U.S. DEPARTMENT OF TRANSPORTATION

PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION (PHMSA)

OFFICE OF PIPELINE SAFETY

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GAS PIPELINE ADVISORY COMMITTEE (GPAC)

and

LIQUID PIPELINE ADVISORY COMMITTEE (LPAC)

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JOINT MEETING

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WEDNESDAY AUGUST 26, 2015

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The Committees met in the Potomac Ballroom, Crystal City Marriott at Reagan National Airport, 1999 Jefferson Davis Highway, Arlington, Virginia, at 9:00 a.m., Massoud Tahamtani, Meeting Chair, presiding.

PRESENT

MASSOUD TAHAMTANI, LPAC Member (Government), Meeting Chair MARK BROWNSTEIN, GPAC Member (Industry) CHERYL F. CAMPBELL, GPAC Member (Industry) J. ANDREW DRAKE, GPAC Member (Industry)

SUSAN L. FLECK, GPAC Member (Industry) PAULA A. GANT, GPAC Member (Government) ROBERT W. HILL, GPAC Member (Public) ROBERT KIPP, GPAC Member (Public) RICHARD F. PEVARSKI, GPAC Member (Public) RICHARD H. WORSINGER, GPAC Member (Industry) CHAD J. ZAMARIN, GPAC Member (Industry) LANNY W. ARMSTRONG, LPAC Member (Public) C. TODD DENTON, LPAC Member (Industry) TIMOTHY C. FELT, LPAC Member (Industry) MICHELE F. JOY, LPAC Member (Industry) RICHARD B. KUPREWICZ, LPAC Member (Public) CHARLES LESNIAK, III, LPAC Member (Public) CRAIG O. PIERSON, LPAC Member (Industry) JOHN D. QUACKENBUSH, LPAC Member (Government) VICE ADMIRAL (RETIRED) BRIAN SALERNO, USCG, LPAC Member (Government) CARL M. WEIMER, LPAC Member (Public)

ALSO PRESENT

JEFF WIESE, Associate Administrator for Pipeline Safety, PHMSA KRISTIN BALDWIN ZACH BARRETT STACY CUMMINGS LINDA DAUGHERTY JOHN A. GALE KAREN GENTILE SAM HALL MIKE ISRANI ROBERT JAGGER MAX KIEBA KENNETH LEE ALAN MAYBERRY DAVE MURK STEVE NANNEY JIM PATES ADAM PHILLIPS CAMERON SATTERTHWAITE CHERYL WHETSEL

T-A-B-L-E O-F C-O-N-T-E-N-T-S

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I	I
1	P-R-O-C-E-E-D-I-N-G-S
2	(9:04 a.m.)
3	MR. WIESE: Good morning, everyone.
4	You know this group has obviously learned how we
5	come to order, and they know that if people don't
6	take their chairs after the initial warning, we
7	start using names. Bob knows this; he sat down
8	right away.
9	All right, well good morning,
10	everyone. Welcome to Day 2. Thank you again for
11	coming. We have got a pretty full roster of
12	folks here.
13	Just to make sure, I know we have
14	different folks in the audience, so I hope you
15	will bear with me. I am going to do
16	introductions again in one more second. It is
17	good for the record, as well.
18	But first of all, I want to start with
19	an apology. Every meeting should start with the
20	safety minutes. We ran in yesterday, not that it
21	is an excuse and I apologize. We were running to
22	try to get here and get it done. So, with that

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1 said, should it become necessary to get out of 2 here in a hurry, these exits, I did check them 3 out this time, I walked through there, that we 4 just go through and you will see the exits, the 5 fire signs to the right, the door is alarmed, so 6 I didn't try it, but you can also go through 7 these doors and turn to the left and get to the 8 fire exit that way as well. So, again, apologies 9 for not making that clear to everyone yesterday. 10 The second apology is, for those who 11 work here, you understand that the restrooms are 12 about a half a mile that way. So, you can find 13 them right past the elevators. Those of you who 14 are members of the Concierge Level of the 15 Marriott, probably about the only good thing in 16 this hotel, that will be right across from it. 17 And we usually do meet like in slightly better 18 accommodations. 19 There weren't a lot of places to eat 20 last night. I hope that those of you who were 21 here were able to find something.

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The other one thing I wanted to do,

1 with your permission, we have a lot of folks from 2 PHMSA here. I am going to ask the PHMSA folks to 3 sort of stand up really quickly and introduce themselves, in case you want to talk them at 4 5 break. 6 So, the PHMSA folks, particularly not 7 sitting at the table. 8 MR. GALE: John Gale, Records, 9 Standards and Rulemaking. 10 I'm sorry, I don't COURT REPORTER: 11 think your mic is on. 12 MR. WIESE: That's okay. 13 MR. SATTERTHWAITE: Cameron 14 Satterthwaite, Standards and Rulemaking. 15 MR. PATES: Jim Pates, Counsel's 16 Office. 17 MR. JAGGER: Robert Jagger, Standards 18 and Rulemaking, Technical Writer. 19 Stacy Cummings, I am MS. CUMMINGS: 20 the Interim Executive Director of PHMSA. 21 Hi, I'm Dave Murk, Director MR. MURK: 22 of Field Operations, and I work for Rulemaking.

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1 MR. WIESE: Welcome. 2 MR. PHILLIPS: Adam Phillips, Counsel's Office. 3 MR. HALL: I'm Sam Hall. I am with 4 5 the Program Development. Anybody else over there? 6 MR. WIESE: 7 MR. NANNEY: Steve Nanney, 8 Engineering. 9 MR. LEE: Kenneth Lee, Engineering and 10 Research Director. 11 MR. BARRETT: Zach Barrett, Director 12 of State Programs. 13 MS. GENTILE: Karen Gentile, PHMSA 14 Eastern Region. 15 MR. WIESE: Okay, that's very good. 16 Thank you so much for doing that. Now, will all 17 the ex-PHMSA employees stand up? No. 18 (Laughter.) 19 MR. WIESE: There are quite a few 20 former PHMSA employees in the crowd, too. We are 21 glad to have you back. And just remember PHMSA 22 is recruiting. So, you can see us at the break.

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1 I also want to take this moment before 2 we get going to welcome in three members who 3 couldn't be with us yesterday. First of all, Mark Brownstein, 4 5 Environmental Defense Fund. Thank you Mark. Ι 6 appreciate your being here. 7 Brian Salerno; Brian is with BSEE, 8 part of the former MMS and our offshore partner. 9 Brian and I will be talking to a little later in 10 the day about some work that we are spooling up 11 at the National Academy I think you will find 12 interesting. 13 And Bob Kipp; we welcome Bob. So, I 14 was telling him this morning from the Common 15 Ground Alliance, Bob has how many of his Board 16 members here? At least four or five of your 17 Board members are here, Bob, so be on your best 18 behavior. That is all I know. 19 We have a fairly full agenda today. 20 The agenda is in front of you and on the board 21 but I wanted to give -- I gave the members an 22 opportunity to talk yesterday and since they

couldn't be here and Bob is on the agenda, Mark, 1 2 I thought I would offer you, if you wanted to 3 take a few minutes to kind of give us an update 4 on what EDF is up to. 5 MR. BROWNSTEIN: Yes, thank you for 6 And I apologize to everyone for not having that. been able to make it down here yesterday. 7 My 8 colleague, Jonathan Peress has been here and he 9 has given me a full briefing on everything that 10 was discussed. It sounds like it was an 11 interesting part of the meeting and I am sorry to 12 have missed it. 13 I just wanted to tee up two issues 14 that are front and center for EDF, as it relates 15 to why we are here. 16 The first is, as you know, we have had 17 a series of ongoing studies looking at methane 18 emissions across the natural gas supply chain. 19 And I think at the last committee meeting, I had 20 a chance to give you all a little bit of a 21 briefing on that, particularly as it relates to 22 the local distribution system and the work that

we have been doing with Google to actually go out and map emissions across the local distribution And we have a tremendous partnership system. with National Grid and Xcel and a number of other companies in that and we are very grateful for the utilities that have partnered with us on that.

8 We continue to do that mapping work 9 and Google, we just had meetings with them a few 10 weeks ago and they continue to be enthusiastic about the work. And so that work will continue 11 12 and, over the course of the year, you will see 13 more maps from more utilities around the 14 companies around the country being presented.

15 But beyond raising awareness of the 16 issue, what we are now in the process of doing is 17 again working with a number of utilities to 18 figure out how do we take what we have learned 19 and incorporate it into the safety programs, the 20 pipeline repair and replacement programs that the 21 utility industry has.

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And I am pleased to say that a number

of companies have stepped forward now to work 1 2 with us in that effort. One company has even 3 gone so far as to share with us their safety algorithm and we are actively looking at how we 4 5 incorporate the techniques that we have 6 developed, one that allows us to size leaks, as 7 well as detect them, and figure out how to use 8 that information in a constructive way to make a 9 utility pipeline repair and replacement programs 10 that much more effective and efficient. And our 11 own believe is is that if we can make that much 12 more effective and efficient, it makes it easier 13 to make the argument in front of public service 14 commissions that this is money well-spent and, 15 hopefully, we can convince public service 16 commissions to accelerate these programs and do a 17 much better job of getting to the biggest 18 problems sooner. That is the first thing. 19 The second thing is no doubt many of 20 you were aware of the EPA's announcement of new 21 methane standards for new and modified sources in

the oil and gas industry. What also happened on

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the day of that announcement was the release of the last of our major studies that was focused on the gathering and processing sector. And if you had a chance, there was a study done by Colorado State University, and if you haven't had a chance to see it, I can certainly make sure that the committee gets a link to the study.

8 One of the things that we have learned 9 is that emissions, particularly from the 10 gathering sector are much higher than what EPA 11 has currently been estimating and that is, in 12 large measure, due to two basic factors. The 13 first is is that emission rates from gathering 14 facilities, particularly compressors, are much 15 higher than what has been estimated and there are 16 many more of these compressors out there that are 17 currently in EPA's emissions inventory.

And this begins to highlight a topic that I have brought up in committee meetings in the past and, frankly, I will continue to harp on it, we don't really have a very good inventory of gathering infrastructure in the United States.

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1 We certainly don't have a national inventory and 2 when I talk to states, many states don't have the 3 And the gathering infrastructure is inventories. 4 not inconsequential in terms of its environmental 5 impact, nor, I would argue, its safety impact. 6 And I think that we, collectively, can do a much 7 better job of better understanding where this 8 infrastructure is, what condition it is in, and 9 that is going to be good from both safety and 10 environmental points of view. 11 So the study, you will note, the study 12 does not make any representations about what 13 emissions are coming from the pipeline system

14 itself because the researchers didn't have good 15 enough data to be able to make those estimates. 16 But when you do look at the study, you will see 17 quite a bit of information on the compressors and 18 associated equipment. And again, the message 19 there is, is we have got a lot of work to do. 20 Gathering and processing, actually, as it turns 21 out, is the single largest fraction of methane 22 missions coming from the oil and gas sector,

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bigger than production. And EPA's new rules do
 affect that to some degree but, clearly, this is
 going to be an area of focus for us and for
 policymakers going forward.

5 MR. WIESE: If you'll allow, before I 6 call to order and turn it over to Massoud, 7 though, you may have mentioned early on when I 8 was chatting here, but I know that the next step 9 for EDF was putting together a synthesis of all 10 the studies. Can you give us a little insight 11 into the timing on that study?

MR. BROWNSTEIN: Sure. So, we are
working with NETL on that and our hope is to have
something in the next several months.

15 We have a little bit of a window into 16 what that synthesis might tell us because we did 17 a sort of a pilot exercise, where we looked at 18 emissions in the Barnett region, which is North 19 Texas, and we used a similar technique to what we 20 are going to use to synthesize the data overall. 21 In North Texas, in the Barnett, what 22 we learned from both our ground-level

measurements and then the measurements that we did using aircraft overflights is that emissions in the Barnett are probably 50 percent higher than what EPA emissions inventories are estimating.

6 You will note that about a year and a 7 half ago, Stanford University did a study in 8 which they thought emissions were about somewhere 9 between 25 and 75 percent higher than what EPA's 10 emissions inventory was reporting. The Barnett 11 suggests it is about 50 percent higher. So, we 12 don't know what the full synthesis is going to 13 tell but we can definitely see a direction here.

14 And it underscores the value of the 15 rulemaking that EPA is engaging in, as of last 16 week.

MR. WIESE: Great. Okay, thank you,
Mark. And, hopefully, we can count on you when
you are done with the synthesis study. Next time
we meet, we can ask you to present the findings
of that. Okay, thank you so much.

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So with that, maybe I will go back to

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a formal meeting and turn it over to my esteemed colleague, Massoud. To you, sir.

3 Thank you, Jeff. MR. TAHAMTANI: This 4 is a joint meeting of the Gas and Hazardous 5 Liquid Pipeline Advisory Committees. And again, I have to -- Cheryl tells me I have to say all 6 7 these things. So, turn your cell phones off. If 8 it rings, you will be asked to leave. That is 9 not in the notes. If you wish to speak, you know 10 this now, you put your card up and I will try to 11 recognize you and you will speak. State your 12 name and speak for the record loudly and clearly. 13 If you are in the audience and want to speak 14 again, let me recognize you and I will give you 15 the opportunity to speak.

Now, agenda for the second day, we are
starting with the briefing by Dr. Paula Gant, who
is the Deputy Assistant Secretary with US DOE.
Are you ready?
DR. GANT: Yes, sir, I am. Thank you

DR. GANT: Yes, sir, I am. Thank you for the opportunity. And I think there are some slides that are going to get cued up.

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1 MR. WIESE: You'll just have to wing 2 it. 3 DR. GANT: Well, first, just thanks for the opportunity to participate on this 4 5 committee and to be here today and to share some 6 things that are going on at the Department. 7 Also, I want to introduce Marni Lenahan, who is 8 making sure the slides are loaded -- yes, 9 excellent -- and who recently joined our team and 10 is one of our lead points of contact on the work 11 we are doing around methane emissions in the 12 stream infrastructure. So, excellent! We have 13 slides. 14 So, I am going to start -- there are 15 more slides here than I am going to speak to but 16 we put a good bit of content in here because we 17 knew you would have these slides afterwards. But 18 I always start with this slide, no matter who I 19 am talking to or where I am because it perfectly 20 captures to me the incredibly fortunate and 21 unexpected place we find ourselves as a country 22 that even many of us in this room did not foresee

1 certainly ten years ago but even eight years ago, 2 probably. And we have an incredible abundance of 3 hydrocarbons that we are able to produce very efficiently, very effectively. And the story 4 5 that many people do not focus on, outside of 6 people like you in this room is that the reason 7 we are able to turn this into almost immediate 8 economic value and enhance our national security 9 is because we have a robust infrastructure to 10 deliver these hydrocarbons where we need them and 11 no one else in the world has this.

12 Not only do we have the resource, we 13 have the infrastructure and companies like you 14 and interests like you continue to build on an 15 infrastructure and ensure not only is it safe but 16 it is resilient and it is efficient and that is 17 what allows us to really capitalize on this 18 incredible abundance. We get it where we need 19 it. 20 So, at the Department, this, of 21 course, was not lost on Secretary Moniz, who is

very well aware of the importance that this

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1 infrastructure plays. So, when the President 2 directed the Secretary to conduct a Quadrennial 3 Energy Review, the Secretary made the decision that the first one would focus on transmission, 4 5 storage, and distribution infrastructure and 6 really shine a spotlight on the role that it 7 plays in meeting the needs of our economy. 8 And particularly at a time where 9 people are talking about aging infrastructure 10 overall, as a country, we have a tremendous need 11 to invest in infrastructure and there has been a 12 lot of attention paid to roads and bridges and 13 increasingly ports. But energy-delivering 14 infrastructure generally goes unseen, unheard. 15 It works. It works really well and it is sort of 16 invisible. And so the QER was an opportunity to 17 bring people together to spotlight the role that 18 it plays, talk about things that have gone well 19 and why they have gone well. For example, why 20 have we seen an incredible build-out of 21 transmission and storage infrastructure,

particularly for natural gas over the last

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1 The regulatory structure has been very decade? 2 supportive of that and there has been an 3 evolution of that, that it was important to call out the success of that. Where do we see 4 5 opportunities and challenges going forward and what can the federal government do across the 6 7 board?

8 So the QER wasn't just focused on 9 pipelines and traditional storage. It was also 10 focused on rail and particularly ports. And I 11 think one of the things that came out of the QER 12 was a greater appreciation more broadly for the 13 role that ports play in our energy security and 14 our energy deliverability and things like 15 dredging matters if we are going to move 16 hydrocarbons around between different points, 17 much less if we are moving them out of the 18 country. 19 So, the QER, many of you I know

20 participated in public meetings. It was a wild 21 and interesting ride. It delivered a very 22 prolific amount of information and documentation.

1 I am going to go through some of the results from 2 the QER but first I want to put that in a little 3 bit broader context and talk about the other 4 efforts that the administration has going on 5 around infrastructure and how some of them relates to the President's Climate Action Plan. 6 7 Out of that, came a directive to reduce methane 8 emissions across the U.S. economy and the to 9 develop a federal strategy for that that was 10 interagency, which was released last summer, a 11 little over a year ago. As part of that, DOE has initiated, at 12 13 the Secretary's direction, a natural gas 14 modernization initiative, which is focused on the 15 downstream production infrastructure because 16 others are focused upstream of processing. 17 We also have a very robust and long-18 standing, increasing reinvigorating our long-19 standing collaboration with PHMSA around R&D and 20 we have the Quadrennial Energy Review that we 21 just finished. 22 So, the President's Climate Action

1 Plan, I am not going to spend a lot of time on 2 this but it is an important guide for us and the 3 emphasis on our work on infrastructure. It is 4 not just about efficiency and resilience, it is 5 also particularly with regard to natural gas 6 delivery systems, making sure that we are making 7 the investments and implementing the policies 8 that will allow us to maximize the climate 9 benefits of expanded use of natural gas across 10 our economy. There are tremendous benefits, 11 particularly electricity and switching away from 12 dirtier fuels to natural gas. But to the extent 13 that we can reduce methane leakages along the 14 natural gas value chain, we will only enhance the 15 climate benefits of that expanded use. So, that 16 is an important driver for our work on our 17 Midstream Infrastructure Program. 18

I can't miss an opportunity to share a picture of our Secretary and his amazing hair that gets so much excitement and interest. I can tell you having the opportunity to serve is an incredible pleasure and honor and the pleasure

comes, in great part, from being able to work 1 2 with Dr. Moniz and Secretary Moniz. He is an 3 amazing leader and, I think, a very capable one 4 for the Department. I think, as a country, we 5 are very fortunate to have him in this position. He convened, as part of the 6 President's Methane Strategies, a series of 7 8 roundtables over the course of last spring and 9 Some of you here participated in the summer. 10 those conversations. Again, the intention was to 11 focus on where voluntary action could be taken 12 and where federal support could be provided to 13 reduce methane leakages downstream of production 14 on storage, transmission, distribution 15 infrastructure. And out of that discussion, one 16 of the things that I think that became clearly 17 apparent to people that hadn't thought -- that 18 weren't necessarily familiar with natural gas 19 system operations and processes is that to the 20 extent that you are focused on reducing leakages, 21 safety is the driver and it guides, certainly, 22 all of your actions around the table but it is

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1 the first and foremost thing on your mind, the 2 regulator's mind, the public's mind. And if we 3 are doing a good job around safety and 4 approaching those investments smartly, then we 5 are also getting the associated methane leakage emissions reductions benefits. 6 7 So, it is important that we, I think, 8 the team understands or the group that was 9 convened understands more fundamentally how 10 safety is the driver and, therefore, that factors 11 into the work plan that we have developed. 12 So, the modernization initiative, what 13 we are calling the Natural Gas Modernization 14 Initiative, the wording here is conscious as 15 well, that we have this tremendously abundant 16 resource, we have a 21st century economy. The 17 question is, do we have a natural gas delivery 18 infrastructure that is 21st century and that is 19 going to service for decades to come and where 20 can we add DOE help. 21 And I am going to talk about --22 highlight some of the things we are doing. Later

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on in the deck there is a list of these and how 1 2 they apply, how they were reflected in the QER 3 but I wanted to spend the time on the actions we 4 are taking and leave the QER reading for later. 5 ARPA-E, which is our Advanced Research 6 Projects Agency focused on energy innovation issued a solicitation last year and 11 projects 7 8 were chosen this summer to focus on low-cost 9 methane sensing for the oil and gas sector. 10 Importantly, this isn't just about a low-cost 11 It is also about developing neural sensor. 12 networks so those sensors talk to one another and 13 you can get a sense of what is going on in the 14 facility or along a pipeline. And then the next 15 step will be turning that into useful information 16 that give you some sort of predictive analytics 17 and ability to make smarter investment decisions, 18 ultimately. 19 Also, FERC issued a policy statement 20 addressing alternatives for cost recovery for 21 midstream natural gas infrastructure upgrades 22

that reduce leakages and emissions. We hosted

1 last year a roundtable to get a sense from many 2 of you and others about what the gaps are on 3 methane remote detection and measurement and The results from that can be 4 where we can focus. 5 integrated into our FY16 and 17 budget request 6 for the office that I manage, which is the Office 7 of Oil and Gas at DOE, and we have initiated a 8 partnership with NARUC. 9 I'm not going to spend a lot of time 10 on this, other than to say that this is the data 11 that we are building on and figuring out where we 12 need to focus. 13 As Mark said, there are a good bit of 14 emissions from natural gas processing that 15 haven't got a lot of attention and that people 16 are starting to focus on more. We are interested 17 in ways that we can continue to integrate new 18 information into our life cycle analysis and 19 modeling, as well as contribute to R&D 20 developments in this area. 21 These I want to quickly hit because I 22 know I am sort of short on time, Mark. I mean I

know Mark -- he has already had his time. Right,
 he went before me.

So, the QER, there is a couple of buckets of QER recommendations that we wanted to spotlight again. The document is very voluminous and there is a lot of recommendations. But with regard to -- we pulled out some that were related to pipeline infrastructure.

