly patrols or weekly patrols, and do instrumented leak surveys or weekly instrumented leak surveys. And you have to odorize the gas. And you have to do fracture mechanics. It feels like a little bit more onerous than just taking a pressure reduction.

So, I would like the Committee to consider making a method that is comparable to the risk of the asset for small diameter lines. Thank you.

MR. DANNER: All right. Thank you.

DR. BELLEMARE: This is Simon Bellemare, again with MMT. I'll be brief.

I want to talk about the availability of what can be done today, or in the next two-three years. And then, as an experienced engineer, I have two comments that I would like the Committee to address in their upcoming discussion.

MR. MAYBERRY: Excuse me. Just as long as you stick to a comment, and not like promoting a certain --

DR. BELLEMARE: Sir, I am not here to promote. I'm not.

MR. MAYBERRY: I appreciate it.

DR. BELLEMARE: If we could go to slide 48 and 49, please? It speaks to the MAOP confirmation and the method where you get data both on the material and on the anomalies and the combination of anomalies. And the other one is Method 6 which says "alternative methods". No. So, it's another deck, I guess.

All right. So, Section 192.624(c) speaks to doing anomaly verification and using material properties. Yes, exactly. Thank you.

Essentially, this can be done today by combining ILI technologies. There are three vendors and in-ditch methods, including ours, to populate an entire map of the pipeline. By that, I mean that, if you have pipes that are different, when you run the ILI tool, you can go

in-ditch and verify whether they are special or not. And you can even do a hot tap on those situations. You identify the material properties.

The reason I point to those two here, the Method 3 and the Method 6, they do not involve replacement of the pipeline. They do not involve pressure tests, which for gas means putting water into the line and, then, dealing with everything that happens after that.

But they speak to making sure that you have a leak-before-break criteria. So, that's an engineering concept that's been developed in the pressure vessel community, where you know that, regardless of how the flaw size may evolve over time, that you're not going to have a rupture like it happened in 1994 in Edison, New Jersey, where there was a dent, a big dent, but there was also toughness material.

So, I really want to emphasize that this is an opportunity. It's an opportunity to avoid the big rupture by getting the data. And

when I hear today "getting the data," I think I'm hearing mostly getting more crack data and getting more wall thickness data. But I could be wrong.

The very last topic is with respect the weak chain in the link. It's the same concept. Each joint segment is 44-45-foot long, and you're looking for those few or this one manufacturer that didn't make it the same way.

So, if the Committee could speak a little bit more clearly to those technical issues, I would appreciate it. Thank you.

MR. DANNER: All right. Thank you.

MR. KUPREWICZ: Rick Kuprewicz, representing the public. I'm President of Accufacts Incorporated. I've been involved in too many failure investigations, many of them involving inline inspection, failure after the inline inspection.

I guess I'd comment I have a great deal of respect for the Committee and the discussions that are going on, but let's not lose

sight of all the effort that's been going on here to date in terms of what PHMSA has done and the past researches, and all that.

I think the two main objectives are, have you established MAOP on your pipeline system? Do you have the records to back that up that you can defend? And then, if you don't, you might want to consider, depending on the type of threat that you're going to have on your pipeline system, whether or not you want to use hydro testing or various other methods.

And I've got to comment on some issues here from my perspective. I cannot underestimate or understate the importance of a spike hydro test on certain types of pipelines that contains certain type of threats, such as cracks that are subject to pressure reversal.

It's no secret that we understand the answer that many gas transmission pipelines do not cycle as much as liquid lines, but we are experiencing gas transmission cycle failures. So, we've got to remember that. Okay? We've got

them in the wrong place. You're going to see some more NTSB recommendations. So, let's not lose sight of that.

The other thing is that some of you major gas pipeline operations are operating your systems, and the economic benefit of what you're trying to do is changing pressure profiles of reversals like you never did. You're operating your systems entirely different than what historically a lot of the systems have been done. So, they are going to change the risk profiles.