9 And there was an observation that 10 there is a need to improve the quantification of 11 emissions from natural gas infrastructure. And particularly how this translates through to our 12 13 program is that there is a need expressed by 14 industry and others to update emissions factors 15 that are then relied upon in developing the EPA's 16 greenhouse gas inventory. Any of you who know 17 what it takes to update an emissions factor, the 18 amount of field work to know that \$10 million is 19 a drop in the bucket but we think it is an 20 important start and something that industry has 21 said to us would be very useful.

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Also, on our expanded -- and I guess

going back up to the emissions data piece, the 1 2 other thing that Mark alluded to that we are 3 working on is through our National Energy 4 Technology Lab, NETL, which leads the intra-lab 5 working group among the federal labs on lifecycle 6 analysis for greenhouse gas emissions. We are 7 looking and we have one of our scientists 8 engaged, actually in the synthesis work that Mark 9 referenced to develop a framework to help people 10 understand the difference between the top-down 11 and bottom-up measurements of greenhouse gas 12 emissions, which are done for different purposes 13 and often generate different results and have 14 created quite a lot of confusion in the press and 15 in the public about why these measurements 16 differ.

So, one of the things that we are
focused on is providing frameworks, our
information to help people understand what the
differences are between those types of analysis
and how to think about them at the same time.
So, we are very excited about the work

1 that we are engaged in with EDF on this synthesis 2 project as well as other work we have going on in 3 this space.

4 When it comes to our R&D program, we 5 are still refining exactly the types of projects 6 that we are going to focus on. These types of 7 input sessions are very useful for us in thinking 8 about where exactly the Office of Fossil Energy 9 can help, what the federal role is. But out of 10 the roundtables that the Secretary held last 11 year, one of the things that was highlighted was 12 the need to have an alternative to hydrostatic 13 testing when smart pigging is not an option. And 14 that is why I was interested in the work that was 15 referenced at the API group yesterday because, 16 ultimately, we want to make sure that we are 17 additive to efforts that you have underway and 18 not duplicating them. But that certainly seems 19 to be an area where there is an opportunity, 20 whether it is through new technologies or simply 21 through thinking about the available technologies 22 and practices in a different way in having

decision tools to know when they apply so that we can reduce the significant methane losses that occur when systems have to be evacuated and blown down.

5 With regard to demonstrating and deploying continuous emissions monitoring and 6 7 equipment, another recommendation from the QER, 8 this is where the ARPA-E projects are really 9 And again, across the Department we are focused. 10 trying to make sure that our different programs 11 are lined up in different pieces of this problem, 12 that we are not duplicating. So, we have ARPA-E. 13 We have our Advanced Manufacturing Office looking 14 at next generation compression technologies. We 15 have our program in fossil energy. And then we 16 have an \$8 billion fossil fuel solicitation out 17 through the Loan Program Office, which projects 18 like this in new technologies would qualify for. 19 And then there is also an appreciation 20 that to the extent that we want to accelerate

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urban areas where there is a high incidence of

replacing aging infrastructure, particularly in

1 low-income populations, that some rate relief may 2 be useful.

3	The other bucket of recommendations
4	that we wanted to point to around the QER relates
5	to improved data collection, analysis, and
6	coordination. I would be preaching to the choir
7	if I said much more about this. Obviously, you
8	all spent a lot of time thinking about this. The
9	application here and representation is focused a
10	bit on environmental applications or insights but
11	it is what you all do every day.
12	Jeff and Linda and I and our team have
13	an ongoing conversation about how we can be
14	collaborative and support the efforts that PHMSA
15	has here. For example, through the work that we
16	do in our national labs on big data analytics
17	and, like I like to say, our super computers
18	because we have a super computer in our office
19	and that is totally awesome and I just want to
20	have reason to say I am using it.
21	(Laughter.)
22	DR. GANT: And so we are very excited

1 about the sort of what I would say the next phase 2 of our R&D, which I have talked to many of you 3 around the room about, which is really taking all 4 the data -- we are a data-rich society right now 5 across the board. The challenge is for us to And so how do we turn all 6 turn that into value. 7 the data that you are collecting from your 8 operations, whether it is safety-driven or 9 environmentally driven into better decision 10 How do we turn it into information that tools. 11 provides some predictive analytics for you, so 12 that you can make better risk-based decisions on 13 where you are going to invest your time and your 14 energy, whether it is around DI and M4 15 compressors, whether it is about when to use 16 smart pigging when you can't, when do you need 17 hydrostatic testing, or it is about meter 18 replacement for distribution utilities or how you 19 think about maximizing the dollars that we are 20 spending on upgrades, repair, and replacement. 21 So, this is sort of the next level of 22 thinking that we are doing about our program and

1 very interested in what I am hearing around this 2 table today to feed into our thinking on that. 3 And with that, I am going to quickly 4 end with slide 11, just to say that our office also has responsibility for authorizing the 5 6 imports and exports of natural gas. A lot of 7 focus has been paid to large-scale natural gas 8 liquefaction capacities and exports opportunities 9 but increasingly, we have seen a number of small-10 scale applications come before us for exporting CNG, our ISO container LNG, which, in addition to 11 12 the safety responsibility that PHMSA has for the 13 facility, there is also the transport piece of 14 So, it is an area where we will have that. 15 increasing collaboration. And for our team, this 16 is the first time we are responsible for doing 17 the environmental assessments for these 18 facilities as well, to the extent that they don't 19 get a categorical exclusion.

20 So, our team, we have issued our first 21 EIS this summer on one of these projects and this 22 will be an area of increasing for us.

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1 From a policy perspective, and a 2 regional security perspective, these small-scale 3 facilities also have an important role to play in the Caribbean as we look for ways to move those 4 5 islands off of dirtier fossil fuels and expensive 6 ones like naphtha diesel, not just from an 7 emissions perspective and an affordability 8 perspective, but also because there is obviously 9 a great deal of concern about stable supplies of 10 petroleum in that part of the world, given other 11 things going on. 12 So, an interesting thing. We are 13 turning from large-scale projects to small-scale 14 projects and because I know everyone always wants 15 to know how much exports we have approved, we 16 have approved for export from the United States 17 to non-free trade agreement countries 9.998 Bcf a 18 day of exports. So, there we go. 19 Thanks for the opportunity to share. 20 MR. TAHAMTANI: Thank you, Paula. Any 21 questions for Paula? 22 Again, to start the blood flowing, I

1 will ask a question. Paula, on one of your 2 slides that is a couple of slides back, 3 recommendations to help produce methane emissions, the last bullet talks about two and a 4 5 half to two and a half billion competitive 6 funding program to help LDCs achieve dual goals 7 of safety and lower emissions. What do you mean 8 by competitive funding? So, there are some 9 DR. GANT: 10 discussions happening in the process of the 11 energy legislation development around the 12 potential for having some sort of competitive 13 grant or other programs that would be made 14 available to states to offset the impact on low-15 income customers of accelerating infrastructure 16 replacement programs. 17 And those are -- it is a concept right 18 now that is being developed. 19 MR. TAHAMTANI: Thank you. Jeff? 20 MR. WIESE: Well, first of all, I just 21 wanted to thank Paula both for the presentation 22 but also for her willingness to join in on the

1 I have known Paula for a long time and I group. 2 was really happy to see her get pointed into DOE. 3 We used to have a really strong partnership with DOE and it kind of fizzled over the years when 4 5 the R&D program kind of went away there. So, we 6 are happy to have a partner in R&D. We have 7 collaborated for a long time. I think having Paula there will reestablish that sort of 8 9 coordination. 10 We also got to know APRA-E and just 11 see the potential that they can deliver in this 12 equation. 13 So, I think it is probably brutally 14 apparent to everybody but it is my job to 15 underscore the obvious. So, I will just say that 16 Paula and I have talked a lot about this. It is 17 the confluence of all of these things coming 18 together to provide really a prime opportunity in 19 this country to modernize our infrastructure that 20 adds benefits, whether it is methane emissions, 21 whether it is safety, whether it is domestic 22 energy, I just think it is a ripe moment in time.

1 So, anyway, I just wanted to largely 2 thank you for the cooperation and partnership. 3 MR. TAHAMTANI: Thank you very much. 4 Go ahead. 5 MS. JOY: Thanks very much for the 6 Michele Joy, Liquids Group. report, Paula. 7 I just wanted to know if you could 8 give two minutes on the bottoms-up versus tops-9 down measurement. You just sort of went over it 10 quickly and I don't really know what that is. 11 Sorry about that. DR. GANT: I have 12 been working on these methane issues since the 13 beginning of time, as some of you in the room 14 know, so they are shorthand. 15 So, there are these aerial flyover 16 other atmospheric measurements that are done that 17 give you a regional profile of emissions. And 18 Mark is going to step in here, whenever I 19 oversimplify, I am sure, or Laurie or someone 20 else. And they are done for particular reasons, 21 generally, they have traditionally been done from 22 a sort of atmospheric climate perspective and

1 they give you a sense of you, of what an 2 emissions profile is for a region or an area. 3 The other way to go at it is bottom-4 up, by source, by point source and build a picture from the ground up, either by direct 5 measurements or extrapolation from emissions 6 7 factors or activity factors of what the emissions 8 profile is for a particular area. 9 When you build bottom-up or top-down, 10 you get to different results and so that then, is reported as well, this analysis that is a bottom-11 12 up analysis says emissions for this type of 13 activity are X and the top-down approach says it 14 is X plus. Why is that? Who is hiding the 15 walnut and where are they hiding it? And it has 16 generated a lot of confusion. 17 And what our office is trying to do, 18 working with many of you around the room is 19 minimize the bounds of uncertainty. So, we are 20 actually focusing our efforts on this issue on constructive action, rather than a debate about 21 22 exactly what the number is.

1	MR. BROWNSTEIN: Yes, and if I may
2	just jump in here. Mark Brownstein with EDF.
3	Since we have been doing a lot of
4	these both bottom-up and top-down, invariably the
5	top-down, the overflight work, and sometimes it
6	is meteorological towers, too, it is not always
7	aircraft, but invariably, the top-down work shows
8	higher numbers, as Paula implied in her example.
9	The Barnett study that I mentioned a
10	few minutes ago was a first effort to try to
11	reconcile these two different methodologies and
12	it is a series of papers that were published
13	about a month ago. And the researchers were able
14	to reconcile the top-down and the bottom-up
15	numbers. In practical terms, there are at least
16	a couple of reasons why the numbers differ. One
17	is because a characteristic that we see
18	throughout our studies are that in every study
19	that we have done, a significant fraction of
20	emissions tends to come from a relatively small
21	number of sources that are, for lack of a better
22	term, sort of randomly distributed. They

typically are system upsets of one form or another or malfunctioning equipment. And this is not something that traditional emissions inventories capture very well, nor is this something that we have enough data to be able to predict the incidents of this or the magnitude of this.

8 There is also some reason to believe 9 that, at least in the Barnett, you are not 10 capturing abandoned wells accurately. And also, 11 there are some issues with inventory around 12 things like storage tanks. And again, this goes 13 back to if you have better information about the 14 number of pieces of equipment on the ground, it 15 may be possible to do a better job of reconciling 16 what the top-down and the bottom-up are telling 17 you.

DR. GANT: So as a project example, in addition to some of the analytical work we have going on, we are in the middle of a two-year analysis of the Marcellus, where we have measurement by flyover, by tower, we have a

1 trailer driving around so we can contribute a 2 picture of what is happening in the Marcellus. 3 Abandon wells, people think are likely an issue 4 in the Marcellus, for example, but we need to be 5 able to separate out sort of fact from hyperbole 6 here and that is what the analysis is trying to 7 do and put the results of all this analysis in 8 context, which I think is really important. 9 Everyone is busy generating results and we are 10 trying to help focus on what do these results all 11 tell us about the larger picture. What are we 12 actually learning and where should we focus? 13 MR. TAHAMTANI: Thank you. Rich. 14 MR. WORSINGER: Thank you and thank 15 you, Paula. Rich Worsinger, City of Rocky Mount. 16 Paula, first let me say thank you for 17 your presentation and I am glad to hear that DOE 18 and EPA are going to work together to update the 19 quantification of emissions from the natural gas 20 infrastructure because both as you and as Mark 21 pointed out, it is so important to know exactly 22 where those emissions are coming from. It is

important for us in industry, so that we are devoting our dollars, our resources towards eliminating those leaks and I would just like to urge you to, as you work through that, to involve industry, involve AGA, involve APGA because we want to work with you to make sure that the assumptions that are being made are correct.

8 One assumption that has been made is 9 that lost and unaccounted for gas is all leakage. 10 And unfortunately, that is not true. The 11 difference between the gas we receive from our 12 supplier and then summing up all the meters that 13 we register what we bill to our customers, those 14 meters, unfortunately, are not that accurate.

15 And I always liken it to people. As 16 I get older, I realized I am getting a little bit 17 slower and the same thing happens to our gas 18 meters. They are mechanical devices and as they 19 get older, they get a little bit slower and we 20 are allowed that plus or minus two percent in the 21 accuracy of those meters.

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So, again, I just urge you, as you

work on this, get with industry. Let us help you
 evaluate those numbers and let's make sure we are
 getting those assumptions correct.

4 DR. GANT: Thanks, Rich. With regard 5 to any efforts to update emissions factors, it will absolutely require the engagement of 6 7 industry because it is based on actually going 8 out into the field. It is quite complicated, I 9 know from my work previously. As you know, if 10 you find a leak, the job is to fix it, not to 11 call some researchers in to come measure it. 12 Right?

So, these things take an incredible
amount of coordination and collective will to get
this work done. So, appreciate your interest and
we will certainly need to call on it.

I would also say that in the issue of LUAF, EPA and DOE understand very well that that is not an indicator of emissions. That doesn't mean that it doesn't surface occasionally by people that don't know what LUAF is, lost and unaccounted for gas.

1 But the people that are working on 2 this at a regulatory level understand that. So, 3 we can just keep focused on -- you know, take some comfort in that knowledge. 4 5 MR. TAHAMTANI: Thank you, Paula, great discussion. We will just move on to our 6 7 next briefing, which is by representative of a subcommittee of the committee here on midstream. 8 9 And it is done by Linda, Chad, and Todd. Who is 10 going first? 11 MS. DAUGHERTY: I am. 12 MR. TAHAMTANI: You are. 13 MS. DAUGHERTY: But that is not what 14 my agenda says. 15 MR. DENTON: Did Chad agree to that? 16 Yes, he did. Okay. 17 (Laughter.) 18 MR. TAHAMTANI: What does your agenda say, Linda? 19 20 MS. DAUGHERTY: I think I have an old 21 agenda. 22 MR. TAHAMTANI: I think you do.

1 So, I had the pleasure MS. DAUGHERTY: 2 of working with a number of people on what 3 originally arrived at our doorstep as a 4 challenging situation. The industry had 5 approached PHMSA over a year ago -- when was 6 that, about a year and a half? Yes. Time flies 7 when you are having fun, doesn't it -- about a 8 situation which there appeared to be overlapping 9 regulations midstream facilities, processing 10 facilities. And at our last advisory committee 11 meeting, we gave you an update on where we were 12 and the advisory committee sponsored a 13 subcommittee to look at the issue and see if we 14 could come up with some good solutions or 15 proposal. 16 So, the representatives for the 17 subcommittee are Todd Denton and Chad Zamarin, 18 who are currently will be speaking on the I was the PHMSA 19 presentation here. 20 representative in the working group. 21 We had a number of people on our small 22 We kept it fairly small so we could committee.

1 have good tight discussions. We had industry 2 representatives. We also had OSHA 3 representatives. And we had a healthy discussion on how we could address overlapping jurisdictions 4 5 and the best way to achieve a common safety goal. We had the charter, and Jeff actually 6 7 came up with this at the very beginning, he said, 8 look, our goal is safety. When you have a 9 facility that has overlapping regulations with 10 another federal facility, you want to end up with 11 no gaps, no overlaps. It is not good government 12 to send out federal regulators for multiple 13 agencies to check safety regulations that are 14 basically equivalent, where you can avoid it. It 15 is a waste of resources, both on the federal side 16 and, therefore, the taxpayer or the funding side, 17 but also on the company side as well and 18 oftentimes, overlapping regulations can create 19 confusion and contradictions among the people who 20 are trying to operate a safe facility. So, our 21 goal was to come up with clarity and look at no 22 gaps or no overlaps.

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1 Through our discussions, we did 2 identify that both PHMSA and OSHA have 3 regulations that apply to these midstream 4 processing facilities, both gas and liquid. We 5 looked at various ways of seeing if we could cut 6 the baby in half and, in the end, determined that 7 the best say to do this would be to develop 8 guidance that PHMSA would issue to its staff that 9 would say here is a policy on how we will 10 approach midstream processing facilities. 11 It's very important that everyone 12 understand that the guidance that we propose is 13 not legally enforceable. This is not a change in 14 our jurisdiction or our statutory authority. It 15 is a policy. It is not implying a change in our 16 regulation. We did originally pursue an option 17 which would have created an agreement between 18 OSHA and PHMSA relative to our formal regulatory 19 oversight but soon ran into legal issues where we 20 could not do that because of the statutory 21 authorities. So, we decided to end up with a 22 next best solution, which was policy guidance.

1 The goals of the committee, as we 2 established, were pretty clear. We decided that 3 we first needed to evaluate the net safety equivalency of the regulatory oversight for these 4 5 facilities between PHMSA and OSHA. In other 6 words, if PHMSA stepped back from their oversight 7 inspections on these facilities, were we assured 8 that OSHA inspections provided the equivalent 9 safety, the equivalent net safety. 10 A lot of times when people think of 11 OSHA inspections, they think only of personnel 12 safety and so that was one of the first questions 13 that PHMSA had to look at. We look a lot at the 14 processing safety, the how things are done, the 15 procedures, the physical safety. Would be OSHA 16 requirements meet that need? And by doing a 17 side-by-side comparison and going through those 18 items, we were able to determine that the net 19 overall safety was equivalent. Therefore, we 20 were comfortable with the idea of PHMSA stepping 21 back an saying okay, OSHA would take the 22 inspection authority for these facilities in this

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area.

2	We also had to identify where we would
3	have the handoff point. We talked about
4	situations in which a transportation pipeline
5	might cross through a facility but not actually
6	interact with the processing facilities. Would
7	that remain with PHMSA or would it go to OSHA as
8	far as safety inspection oversight? By the way,
9	we are going to cover all of these in subsequent
10	slides but this is just the overview.
11	We also had to look at storage and
12	related piping and that one was a particularly
13	challenging issue simply because PHMSA does have
14	statutory and jurisdictional oversight over
15	storage. OSHA looks at storage as part of its
16	PSM regulations.
17	There are a number of agencies that
18	look at midstream processing facilities. PHMSA,
19	as we mentioned before, which is related to
20	transportation, OSHA and EPA also looks at
21	certain aspects of midstream facilities through
22	its RMP regulations. We did not have EPA at the

So, we are not really going to talk about 1 table. 2 EPA's oversight. This is strictly focused on 3 PHMSA and OSHA overlap. And I think this is where I switch 4 5 over to -- Todd, are you next or Chad is next? MR. ZAMARIN: I'll jump in now. 6 Chad 7 Zamarin with Cheniere Energy. 8 As Linda mentioned, we focused on 9 developing a set of guidance and we have proposed 10 a draft set of FAQs that could be issued by PHMSA 11 to inspection and enforcement staff, as well as 12 to industry stakeholders. And our expectation 13 would be that these would be issued and then 14 operators would be encouraged to identify 15 demarcation points within their drawings to 16 identify demarcation points within their 17 facilities to provide -- these are, you will see, 18 a high level set of FAQs but I think they imply 19 it is a framework, a basis by which operators and 20 inspection and enforcement staff can clarify on a 21 facility-by-facility basis the delineation of 22 OSHA PSM and PHMSA 192, 195.

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1 So, we have proposed seven FAQs. 2 Taken together, we think these do a good job of 3 clarifying the understanding of regulatory oversight for inspection staff, inspection 4 5 enforcement staff as well as operations 6 I will just jump straight into them personnel. 7 and then I am going to hand it off to Todd when 8 we get about halfway through. 9 The one thing, and I said this 10 yesterday, I would just say that from a process 11 perspective, I am going to step back just one 12 second, I think we have presented twice now to 13 provide updates to this group and this is kind of 14 our final presentation. I would say that having 15 been a part of it, there were ups and downs. 16 There were times when we weren't sure we would 17 get to a solution but I think this committee and 18 a subcommittee acting on behalf of this committee 19 really provided a vehicle that allowed us to get 20 through those challenges. 21 So, we have done a lot of things in

just a short time that I have been a part of this

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committee but I think this can be a good example 1 2 of a way that we can bring different stakeholders 3 together under the support and direction of these 4 joint committees and solve challenges. And these 5 are challenges that aren't trivial. I mean these 6 are issues that are happening every day in 7 facilities across the industry. So, just to 8 point that we had a really diverse group of stakeholders and I think that the process was 9 10 pretty helpful.

11 The first thing that we did with the 12 FAQs is we needed to define what processing and 13 processing facility was. You will see -- I won't 14 read the details here but effectively, what we 15 said is that we are excluding refining. So, 16 PHMSA does define refining, the chemical 17 conversion of products. We weren't talking about 18 refineries. We are talking about facilities and 19 equipment that you can see treats products, 20 dehydration of products, that blends products, 21 that purifies products and removes condensates. 22 It is a broad definition but you can see here we

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deliver a definition of processing.

2 We also note that where there is 3 ambiguity, OSHA PSM has an applicability standard 4 for processing facilities. So, that is going to 5 be important for operators to refer to and, in the event that it doesn't apply from an OSHA PSM 6 7 perspective, then the PHMSA regulatory framework 8 would govern. 9 The second FAO is how to delineate the 10 boundary and we talked about where that handoff 11 point might be. And Linda mentioned we looked at 12 a lot of different scenarios, we looked at a lot 13 of different facilities for examples and we came 14 up with what we think is a fairly simple 15 delineation and it is that the delineation would 16 occur at the first -- sorry -- yes, the first 17 pressure control device entering the facility and 18 the last pressure control device exiting the 19 facility. 20 So, when you think about how we enter

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control that protects the pipeline upstream and

into a processing facility, there is pressure

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1 the facility downstream on either side of the 2 facility. And that would be the delineation 3 point that operators would identify. 4 This is a concept that is, I think,

5 relatable to operators. We do this, though PHMSA 6 regulations traverse through a compressor 7 station, we frequently identify the pressure 8 control that protects the pipeline from the 9 facility so the concept, I think, is something 10 people will relate to.

11 MS. DAUGHERTY: I want to jump in 12 The committee debated, at some length on here. 13 I guess we didn't debate it. an issue. We 14 discussed it. There had been discussions outside 15 of the committee about whether the delineation 16 should be at fence and all three parties, OSHA, 17 PHMSA, and the industry representatives all 18 agreed that fence line boundaries absolutely have 19 -- they are invisible as far as safety oversight. 20 It doesn't matter if there is a fence or not. 21 So, for the purposes of this, we did 22 identify a hard device, as Chad pointed out, that

you can identify readily on a map. When an
 inspector comes in, you can say this is where we
 are stopping and starting.

MR. ZAMARIN: Yes, thanks. And I think, a great point because the concept that I think we landed on is that if there is no device that is protecting the facility from the pipeline, then it is an integrated system and it has to be -- regulatory oversight has to be applied across those consistently.

So, I think it is the right way to delineate between the two regulatory oversight frameworks.

14 And then we started to look at, 15 though, different situations where there may be 16 piping, for example. And FAQ 3 is if there is 17 piping that bypasses a pressure control device 18 and facilities have this piping, if we need to 19 perform maintenance or we need to move product 20 past a facility, there is, oftentimes, 21 infrastructure that bypasses those pressure 22 control devices, many times called a bypass line.

1 We introduced this concept of 2 predominate use. We basically said if there is 3 infrastructure that is used to bypass the pressure control on a predominate basis, then it 4 5 would continue to be subject to the regulatory oversight of PHMSA 192 or 195. 6 7 Also, if a facility is taken out of 8 service and piping is used to effectively bypass 9 what was a processing facility, it is now in 10 transmission service and it is going to be 11 subject to PHMSA 192 or 195. 12 And I am going to kick it over to Todd 13 to kind of wrap these up. 14 Okay, thanks, Chad. MR. DENTON: 15 As Chad talked about FAQ 2, that was 16 really the easy answer right where you have got a 17 normal situation of piping coming into a 18 facility. You have a pressure control device and 19 there is an easy delineation but we often know 20 that piping can be used oftentimes for both 21 processing and transportation. So, that is where 22 a lot of the conversation tended to focus.

1 So, FAQs 3 and 4 tried to address 2 those and Chad talked about that piece of it. 3 This is kind of the flip side of 3. So, where 4 this FAQ addresses the case where the piping may 5 occasionally bypass a processing unit. So, a 6 good example may be where normally a pipe is used 7 to feed a processing unit, maybe it is down for a 8 turnaround for two or three weeks every 18 9 months, something like that, but during that time 10 it is bypassing the facility. It is going from 11 one regulated pipeline to another regulated 12 pipeline. We are still saying that is an 13 It is not predominately used for occasional use. 14 transportation. That would still be PSM 15 regulated. So, no gap there because, again, it 16 still falls under the PSM regulation. 17 All right, FAQ 5. So, this one deals 18 with inter-facility piping that connects two 19 processing units but stays on the grounds of the 20 facility. And back to what Linda just talked 21 about, this one talks a little bit about fence 22 line but we intentionally stayed away from that

term because we really focus more on how the assets are being used.

So, in this case, say you have a pipe connecting to processing facilities, it does not leave the grounds of the facility. It may look like a pipeline and it has a pump, pressure control devices, but it would be PSM regulated, again, because it is used for processing and meets the 195 exemptions, essentially.

10 And then as Linda somewhat referred to 11 to save the two most controversial ones for last, 12 storage got a lot of conversation but, in the 13 end, we took a similar approach where it is about 14 how that asset or that facility I used.

15 So, FAQ 6 addresses the underground 16 storage on the grounds of a facility and if the 17 storage is used for the purpose of managing 18 processing inventory for that facility, then 19 piping would be PSM regulated. However, if the 20 storage is even on the grounds of a processing 21 facility, if it is regulated pipeline in and 22 regulated pipeline out and that is a primary or

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predominate use, then it would be 195. It would be PHMSA regulated.

3 And then FAQ 7 addresses underground 4 storage offsite. And similar story here. If a 5 pipe from cavern to a processing facility is used only for processing but it is off-site and it 6 7 does not meet the 195 exemptions, then it is 195 8 regulated. If it crosses a roadway, waterway, 9 things like that, then it would be PHMSA 10 regulated, even though it is connecting from 11 underground storage straight to a processing 12 facility, it traverses public lands and crosses 13 roadways then, again, it is PHMSA regulated. 14 So, next steps. You know first we

15 wanted to get input from this broader committee, 16 get your feedback, confirm support for the 17 And I believe, Linda then plans to document. 18 distribute this document, this guidance for her 19 inspection and enforcement staff and we will do 20 the same on the operator's side. And then we 21 will also look to develop guidance for 22 implementation. You know operators should

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evaluate their facilities using this guidance as whether they feel that they are making the right determination today of whether it is PSM or 195regulated.

5 And then to back up what Chad said, I think this process was a little frustrating at 6 7 times and probably very painful for Linda. And I 8 started to say she was outnumbered because it was 9 six or seven to one at times but it was really 10 more of a fair fight. You know if anybody knows 11 Linda, that was probably even odds. Right?

12 So, it was a great discussion and the 13 process worked in the end, I believe, and we got 14 to the right solution. So, I will leave it at 15 that and open it up for questions.

MR. TAHAMTANI: Any questions for Linda, Chad, or Todd on this great work they have done?

> Go ahead, Chuck. MR. LESNIAK: So, Chuck Lesniak,

Liquids Committee. At the beginning you talked
about one of the things you were looking at was

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1 the kind of assumption I think a lot of people 2 have is that OSHA is about personnel safety. And 3 where did you all -- how did you all address in 4 looking at this? Because one of the questions I have got is okay, are we kind of abdicating 5 environmental protection and other issues that 6 7 PHMSA looks at that maybe OSHA doesn't focus on 8 as much or is that just a misconception on my 9 part? 10 MS. DAUGHERTY: It's a very good 11 question. When we consider that very carefully 12 because we had to look at whether there would be 13 a gap in the safety oversight, relative. 14 PSM, it is a very big picture type of 15 regulation and so they do look at the various 16 aspects. They look at it a little bit 17 differently than PHMSA regulations do but they 18 get to the same safety outcome. We did a line-19 by-line comparison of the different requirements 20 to make sure that we weren't missing anything 21 major. The question about personnel safety and 22 environmental, the environmental we also have EPA

1 looking at these facilities as well. So, there 2 is actually a three-way overlap, not just a two-3 way overlap. EPA wasn't at the table for this so we didn't focus on some of the environmental but 4 5 as far as the PHMSA safety regulations and the 6 regulations that we apply to these facilities, we 7 did believe that the OSHA PSM requirements would 8 address everything that we have in place. They 9 may address it differently but they would address 10 it to the same net safety equivalent.

You know it is one of those situations 11 12 where, just to add on to that, and I failed to 13 mention it early on, one of the reasons we felt 14 that this was important from PHMSA's perspective 15 and OSHA's perspective is that we had different 16 regulations on the same facility. So, we were 17 telling operator personnel that they had to 18 comply with two sometimes contradictory 19 requirements. That is never good for safety. 20 And in one example that we looked at 21 one portion of the facility and certain piping 22 would be under PSM. You would have 100 feet of

1 piping that would be DOT-regulated and then 2 another portion of the facility under PSM. And 3 so the operator personnel had to say, on a daily basis, okay, PSM applies here but for this 4 5 segment, I have to look at PHMSA regulation and 6 then over here I have to look at PSM, which led 7 to confusion of how you operate those facilities, 8 how you design and maintain them. It just didn't 9 make any sense.

10 MR. LESNIAK: Just a follow-up to 11 that. Did you all talk about if there is an 12 incident at a facility? Because different rules 13 come into play at that point. And did you say 14 okay, there is an incident, this is OSHA lead 15 this point to point, that kind of thing?

MS. DAUGHERTY: We did have quite a bit of discussion about incidents. I will tell you that my concern was that PHMSA still has statutory responsibilities. We have statutory authority and jurisdictional responsibilities over these facilities. And through this policy, we are saying that we are going -- OSHA will be

1 filling in that inspection safety oversight and 2 we are vacating the field. Should an incident 3 occur, that does not vacate our responsibilities. 4 So, we understand that OSHA does investigations. 5 We looked at their statistics as far as 6 inspections and investigations and how those 7 The details as far as an onwould be pursued. 8 site investigation still need to be worked out 9 between OSHA and PHMSA. 10 I can tell you that in other 11 facilities that we jointly investigate, we have a 12 very good working relationship. So, I don't 13 think it will be a problem going forward but it is a detail we need to consider. 14 15 MR. DENTON: Todd Denton, just to 16 follow up. We did have a lot of those 17 discussions and a lot of it at first was 18 education about PSM. Right? And it is less 19 prescriptive but it deals with the same things. 20 For example, an incident that is maybe related to 21 mechanical integrity, that is covered under PSM, 22 just as it would be under 195 or 192.

So, we felt like the coverage was good
 on both sides.

3 MR. TAHAMTANI: Cheryl. I'm just interested in 4 MS. CAMPBELL: 5 a little clarification. When we talk about storage for the processing facilities, are we 6 7 talking about both liquids and gas? Are we 8 talking about those broader storage fields that 9 some of us use for peak shaving and managing our 10 winter loads? What exactly are we talking about? 11 I mean, I am just looking Or all of the above. 12 for a little clarification around that. 13 MR. ZAMARIN: Yes, I can maybe take 14 first crack at that. It really is storage used 15 to manage inventory inside of a processing 16 facility. And I think in particular there are 17 some processing facilities that use underground 18 storage. And underground storage, traditionally, 19 is thought of as used for the purpose of aiding 20 in transmission, you know storage used for winter 21 service, peak shaving, that kind of stuff. Ι 22 mean that is the traditional, I think, storage

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usage that people think about.

2	And I think we didn't address
3	jurisdictional authority of that. That is part
4	of the transmission grid and kind of another
5	issue. This is really, there is some underground
6	storage that is used like a bottle at a
7	processing facility but because it is a large
8	facility, there are underground caverns nearby
9	and it is used for the purpose of inventory
10	management within that processing facility. It
11	is a different purpose and it is governed it
12	has been designed and operated and maintained
13	under the OSHA PSM framework. And so that was
14	really the area that we were addressing. I think
15	that when we and it is one of the areas Todd
16	mentioned that we think, as an industry, we will
17	do some work to add clarification and definition
18	around how to implement that standard because in
19	an FAQ, we can't go into all the different kind
20	of potential scenarios but for the most part it
21	is to address when you have underground storage
22	that is effectively just serving the same purpose

as a tanker or bottle would at a processing 1 2 facility. 3 MR. TAHAMTANI: Rick. 4 MR. KUPREWICZ: Rick Kuprewicz, 5 Liquids. I have a question and then an 6 observation. 7 First of all, my experience with the 8 OSHA process safety management, which has been 9 quite a few decades, is maybe all the parties in 10 the room understand and tell me if it has 11 changed, but transportation facilities are 12 specifically excluded from OSHA PSM regulations. 13 And so it is important, unless that has changed 14 in lobby land in the last three decades, that is 15 an important factor to understand. Is that the 16 case still? 17 MS. DAUGHERTY: Under the statutory 18 authority given to PHMSA by Congress, some 19 transportation facilities preempt OSHA's PSM 20 However, the facilities that we requirements. 21 were talking about were complex facilities which 22 had both transportation and non-transportation

1 So, they were intermingled. facilities. And 2 that was what we were trying to sort out. 3 MR. KUPREWICZ: And that is important 4 to do because, again, some of the parties may not 5 understand under OSHA PSM regulation there is a 6 thing called a process safety hazard analysis 7 periodically required of a team of individuals 8 with certain minimum qualifications. So, I don't 9 want to take anything away from OSHA here. 10 Now, my commentary to all this is I 11 want to encourage the good work you guys are 12 doing here because from a public perspective, the 13 last thing we want to have is a series of 14 combating regulators trying to figure out who is 15 And the poor on first what is on second. 16 operator is trying to understand who is on third. 17 And so in many situations we have 18 seen, we have actually seen operators paint the 19 boundaries. Okay, this is PSM. You know paint 20 Though also I appreciate it is not a is cheap. 21 yes or no answer here but if you can't get that 22 demarcation straightened out, everybody is going

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to lose.

2	And so from a public perspective, we
3	do not want competing regulations. We want
4	clarification and simplicity whenever possible
5	that will guide people to effectively implement
6	regulation that will protect the public safety,
7	as well as the processes.
8	Thank you.
9	MR. ZAMARIN: This Chad Zamarin,
10	Engineering. Good point, Rick. And one of our
11	guidance thoughts is to encourage operators to
12	mark on their drawings and then even go out to
13	their facility and paint. We do that in a lot of
14	our compressor stations, where we identify the
15	valves that protect the facility from a blowdown
16	perspective. We paint them red in many
17	facilities. So, we are going to encourage
18	operators. We are going to come up with a as
19	an industry, our next step will be to come up
20	with additional implementation guidance and we
21	are going to be doing just as you described.
22	MR. TAHAMTANI: Mark.

1 So maybe this is a MR. BROWNSTEIN: 2 good follow-up to the previous discussion. Ι 3 quess as someone who is less familiar with the 4 intricacies of operations, how immutable are the 5 various definitions that you are pinning your distinctions on? 6 7 So for example, right, you are making

8 a distinction between a storage facility that is 9 being used to facilitate interstate transport 10 versus one that is onsite. I guess the question 11 is over a period of time does the status of that 12 facility or that piece of equipment change or 13 could change? Today, it is simply supporting 14 internal operations. Tomorrow, it is interstate 15 transport and the day after tomorrow it goes 16 back.

17 So, it goes back a little bit to the 18 question I think that was just being asked, which 19 is, are you going to have to have sort of 20 philosophical debates every time an inspector 21 shows up on-site or is it going to be relatively 22 apparent and relatively consistent over time?

1 MS. DAUGHERTY: I'll take a stab at That was an excellent question because 2 that. 3 that was another topic of much discussion amongst the committee is if you have a facility and its 4 5 predominate use is one thing, how do you show that it is predominate use? 6 7 So, you know we go out and the company 8 says, oh, this is predominately PSM, how do we 9 know that when we leave, forgive me industry 10 representatives, but how do we know as a 11 regulatory agency that when the OSHA inspector 12 comes out they don't say oh, no, no, no, it is 13 predominately PHMSA? So, we are asking that there be records and documentation that would 14 15 prove that predominate use, that that would be 16 something that would be available that we could 17 use and that we would verify. 18 So, OSHA and/or PHMAS could verify 19 that actual information in the predominate use so 20 it doesn't flip-flop and so that we can verify 21 someone is providing safety oversight to those

22 facilities.

MR. BROWNSTEIN: And if I could ask a 1 2 follow-up question, then. How much communication 3 is there, typically, between OSHA and PHMSA? 4 Because I understand that okay, so documentation 5 will be kept but it seems to me that the lynchpin 6 of this is that the two sets of inspectors are 7 actually talking to each other. Yes, I was out 8 at that facility last week and they said you guys 9 were on it. It seems to me that a certain amount 10 of that kind of communication has to happen in 11 order for this to work well. 12 I will tell you that prior to this 13 discussion, we had quite a bit of communication 14 with those at OSHA because we often jointly 15 investigated incidents. For example, if there 16 was a distribution incident which involve 17 personnel safety and pipeline safety, we would 18 talk to OSHA about who is investigating, who is 19 taking the lead, how we are sharing information. 20 This takes it to a slightly different 21 level, where we have talked to OSHA about some 22 initial joint inspections, where we go out

1 together to a facility and say okay, this is what 2 this facility looks like. Here is what we are 3 talking about. So, we would share that information. 4 5 Ongoing, I would expect those relationships to develop more but it is a work in 6 7 progress. This is taking our relationship to a 8 new level. 9 MR. ZAMARIN: I would also add --10 again, Chad Zamarin with Cheniere, that I think 11 we recognize and will be furthering, as this 12 comes out, that there is a significant burden on 13 the operator. It is the operator's 14 responsibility to take this guidance, to 15 understand the regulations, to understand the 16 delineation of regulatory oversight and clearly 17 define where that occurs. And that needs to be 18 communicated to the PHMSA inspector when the 19 PHMSA inspector is there. It needs to be 20 communicated to the OSHA inspector when the OSHA 21 inspector is there. And records need to be 22 maintained. Drawings need to be provided. So, I

think our guidance is going to be not only that it is clear for the agency to understand operationally where that delineation occurs but also that the operator understands it and can communicate it.

6 And even though you need to be able to 7 verify what the operator is saying, there is a 8 significant burden on the operator to take this 9 guidance and properly document and communicate 10 that delineation.

Todd Denton, I will just 11 MR. DENTON: 12 add to that. And to your question about things 13 changing, that is a good question because they do 14 change and that goes back to our burden. And 15 that is covered quite a bit, obviously, under 16 PSM, safety management systems with management of 17 change.

But for say example, a fractionator shuts down, you change that piping to regulated pipe to regulated pipe. Obviously, that becomes a 195 jurisdiction or 192 but that is a burden on us that we have to defend.

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1	MR. TAHAMTANI: Linda.
2	MS. DAUGHERTY: I just wanted to
3	mention a few last things. We have gone through
4	this discussion and the work was challenging
5	because we came in with very different
6	viewpoints. And I think having the diverse work
7	group, having OSHA sit at the table, having
8	industry sit at the table, there was a lot of
9	education involved in this group. But I think
10	that the overwhelming goal was that we get to the
11	same safety goal and singular oversight.
12	You know Rick put it quite eloquently.
13	You can have multiple jurisdictions and you can
14	end up defeating your safety goal if you create
15	confusion and contradictory requirements.
16	So, as Todd mentioned, it wasn't
17	always an easy discussion but good discussions
18	not always are. Sometimes you have to have them.
19	And there were some other people from
20	the subcommittee here. I think Francis Foret is
21	back there. Are there any other people from the
22	subcommittee?

1 I wish our OSHA rep had been able to 2 attend today but I think that good work went into 3 this and I think we should consider it, as other 4 issues arise, in the interest of good government, 5 and trying to reach our safety goals, that we should consider maybe not on a regulatory issue 6 7 on this but I feel like that having worked 8 through the subcommittee, I did recommend to Jeff 9 that I think that this is a success story as far 10 as of means to resolve safety issues in an 11 innovative way. 12 So, my thanks to the group and I am 13 hoping that the committee will support the recommendations and the work that has been done 14 15 by the subcommittee. 16 MR. TAHAMTANI: Thank you, Linda. Ι 17 have asked Jeff to address a couple of points in 18 the slides and he has got some other points to 19 make. So, Jeff. 20 MR. WIESE: Thank you. Well, 21 actually, first of all, I just wanted to thank 22 you all.

1 And I wanted to thank Francis as well. 2 I appreciate your efforts on that and actually 3 they are quite extensive, going over like a year and a half worth of a lot of meetings. And as I 4 5 have said before and started out the committee 6 meeting, we believe in the power of leadership in 7 the companies and I think that that played out 8 And I wanted to thank you all for that, here. 9 including Francis and Linda. I think Linda can 10 hold her own, so I was okay with putting her in 11 there at six to one. 12 But at any rate, my thanks to you all. 13 I think this is good work, first of all. And I 14 spoke with OSHA and I think, Mark, to your 15 question, there is more to be done there. We 16 have really good relations with OSHA at the top 17 levels; Dr. Michaels and Jordan, his deputy, and 18 some of their people, Solheim, in enforcement. 19 And then some of our regions have pretty good 20 working relationships at a regional level but I 21 think we have more work to do there to make sure 22 that we have got regular communication at a field

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level.	

2	MR. BROWNSTEIN: Let me just also
3	suggest that when you all get together for beers
4	to discuss this, that you maybe invite EPA as
5	well, since the reference was made earlier to the
6	fact that they also have some responsibility
7	here. It seems to me that between the three of
8	you, there should be some communication.
9	MR. WIESE: Yes, I think our focus
10	here was dominant safety but your point is well-
11	taken.
12	The other things I wanted to mention
13	is I am walking a fine line here. I want to have
14	a discussion at the end of the day when we get to
15	the roundtable about broader use of the advisory
16	committee. So, I am trying to take Andy's
17	argument away there. No, actually, I have it on
18	my notes, Andy. So, I have been thinking about
19	this. I think this is a good example of how
20	issues can be brought to the committee and a
21	smaller group can go off and spend more time,
22	bring in other players who are knowledgeable who

aren't on the committee to engage, you know
 wrestle with an issue and come back and report
 back to the committee.

I'm not specifically looking for a 4 5 vote or anything. This isn't one of those sorts 6 And the fine line I am walking is I of issues. 7 don't think I want to get the point where 8 subcommittees are considered FACA-chartered subcommittees with all of that. We will consider 9 10 them working groups on issues. You know terms of art and all of that. 11

But I think fundamentally, the same thing is done; bright people in a room working on an issue who have a little more time, come back and report out more broadly, take questions from all the stakeholders here, and then move forward.

But I think it has been a very productive exercise. Again, I repeat my thank you to you guys for all the work you did. And Francis, I hope you will share that with the rest of the team as well. And I appreciate your being here as well.

1 So, with that being said, I would ask 2 you between now and the end of the day to be 3 thinking about this. I have got a couple of ideas of my own, which I wouldn't mind throwing 4 out and let's talk about working groups at the 5 6 end of the day. 7 MR. TAHAMTANI: All right, we are 8 running 25 minutes behind schedule. 9 MS. DAUGHERTY: Whoops! 10 (Laughter.) 11 Thank you, Linda for MR. TAHAMTANI: 12 all of the stories you didn't have to tell. But 13 I will get us back on track. It is close to the break. 14 Ι 15 understand there are coffees to be disposed of. 16 So I didn't tell you this, but I want to take a 17 break right now but be back at 35 after. A ten 18 minute break. Be back here at 35 after. I will 19 start the gavel at that point. 20 (Whereupon, the above-entitled matter 21 went off the record at 10:26 a.m. and resumed at 22 10:38 a.m.)