You guys, I think, as responsible operators, are going to stay ahead of that. If you've got crack potential, you're going to look at hydro testing as a viable test. I would love to see inline inspection crack development proceed to where it's highly reliable and can't be messed up by people looking at it. All right? But we're not there in some cases.

And I've commented in various other meetings that, on inline inspection capabilities, you need to make those results much more public

before you'll get buy-in for the public. Because all they keep saying is, inline inspection runs and, then, we seem to have a rupture failure. It's not helping you folks any.

So, again, in the spirit of the way the dynamics of the Committee work, the amount of effort that PHMSA has put into this, including sophisticated research on cracking failures and things like that, I would ask you guys to try to work like in the spirit of the DIMP development.

We had a lot of battles going on, but we landed where we needed to be. I thought we had it in integrity management 17 years ago, but many of you are getting it right, but some of you aren't getting it right. And that's why we're here.

So, I would just ask everybody to kind of look at what we're trying to accomplish here. The NTSB has made some very serious recommendations. Congress has a passed a law, and you can go back and read it. I can't remember it all; I look at so many of these

things. So, I can't recall it verbatim. But try to get together in the spirit of cooperation and let's land where we can stand in front of the public and say, look, there are people trying to get this thing and to deal with certain issues.

So, I'll just finish the speech there. Thank you.

MR. DANNER: All right. Thank you.

Any other members of the public who wish to speak on the item?

(No response.)

All right. Hearing none, I turn to the Committee. I think because it is almost 4:30, rather than take on all the methods, why don't we identify which alternative technology and focus on that one for today?

MR. MAYBERRY: That was one that we can kind of knock out. So, pick one.

MR. DANNER: I don't think we're going to get through all six. So, what's your druthers, Alan?

MR. MAYBERRY: How about alternative

technology?

MR. DANNER: How about alternative technology? Okay? For 200.

(Laughter.)

All right?

All right. Andy? And remember, your comments must be in the form of a question.

(Laughter.)

MR. DRAKE: Okay. It's getting late in the day, I can tell.

Now alternative technology. Okay. Well, I'll start with the bottom of my list.

I was actually planning on talking about hydro testing. So now, I'm going to do a little airspace here.

But I think somehow the alternative technology one -- I'm going to get back to, yes, that's Method 6. Actually, I was going to jump to small diameter PIR. So, I'm going to pass if we're going to alternative technology. I wasn't ready for that one.

MR. DANNER: Okay. Alternative

technology, going once.

Chad?

MR. ZAMARIN: I'll take that one.

Chad Zamarin with Williams. I have two comments.

One, I would propose that we adopt the same no objection letter language in this section as we did in the discussion on 607, because there is a requirement to submit an evaluation of PHMSA.

And then, I just question whether or not the section on fracture mechanics modeling belongs in this section of the code or belongs in the integrity management section of the code. I'd be curious to hear the rationale, whether or not it makes sense to move that.

It's really a technique that I think applies to an issue that's not just specific to MAOP confirmation. So, I would propose that we consider moving that to the integrity management section. And that's Section (d).

Thank you.

MR. DANNER: All right. Thank you.

Other cards up?

(No response.)

All right. So, do you want to move up the list from integrity management? Do you want to do pipe replacement?

All right. Pipe replacement.

(No response.)

All right. Going once.

MR. MAYBERRY: How about a vote?

(Laughter.)

MR. DANNER: Alan wants a vote.

(Laughter.)

All right. We can move up the list. Pressure test? All right.

Okay. Now we'll go back to Andy. The same rules apply.

MR. DRAKE: Pressure test, for 100.

(Laughter.)

I do think that the spike test is pretty straightforward here. We've had a lot of conversations. I think that that was a

misapplication. I don't want to beat a dead horse, but we're all for hydrostatically testing with the spike test for cracks. I think that makes sense. It's an integrity test. We've used it many times. It's very appropriate.

But, for setting MAOP, just broadly, not appropriate. It also creates a curious disconnection with our current federal regulations which require that pipes today that we're building right now be tested without a spike test. So, if somehow we're going to set MAOPs on old pipes using a spike test, but new pipes don't need one, someone has got to help me with that. What are we trying to accomplish here?