1 MR. TAHAMTANI: All right. As soon as 2 we have the committee members that are in the 3 room take their seats and the members that come 4 in late, I want to mention their names and have 5 them stand up for a while. Like yes, Andy Drake, 6 you stand up for a while. You can't have a seat 7 because you are late. Thank you, Paula, for 8 having a seat. 9 In any case, unless you don't have 10 flights this afternoon or a four-hour drive like 11 me back to Richmond to go 100 miles, we can run 12 this meeting to midnight. But I know you have 13 flights to catch and places to see, and I am 14 going to go see my lovely wife. 15 So, with that said, the next item on 16 the agenda is a briefing by Bob Kipp. Everybody 17 knows Bob, President of CGA and Sam Hall with 18 PHMSA. Who is going first? Sam, go ahead. I'm Sam Hall. 19 Thank you. MR. HALL: 20 I'm with PHMSA. I work in Program Development on 21 a variety of topics, damage prevention being one 22 of them, emergency response and public awareness

1 I also contribute to. And I have got a few 2 slides here that I am going to run through. I am 3 going to try to keep my comments brief and give plenty of time for Bob to provide his comments. 4 5 I don't think that what you will see 6 here is going to be much of a surprise. It will 7 be more of a review than anything else. There is 8 some new information here but I am hoping to tie 9 some things together for you and refresh your 10 memories on a couple of program areas that we are 11 pursuing. 12 I am going to talk about some of our 13 strategies and how we are playing those 14 strategies out, give you some program updates, 15 talk about some new publicly available 16 information that we have posted to the website 17 and, of course, our new enforcement rule was just 18 published in July. 19 Our strategies are listed here. We 20 are trying to influence change at the state 21 level. We are working on transparency. We are 22 serving as a resource to empower damage

prevention stakeholders and we are promoting 811, call before you dig.

3 So, when we talk about influencing 4 change at the state level, we are talking about 5 legislation at the state level and rulemaking 6 activity at the state level. We have been very 7 active in supporting legislative efforts and 8 rulemaking efforts at the state level with 9 letters to policymakers, participation in 10 stakeholder meetings. Really, we are pushing for 11 effective, fair and balanced enforcement of 12 damage prevention laws, elimination of exemptions 13 that cannot be supported by data, exemptions that 14 really are arbitrary and can't be supported by 15 data, and then collection and analysis of 16 additional data that can help us make better 17 decisions about how to support states. 18 We are also analyzing PHMSA data and 19 other sources of information to focus our

20 outreach. So, we are looking at things like
21 incidents, leaks caused by excavation damage,
22 damage rates over time, pipeline mileage, those

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kinds of things.

2 Advocating change through 3 I have posted a URL here on the transparency. This is what we call our state pages 4 slideshow. and there are a variety of links for each state 5 6 on this page and there is a new link for each 7 state on the page pertaining to damage prevention 8 information. We have taken information from our 9 annual reports and created some very simple 10 visual reports that show things like causes of excavation damage in each state and nationally, 11 damage rates, damages per a thousand One Call 12 13 tickets in each state, and then trends over time, 14 typically a short period of time, but there is a 15 lot of information there at that URL that I would 16 certainly encourage you to take a look at. The 17 report has been very useful to a lot of our 18 stakeholders and it all comes from our annual 19 reports where we are leveraging our own internal 20 data to create the report. 21 More on transparency. We strongly

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believe that more state-level data is needed.

1 That can be accomplished in a variety of ways 2 through CGA DIRT database or an equivalent, state 3 reports analyzing the data that states collect. 4 We are very interested in the effects of 5 exemptions. How do we quantify the impact of 6 exemptions? Do exemptions cause pipeline 7 strikes? Are they really the root cause of a 8 pipeline strike or is it something else? And we 9 are also focusing heavily on publicly available 10 information at the state level, where it is 11 appropriate and practical.

12 We, of course, serve as a resource to 13 empower stakeholders, grants to states. We have 14 several long-standing grant programs: our base 15 grant program for pipeline safety; our One Call 16 grant program has been running since the mid-17 90s; the state damage prevention grants, which 18 have been running since the mid-2000's; and our 19 technical assistance grants for communities and 20 non-profits. And of course, that is in addition 21 to some of the other non-monetary support that we 22 provide to the states. We have got a link there

1 that talks about each of these grant programs. Ι 2 won't spend too much time on them. And we also 3 support states, like I said, through letters, meetings, calls, briefings. 4 We are out on the 5 road quite a bit. We are working with 6 stakeholders on a regular basis to try to help 7 empower stakeholders to make the right decisions.

Promoting broad awareness of damage

9 prevention. Our outreach for 811 continues to 10 grow annually. We are targeting our limited 11 resources, where we can, and where we think we 12 will make the greatest impact. We are looking 13 for new ways, always looking for new ways to 14 support damage prevention awareness across the 15 nation. We have recently been working with the 16 national conference of state legislators. We 17 attended a conference there and talked to state 18 legislators about the importance of 811 and 19 damage prevention. And we are looking at 20 messaging, social media, YouTube, really, any 21 avenue that we can, as many of us in the room 22 already do to spread the word about 811.

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Briefly, some updates on our programs. 1 2 We, of course, support CGA's outreach efforts, 3 both financially and in kind. We have recently completed a PHMSA poster contest for kids, in 4 5 partnership with the National Energy Foundation. 6 That is growing every year. It is really raising 7 awareness, we think, among school-aged children. 8 Earth Day, Take Your Daughters and Sons to Work 9 Day, Fire Department Instructors Conferences, 10 other major conferences. 11 There are a couple here that I would 12 like to highlight. One is the DC Metro 13 advertising campaign. I don't know if any of you 14 had a chance to see the wallpaper of 811 that was 15 in the Navy Yard Metro station over the past 16 month in August. Really, just 811 plastered 17 everywhere. And we got a lot of really good 18 feedback about that. The entire station was 19 loaded with 811. It was almost like it was the 20 only safety message in the station. 21 Social media programs, we have got a 22 paid radio public service announcement that we

1 put out in English and Spanish annually, and 2 then, of course, other events and conferences. 3 You may recall that we wrote an 4 Exemption Study that was required in our most 5 recent reauthorization. That was completed in 6 October of 2014. And really, what we discovered 7 was that we didn't have enough data to satisfy 8 Congress's request for this study. We do need 9 more data to understand the impacts of 10 exemptions. Not in every state. Some states do 11 quite a good job of documenting how exemptions 12 impact pipeline safety and other underground 13 utility safety. But in many states, exemptions 14 are the result of politics and not necessarily 15 the result of sound planning and understanding 16 the impacts of those exemptions on safety. 17 We also believe that we need more 18 targeted education for certain categories of 19 excavators like farmers. There is certainly some 20 opportunity for outreach there. 21 We completed our nine-element 22 characterization the 2014 results are posted to

our website. That talks about the nine elements of effect damage-prevention programs. We rate each state's implementation of those nine elements and those results are now posted to our web.

This last bullet talks about public 6 7 awareness. There is a clear tie between public 8 awareness and damage prevention, certainly. And 9 many of you are aware that we created a working 10 group, the Public Awareness Program Working Group 11 to conduct strengths, weaknesses, opportunities, 12 and threats analyses of various elements of 13 public awareness programs. That work has been 14 I know that there are many who are very ongoing. 15 interested in seeing the results of the report. 16 We intend to publish it, I hope, within the next 17 month.

18 The report, I want to warn you, is not 19 groundbreaking. It is kind of like a document of 20 what we all know. It doesn't make 21 recommendations about how to move forward. It 22 doesn't make recommendations about what the

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government will do. It doesn't make 1 2 recommendations at all. It is really a summary 3 of findings. It is a summary of what we know. 4 And we hope that it will serve as a foundation 5 for making the kinds of decisions that we need to 6 make about how to improve public awareness as we 7 move forward. So, stay tuned for that report.

8 Annmarie Robertson is on the Cross 9 Bore Safety Association Leading Practices Team. 10 I must confess I don't know a lot about this team 11 and what they are doing. I talked with Annmarie 12 briefly about it yesterday. But it is a broad 13 group of stakeholders focused on reducing cross 14 bores, that is, running a pipe, a distribution 15 line through a sewer line and causing a backup in 16 the sewer line that then can lead to a plumber 17 Roto-Rootering through the gas line and causing 18 an accident. It happens. It is not uncommon. And their goal, this Cross Bore Safety 19 20 Association Leading Practices' goal is to have a 21 document that addresses some of these issues by 22 the end of this calendar year.

1 PIPA is always on our radar, very 2 important to us, land use transmission around 3 pipelines, still seeking ways to promote Steve Fischer is back with our 4 awareness. 5 office. Many of you will know that name. He has 6 come back to Program Development and is working 7 to head up PIPA and a variety of other tasks. 8 And then lastly, the enforcement 9 rulemaking. This was effective as of January 1, 10 Just to refresh your memory, the 2016. 11 enforcement rule creates four major things. One 12 is the criteria that we will use to assess the 13 adequacy of state damage prevention enforcement 14 Again, we have to assess state damage programs. 15 prevention enforcement programs, deem them 16 adequate or inadequate and those that we have 17 deemed inadequate, we can then take federal 18 enforcement action against excavators who damage 19 pipelines in those states. 20 The rule also lays out the 21 administrative procedures that state can use to

tests notices of inadequacy. We have created a

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new Part 196 that is standards for excavators who 1 2 are digging near pipelines in those states that 3 have inadequate enforcement programs. We have never had a Part 196 in our regs. 4 We now do 5 because we are, in essence, regulating a new 6 sector, that is, excavators who damage pipelines. 7 And then lastly, we address the 8 adjudication process for excavators who are cited 9 by PHMSA in the rule. 10 We are working to implement the rule 11 The rule was published in July and there is now. 12 It goes into effect January 1, a lot to do. 13 2016. So, for example, we are developing our 14 checklists, guidance that expands on the policy 15 documents that are in the preamble that are in 16 the final rule and we are looking to have 17 consistent evaluations of state enforcement 18 programs. We want to make sure that those 19 evaluations are clear and fair. We are 20 developing FAQs, a website. There will be a lot 21 on our web that will simplify the heavy text of 22 the rule, of course. So, stay tuned for that.

We are looking to post that information over the next couple of months, as we ramp up toward implementation in January. Our time line and our training is, of course, incredibly important to that effort.

6 This is a quick snapshot of the 7 organizations at the state level that enforce 8 state damage prevention laws. I know that it is 9 difficult to read, so let me talk you through it. 10 The green states and the green states with the 11 yellow hashing, so I am talking about Nevada, 12 Arizona, New Mexico, North Dakota, and then 13 Virginia, North Carolina, Tennessee, those are 14 states with enforcement done by public utility 15 commissions. The ones with the yellow hashing 16 have an advisory board that assists with 17 enforcement.

The turquoise states, California,
Utah, Wyoming, and others, are states with
enforcement through the Attorney General's
Office. And the dark blue states, Florida,
Louisiana, Kentucky, those are states with

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enforcement through local law enforcement. So,
 state police or local police will enforce the
 laws in those states.

And then in red, Colorado, Montana,
Alaska, Mississippi, and West Virginia, are
states with no enforcement at all. They have no
enforcement on the books.

8 I will say that this map has changed 9 pretty significantly since we started the 10 rulemaking process back in 2009. There used to 11 be, I think as of that time, at least nine 12 states, if not ten, that had no enforcement. And 13 in the time between the writing of the advanced 14 Notice of Proposed Rulemaking in 2009 and the 15 publishing of the final rule in 2015, five, six 16 states, five or four states, I should say, did 17 pass laws that created enforcement programs. So, 18 that is a good outcome of the rule, despite the 19 fact that the rule itself had not been published 20 until just recently.

We are concerned about those states
with no enforcement, of course, and we are

1 concerned about states that have enforcement 2 authority but may not be using it. And I think 3 it is, in some cases, fair to assume that states 4 where enforcement is vested in the Attorney 5 General's Office, enforcement may not be 6 That doesn't mean that it isn't but happening. 7 it is of concern to us. So, we are very 8 interested in focusing our resources on 9 evaluating the states in the higher risk states, 10 obviously, the five where we have no enforcement 11 at all, and then other states where we really 12 don't have a very clear picture of the 13 enforcement landscape in those states. 14 My contact information is there. 15 Annmarie Robertson is also a wonderful resource 16 and really our damage prevention lead. Thank 17 you. 18 MR. TAHAMTANI: Thank you, Sam. Bob. 19 Thank you. I think the MR. KIPP: 20 slides will come up. First, let me apologize. Ι 21 have got a bit of a cold. So, if I have to move 22 away from the mike for a second, you will

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understand. Thank you.

2	Okay, horsepower of damage prevention.
3	A lot of luck, a lot of great sponsors. That is
4	our theme this year from the Joey Logano NASCAR,
5	sponsored by Shell, where on five occasions 811
6	will be on Joey's trunk lid and he will speak to
7	811 on Sirius Radio, NASCAR Radio, and is a very,
8	very good spokesperson for 811.
9	3M, on two races, they will put it on
10	the hood. Thanks to the 3M people for that.
11	Again, very good sponsors.
12	The 811 bike, which has been all over
13	the country, and that is One Call Concepts, they
14	had that done years ago by I forget the TV show
15	but it was where they made bikes. And I think he
16	paid \$250,000 to have that bike made and it has
17	been all over the country. He has got Jimmy the
18	Bike Wrangler, who goes from location to
19	location, towing in his trailer and putting it
20	on-site and everyone wants to have a look at the
21	811 bike. So, it is quite good for us.
22	Mason Mingus and the Truck Series.

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1 Mason is sponsored by Market Madness, a group of 2 one call centers who fund and put their money 3 together to get 811 in various programs and the 4 Truck Series is where they sponsor Mason Mingus. 5 And then we have got a Bass Boat fisherman on his boat and it has been on TV also. 6 7 You can see on the right-hand side, gets 811, for 8 those who watch fishing. 9 Interestingly enough, when you combine 10 all of that, that is our target market. If you 11 look at NASCAR alone, about 45 percent of people 12 who dig this year will either watch or attend a 13 NASCAR race. So, when you can get to the person 14 who is digging, this is the kind of event he is 15 looking at. This is what interests him and this 16 is what he does. I will talk to that little 17 fellow in the background a little later. 18 National Safe Digging Month. That, of 19 course, is very April. Very successful again 20 this year. We have got our statistics together. 21 There were 1500 media stories, combined TV, 22 radio, and print online, about 500 million media

impressions; 93,000 visits to Call811.com during 1 2 April, the highest month ever, and about 1.3 3 million combined media value, on par with last year. So, this is everything from one call 4 5 centers from pipeline companies, telecom 6 companies, excavators, locate companies with the 7 811, all doing a variety of things to get the 8 story out in a month. And, of course, PHMSA and 9 everything PHMSA does with their takeover with 10 the subway stations, and so on and so forth. 11 So, now all good, good things to get 12 the word out and very successful in the month of 13 April, which happens to be the month where there 14 is the most activity in terms of digging in the 15 country. 16 We had Governor Proclamations earned 17 this year. There is a few we don't have. I'm 18 not sure what we can do there but I think we are 19 working hard at trying to get 50 for 50 next 20 year. 21 This young man, Victor Espinoza, that 22 is last year's colors, if you wish, with DAP, the

1 partners who owned California Chrome. And it was 2 really a fluky thing. One of our PR people, if 3 you wish, for USA North 811 public awareness 4 fellows, his stepdad is a trainer, who was 5 training with this other trainer, who said boy, 6 have I got a horse. And the horse was California 7 Chrome. He says you won't believe this horse. 8 This horse is unbelievable. He is going to win 9 everything. So, it all started with a couple of 10 calls there and four different one call centers 11 sponsored Victor during the Derby and, of course, 12 he went on to win. And then Monday after the 13 Derby, his price went up and they called us. And 14 that is the nature of the industry. 15 So, it was very interesting dealing 16 with Victor and we managed to get all of our 17 companies and members to support it. I remember 18 at one point, we gave our companies, we told them 19 we needed, I think, a commitment of \$60,000 in 24 20 hours and we got it. And of course, the payoff

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It is a different group. If you ever

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was remarkable.

-- it was very interesting. Before negotiating
with Victor, I Googled a number of sites but one
that I Googled was what do jockeys make and how
do they make it. And it is very, very
interesting business to, surprisingly to me,
anyways, how little they make and how dangerous a
sport it is.

8 This is an iconic picture of this 9 So, this year we began negotiating with vear. 10 Victor last November and really didn't come to 11 any sort of agreement until march of this year 12 and we got an agreement on -- we had two 13 contracts with them. One on every race but the 14 Breeder's Cup and the Belmont. And the Belmont 15 was quite clear. He says if I win the first two, 16 you aren't going to be able to afford me for the 17 third one, which he was absolutely right. And 18 then we have a separate contract where all of his 19 other races, and he races about anywhere from 15 20 to 20 times a week. They typically race four 21 times a day, four to six times a day, about four 22 days a week. And he is racing in Southern

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California.

2 So, we got into a deal with Victor, 3 again, separately for the Derby and the 4 Preakness. And it is an interesting industry, 5 again, because in case of the Derby in Kentucky, 6 the trainer has veto rights on what the jockeys 7 wear and it varies from state to state, racing 8 condition to racing condition. And in this 9 particular case, Bob Baffert, the trainer of 10 American Pharaoh was not fond of the trainer of 11 California Chrome and didn't want anything to do 12 with him, so, sort of forbid Victor to wear it on 13 his pant leg. But as you can see, he wore it on 14 the boot and on the hat, and on the turtleneck, 15 and so on and so forth. And that particular 16 picture is after the Preakness. For those of you 17 who watched the Preakness, a major thunderstorm 18 erupted about 20, 25 minutes before the race was 19 to start and it was literally just a pool of mud 20 on the track. And we were sitting there ready to 21 watch this and it was just pouring rain and 22 lightning. We figured they were going to call it

1 And he had the pole position, which I am off. 2 now told is not the greatest position to have in 3 horse racing. But because of the muddy situation, he knew that he had to take the lead 4 right away. And the mud, if you ever notice when 5 6 they show them in close up, they have got 7 goggles. Well, they have got six sets of goggles 8 and they just keep flipping them off as they are 9 And as they get muddy, they just flip racing. 10 You don't even see, their hands are so them. 11 But the horses don't have goggles. quick. 12 So, you have got the horse running in 13 second place behind the guy in first place and he 14 is getting all this mud. And if you ever get a 15 chance to see the Preakness again in slow motion, 16 as they are coming down the stretch, you can 17 actually see, and the horses typically run with 18 their heads bobbing up and down, and you can see 19 the number two horse actually start to turn its 20 head and start to run sideways and there was no 21 way he was going to catch him, at that point.

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So, it is a very interesting sport but

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1 for us, it was just very -- not only from a 2 standpoint of the media impressions but what it 3 did for the industry. Everybody in the industry rallied around it. 4 There were parties. There 5 were tee-shirts. There were hats. Lots of 6 emails, lots of text messages, and everybody was 7 pretty thrilled with that and, of course, a great 8 value to us. 9 Of course we didn't have him in the 10 I can tell you that he was last race. 11 superstitious because I remember when we were 12 negotiating the first two races, I said -- he 13 said you won't be able to afford me and I said 14 well, I know you are superstitious. And I said 15 if you win the first two, you are going to pay me 16 to wear 811 in the third. 17 (Laughter.) 18 MR. KIPP: And he said, I just might! 19 So, obviously, he didn't. But if you saw before 20 the race he had his goggles on and on the side of 21 his goggles, he said 811. He carried the 22 superstition in. He couldn't afford to not race

without some sort of 811 somewhere. So, he had 1 2 it on his goggles. I didn't charge him for it. 3 (Laughter.) 4 MR. KIPP: So, it was a great success 5 story. The cumulative results for the 6 7 particular events and what he has done, and he is 8 still racing, by the way, and still wearing it, 9 and he will be for the rest of the year, again, 10 other than Breeder's Cup. I think that American 11 Pharaoh owners have a deal with Monster and he is 12 part of that deal. He did very, very, very well 13 for that third race. So, I am sure he is going 14 to do that similarly in the Breeder's Cup on 15 October 31st. 16 So, those are some of the details of 17 the media value. 18 And of course so the major events, we 19 have got Joey Logano. We have now picked up Indy 20 500 champion. He, apparently, is going to have 21 the 811 logo on a number of races, again, on the 22 Shell car. Victor Espinoza, of course, Triple

1 And we have a sweepstakes winner, who Crown. 2 will get to meet at least one of those people, 3 Joey, and maybe someone else. And that is to increase the number of people who friend us on 4 5 Facebook. So, there is a sweepstakes going on 6 Last year it drove our Facebook likes by now. 7 tens of thousands and the winners were a couple 8 out of -- it was actually Breakfast with Biffle 9 last year and it was a couple out of Detroit that 10 won. 11 And the year before that, the Joey 12 Logano sweepstakes was a young handicapped fellow 13 out of Georgia. This was the biggest moment in 14 his life when he got to meet Joey Logano. It was 15 just worth it being there to see he had won that 16 with his mother. It was just terrific. 17 DIRT Report. I agree with everything 18 Sam said. We don't have enough data. We need to 19 have more data. We just need to know more to be 20 able to address the problems. We are getting 21 better at it. We are going to see some numbers

today. These are general statements from all

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infrastructure and then I will go into some gas distribution numbers after.