I think it was just a dislocation in how this came across the transom from NTSB, and I think we need to kind of reset. Spike testing is a test for crack-like integrity issues. Subpart (j), straight hydrostatic testing is appropriate for MAOP. If you have a crack issue that you're worried about and you're going to set the MAOP,

then go for the spike test, but it's not universally applied for MAOP setting.

That would be my only comment. I think that's actually pretty well understood by PHMSA and others around the table.

MR. DANNER: Okay. Chad?

MR. ZAMARIN: Thank you.

Chad Zamarin, Williams.

A couple of comments that might not get captured by just going through the methods. The first one is I saw on the slide, Steve, that there was a reference to a 20-year reassessment on one of the slides, but I don't see that language anywhere in the proposed rule. Was that just an oversight or was that intentional? Do you know?

MR. MAYBERRY: Your microphone is off.

MR. ZAMARIN: You just turned it off.

(Laughter.)

MR. NANNEY: There's a 20-year reassessment. I'll need to go back and look at which section it applies to.

MR. ZAMARIN: Okay.

MR. NANNEY: For MAOP verification, it's not, of course.

MR. ZAMARIN: Okay. One of the slides, then, may have confused it.

MR. NANNEY: Okay.

MR. ZAMARIN: I didn't see it in here. So, I think I agree that I didn't see it in this section, and I agree with that.

The other one that's not specific to a technique, but I would just want to maybe put out there is that. I want to be careful we don't have this kind of do loop, because there is kind of some language that says you must do one of these methods if you don't have a valid pressure test. But, if you do one of these methods, I think it needs to be clear that you've, then, done something equivalent to a pressure test. So, you don't end up kind of back in the do loop.

MR. NANNEY: I think we had heard that before.

MR. ZAMARIN: Okay.

MR. NANNEY: And I think we've already corrected it.

MR. ZAMARIN: You corrected it? Okay.

Then, the comments specific to pressure testing, I completely agree with Andy. I think spike testing doesn't belong as part of an MAOP establishment. I think subpart (j) has been the gold standard for MAOP establishment for as long as the code has been in effect.

So, I agree, though, with the comments that the spike test is an important tool. I think it's just that it's used in integrity management for the management of very specific threats, not for the establishment of MAOP.

And that's all I have on pressure testing. Thank you.

MR. DANNER: All right. Thank you.

Cheryl?

MS. CAMPBELL: The 20-year comment was on slide 51. Okay.

MR. WORSINGER: And that was slide 51 that Cheryl sent out to us originally. So, it's

probably like slide 53, 54.

MS. CAMPBELL: Okay. First of all, I wanted to thank the gentleman that talked about the spike test as an important tool and the changing risk profiles. Because I do agree with him on that.

I think a lot of people are struggling with taking a spike test to 105 percent, so beyond yield. And I'm not a materials scientist, and I'm just going to admit that right upfront. And you said it earlier, Steve, you're open to suggestions and feedback on that.

So, I mean, I think the data that we have, or some hard data that suggests where that cutoff is, I don't have a problem doing a spike test when I have those crack threats and those crack issues. I really do not have a problem doing that. I think it's an important tool, as the gentleman from the public said, and as Chad has said. But I would ask that we consider something other than beyond yield.

I struggle with pushing it that far

and, then, leaving it in service, quite frankly. So, it seems like we ought to be able to have some data that will say, here's the right place, where we can discover those cracks, but we are not creating another issue and, then, putting that pipe back in service. That would be my comment about that.

MR. DANNER: All right. Thank you.

Sara?

MS. GOSMAN: Sara Gosman.

So, I wonder if PHMSA could talk a little bit about why the spike test requirement is in here. Because I understand that NTSB recommended it, but I'm sure you looked at this question. Why are we thinking about a spike test here as opposed to just a straight-up pressure test, as I understand it was?

MR. DANNER: Steve, go ahead.

MR. NANNEY: Okay. Well, I think if you look at the language that we had for pressure test, I think if you had a manufacturing-related defect, construction, installation, fabricated,

or other crack or crack-like defect, what we saw from what NTSB recommended, from what we saw at San Bruno, it was a crack-like defect in a weld seam that caused the issue.

So, we did not say that everything had to have a spike test. It was a spike test where you had cause to use one, was our intent there.

And I think what I've heard Andy, Chad, and some say, is I think some of what they've said and our intent here is very similar. And we'll go back and look at that.

The same thing on whether you go to 105-percent SMYS or even you go to some factor times your MAOP. If you're operating at a lower MAOP, we agree going to 105 or 100 may not be the answer. It may be going to 105 or 140 or 139. So, with what we've heard, we will go back and look at that. We think that is a sensible solution to what we are hearing everybody say. That gets everybody to the same intent.

MS. GOSMAN: Great.

And then, I guess the next issue I

would like to raise in our last less than half an hour here, I would like to bring back in 607, because I am wondering where it applies here. I see it in ECA. But, for example, if somebody does a pressure test, and that is a moment in time in which they could gather some of this information, does the rule require or allow for that, given that we have taken out the general applicability provision?

MR. NANNEY: Well, I'll give you my thoughts when we were writing everything and looking at it, and if I was the operator, what I would do, and if I was a PHMSA inspector that came out and looked later. Since I'll give you, since I've sort of done some of all of it, I'll tell you what my thoughts are.

It is, if you were doing a pressure test, and, from what we've looked at, these are not long mileages that an operator has. If you're going to do a pressure test, first, you've got to know, looking at the rule, most of it is probably going to be Class 3 and 4 locations.

Some of it may be Class 1 and 2 because it's in an HCA or something.

Also, if you go look at other parts of the code, go look at 192.611 on Class locations and Class location changes, you would have to know is it an HCA in a Class 1 or Class 2, or has it been upgraded to a Class 3 or 4. And it may be that you got the right pipe, but you're not sure of that.

So, PHMSA's expectation was, is you would be going out and you would be cutting manifolds to do the pressure test, if that's what you were doing. Or, if you were running the ILI, you would be looking at the wall thickness and the grade information.

So, we would expect, before you go and just put pressure on the line, that you would know what your pipe is. We would expect you to know the wall thickness, the grade, and everything. I think a prudent operator would definitely know that because you wouldn't want to get at a pressure that, if you are having some

possible issues with cracking and everything, and you were looking at 100-percent SMYS, or some number, you would want to know that before you pressure tested it.

So, when we were thinking of 607, that's what we thought, was that these being probably shorter segments, that that would be part of the procedure for doing the pressure test.

Also, in looking at other parts of the code, when they go look at it to make sure they're meeting it for Class location, you know, to make sure you don't have Class 1 or 2 pipe in a Class 3 or 4 location. And just tell you, that was part of the issue we found with PG&E out in California later. So, it is a real issue.

MS. GOSMAN: Do we need to add -- I see you've got your cards up -- but do we need to add a provision to this, now that we've taken out the general applicability provision, that gets at that issue? Or is there language in the rule as it stands that would apply?

MR. NANNEY: You would have to add language at this point.

MS. GOSMAN: Okay. Well, then, I would suggest that we consider that language, for the reasons that I heard.

MR. DANNER: All right. Chad?

MR. ZAMARIN: Thanks.

Chad Zamarin, Williams.

Sorry, now we're jumping around. I need to collect my thoughts.

I like how crisp replace pipe is. I would go back to the intent of the legislation, the intent of what we're trying to do here. I would propose that Method 1 pressure test only be romanette i. "Perform a pressure test in accordance with subpart (j)." I mean, at the end of the day, what we were trying to accomplish was to address pipelines that had not been previously tested.

And I would remove romanette ii and iii since those really relate to integrity management activities. So, I just want to be

clear. That's my kind of thinking along those lines.