3 Excavation practice is not sufficient. 4 That is just to define what it means when we say 5 Notification not made. Locating practices that. 6 not sufficient. Notification practices not sufficient after and miscellaneous root cause. 7 8 Now this chart is very difficult to 9 read but it is the most interesting of all 10 charts, from my perspective. It tells us that in 11 2004, when we first started gathering damage 12 data, we took in about 25,000 reports into our 13 database. And the people who do the analysis on 14 this, Ph.D.s and analysis in numbers, and they 15 are all quite good at it and talked some really 16 great language with me, they estimated that at 17 that time, based on everything they had, we had 18 about 700,000 damages in 2004. And these are 19 excavation damages, 675,000 there, quite a band. 20 The vertical bars of the construction spending in 21 the millions in those years. As you can see, 22 they dropped in 2008-2009, 2010, 2011 and start

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1 to pick up again in 12, 13, and 14. And then 2 the range of damages. The black line is the 3 number of damages submitted to the DIRT database. We estimate that we had about 349,000 4 5 last year, which was an increase by about 14,000 6 from the year before. So, damages are going up. 7 On the other hand, the activity was 8 going up. So, our damages per thousand incoming 9 tickets actually came down. We had about 1.84 10 damages per 1,000 One Call transmissions. 11 A lot of these numbers are 12 extrapolations. We get some very good numbers 13 from some states. We get some very good numbers 14 from some stakeholder groups and then we have to 15 try and extrapolate those numbers based on 16 population, based on spending, based on density. 17 So, some of those numbers, obviously, would have 18 a wide variance of accuracy. But by and large, 19 it is consistent and we think we are on the right 20 track. 21 Here, we have, for instance, there are 22 states 1 through 16 where we have a fair amount

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1 of damage data submitted to us. So, we feel 2 fairly comfortable in the numbers. And you can 3 see they average about 1.84 damages per thousand 4 tickets. You have one state way on the left, 5 where we have a tremendous number of damages 6 submitted to this, but their rate, based on 7 locate tickets is about average, 1.84. And then 8 you have other states where the damages are 9 fairly low, if you look at number 12, but their 10 damage rate is very high, based on the number of 11 So, there is not a lot of activity tickets. 12 there, yet a disproportionate number of damages. 13 And we are trying to relate some of those and 14 come up with some actions we might be able to 15 take and I will get to some of those conclusions 16 in a bit. 17 To say that the activity increased 18 dramatically in 14, in 2013 we estimated there 19 were about 100 and -- no, I'm sorry, we had about 20 31 -- no, 30 million -- I'm sorry -- 28 million

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is 28 million requests incoming in 2013. We had

requests coming into the one call centers.

That

1 about 160 million outgoing tickets. So, for 2 every incoming request we had almost six tickets 3 being issued to various infrastructure owners. 4 That jumped dramatically in 2014 for a number of 5 reasons. More infrastructure on the ground, 6 different mapping but also different ways certain 7 states wanted tickets issued. For instance, in 8 some states, where in the past we would have 9 issued one outgoing ticket to the water and 10 sewer, now we had to issue two; one to the water 11 authority, one to the sewer authority. 12 So, it varied by state but I will say 13 we saw a dramatic jump in 2014. We had about 14 30,300,000 incoming requests and over 200,000,000 15 outgoing requests. That is an awful lot of 16 locate tickets. That is almost a million per 17 business day. So, it gives you an idea the 18 volume of work out there. 19 And here we are again with the causes, 20 the root cause. Basically, notification not made 21 25 percent, excavation practices not sufficient, 22 locating practices 17 percent. That has come

1 down dramatically over the years. And I think 2 the locating industry has gotten much better at 3 what they do. There used to be an awful lot of 4 mom and pop operators across the country. Ι 5 think, as an industry, we take business an awful 6 lot more seriously than maybe we did in the 80s 7 and 90s and we start to look at people who are 8 very qualified, look at companies who are going 9 to do it right, who are training their people, 10 meeting locate qualification criteria, also 11 better tools. 12 A couple of years ago, we published a 13 report that said that locators who worked for 14 their own company, for instance, if you were 15 PG&E, you have your own locators. But if you 16 were another gas company, you might be hiring a 17 contractor. It could have been UtiliQuest or 18 USIC or one of the other companies. 19 We saw that the numbers for the 20 contractors were better, they were doing a better 21 job, than the companies themselves, if they had 22 their own locators. Well, that spread like

1 wildfire and the following year, those numbers 2 were much, much closer and I think the companies 3 took it seriously. Back to Sam's point, we need We had data there that said maybe 4 more data. 5 when you are doing it yourself, you are not 6 training your people well enough or you are not 7 keeping pace, and I think companies looked at 8 that, reacted to it, and we saw last year that 9 the numbers were almost identical, certainly 10 within the tolerance of the percentage. 11 So, again, numbers really will affect 12 improvement. So, locating practices not 13 sufficient, I can say that generally speaking, 14 the locating industry has improved pretty 15 substantially over the last few years. 16 This is a chart on experience 17 excavator downtime. It is very important for the 18 rest of the industry to understand that the 19 excavator, yes, we are always there when he 20 doesn't call or she doesn't call, and then we are 21 there when they don't obey the tolerance zone or 22 dig appropriately but this is their side of it.

This is the downtime side of it. This is what happens when they get there and all of a sudden this line that was supposed to be marked is not there. They now have to wait and this is the cost that they incur. And some of these companies are not big.

So, it is important that the groups understand each other, that there is a cost to both sides. And if we all do it right and adhere to the best practices, then all of these numbers will get better and I think there will be a better understanding of what each of us should do.

14 So, there is a cost to the excavator, 15 it is a big one and we have got to be mindful of 16 that.

Distribution events by root cause 2009 and 14. I bring up that slide because if you look at the excavation practices not sufficient going up and stabilizing 13 and 14, I don't necessarily think that the excavator is going a poorer job. I think the locators are doing a

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better job and, therefore, some of the result is the percentage has just gone up. It is not a worse job being done. It is the percentage going up because the locator is doing a better job because of tools and, frankly, because it is a function that they should be doing a better job at and they are.

8 So, hats off to them and we just have 9 to keep working all of the other aspects of what 10 we do.

Back to a point that Sam made about who enforces. And here we have 16 substantial states in terms of data, damage data, where the public utility commission does the enforcement. And, on average, they had 1.65 damages per thousand tickets.

And then we had four states with substantial reporting where it was done typically by another authority, it could be the Attorney General or whatever the case may be, and it was 2.41 damages per thousand ticket. And a lot of people will tell you in some states, I know in

one particular, it is enforced by the state police. Well, the only time the state police will ever enforce, I am told, is when they see an excavator digging without marks. But if that excavator called and it wasn't located on time, there is no enforcement.

7 So, the enforcement all ends up one 8 And Massoud, when that happens, it doesn't way. 9 work as well, does it? And those of you who have 10 been to see Massoud's method of operation, which 11 is a very fair and balanced method, the results 12 speak for themselves in Virginia. Indiana has 13 copied the model, to some extent, with some 14 variations of what Massoud does in Virginia, and 15 they are starting to see dramatic changes. Thev 16 saw a 25 percent reduction in damage rates in the 17 second year of their operation. It is a little 18 different but the same type of idea.

19 And there are other states with 20 various different ways of enforcing it. I think 21 when I am asked, and I am not asked, but if I 22 were asked my opinion as to what works, I would

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1 say that you don't have to enforce every 2 infrastructure damage in the state. If you pick 3 liquid and natural gas and enforce that 4 infrastructure and enforce it 100 percent, either 5 through the method that Massoud uses, or Indiana 6 uses, if you enforce it 100 percent, everything 7 else gets better at a fraction of the costs that 8 if you try to enforce everything else. At a 9 fraction of the cost. So, I think it is a good 10 You can vary it but it does work. model. And 11 that is public utility commission side there. 12 Gas distribution. Okay, so of the 13 damages we got, and this was prepared very 14 quickly late last night, the report is just being 15 published. We actually don't have the gas 16 distribution report out just yet, there is about 17 20,000 on distribution, 50,000 or so on service 18 drop, and then unknown a variety of different 19 facilities. And then the root cause -- that 20 slide has disappeared. 21 I can tell you that the root cause, if

we look at notification not made, for whatever

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reason that slide is not on here, is about 27 or 28 percent, a little higher than the rest but most of the other categories are similar.

4 Then we did some other analysis that 5 is fairly unique and these are busy slides but I 6 think to the point of having more data enables 7 you to really look and see where your problems 8 So, we looked at distribution and then the are. 9 excavation equipment root cause. So, on 10 distribution we had 38 percent of our damage is 11 natural gas. So, we drilled down and we go okay, 12 on the distribution side, it was 38 percent of 13 that. And then we look at those damages and we 14 say 60 percent of them were caused by backhoe or 15 trackhoe. Hand tools were 19 percent. So, we 16 are able to drill down deeper and see where some 17 of the issues are and where we might be able to 18 make some adjustments to improve.

19 On the service excavation side,
20 natural gas 38 percent of the damages. Service
21 drop was about 60 percent. Backhoe/trackhoe was
22 about 48 or 49 percent. And hand tools 34

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percent and, again, we can drill down and look 1 2 and see what the other root causes are. 3 This one was a little interesting, I 4 thought initially, a distribution excavation 5 type, again, the 38 percent excavator-type 6 contractor/developer was 73 percent of it on the distribution side. 7 8 And then when we get to the service 9 side, we see a bigger jump. There is still a 10 high number on the contract side but 11 occupant/farmer goes up to 13 percent. 12 It is interesting, most of our damages 13 are still done on public streets, though in some 14 states where their percent no-call is very high, 15 you will see a jump, a shift from city streets to 16 private land. And I can see that in some of our 17 states which we are working on. We are trying to 18 get permission to publish some of these results. 19 One of the things we are trying to do 20 by year-end is we are going to try and publish 21 three state DIRT reports. We are working with 22 three of the states that hopefully, they will

give us permission, the stakeholders, and I think we have got it. And we will publish a report dating two or three years back so they will be able to analyze how are we doing here, and what are we doing different, and did we do anything two years ago which changed the numbers in some way shape, or form.

8 So again, more data, more information,9 better action.

10 CGA best practices. I am almost at 11 the end here. You know one of the things we got 12 caught up with all the 811 and 811 has been great 13 in bringing the industry together and getting 14 people to call in and reducing damages, but we 15 have forgotten a little bit about the importance 16 of the best practices which is why we were 17 created in the first place.

You know when you look at enforcement in the 1999 Common Ground Study of Best Practices in the chapter called "Compliance and Enforcement" there are five practices. They have not changed one iota and we are still sitting

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1 there saying you should have state enforcement. 2 There should be enforcement. And by the way, 3 every stakeholder agreed to that. Now, you may have some out there in certain states that will 4 5 now kick up a storm and say no, we shouldn't, 6 yes, we should but the fact is, everyone has 7 agreed to it. And make no mistake, the 8 excavators are very much in favor of enforcement. 9 You know some people think they are not. They 10 are absolutely in favor of enforcement. They 11 don't like the roque contractors out there who don't call, who don't obey marks, who don't do 12 13 the right thing just to get a job and eventually 14 cause a problem and give them a bad reputation. 15 They want a fair and balanced playing field for 16 their people.

So, everyone looks at enforcement as
being the right thing. The key is to make it
fair and balanced. That is just one of the
practices. We changed ten practices last year.
This is a very hard working committee.
Technology is causing a lot of the new best

1 practices in a positive way. So, we are getting 2 a lot of best practices resulting from 3 technology, GPS coordinates, et cetera. It is 4 really critical. And if you have any sort of 5 influence on your state, on your company, I mean 6 the best practices everyone has agreed to. It is 7 a good guide to get back to.

8 My particular emphasis this year will 9 be best practices and enforcement and more damage 10 data. And if we can do all of those three things 11 and keep getting better, I think at the end of 12 the day, we will just keep reducing damages.

13 I think I have got a couple more quick 14 Okay and there is the order of Best slides. 15 Practices, download your copy. Everything is on 16 the website. If you send an email, I will just respond and under my name, I have all of the 17 18 websites there so you can just click whichever 19 one you would like and go straight to it. 20 We have a Vault -- very quickly, these

21 are more for companies involved in a variety of 22 different aspects of what we do. If they go to

1 our Vault website, they can see a variety of 2 different tools that they can use. They can buy, 3 read some reviews on them, go straight to the 4 companies' websites, and see what might be able 5 to help them. And of course we are on Facebook, 6 7 Twitter.com. 8 Lastly, I would be remiss if I didn't 9 thank my five board members who are here. One is 10 our current chair, Ron. One is a past chair, 11 He is ignoring Tim. Hello, Tim! Tim's writing. 12 He ignored me when he was the chair, so he me. 13 still ignoring me. Just kidding. And you have 14 got Rick representing One Call and you have got 15 two here, Massoud and Jeff, who are also on the 16 Board. 17 So, we have a got a really good Board. 18 We are changing a number of members this year. 19 We are bringing in different people from 20 different industries. I think we are going to 21 see a lot more support from the equipment 22 manufacturers. I have got to discuss it with the

Board yet but we have got a Vice President from AEM who is more than willing to come onboard and is going to be very active. So, there is about five new Board members coming on stream that will help bring a different look on things. So, all good and great.

7 I also want to thank all of our 8 sponsors. We have got over 70 sponsors now. 9 Obviously, we couldn't do without it and we were 10 talking earlier and I think back to Marathon Pipe 11 Line, when I was new in the job and I drove in a 12 rainstorm to your town and talked to the 13 executive team and they were quickly jumped 14 onboard. I remember driving to Explorer 15 Pipeline, not the Colonial, when Tim was with 16 Explorer and he jumped onboard. So, a lot of 17 good history, a lot of good support, and I thank 18 them. And I will answer any questions. 19 MR. TAHAMTANI: Thank you, Bob, I just

20 leaned over to Jeff, and I said every time you
21 have got Bob Kipp on the agenda, just give him
22 about an hour and a half.

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1 And tell him he has 45. MR. WIESE: 2 MR. TAHAMTANI: Right. Having said 3 that, he has got so much good information, and 4 again, damage prevention being the highest risk pipeline and pipeline safety, Bob and his group 5 6 is doing a great job with all of the work that he 7 just described. 8 Now, I have an idea for you guys. Ι 9 saw some of you eating very big dinners last 10 night, such as Andy Drake. We could really get 11 back on the agenda if we didn't take lunch. 12 I run my meetings, Rick knows, no 13 breaks, bathroom or otherwise. We get through 14 But having said that, I know that a lot of this. 15 you do need lunch. 16 But here is the thing, we have got a 17 very meaty discussion coming up, Safety 18 Management System and reports from the 19 stakeholders. And as you have noticed, that 20 particular subject is very near and dear to a 21 number of the committee members. So, they can 22 start now and go for as long as we need to and

1 take a late lunch. Would that be good? Anybody 2 opposed? 3 So with that, Ron, you are on. And then I believe others have been told by Jeff that 4 5 they have to provide reports. I don't have the 6 So right after -- I have the names. names. 7 Thank you. So, Ron goes first. 8 Ron, you are on. And if you have any 9 questions for Sam and Bob, please catch them at 10 Bob may even buy you lunch. lunch. 11 Thanks, Massoud, and I MR. MCCLAIN: 12 will move along as quickly as I can but, like 13 Bob, I am pretty passionate about this. So, we 14 won't leave out anything that is important. 15 Okay, I am very pleased to start this 16 with a report that the ANSI/API Recommended 17 Practice 1173 is now reality. It was published 18 in July after over two years of committee work. 19 PHMSA hosted three workshops, having attendance 20 during development and publication. Thirteen 21 revisions. I think we actually had 15. A couple 22 of them were kind of minor revisions trying to

resolve comments but, if you can imagine 13 1 2 revisions, how much the document changed from 3 inception to publication. And we ended up 4 resolving 1400 comments after we published the 5 first ballot. We ended up going through two The first ballot we had a thousand 6 ballots. 7 comments, which we resolved those comments, each 8 and every one. And then we went to second 9 ballot. We had 400 more comments and we resolved 10 all of those. And we ended up with a body voting 11 membership a unanimous acceptance and approval of 12 what the document requires. 13 The NTSB, they, in a way, began this 14 effort by recommending to API that an SMS should 15 be developed specifically for pipeline systems. 16

And in the end, we went back to NTSB. They
concurred that this RP satisfied all of their
recommendations.

And I have a final bullet that is a little different but it outlines that this RP has the potential to impact pipeline safety more than any other. I don't want to be presumptuous or

arrogant in saying that but it is because of its 1 2 very nature that this RP overarches all other 3 processes, whether it is damage prevention, 4 integrity management, other safety parts of an 5 organization. It has the potential for very big 6 and positive outcomes and improvement to safety. Here are the recommendations that the 7 8 National Transportation Safety Board made to API. 9 This is an exact quote from the Marshall, 10 Michigan incident report and then it was 11 reinforced at San Bruno but there are a number of 12 elements there and specifically, they wanted SMS 13 elevated to this most wanted list. I mean the 14 NTSB had seen in other industries where safety 15 management had really moved the ball for safety 16 and public safety and protection of the 17 environment. And so on its most wanted list, we 18 assembled a team. 19 And I won't go through each of these

recommendations but we considered each of these at many steps during the process that we were still on track for what their recommendation was.

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From the beginning, we believe the 1 2 prize was improved safety. And we talked about 3 this often that we put together a group of 4 stakeholders, and more on that in a moment, but 5 we developed a comprehensive framework to address 6 each of the recommendations. The result was the 7 RP. And I want to touch on just key components 8 of the RP before I move into other discussion 9 points.

10 But it describes how top management 11 develops processes to reveal and mitigate safety 12 threats and we actually defined top management in 13 the definition section. And I have said this in 14 other meetings, I have actually outlined this 15 internally at Kinder Morgan that top management 16 cannot delegate their responsibilities as 17 required by the RP. They have to participate. 18 And one thing that tends to happen is sometimes 19 things get delegated to EHS professionals or 20 delegated to integrity management professionals 21 and that is not what the RP requires. It 22 actually includes all of those stakeholders

throughout different levels and disciplines within companies. They are very important to the process but it is really about top management leadership and commitment and we will see that a couple of times, as I talk.

6 It provides for continuous 7 improvement. Sometimes you will hear, I think 8 rarely, but sometimes you will hear someone say 9 well, we already do that. In actuality, 10 continuous improvement is a moving marker. And 11 when you think you have arrived, the yellow 12 lights should be going off that maybe there is 13 more I should be doing. In fact maybe not maybe. 14 You could be heading for a bruising if one thinks 15 they have arrived. But the theme of continuous 16 improvement goes just page after page in this 17 document.

And then I have a comment that that goal is to make compliance. And we have heard from Massoud and Jeff that compliance is a low bar. It is kind of entry to the game. But the document tends to make compliance and risk

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1 reduction routine through intentional actions. 2 Often I have talked about how important it is for 3 those really important tasks to become routine to a company. And I stole the word intentional from 4 5 my friend Andy Drake because we want people 6 charged with safety to act with intentionality. 7 In other words, if you wait to do certain 8 important functions when you think about it or 9 when you have time, you probably will never get 10 to them or you won't get to them with regularity. 11 But if you build systems that force the important 12 things to happen with intentionality, you are a 13 long way down the path of what this document 14 requires. 15 An example is operators should have 16 weekly, monthly, quarterly, and annual processes,

depending on how they have set up their management system. One of the things I do, and I don't want to make this about what I do, but I do want to share an example or two, is annually I have all my integrity group come and describe to me all the threats we faced out there and how are

1 those threats mitigated. Are there any threats 2 that are not adequately mitigated with tools. If 3 so, what are we doing about those? And it is a 4 four- or five-hour meeting and I can't imagine 5 how many hours they spend preparing for it. But 6 those kinds of intentional meetings that you 7 document what you found and what your course of 8 action are are just key elements. So, if you 9 think about the document and then think about 10 what is your routine or how do you act with 11 intentionality weekly, monthly, quarterly, annual 12 activities that reinforce all of these things is 13 a system of processes.

14 Here are the team members. Since Jeff 15 asked those from PHMSA to stand, I am going to 16 ask those who are committee members and are here 17 today to just stand for a moment. We had a lot 18 of participation. I know you don't want to but 19 do it anyway. You know I can't say enough. **All** 20 right, that's good. Thank you very much. But I 21 can't say enough about the team.

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Two years ago, or better than two

1 years ago, actually we began assembling a team in 2 October of 2013. In my records, we had our first 3 really formal meeting in February of 14 but it 4 was percolating before that with a workshop. But 5 this is a very complicated subject and people 6 came with their own agendas of what safety 7 management meant, as we assembled these folks. 8 And over time, people began to lay aside their 9 agendas and work toward the desired prize, which 10 was improved pipeline safety and that was in one 11 of my previous slides. But it was very 12 gratifying and exciting to see us move beyond 13 what individuals want and work toward what does 14 it take to move the ball significantly for 15 pipeline safety. 16 And you will see here we have all 17 pipelines. We have gas pipelines. We have 18 distribution. We have regulators. We have the

19 NTSB. We have the public. And I can't say 20 enough about how Jeff and Massoud, and Linda and 21 Robert Miller, as regulators, participated. I 22 can tell you they were all passionate about how

they viewed it. They spent a lot of time doing
 homework outside of this and actually before the
 meeting on safety management systems.

4 The entire team spent a lot of time 5 doing that. We invited people like the FAA and 6 the Railroad and people -- the Chemical Safety 7 Board, who had experience in building safety 8 management systems before us because we didn't 9 want to make mistakes. We didn't want to rebuild 10 But I do think that after listening the wheel. 11 to all of that input, we advanced the ball even 12 further on what these systems require.

13 But an incredible team. They 14 generally spent at least two days a month with 15 travel on top of that and all came prepared and 16 all contributed. You know sometimes in the team 17 environment you see people who contribute and 18 people who sit on the sidelines. And I can say 19 on this team every, every single person 20 participated very heavily.

Here are the ten elements required.And of course each of these elements have a lot

1 of things underneath each one of them. We have 2 already focused on how important leadership and 3 management commitment are. Again, it can't be 4 delegated to staff personnel to execute this 5 well. It has to be led from the top and 6 permeating all the levels of the company with 7 feedback coming back to the top and then 8 measuring results. Stakeholder engagement, we 9 spent a lot of time talking about the order of 10 Once we settled on how many and what they these. 11 were, we felt that was a very important element 12 So, it actually moved to number two. in this. 13 And I won't say the others required 14 the same amount of ordering but they are all 15 important and they are all requirements, if you 16 claim compliance with the document. 17 You know within the document, there 18 are introductory pages that are very helpful for 19 people to understand how to approach this. And 20 we outline a plan, do, check, act model and you 21 can tell from the graphic it is a continuous 22 process that when you do those elements and they

1 kind of go around the outside wheel as best we 2 could put them but there may be other models that 3 people want to use. So, the PDCA is not a 4 requirement but it is a good process that are 5 used in others. And, again, a show of the 6 elements, management and leadership are at the 7 center and a casting vision and adding energy to 8 sustain implementation. It is just really, 9 really important in the process.

10 Continuous improvement in system 11 I mean if you talk about continuous maturity. improvement, that implies you never get there. 12 13 You are never finished. On the other hand, you 14 should be measuring where you are as an operator 15 on maturity. And we describe ways to do that and 16 I think people will have to wrestle with how do 17 they measure each of the elements, how do they 18 prioritize the elements, but operators will never 19 be finished with SMS implementation, as 20 continuous improvement will reveal new 21 possibilities.

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And I would also say that for your

first pass at implementation, I think you could have a visionary and stretch effort toward implementation. Five years later, you should look back at that and decide well, that wasn't as far along as I thought. I have learned enough on the journey that now I am going to push the elements even further.

8 And then just kind of a note on 9 operators should seek to gain conformance with a 10 sense of urgency. If you go back to one of my 11 earlier statements that the prize is improved 12 pipeline safety, well that prize is worth a sense 13 of urgency to pursue. On the other hand, time 14 frames to reach significant and widespread 15 maturity could be measured in years. It is 16 certainly not in days or months. I mean you 17 can't go out and decide I am, on a scale of one 18 to five, I am a five in my implementation because 19 it is going to take more effort than that. But I 20 don't want the sense of growth to, in any way, 21 diminish the sense of urgency that an operator 22 should, and I believe operators will, I think

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1 there is a huge enthusiasm built over this, and I 2 think operators will embrace it and move forward 3 And I will touch on that in a minute. quickly. 4 So, what is next? And the committee's 5 intent was to provide a framework that is scalable. So, it should work for small 6 7 operators. It should work for very large 8 I outlined some steps of how someone operators. 9 might approach implementation. And I want to 10 describe the RP. It is the ultimate performance 11 It is no prescriptive. standard. It is not I 12 have to do this, I did it, I am done. It is 13 constantly assessing risk and processes and how 14 do I reduce risk. How has SMS permeated my 15 organization. Now those aren't on and off type 16 questions. They are yes or no type questions. 17 So, I want to just couch this approach as first 18 easy; on the other hand, incredibly difficult. 19 And what I mean by that, if you want to approach 20 implementation, first I would recommend the 21 operator read the practice several times. It is 22 not a lengthy document but there is a lot of meat

1 So, there is probably 35 pages of meat. in it. 2 And you can read that on a single plane trip but 3 if you just read it and say I got it, really you 4 are going to have to read it and think about this 5 quite a bit. And then, actually, take a pencil or 6 7 have a team list the requirements of the 8 That is my view of the second step. standard. 9 And there are explicit requirements. And if you 10 claim conformance, you have do these things. 11 And then gather your existing 12 procedures and processes, including your existing 13 management system, if you have already started. 14 Some companies are highly involved in this. 15 Others will start from scratch but every company 16 has O&M procedures, I mean they are required by 17 Code, and construction procedures and risk 18 management procedures. 19 So, as you gather what you already 20 have, a lot of this is done but there will always 21 be gaps. So, you compare what you have to what 22 you have identified as explicit requirements and

1 then set up your prioritization to close those 2 gaps and then repeat. You know you get back to 3 So after you have done this gap the PDCA. 4 analysis and closing the gaps, and 5 implementation, and casting vision, and adding 6 energy, you do it again. And you do it over and 7 over and over with continuous improvement. 8 So, what I mean by these four or five 9 steps, it is easy. I mean it is not difficult to 10 approach implementation. The work is actually 11 quite hard because it is a demanding standard. 12 So, think about it in those terms. Easy to 13 approach. I think it is easy to start. It is 14 easy to do your gap analysis and make changes. 15 But then the work of adding energy throughout an 16 organization and pressing for continuous 17 improvement actually is quite hard.

18 The trade associations, and we will 19 hear from some in a moment, speak to what 20 operators and associations are doing to promote 21 implementation.

22

Before I do that, I did add a couple

1 of bullets to what I wanted to talk about and it 2 came from Jeff and Massoud's early comments. Ι 3 wasn't going to speak to why isn't it referenced 4 in Code. And the committee spent hours, and I am 5 going to say the committee spent hours talking 6 about each issue in this document. So, when you 7 read something and why would they want to do 8 Well, if you read the document in its that. 9 entirety and think about the philosophy in it, it 10 will begin to make sense, I promise. And 11 certainly the committee members would be very 12 pleased to have a phone call to gain more 13 committee insight to what they meant. But I 14 think the introduction and the conclusion where 15 the elements are tied to safety culture, a lot of 16 these things are very clear. But why not 17 reference it in Code? 18 There are different ways to get things 19 You can force certain outcomes. done. And in 20 our discussion, I am going to be very candid, 21 some believed, and I believe the committee moved

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to this point, that we don't want operators to be

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defensive about this Day 1. We want operators to embrace, move quickly down the road with a sense of urgency, rather than having to think about now how do I comply, How do I do this. So, that is the guidance from the committee.

Now, we also recognize that there is 6 7 strength in Code requirements. So, we believe 8 there is a time that the document could and 9 should be recognized in Code. And I will use the 10 example, I said we spent a lot of time assessing 11 how other industries approach this, the FAA, the 12 Chemical Safety Board with responsible care and 13 those kinds of documents. And on that matter, 14 the Chemical Safety Board went ten years before 15 they referenced it in Code. And I am not 16 suggesting ten years but there is that much meat 17 in this thing for operators to wrestle with and 18 move down the road with a sense of enjoyment of 19 benefits. And I think for this document, the 20 ANSI process is to review every five years. So, 21 at five years, that might be a good time to talk 22 about how it is referenced or in ten years.

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1 So, I am not setting a standard. I am 2 just trying to provide some insight that the goal 3 of the committee was to let operators, in fact 4 encourage operators to move as guickly and 5 urgently down the road with implementation and 6 documenting their progress, without the Code 7 requirement overhanging them. In time, I fully 8 expect it to be referenced in Code and maybe Jeff 9 and Massoud might speak to that when we are done. 10 But it is a powerful document and I believe it 11 will protect the environment. I believe it will 12 protect assets. And I candidly believe if 13 implemented across industry, it will save lives. 14 So, my enthusiasm couldn't be greater. 15 The enthusiasm I pick up from industry, the 16 operators that I interact with on AOPL, the gas 17 transmission, and the distribution, they have 18 been waiting for this to be published with some 19 constant questions. When are we going to get 20 this to press? Or can I see a copy of it? Can I 21 begin thinking about it? And there is great 22 enthusiasm out there.

1 So, with that, I will conclude. Ι 2 will be glad to answer questions, maybe at the 3 end, if Massoud allows time. But we have three 4 people who will speak briefly, I think, to 5 different types of pipeline approach to 6 implementation. Rich Worsinger, I think is going 7 to speak, then Craig Pierson, and then Andy 8 Drake. And I think it is an incredible document 9 and, again, I hope people won't -- you know 10 sometimes I have had questions that well why 11 didn't they do this or that. And I said well, 12 did you really read it? No, I haven't read it 13 yet. But it is so important to read and think 14 about the requirements. And it is an incredibly 15 well done document, built on other people's 16 efforts before us and a huge stakeholder group. 17 So, with that, I will give it to --18 MR. TAHAMTANI: Thank you, Ron. Let 19 me -- why don't we start with Craig, Andy, Sue, 20 and let Rich go last from the large companies 21 down to APGA. 22 So, Craig.

1 Craig Pierson, Liquids. MR. PIERSON: 2 And I am really representing our implementation 3 team, which is our Pipeline Safety Excellence 4 Steering Committee put the responsibility for 5 industry implementation on the Liquid side under the Performance Excellence Team. 6 It is a team of 7 about 25 or 30 senior managers of our operating 8 The implementation, as Michele held companies. 9 up our blue strategic planning document and when 10 we last year said that we want to hit the ground 11 running this year and we have got a team set up 12 that is being led by Shawn Lyon, who is VP of 13 Operations for Marathon Pipe Line and they are working under Ron to get this moving. 14 So, I am 15 representing their efforts. 16 So, with that, let's go -- so, we 17 tried to begin with the end in mind. And the 18 vision here is to float all boats in the liquid 19 pipeline industry. Many of us are in different 20 levels of maturity. I think part of the 21 excitement that we get from this, and I will

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speak to Marathon Pipe Line, we have had a

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management system for about ten years. The one that Ron and his team produced is a better mousetrap than what we have had. And it would be a little awkward if I hugged Ron but it would be appropriate.

(Laughter.)

7 MR. PIERSON: So, it is a better 8 mousetrap and a lot of folks have management 9 systems and some don't. And what we are trying 10 to do is take a phased approach to this and it is 11 It begins with creating a year's approach. 12 awareness of our P1173 and what is in it, 13 improving the understanding, and then beginning 14 to assist how it gets institutionalized.

15 There is the maturity model, where we 16 know that we need to be able to measure and then, 17 ultimately, enable evaluation. So, I don't think 18 the graphic does this justice. And you will see 19 some other documents that we are already 20 beginning with okay, how do you support 21 measurement and how do you enable? We won't be 22 waiting to years three and four but this is

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4	So, how we are starting. What we have
5	got is a commitment letter. And we are asking
6	for the senior leadership to sign this commitment
7	letter. And when they do that, they can use this
8	logo. And the logo that we have trademarked,
9	there is some method behind that madness. You
10	see the PDCA vision of the processes. You see a
11	series of rings, which is to show that there is a
12	journey and it is aimed upward and to the right
13	that shows progress. And we are aiming it at the
14	pipeline safety management system and really
15	trying to distinguish that is what it is. It is
16	different than process safety management. It is
17	different than responsible care. This is ours.
18	We have some notion of a maturing
19	process and this is a little bit less-baked but
20	the notion that as you measure levels of
21	maturity, you might from bronze, silver, gold.
22	That is a little less-baked but it has a

trying to give a sense of this is a journey and we are looking at it from the industry-wide perspective. beginning with there is a maturity to this and that folks who make this commitment can use this logo.

And the other idea is with a 4 5 commitment letter it is going to give us a way to enable and track now how many people have 6 7 committed. We have got about 60 members between 8 API and AOPL and we will be to track that but we 9 are also going to be able to track the folks who 10 take this on who are not members. It is open to 11 members and non-members alike and that is one of 12 the things that we think this commitment letter 13 can help us track that progress.

14 So, what we are working on at the 15 moment are three booklets. One is an 16 introduction to RP1173, which basically describes 17 the why. What are the benefits of the safety 18 management system? Then Ron talked about some of 19 the elements, trying to explain more details 20 That is a second booklet and about the elements. 21 then some tips and tricks and ideas on how you 22 implement. So, those three booklets -- hang on.

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I will get you there. This is an exciting slide. Okay.

3 So, we are trying to have these 4 booklets ready for our workshop in Houston in Q4 5 and the folks we are trying to attract are the 6 folks that are trying to figure out now what do 7 we do next and how do we do it and trying to 8 share what they are doing. It would be a hands-9 on workshop and networking and learning for 10 So, that is our near-term vision. others. And 11 as the liquids industry goes through our 12 strategic planning for next year, I would be 13 terribly surprised if you didn't see that this 14 was a big feature of what we intend to accomplish 15 next year as well. 16 And with that, I will move on. Oh, 17 you are kind of the meat between the sandwich 18 here, Ron. 19 MR. MCCLAIN: You know, I had one 20 other comment I wanted to make it and I will 21 insert it before -- this is Ron McClain again. 22 But the last section of this RP is a tie between

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1 the ten elements and safety culture. And I don't 2 know of another document that has reach as far 3 into tying safety management and safety culture as this one has. So, it is very good reading. 4 Α 5 lot of work went into it. And I did mean to close kind of with that comment. 6 7 So, go ahead, Andy. 8 MR. DRAKE: Andy Drake with Spectra 9 Energy, on behalf of INGAA. 10 Thanks, Ron. Thanks for your 11 leadership on this. I share you enthusiasm and 12 commitment on this. I know you know that and I 13 know that we are also a member of --14 MR. TAHAMTANI: Andy, would you hug 15 Ron now? 16 (Laughter.) 17 MR. TAHAMTANI: Come on! You have it 18 within you. I know you do. 19 No, I see that Linda now MR. DRAKE: 20 has her camera. And I think that would be an 21 extraordinarily bad idea. But I really like you. 22 (Laughter.)

MR. TAHAMTANI: Remember I told you we 1 2 could write a book about SMS and pipeline safety 3 with pictures? This picture could be in it. 4 MR. DRAKE: I'm quite certain it would 5 be, actually. Let me get my thoughts back here. 6 When the INGAA Board really revisited our goals 7 8 after the PG&E incident in San Bruno, fundamental 9 to that was zero. Zero is an incredible 10 challenge and to really own that required that we 11 really re-grip our basic approach. And I think 12 fundamentally, we looked out at a lot of other 13 industries. And when we looked out at the other 14 industries, the nuclear industry, the refining 15 businesses, you know chemical processing 16 companies, we saw that folks that had actually 17 made a huge step change in their safety 18 performance, the airline industry, which by the 19 way is where most of the NTSB members come from, 20 so if you wonder why there is so much ownership 21 about management systems in the NTSB, that is 22 why, but I think when you go and look at these

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1	other industries, you see a common fingerprint.
2	And management systems is fundamentally the
3	fabric and the underpinning of the advancements
4	that they made.
5	And I think what I got out of that was
6	it is more than a both/and. It is an all/and
7	approach. You know in the past, we have looked
8	very much at the tactical procedures and you
9	alluded to that. The procedures, ROMS in our
10	operation and management plans, our
11	specifications, our procedures. What this adds
12	to it is programmatic structure, which is really
13	important to be deliberate about how to grow and
14	evolve this thing that is not static. It is not
15	a project. It is a process. To be a process, it
16	is alive. It is moving. It is not a tactical
17	executable. It is much more than that.
18	And also I think the third leg of
19	that, still, you see, is culture. And it takes
20	all three of those coming together to really make
21	the next step change in performance. If you
22	tried the right procedures to make an advancement

in safety beyond where we are, you would have to write so many procedures people couldn't read them and you would be right back where you started from.

5 So, you are looking for how do you 6 help provide some structure and some 7 intentionality around making this deliberate 8 gauging of your performance, deliberately 9 engaging and looking for opportunities to grow 10 How do you look for disconnects in and improve. 11 your culture to help eradicate unintended 12 consequences?

13 I think the plan, do, check, act 14 cycle became very much fundamental to where the 15 INGAA Board was trying to go with continuous 16 improvement. The process, the cycle that Ron 17 talks through was very much fundamental to these 18 other industries as well. This is not a new 19 This is a new idea to us. It is a new idea. 20 system and a new thought for us but it has very 21 much been practiced and delivered very 22 successfully in many other industries.

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I think the safety management system 1 2 is fundamental to that process. It provides us 3 some structure. It provides us some clarity to the elements that needed to effectively help 4 5 drive us to be deliberate or intentional about 6 the full cycle. We typically get very focused in 7 doing and that is our strength and that is our 8 weakness. We get very caught up in the tactical 9 executable activities of the day and pretty soon 10 we forget to check on are we on target with our 11 goals, are we making progress. Are we learning? 12 Are we open to learn? Are we changing and 13 improving? And I think with a little bit of 14 effort, we can provide some structure on helping 15 us to do that. 16 Fostering continuous improvement I

17 think is fundamental with that. I think one 18 thing that Ron touched on here is something that 19 resonates with me. This is not really intended 20 to be a regulation but it is a good idea. And 21 you can't downplay the significant improvement in 22 performance that those around us have

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It is not anecdotal and it is not a 1 experienced. 2 coincidence. It is a process they went through. 3 And I think it is appropriate for us 4 to learn from those and to apply this. I think 5 we can look -- we are, as an operator, very 6 heavily present in both the U.S. and Canada. And 7 the Canadians have had process for a very long 8 And those that are laughing, I am sure time. 9 have experienced that. 10 Projects and processes exist in Canada 11 quite proficiently. But they have a great deal 12 of energy and structure around management systems 13 and have had for a very long time. They are 14 trying to figure out how to regulate that. Ι 15 think we are seeing some of the struggles. Those 16 of us that are in that environment are seeing the 17 struggles that they are having with how do you 18 regulate culture. And I think it is important 19 for us to pay attention in the U.S. to what is 20 going on there and learn from that. 21 I do agree, Ron, at some point, it 22

will be prudent and appropriate for us to figure

1 out how to require this. But at this stage, I 2 think it is important for us to embrace it, not 3 repel it, learn how to use it and adopt it, and institute it because it is scalable. 4 It can be 5 done big operators all the way down to the very 6 smallest operators. This is just prudent, 7 prudent practice.

8 And then figuring out how to regulate 9 it, we can layer on over time. But I think that 10 one of the things that we have been -- I'm not 11 going to press this too many times or I'll end up 12 back on Ron's presentation.

I think one of the things that is fundamental to us is, as with the API group, the INGAA Board is fundamentally supportive of management systems. It is absolutely a platform we need to embrace and sit in to get to our goal of zero and to make progress towards that. It is fundamentally integral to that platform.

I think that one of the things we are really becoming quite sensitive to is this issue about culture and how do you actually create an

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You have got these tactical 1 environment. 2 procedures. You have got these programmatic 3 guidance things like SMS and then you have got 4 this cultural element. How do you get your arms 5 around creating a culture where people want to 6 always err on the side of caution, where there 7 are mixed messages, where you eradicate 8 disconnects and confusion aggressively, so that 9 people stay focused and always are wanting to be 10 pushing safety above everything else.

And I think that that is more almost 11 behavioral psychology than engineering and that 12 13 is a challenge. That is a completely different 14 science, on purpose, and something for us to try 15 to get our heads around. And I think that is 16 another frontier even beyond management systems. 17 And management systems is the next logical step 18 but to really propel it will take sensitivity and 19 awareness about how to get it cultured around 20 this to help move it, a culture that is not 21 resistant to change, a culture that embraces the 22 opportunity to learn and improve and do the right

thing, without procedural guidance on every
 single step.

3 And with that, I will pass it on to --4 MR. TAHAMTANI: Sue, you are next. 5 MS. FLECK: Hello, Sue Fleck on the 6 Gas Committee, representing AGA. And our lead on 7 this committee was Kate Miller. So, I worked 8 with Kate on pulling together a little bit about 9 what the AGA member companies have begun to do 10 around process safety, safety management systems. 11 Again, a quick reminder. AGA 12 represents 200 local gas distribution companies. 13 So, what the AGA org is doing is taking a multi-14 faceted approach. You are going to hear some 15 similar themes to what you heard from Craig and 16 Andy. 17 There are essentially four major ways 18 we are going after it. One is a discussion 19 Second is piloting implementation, member group. 20 companies' implementation. There is a workshop 21 plan for 2016 and development of a roadmap quidelines document. So, going into a little bit 22

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of detail on each of those.

2	But in addition to that, safety
3	management systems are discussed as a part of the
4	peer review process. They are discussed during
5	all technical committee meetings, workshops, and
6	other events. So, it really is more than just
7	the four-pronged approach.
8	The discussion group has been
9	initiated. It has been up to speed. I listen in
10	on the discussion groups. I know we have had at
11	least two or three meetings so far. It is an
12	initiative that AGA started a few years ago, the
13	discussion group approach. Members meet
14	virtually through conference calls, conferences
15	or web conferences, either on a monthly or a
16	quarterly basis to discuss together issues of
17	concern. The nice thing about it is it is a
18	great opportunity to build awareness, to begin to
19	do some education, and to bring companies
20	together that have like interests. So, safety
21	management system is up and running and will
22	continue through 2016.

1 We are also going through pilot actual 2 implementation with a group of companies. We 3 have identified nine member companies that have volunteered to get started with the program. 4 5 National Grid is one of those, so we will be 6 implementing it. 7 The kickoff conference call to start 8 that pilot is expected in the next couple of 9 This will take some time, as some of my weeks. 10 predecessors also mentioned. We are not going to 11 get a safety management system implemented in 12 nine companies in a couple of months. It is 13 going to take a little bit of time and effort but 14 we will be sharing lessons learned along the way 15 so that as more companies get interested and 16 decide to join in, we will be able to share the 17 pains and successes of those implementations. 18 So, I am really looking forward to that. 19 I quess the next one is really a 20 workshop and we are still pulling together some 21 speakers and getting some dates and trying to 22 figure out when is the next time to do this.

1 Probably in the first quarter of 2016. And what 2 we will do is we will get regulatory 3 representatives. We will get some of the 4 companies that are piloting to come and talk 5 about their lessons learned. And then some of 6 the development team representatives that we can 7 find to help us with that. So, I look forward to 8 seeing that coming up soon, some dates so that 9 many of you, I am hoping, will attend that 10 I think it could be quite good. workshop. 11 And then the fourth prong of our approach is really developing a guidelines 12 13 document. Again, similar to what you have heard 14 from others, it is a journey building a safety 15 management system and what we are hoping to do is 16 to build a document that will pull information 17 from the discussion groups, from the volunteer 18 pilot implementations and from the technical 19 committees, operating section managing committee, 20 and those groups to be able to help provide 21 guidance to a company that maybe doesn't want to 22 commit to a full-scale pilot with AGA watching

1 over them but may want to start kind of working 2 on it back home in the privacy of their own 3 companies and it will give them something to So, hopefully, we will be able 4 start working on. 5 to collaborate all four of these efforts along 6 with the other organizations that are talking 7 today and we will have an industry-wide approach 8 that makes sense and is expandable to the 9 different sized companies. 10 MR. TAHAMTANI: Can I just ask a 11 question? Sue, you just talked about the various 12 industry associations collaborating. 13 MS. FLECK: Yes. 14 MR. TAHAMTANI: Is that a formal --15 have you all talked about collaborating across --16 I have heard three different approaches or 17 similar approaches in some respects. 18 MS. FLECK: I don't know that there 19 has been any formal collaboration but, as I 20 listen to my colleagues talking, we are all 21 talking about the same thing and moving in the 22 same direction. So, I am hoping that there is

1 going to be an opportunity for collaboration 2 going forward but there is none that I know of 3 previously planned, nothing formal. MR. TAHAMTANI: All right, thank you 4 5 very much. Rich. 6 7 MR. WORSINGER: Thank you. Rich 8 Worsinger, Rocky Mountain, North Carolina. 9 I am going to talk about APGA's 10 activities related to pipeline safety management. 11 APGA and its members, as I think everybody in 12 industry has, have strongly supported pipeline 13 safety management systems. We have done this for 14 We just didn't know that is what it was vears. 15 called. 16 Public gas, as I mentioned yesterday, 17 is owned by our customers. They are families, 18 they are our friends, they are our neighbors and 19 we want to keep all of them safe. 20 I shared with you yesterday a picture 21 of the 22 employees in our gas division. I know 22 all 22 of those people. I know them by name. Ι

know their families. I see them at the grocery store. I see them at the Little League game. To me, it is very personal to keep them safe because I see them with their wives and sons and daughters.