Now, that being said, I did agree with the comments around legacy pipe. I think just putting in a term like that which is not defined is going to open us up to a whole lot of challenges. So, I think we need to correct that.

And then, I just continue to see kind of all the references towards the types of things that would drive you to use a spike test, just not being in the appropriate place. It should be in integrity management. Some of them aren't even technically valid. I mean, a hard spot, you know, we don't do spike testing for hard spots. We do spike testing for stress corrosion cracking. So, I just don't think it fits in this portion of the code.

Thank you.

MR. DANNER: All right. Ron?

MR. BRADLEY: Thank you, Mr. Chair.

I think this is a real quick one. So, I believe the intent is that in 192.624, at the

very beginning where it says, "The operator of a pipeline segment meeting any of the following conditions must establish the maximum allowable operating pressure using one or more...," -- just intending one, right?

MR. NANNEY: Yes, unless you wanted to use more than one.

(Laughter.)

MR. BRADLEY: Okay.

MR. NANNEY: The reason we put that is you might want to do -- let's say like what Sara's comment was, if you had some material issues, maybe you ran an ILI pig and you needed to go pressure test, too. You might use it to help look for wall thickness and things like that. And you were using a combination of tools. That's the only reason we put that. We weren't saying you had to do more. We were just saying that it was your decision.

MR. BRADLEY: Yes. So, just let me be clear. It's not about trying to do the minimum amount at all. It was just seeking a

clarification. Because I think, truth be told, we do do more than required. We don't just do the minimal.

MR. DANNER: All right. Sara?

MS. GOSMAN: So, I understand the distinction between setting one operating pressure and the reality of integrity management over time. I guess what I see in this provision is that we are extending to Class 3 and 4 here, as well as moderate consequence areas. And I think that IM doesn't cover some of these issues.

Because of that, I think, you know, maybe this is not the right place, right? Maybe there's another place you could put this. But I think the material documentation and verification that we need for this set of pipe is important to the rule.

MR. DANNER: Chad?

MR. ZAMARIN: Chad Zamarin, Williams.

I think that's a very fair comment. I would just offer that there is a section of the legislation and of the rule that we haven't gone

through yet that's focused on extending integrity management. And I would propose that extending integrity management beyond the areas that are currently applicable should be addressed in that portion of the discussion and that portion of the code.

Thank you.

MR. DANNER: Okay. No other cards are up. Well, that's not true. Andy?

(Laughter.)

MR. DRAKE: I just put it up there, waving it.

But I just want to follow up on your comment a few minutes ago about queuing up 607 with the hydro. I think Steve's right, we've talked about that. You would definitely need to know diameter, wall thickness, grade. You need to know enough to conduct a hydrostatic test on that pipe successfully. And if we needed to add that in here, I think that's appropriate, if that kind of quells the concern that you have.

I think that I'm pretty strongly

convicted to separating MAOP and IM. And here, we're doing MAOP. So, there are three or four datapoints that we need. If we want to record those in here, that's great.

When we get to IM, I think there's a whole other tranche of data that you would need if you went back to 607 for the integrity management verifications. And we're going to get into one of them here in a minute, when we get into ECA kind of stuff. But I think that IM is where the bulk of the data comes from, but it's not exclusive.

MR. DANNER: Okay. It looks like that has ended that part of the conversation. Do we want to move on to anything else? This might be the time to break? Okay. Break for the day?

So, sorry, we won't be talking about ECA today, but I think we'll get there tomorrow.

Okay. So, this is a good time. Do you have anything you want to say at the end of the day, Alan?

MR. MAYBERRY: No, I think I'm good.

I would just like to thank the Committee for great progress today.

MR. DANNER: All right. Then, we will see you all tomorrow morning and we'll continue.

Thank you much.

(Whereupon, at 4:43 p.m., the Committee adjourned for the day, to reconvene the following day, Friday, December 15, 2017.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Meeting of the Gas Pipeline Advisory Committee

Before: Pipeline and Hazardous Materials Safety Admin.

Date: 12-14-17

Place: Arlington, VA

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

Neal R. Gross

Court Reporter