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A couple of things we are doing at 6 7 APGA. First, for over 30 years, APGA has 8 recognized and awarded its Annual Safety 9 Management Excellence Award to the public gas 10 utility that has implemented innovative and 11 effective safety management practices that other 12 APGA members can emulate. The winner is invited 13 to speak at APGA's annual gas utility management 14 conference, explain what they are doing back in 15 their utility. And this encourages other members 16 to adopt these very effective safety management 17 concepts.

18And at last year's conference, we also19had a presentation on RP1173 and the pipeline20safety management system concepts.

I mentioned yesterday that APGA
established our System Operational Achievement

Recognition Award and this is to encourage
 members to strive for excellence in natural gas
 distribution system operations. Safety
 management is a big part of judgment members for
 their achieving this award and many of the
 criteria for that operational achievement were
 borrowed from RP1173.

8 As others have emphasized, leadership 9 is critical to fostering a safety culture. 10 Public gas utilities have some unique leadership 11 Yesterday, I showed you a picture of our issues. 12 Mayor and City Council getting the SOAR Award 13 from APGA. Like most APGA members, the mayor is 14 the Chairman of my Board and our City Council 15 members are my Board of Directors. And they came 16 into office, in most cases, with little or no 17 utility background. So, they rely on the utility 18 directors to properly operate their system.

But we needed to do something a little more than that. So, APGA has taken management and leadership systems sections of RP1173 and we have rewritten it to address our unique

situation. It is to provide guidance to these newly elected officials, as well as to the newly appointed and hired utility managers to emphasize how their words and actions can foster, or on the other hand, inhibit that culture of safety in a utility.

7 One other thing we have recently 8 instituted is something on our -- through the 9 wonders of the internet we have instituted 10 something called the APGA community. This is an 11 online ability for us to ask questions and share 12 solutions. And this is just -- I am amazed, and 13 we just implemented this a month ago, to see the 14 conversations that are taking place between these 15 small system operators that don't have the 16 ability to travel to our conferences or attend an 17 event such as this to ask a question how do you 18 and to see the answers and the sharing of best 19 practices. 20 And advantages of smallness.

Listening to the comments by the other operators
here today and the challenges you face of

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1 communicating to your multiple divisions and your 2 multi-state operations, it strikes me that we do 3 have some advantages being a small operator and a small local public gas utility. Back in Rocky 4 5 Mount, we have in our break room two picnic 6 tables and that is where the people in our gas 7 division meet every day. That is where they get 8 That is where they discuss issues. their work. 9 They come back there at the end of the day. Our 10 management of change policy is simply to walk 11 down the hall to the break room and talk with the 12 employees, tell them what we are changing and 13 why. But in most cases, that is not necessary 14 because they have already come to me and said 15 this is our concern; we are having this issue; we 16 are running into this. And we discuss what those 17 issues are and how we are going to resolve them. 18 I think the bottom line is that PSMS 19 for public gas systems is going to be very

different from what large operators in this room

will be implementing because we don't have that

multiple operating divisions that are spread out

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1 across a state or many states. But the basic 2 elements, especially the importance of leadership 3 and fostering a safety culture will be the same. 4 Thank you. 5 MR. TAHAMTANI: Thank you, Rich. Jeff. 6 7 MR. WIESE: Thank you. And thank you 8 to everyone for their presentations. You know it 9 is funny, Massoud and I said we had been orbiting 10 together too long because he just leaned over and 11 asked me something. And I said the first note to 12 myself, you know one of the principles of SMS, I 13 don't have to tell many of you, is looking beyond 14 yourself to see how can I be better. I am not 15 I have opportunities to be better but perfect. 16 how do I go about that? One is to look at 17 yourself and scratch your navel for a while but 18 other is to look at what other people are doing. 19 So, to that extent, in hearing all of the great 20 things that are spooled up, I would really 21 encourage each of the sectors to reach out to the 22 other ones and say hey, we are doing this event.

If you want to send somebody along just to pick up ideas, or maybe tell us what you are doing, great because I think everyone will come up with good ideas. Learning from each other, I think the collective whole will be better. So, I wanted to encourage that.

7 You know, honestly, I couldn't have 8 been prouder I think of any exercise I have been 9 involved in in years than this exercise. I think 10 it has such huge upside potential that I don't 11 have to tell Ron and the Committee members that. Everyone on that team, by the end, was extremely 12 13 committed to the exercise. So, I do want to, 14 again, commend the team, thank them. And 15 ironically, most of the team are saying they are 16 now -- while they complained about monthly 17 meetings, they are now sort of saying that they 18 miss that monthly meeting. It was a great 19 opportunity to argue with intelligent people in a 20 constructive and respectful way towards a common 21 end.

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You know, it is a journey. It is not

1 an overnight success but we need to jump on it. 2 I think the phrase that I have used a couple of 3 times is probably inappropriate, but it is not uncommon for me, I would say it is watchful 4 5 waiting. As a regulator, we are sitting back to 6 It is not a question of whether -- as I see. 7 have said, I don't think it is the type of thing 8 maybe that should be, and certainly not 9 immediately, regulated.

10 Our friends at the FAA taught us a 11 They, as I think Ron was pointing qood lesson. 12 out, they stayed in a collaborative mode for ten 13 years, just so they can learn from one another. 14 Because sometimes when you go to a regulatory 15 posture, it kind of shuts down those 16 communications. People think they are going to 17 be held accountable for something instead of just 18 talking. So, we are watchful waiting and hopeful 19 it is not necessary but I certainly wouldn't want 20 to do it in the first edition. I think as Ron 21 said, we need to learn a lot, come back, and 22 figure out what to do there.

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1 But I am going to segue in a second to 2 Brian Salerno because I think, as you will see, 3 there are converging paths across all sectors, whether it is chemical, nuclear, offshore oil and 4 5 gas, whether it is Canadian and, ironically, even 6 You are seeing converging paths here. Mexican. 7 NACE presented a kind of high-level 8 summary of this major study they are doing and 9 hope to release in March. I think I told Ron 10 about this. And the punch line on a corrosion, a 11 major multi-year corrosion study, the punch line 12 is management systems. Right? 13 So, I think you will see that a lot of 14 people see that as a path to really step change 15 in performance and moving us towards zero, which 16 is the goal that everyone has shared now for a 17 while. 18 So, we will be keeping a focus on 19 implementation. We will be trying to grow with 20 To be honest with you, one of the you. 21 challenges is to the regulator. How do you 22 oversee something like this? It is not like

going out and doing a basic O&M inspection. It is a lot different.

So, we have our own activities underway. I have offered to partner with a variety of companies in a very collaborative model. Not a punitive model, a collaborative one to figure out how would we go about that. And so, see me at the break.

9 I did want to, before I turn over to 10 Brian for a second, I wanted to commend to you 11 for those of you that this is relatively new to, my experience is you have to try it on and wear 12 13 it for a little while before it gets comfortable. 14 Like Ron said, read it several times. You are 15 not going to absolutely absorb it on the first 16 time but you have to play with it a while. But 17 the workshop that we did together in February 18 2014, it is on YouTube, if you just search PHMSA 19 and SMS and then look for February 14. I think 20 the thing that was most remarkable about that 21 workshop was listening to other industries. It 22 wasn't what we were talking about it was what

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1	FAA, small operators, you know large operators,
2	chemical, nuclear, their experience and their
3	journey, I think was really sort of inspiring, at
4	least to me.
5	Well at any rate, with that, I want to
6	close by telling you that this is really an
7	example of performance-based regulation, should
8	it ever become regulation. It is not
9	prescriptive that says these are the things that
10	you should do but it doesn't tell you how. It is
11	what you should really do, not exactly the how.
12	There are promises and there are pitfalls in
13	performance-based regulations. I think there is
14	great misunderstanding of what performance-based
15	regulation is.
16	So, my friend Brian Salerno and I were
17	talking about trying to commission a study on
18	safety culture and what is the regulator's role
19	in safety culture. And Brian really, I thought
20	very articulately, convinced me that first we
21	need to help people understand the role of
22	performance-based regulation and achieving safety

goals within a regulatory community. I know he is ahead of the curve on many things but Brian has been working SMS issues and cultural issues for a long time. So, Brian, I thought I would invite you to comment on that academy study that we are talking about.

7 VADM. SALERNO: Sure, thanks, Jeff and8 hello, everybody.

9 It is a topic that Jeff and I have 10 talked about quite a bit and it is one that, at 11 first blush, it looks like it is a fairly simple 12 conversation. Wouldn't it be better to have 13 performance-based regulations, establish a goal, 14 and allow the industry to develop the means to 15 achieve that goal? And there is a lot of 16 benefits to that. First of all, the regs are 17 simpler to write, for one thing. It is easier to 18 come to consensus as to what the goals should be, 19 particularly if it is a safety-related goal. And 20 it also, and this is where the industry really 21 weighs in quite heavily, it eliminate the 22 likelihood that prescriptive regulations will

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1 lock in today's technology for the foreseeable 2 future. Regulations, they are hard to develop, 3 they are hard to change and it takes a long time. And what we see in the offshore industry is the 4 5 pace of technology is so great that regulations, 6 realistically, cannot keep up. So, we do rely 7 very heavily on industry standards and so forth. 8 So, there is a lot to be said for that. 9 On the other hand, having developed 10 some fairly significant regulations over the past 11 year, we are also seeing some real challenges 12 with or attempts at building in performance-based 13 language and not only with the new regulations 14 but with existing ones. 15 And I think what makes it difficult, 16 quite honestly, is public expectations and not 17 just public expectations but political 18 expectations. 19 What we see in controversial areas, 20 let's take the Arctic, which is sort of 21 dominating my summer. We have some very 22 prescriptive regulations on the books relating to

1 things such as oil spill preparedness. Almost 2 every decision we make, every permit we issue is 3 subject to public scrutiny and, in many cases, to 4 legal challenge. And the awkward thing for me, 5 as someone who is a believer that performance-6 based is good is that the one thing that has 7 saved us in court challenges is the very 8 prescriptive nature of our existing regulations. 9 The courts have looked at it and said well, the 10 Agency did exactly what the regulations, you know 11 they upheld the regulations as written, therefore, we find that they have acted properly. 12 13 It creates a bit of a tension. There 14 is a desire to go to performance base but a 15 certain degree of prescription actually is 16 helpful and beneficial. So, how do you find the 17 sweet spot with something like that to allow 18 forward thinking, to allow innovation but, at the 19 same time, provide enough assurance and enough 20 clarity to the public that they have a very good 21 robust idea of how the agency will enforce its 22 own standards and what is also expected of the

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industry and the degree of safety that they will build into their operations. It is a hard challenge.

So, Jeff and I have been talking about 4 5 this issue and we have talked with the National Academies and thought that they might be able to 6 7 help us with this and maybe benchmark against 8 other agencies in other areas, even 9 internationally, what has happened, and 10 recognizing every national system is a product of 11 its own public expectations, its own political 12 landscape but there still may be lessons that we 13 can learn.

14 So, they are going to undertake a 15 study and I think Jeff has really been the prime 16 mover behind getting them to do this and also the 17 principle funders. But I am excited about this 18 prospect because as we approach the whole 19 question of how does an agency regulate in the 20 most effective way and in a construct that 21 intends to achieve certain safety outcomes. We 22 all, I think, have come to the conclusion that

1 prescriptive-based regulations only get you so 2 It really does require involvement, just as far. 3 we are talking about here with safety management. It requires thought and continuous process that 4 plan, do, check, act loops that we saw displayed 5 6 here, that has to be built in not only to safety 7 management systems but even into a lot of other 8 aspects of the operation. So, how do we 9 encourage that and have the ability to monitor 10 that and also, at the same time, provide enough 11 public awareness and public trust and confidence 12 in that process? It is a simple question to ask 13 and a very difficult problem to solve. 14 Well, thank you, Brian. MR. WIESE: 15 I just thought I would add that for what it is 16 worth, some of you are regulated by multiple 17 entities. Dr. Michaels, who is a friend of ours, 18 head of OSHA, said he wants in. We have talked 19 to the Coast Guard; they want to participate. We 20 have talked to FAA; they are willing to. 21 So, the reason I wanted to raise it 22 now is to say to you I think you should be

thinking about it because the academy process, if you have ever been involved with it, is very predictable. They will have a number of open public workshops, which we'll encourage them to invite you to, particularly, if you can help us focus. Who should we talk to in order to get representation there?

8 I think it is going to be really 9 important to have your voice heard, to have the 10 offshore heard, the OSHA people, and get it out 11 there because, honestly, I think what Brian and I 12 were agonizing over is even though we know it is 13 the right path to pursue, it is really a painful 14 path for us, as regulators because the 15 expectations that are created in certain quarters 16 about what we should be doing and how we should 17 be doing it, I would just say -- let me reverse 18 that to say I think the Academy can shine a light 19 They can probably tell us how to be on this. 20 better but I think they can also help other 21 people understand in a way that we might not be 22 able to do ourselves.

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1	So, with that said, I think it is
2	going to be an important study. I am hoping that
3	they will begin to get their organized and maybe
4	go to public meetings by the beginning of the
5	year for sure.
6	So, with that, I think I will stop and
7	turn it back.
8	MR. TAHAMTANI: So, great discussion,
9	comments. Any questions? We have got about four
10	minutes before I give you a break for a one-hour
11	lunch, which starts at 12:30. You have to be
12	back here by 1:30.
13	And when we come back, I would like
14	Zach to go first and Ken will cover both of his
15	issues at the same time.
16	So, any tough questions for Ron
17	McClain? Now, everybody is authorized to hug Ron
18	as you leave for lunch.
19	Any questions for Jeff or me?
20	Let me just make a comment to Ron.
21	Next week, I will be making a presentation on SMS
22	before 80 or so people, state pipeline safety

1 program managers and other officials. And you 2 have heard me say this and Jeff knows this, that 3 some of my audience don't believe that this is 4 going to change anything. But I will take the 5 passion that you have, that you see me have and Jeff to that and I hope that we can show them, 6 7 especially through AGA, that this is the thing, 8 this is going to change things. This is not a 9 checkbox approach. This is not another set of 10 stuff that we are going to just say yes, Chapter 11 1 says this, and we have done that; Chapter 2 12 says -- and I look forward to working with all of 13 you to figure out a safety culture. How do we 14 assess this thing? 15 I have got some stuff going on in my 16 own state. You have seen some charts and graphs 17 that I have shown but I don't know much about 18 this but I intend to learn. 19 So, here is another proposal. As Jeff 20 said, as Andy and Craig and others talked about, 21 I said what about cross-pollination, about these 22 associations talking? At least for me, I can't

1 speak on behalf of NAPSR, I am interested in 2 coming to your workshops. I am interested in 3 learning from you about how to do this. We can't 4 just sit back and say, as Jeff said, regulate 5 I think the public expects us to work vou. 6 together, again, for the main goal of safety. It 7 is no longer acceptable to say we don't have the 8 rules or the rules are not implemented or APGA 9 has got issues with this or that. I am so glad 10 that you have got those picnic tables. I have 11 heard about them a couple of times. I am going to buy one for my office and talk to them at 12 13 lunch. I know there are different sizes and 14

14 I know there are different sizes and 15 different complexities with our operations but at 16 least my view is we have to work together, like 17 we are talking in this room to make sure that we 18 don't have another big one.

We have another big one and I
guarantee you that this guy is going to be pushed
by Congress, by NTSB, by the world, to make all
these rules. And we haven't quite figured out

1	what it is and how to even audit for it.
2	So, having said that, we are at 12:30.
3	That is why I made the speech here. So, please
4	take an hour and come back here.
5	Again, if you are not here as a
6	committee member and you get here late, I will
7	make you stand up and sing a song or something.
8	(Whereupon, the above-entitled matter
9	went off the record at 12:31 p.m. and resumed at
10	1:32 p.m.)
11	MR. TAHAMTANI: All right, thank you
12	very much. If you are a committee member, please
13	take your seats and if you are not, still take
14	your seat.
15	Back to our agenda, as I indicated, I
16	have asked my good friend Zach Barrett to go
17	first to talk about state programs. Zach, if you
18	would, turn your phone on and
19	MR. BARRETT: Turn my phone on? I got
20	in trouble for that earlier today already.
21	While we get the presentation up,
22	thank you guys for allowing me to come in and

1 talk about state programs for a little while. 2 Usually, I hit these microphones from a long way 3 off, so I apologize for that feedback. 4 What we are going to hope to do today is to give you just kind of a high-level overview 5 6 of state pipeline safety programs and answer what 7 any questions that you might have regarding state 8 programs that Robert and Massoud can't answer and 9 that they will let me answer for you to get us 10 back and, hopefully, do this in a fairly brief 11 manner to get us back on schedule, because that 12 makes Massoud feel better all the time. 13 State pipeline safety programs, you 14 might know this, if they were in the business of 15 pipeline safety regulatory issues back prior to 16 1968, where the Natural Gas Pipeline Safety Act 17 gave PHMSA authority over pipeline safety. And 18 due to that, the Act provided for states to have 19 the provision to have authority over intrastate 20 pipeline safety. 21 So, if the state pipeline safety

program meets the seven elements in the statute

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under the certification, they are in for a 1 2 pipeline safety program, states are PHMSA's 3 closest partners in pipeline safety. We 4 currently have 51 programs in the gas programs. 5 There are eight interstate agents. I will talk a 6 little bit about what that really means for those 7 of you that might not now.

8 There are 14 liquid programs and the 9 states of Alaska and Hawaii do not participate in 10 the pipeline safety program.

11 In the case where a state doesn't 12 participate, in the pipeline safety program, it 13 falls to PHMSA to do the inspection and the enforcement of those intrastate facilities that 14 15 are not under the state's safety authority. The 16 states of Florida, South Carolina, Arkansas Oil 17 and Gas do not take federal grant funding. The 18 states of California and Arkansas have two 19 There is Arkansas Oil and Gas and programs. 20 Arkansas Public Service Commission. There is the 21 California Public Utilities Commission and the 22 California State Fire Marshal.

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1 States are responsible for 80 percent 2 -- this is kind of a take-away and something that 3 I would like for you to remember is that states are responsible for 80 percent of the existing 4 5 pipeline infrastructure under PHMSA's safety 6 authority. 7 So, the states have a big role in 8 pipeline safety for us. Their primary 9 responsibility is gas distribution. That is the 10 mains and the service lines that are run to your homes and the transmission lines that feed those. 11 12 And there is approximately 330 full-time state 13 pipeline safety inspectors. And we support those 14 through grant funding. It's what we call the 15 State Base Grant. 16 We use the State Base Grant or grant 17 funding to encourage alignment with the federal 18 pipeline safety program and to encourage 19 participation. It's not new. Since 1971, we 20 have been providing funding to state pipeline 21 safety programs. It allows us to fund 22 approximately 80 percent of the total program

1 costs, the actual total program costs of the 2 pipeline safety program. It is a reimbursement 3 grant, so the states have to spend their funds 4 for the calendar year. And then we reimburse 5 them of those funds the following calendar year. The 2015 grants, around \$54 million and then we 6 7 think that will get us to about 76 percent 8 federal funding. 9 So, a key point in that is back in 10 2008, the state funding was probably about 60 11 They funded 60 percent of their program percent. 12 costs. At that time, of course, PHMSA funded the 13 other 40 percent, 35 to 40 percent. So, there as 14 a grant increase throughout the years and we are 15 currently looking around 76 percent funding. 16 Again, it is a reimbursement grant. 17 So, the state spends its money. We review those 18 costs and we pay them back based on those actual 19 costs. 20 It is also performance-based. We look 21 at state's performance and we are trying to not 22 only use performance to allocate the grant

1 funding but we are also trying to use our 2 evaluations, our progress report scoring and our 3 program evaluation where we actually take my staff does an on-site evaluation. 4 They come out 5 and visit Massoud for a week or two or a month or 6 two, depending on how he is doing. He usually 7 doesn't take long because Massoud is one of our 8 strong pipeline safety partners and he does well 9 But Robert, on the other hand, we might always. 10 spend more time with. He is our current National 11 Chair and he will get me next week for that, 12 trust me.

13 The program evaluation consists of us 14 looking at their inspection activities for a 15 previous calendar year, looking at their 16 enforcement activities, looking at their training 17 attendance, their incident investigations, the 18 number of inspectors they have, their 19 qualifications. There is a myriad of questions 20 we ask and that is all up on the website. We 21 give our program evaluations, what they look like 22 and the questions there.

1 The progress report, we look at what 2 type of regulatory jurisdiction, safety 3 authorities they have, again, the number of inspection days, based on a formula that we had 4 5 to look at a base bare minimum number of 6 inspection days a state should have, whether they 7 have adopted all of our federal regulations, what 8 civil penalty authority they have, their 9 qualifications, a myriad of things there. We 10 score all that and mash it together, run the 11 numbers out and then we give them a percentage of the grant funding for that and write letters to 12 13 the chairman to say hey, we found these areas 14 that we might think about improving and we make 15 them respond back to us with what they are 16 planning to do about that. 17 We also do grant monitoring because if

18 you hand the money out, you should go out from 19 time to time and look to see the money is being 20 spent along the lines that you are asking it to 21 be spent along. So, my staff looks at the grant 22 funding about every three years on a rotation

1 And there are guidelines that we follow basis. 2 with the grant world to make sure the money is 3 being spent and accounted for appropriately. 4 How are states doing? State 5 performance is good. States have reduced the rate of incidence for serious incidents with 6 7 deaths or injuries on gas distribution by two-8 thirds over the last 30 years. And that is in a 9 time frame when the distribution infrastructure 10 has been growing by over 50 percent. So, that is 11 a pretty good metric but we can always do better. 12 We are always looking to do better. 13 The serious incidents in 2012 and 2013 were the lowest on record at 24 and 21 14 15 respectively. And in 2014, we had a tick up to 16 For transmission lines, states had not had a 26. 17 transmission line incident with deaths or 18 injuries since 2010 until 2014 and there was one 19 in Kentucky and one in Texas involving that. 20 What is coming forward? I don't know 21 if Alan, hopefully yesterday, talked about maybe 22 some of the OIG recommendations, the NTSB

recommendations to us and some of those involve 1 2 state pipeline safety programs. The OIG spent a 3 couple of years with my program looking at our 4 field portion, evaluation portion, and our grants 5 portion of handling the money and how we 6 distribute the money and they came up with seven 7 recommendations. And NTSB, out of San Bruno, had 8 a couple of recommendations for us. And we are 9 in the middle implementing those recommendations, 10 have made good progress towards those. We are 11 trying to bring more transparency to our website, 12 so that you can look and see not only what the 13 questions are but how the states did and how they 14 scored for individual question. We will be 15 bringing that forward and trying to provide more 16 looks. We have some meaningful performance 17 metrics from our NTSB recommendations that 18 already currently posted to our website. 19 We have a mentoring program that we 20 are trying to get some legs under where we pay 21 invitational travel for a state inspector to

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travel to another state to observe an inspection

1 with an inspector that we believe is a qualified, 2 good pipeline safety inspector so they can watch 3 and see how it is done. It is important for small states, especially, where we have PHMSA is 4 5 hiring 109, the industry is growing and it is hot with all the construction and that sort of thing 6 7 qoing on. So, it is hard to attract good quality 8 inspectors for states.

9 So, one of our challenges is trying to 10 get in small programs where there is a lot of 11 turnover that we may have someone who doesn't 12 have someone there in the program to take them 13 out and show them how the inspection things works 14 and what we are really looking for in these 15 questions. And in the interim, we are trying to 16 provide them an opportunity to go out and sit 17 with Massoud's folks and see how it is really 18 supposed to be done and get a good start on those 19 things.

20 So, we are hopeful to get more takers 21 than that. We have been early in that program 22 and we have a lot of hopes that that is going to

help us bring up the qualifications in inspection quality in-depth.

3 We are looking at formalizing a best I have been visiting with AGA 4 practices program. 5 about their best practices program and trying to 6 rob, steal, and take the best I can of that and 7 trying to develop something for states to share 8 best practices among themselves in more a 9 formalized fashion of what we have been doing in 10 Obviously, we are always looking for a the past. 11 better way and these guys have their own NAPSR 12 website and they share information all the time 13 at our NAPSR meetings. There are five of those 14 region meetings a year where we interact with the 15 states and they interact with each other. Our 16 national meeting is next week, where we will be 17 interacting with all the states again. 18 So, it gives us opportunities to talk 19 about improvement and places to go.

20 Part 198 is our grant program and 21 basically how our state program is run. It is 22 the regulation that sets out how pipeline safety

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1 So, we are going to look in this programs go. 2 coming year and shortly to formalizing what is 3 currently in the statute, or authorities under 4 the statute and in our current process and 5 procedures in our state guidelines end in Part 6 198. And one of those would be a part that we 7 have been talking about states for the last 8 couple of years about formalizing our 9 decertification program. 10 I talked earlier about Alaska and 11 Hawaii are not in the state programs. Hawaii was

12 in the program at one time, back in 1995-6 era. 13 They stopped doing inspections and we encouraged 14 them, worked with them, and we couldn't get over 15 the funding issue, so we decertified Hawaii back 16 in that time frame. So, we have done it in the 17 past. It is not something that happens very 18 often.

19 It is not something that we have a 20 great need for because, in this next bullet I 21 have here for you, we are always looking to 22 improve training, and the training methodologies.

1 We are looking to try to do some distance 2 learning. Some new things. They have a training 3 facility there in Oklahoma City and we are also 4 always looking to try to develop state inspectors 5 and federal inspectors. State inspectors and 6 federal inspectors sit in the same classes 7 together. They take the same test. They have to 8 have the same qualifications to do the job. 9 So, to try to get Massoud back online, 10 and all that sort of thing, that is the quickest 11 run-through of the state programs I have done in 12 I'm hoping that we haven't bored you some time. to tears with that but I am interested in any 13 14 questions that you might have about that that I 15 could offer to answer for you or maybe get you an 16 answer if you stump me. It happens sometimes. 17 If Massoud can't answer it, I will get you one. 18 Any questions? 19 Thank you, Zach. MR. TAHAMTANI: Any 20 I realize it is after lunch but questions? 21 please ask him some tough questions. 22 Andy, you don't have any MR. BARRETT:

1 That's as tough as they get right questions? 2 there. 3 Carl! Carl, please. MR. TAHAMTANI: 4 Carl. 5 MR. WEIMER: I understand there is kind of a rumor going around that PHMSA is 6 7 considering removing the interstate agent for 8 interstate pipelines that some of the states take 9 I was wondering if you could talk about that on. 10 a little bit. 11 MR. BARRETT: Sure. I'm glad you 12 brought that up because I promised you I would 13 tell you what the interstate agent thing was and 14 I skipped right over that I my rush to the 15 questions. 16 Interstate agents for us, PHMSA, under 17 their agreement structure through the statute, we 18 have 60.105a agreements, which gives the state 19 full authority to inspect and enforce against 20 intrastate operators. 21 So, they go out and do the 22 inspections, find the probable violations and

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they do the enforcement.

2 We have a 60.106 agreement where 3 states that are trying to get their programs up 4 and running and may not have everything in the 5 law which allows them to go out and inspect but turn over the violations that they find in PHMSA 6 7 for enforcement. We are able to do that through our 8 9 interstate agent agreement through the 60.106 10 section of the Act. It also gives states the 11 authority to inspect interstate pipelines for us 12 and then turn over the probable violations to us. 13 We are not looking to, anytime soon, 14 to de-structure our current interstate agents. 15 We are certainly look for states to focus their 16 resources because the metrics that I was showing 17 you earlier, all the deaths and the injuries that 18 occurred in 2014 occurred on intrastate 19 facilities under the safety authority of the 20 So, we would like states to focus their states. 21 limited resources on that but, certainly, 22 interface with us on the interstate pipeline

systems, where it makes sense for both of us, 1 2 where maybe there is a construction project going 3 We are looking at transitioning maybe to a on. 4 temporary interstate agent agreement that is 5 time-defined specific for a given project, not 6 for just the existing interstate agents that we 7 have but also allowing other state partners to 8 work with us with that.

9 We are interested in reaching out to 10 the states. If a state was to say hey, look, we 11 are looking at this. We can't get any additional 12 We really do want to apply more resources staff. 13 to the intrastates, we would like to relinquish 14 our interstate agent, our former interstate agent 15 status but we still want to communicate and stay 16 with you in the game, during inspections, and be 17 a part of this. Obviously, we would like to 18 reach out to states and see what they know about their interstate partners, what we are doing with 19 20 the states, why we are doing inspections, to get 21 that feedback to hear from that.

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We are onboarding 109 inspectors.

1 That gives us an opportunity -- when I first 2 started with pipeline safety back in 87, I was 3 the third one in the Central Region, the third 4 inspector. So, we used our interstate agent 5 agreements heavily then to leverage state 6 resources to help us. As we grow, obviously, 7 that has an opportunity to change. You know, we 8 don't want to make it something that is not 9 improving safety. We want it to give us more 10 flexibility to give us the tools to work with to 11 improve safety and work together in a more 12 formalized fashion.

13 Again, it will take -- we are not 14 looking to do anything and all the interstate 15 agents, the formal agreements are in place. We 16 do temporary interstate agent status. And for 17 those that are asking, which happens from time to 18 time with the new construction for interstate 19 agent status, we get with the regional director 20 and ask them if they are having any issues and if 21 there are any projects that we could use some 22 temporary help with and we try to work with them

1 to do a temporary interstate agent agreement to 2 do that. 3 Carl, does that help? I know that is 4 a lot of words to try to get to that. 5 MR. WEIMER: Yes, I think that helps. 6 I guess the one question is would you expand 7 interstate agents? Because I know like the State 8 of Michigan just recently had a report that came 9 out that recommended that. 10 MR. BARRETT: Sure. We typically 11 would use temporary interstate agent agreements 12 to expand interstate agents and not the 13 formalized agents that we have in place that 14 basically says for this whole state you will have 15 all of the authority. 16 What we want to do is to set the 17 temporary interstate agent things up an work 18 projects that make sense to both parties that 19 this is a good thing to do, so it isn't a big 20 resource drain but yet it involves states, gets 21 the local knowledge on the ground, and helps us 22 work better together.

Any other questions? 1 2 MR. TAHAMTANI: Thank you, Zach. Any 3 other questions? Zach, you sort of slide over this one, 4 5 too, distance learning. You are thinking about 6 distance learning for educating the inspectors. 7 Can you comment on that. 8 Currently, we are MR. BARRETT: Sure. 9 doing what we call WBTs to allow an inspector to 10 use their computer to go over the internet to 11 take some training online, basically, for very 12 short specific topics. And we are looking to 13 broaden that base to include more topics to where 14 it makes sense in short segments. And my boss's 15 boss has told me I was going to speak to a 16 greater stretch of that here in a bit. So, I 17 will let him do that. 18 Any other questions? 19 MR. MAYBERRY: Yes, Zach, let me pick 20 up on that, as well. In developing our strategy 21 for training and development of employees, we are 22 taking a look at what is the right mix between

1 classroom and distance learning and other places, 2 perhaps as well, that we are looking at. 3 But yes, right now, we want to point out we do -- last year we did about 1500 courses 4 5 remotely. We are looking at, as we modify our 6 curriculum going forward to figure out what is 7 the right mix. Which ones are better suited for 8 So, stay tuned and we will be reporting that? 9 out on that on a future date. 10 MR. TAHAMTANI: All right, thank you, 11 Zach. 12 Our next speaker is Mr. Ken Lee, who 13 has got two presentations to make, back to back. 14 MR. BARRETT: Please. 15 MR. TAHAMTANI: Go right ahead. 16 MR. QUACKENBUSH: Yes. I'm sorry. 17 Yes, I just had a question about the classroom 18 training that you mentioned. You had mentioned 19 that there is this large wave of new PHMSA 20 employees that will need to go through training. 21 What does this mean for the training slots 22 available to states and others? Are you

1 expanding the number of classes to accommodate 2 this wave or how should we think about that? 3 Certainly, we are trying MR. BARRETT: 4 to provide more opportunities to our introductory 5 courses, the 1250 courses that are prerequisites 6 to other courses. So, we are providing four 7 opportunities through the year, which there used 8 to be one to do that. 9 We have some TO staff that we need to 10 hire and to put into place. The distance 11 learning, we are looking at some opportunities, 12 as Alan could probably tell you, too, to work 13 that model. We are also looking at a boot camp 14 to where we could do back to back courses, core 15 back to back courses, around successionally for 16 folks that want to subject themselves to that 17 kind of training. 18 So, we are certainly thinking about 19 We are looking at exploring the options with it. 20 the resources that we have and the abilities we

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MR. TAHAMTANI: All right, any other

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have to move forward as quick as we can.

questions for Zach? 1 2 MR. BARRETT: You're going to move him 3 off schedule. MR. TAHAMTANI: All right, thank you, 4 5 Zach. 6 Mr. Lee. 7 Good afternoon. MR. LEE: My name is 8 I am Director of Engineering and Ken Lee. 9 Research and I would like to give you an update 10 about our Research Development and Technology 11 Program. 12 Our program started in 2002 with the 13 Pipeline Safety Improvement Act. And it focuses mainly on the development part, which is near-14 15 term solutions to improve pipeline safety. 16 And the three main goals of our 17 program is to develop new technologies to improve 18 safety, to strengthen consensus standards because 19 many of them are referenced by the Federal Codes, 20 and to promote knowledge. 21 And as you can see on the chart on the 22 bottom, on the bottom right you can see that our

1 funding for the last two fiscal years has 2 increased from about \$7 million a year to \$12 3 So, that was the plus-up which we saw million. in fiscal years 2014 and 15. 4 5 And we have a pretty rigorous process 6 that is collaborative, where we bring in a lot of stakeholders involved. We reach consensus on 7 8 what the top issues are. We have a rigorous 9 interagency review and peer review as well. So, 10 this has been audited many times by many agencies and it has withstood all those audits. 11 12 We have a public web page that tracks 13 many of the performance metrics. And this 14 includes 22 patent applications and 15 commercialization of technologies. Because what 16 we want to see is the real world impact of our 17 program. We want to see the technologies being 18 used in the near-term. 19 And this slide highlights some of the 20 successes of our program. Some of our projects 21 include leak detection. So, on the right-hand 22 side, you see some aerial laser leak detection

1	that can be performed by fixed wing or
2	helicopter. And there are some other leak
3	detection technologies there on the bottom left.
4	We have done work on robot pigs for
5	difficult to inspect pipelines, like what you see
6	in the top left, and also new technologies to
7	inspect pipelines like guided wave for casings
8	and new ILI technologies.
9	And on the top center you see that is
10	some R&D that was done on mechanized pipe welding
11	systems.
12	Some of our other metrics include
13	papers, public events, and we also keep track of
14	the total number of hits on our website, which is
15	now over 100,000 hits per month, and also the
16	number of files downloaded, which has been over
17	one million files since 2008.
18	So, this includes all of our project
19	final report files, quarterly reports, and we
20	have one of the most transparent programs that is
21	out there. You can download all of the final
22	reports and it is free of charge because it is

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funded with public money.

2	We are making research awards this
3	year. And this process really kicked off in
4	August 2014 with our Pipeline R&D Public Forum.
5	So, this is a public meeting, where we tried to
6	establish our national research agenda and they
7	have identified five key focus areas: damage
8	prevention, anomaly detection and
9	characterization, materials, risk models, and
10	LNG.
11	Earlier this year, we announced for
12	we made an announcement for papers. And we
13	received 81 white papers, 38 proposals. And we
14	are working on making awards next month for about
15	\$12 million of new research projects.
16	Another program which we have is the
17	Small Business Innovative Research and this was
18	congressionally established and we have had this
19	in place since 2002, where we have awarded a
20	total of 29 grants totaling about \$6 million.
21	And so this is supported by an annual tax from
22	our PHMSA R&D programs and it is ministered

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through the DOT Volpe Center.

2	One of the most exciting programs that
3	we have now is this new Competitive Academic
4	Agreement Program or CAAP and this was designed
5	to spur innovation. So, we are trying to reach
6	out to bright minds outside of the pipeline
7	industry to drive research, to try to get out-of-
8	the-box ideas.
9	And another goal of this is to expose
10	students, who may not otherwise know the pipeline
11	industry to track bright minds to enter the
12	industry and to enter pipeline safety.
13	So, this was initiated in fiscal year
14	2013, where we first had discussions and we made
15	the first round of awards fiscal year 13. We
16	made eight awards for about \$800,000. In fiscal
17	year 14, we made seven awards for about \$700,00.
18	This year, Congress liked the program
19	so much, they have increased the budget to about
20	\$2 million a year. And so the project size was
21	increased from about \$100,000 two-year to now a
22	\$300,000 three-year projects to accommodate the

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budget increase. And we received 37 applications and we expect those to be awarded soon.

3 And at our R&D Forum last year, we had 4 a CAAP poster session, where non-universities 5 presented their posters there. And you can see the list of universities there. 6 And there were many people from the pipeline industry and 7 8 pipeline industry researchers there. And it was 9 an excellent synergy to connect those in the 10 academic world with those in the real pipeline 11 industry.

12 So, we are tracking the performance of 13 CAAP on our website. So, all this information is 14 on our web page, where some of the metrics are 15 the number of students. And so far, we have 73 16 grad students involved, two student internships 17 who are working for pipeline industry companies. 18 And again, we are planting a seed here. We are 19 trying to bring new, bright minds into the 20 pipeline industry. So, we may not realize a lot 21 of the results for many years. But I am thinking 22 this is what we need to really advance the

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1 industry and to bring new refreshing ideas into 2 our industry. 3 And these are the contacts here at 4 PHMSA. If you have any questions about our 5 program, contact me, Jim Merritt, or Bob Smith. 6 Thank you. 7 Thank you, Mr. Lee. MR. TAHAMTANI: 8 Any questions on this part of his presentation? 9 MS. JOY: Two questions. This is 10 Michele Joy with the Liquid Group. 11 The first is you get a lot of applications but how do you solicit those 12 13 applications? Do you say we have this problem, 14 what might you propose to solve it? And a 15 related second questions is how do you go about 16 the award process? 17 MR. LEE: We have our R&D Forum every 18 other year, where we have it as a public event 19 and we try to identify what the biggest research 20 needs are. So, we have government, industry, researchers, and the public there to throw out 21 22 all the ideas and see what sticks and what rises

to the top. Then, we make a broad agency
 announcement for proposals to address those
 topics.

4 And as far as reviewing what to award, 5 we have a review panel that comprises of 6 So, there is a lot of people interagency. 7 outside of PHMSA and it includes other 8 government. It includes industry. It includes 9 SMEs in industry. So, we have a panel that gives 10 the proposals scores and then they meet and the 11 decide which projects to award, based on which 12 have received the highest total scores. 13 MS. JOY: Follow-up question. Do you 14 make any effort to reach out to minorities and 15 women and other groups that might not otherwise 16 apply? 17 Yes. MR. LEE: Yes. Yes, we do. 18 MS. JOY: Okay, thanks. 19 MR. TAHAMTANI: Andy.

20 MR. DRAKE: Andy Drake with Spectra 21 Energy. Not too long ago, we were criticized 22 pretty heavily for working together on research,

just to be blunt. Well, if you think it is just, then you need to speak up.

3 I think it created a considerable 4 barrier and a huge inefficiency in our ability to 5 solve problems. One, have we worked through that 6 and how we can work together constructively? And 7 two, the related question I think that is more 8 specific, is on the issue of methane reductions. 9 Some of the issues require some significant 10 technology advances. We talk about pigging. It 11 is near state. The concepts are there. The 12 tools are there. But I think to actually put 13 this into commercialization is going require, 14 quite frankly a lot of money. More money than 15 you have got. Maybe more money than I have got. 16 Maybe enough money that if we all pooled our 17 resources, we might actually solve this. And I 18 think that is kind of the essence of the 19 collaboration I think it is going to take to 20 solve that problem.

I think we can solve it and I think itis a worthwhile effort. It can make a big

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1 difference but it is going to take a concerted 2 effort for us to work together. 3 What are your thoughts on how we can 4 do that with this program? 5 MR. WIESE: Ken asked me if I would 6 like to swing at that one. So, I do recall that 7 time and I think that Congress helped us begin to 8 solve that. As you will recall, the Congress 9 instituted some language in our last 10 reauthorization that said 30 percent had to be 11 co-funded. 12 So, that has actually created a 13 problem for us. There are some things that we 14 will do that we will all inherently governmental. 15 If it focuses on something we need for a 16 particular rulemaking, rightly or wrongly, the 17 perception is that government should solely fund 18 that. But there are a lots of things like you 19 are talking about that really aren't immediately 20 related to the rulemaking. 21 So, a lot of our program is co-funded 22 I mean as you probably know, I don't think now.

1 we have the stats in here, much of it is co-2 funded. 3 I am with you on that business. We 4 have been wanting to expand the R&D Program for 5 Now, we have partners that we have drawn vears. 6 back into our lair on purpose so that it is part 7 of our plan to take over the world. 8 (Laughter.) 9 MR. WIESE: But you know I think it 10 does require a lot more collaboration. Ι 11 encourage you, if you have not gone to one of our 12 R&D forums to do so. Our methodology is very 13 simplistic. We talk about the challenges that we 14 are facing in this realm, bring in thought 15 leaders to talk about that, and then we bring in 16 all the people with money on the table who can 17 fund R&D and say what are you doing on this, what 18 are you doing on that, to address these 19 challenges. In some cases, you will find there 20 is plenty of money in an area. In other cases, 21 it is underfunded and that is what we really 22 pitch at.

1 I am open to alternative ideas and 2 maybe at the end of the day, as we talk about 3 focus areas, for collaboration in subgroups, that may be a useful topic. But I think we have to do 4 5 two things. One is we have to expand the pool of 6 funding available to R&D. It just can't be R 12, 7 PRCIs 12, a million from GRI, whatever. You 8 remember the days when it was over \$50 million 9 going into GTI and so do I. 10 So, I mean we have got a long ways to 11 go before we catch up to what it used to be 12 funded at. 13 But anyway, long-winded answer to yes, 14 I think we are very much open. We see the value 15 of collaboration. I think you will find there 16 are some projects that we will see as inherently 17 governmental, not many, though, and we will fund 18 those solely. 19 MR. TAHAMTANI: Tim. 20 MR. FELT: Tim Felt, Colonial 21 Pipeline. Two questions on the CAAP program. 22 I think, from what you said, the

1 objective is improve R&D to improve pipeline 2 safety and the second is to engage bright minds 3 to come into the industry or at least to be into 4 the pipeline field. 5 I was wondering if we have any sense on how successful we have been on either one of 6 7 Have we had the research projects? Do we those. 8 have a correlation to them improving safety? And 9 out of all the people that have been awarded 10 those grants, do we know how many of them kind of 11 stayed in the industry? 12 MR. LEE: I think it is still too 13 early to tell because the focus on this is more 14 on the research side to get out-of-the-box ideas. 15 And then if there is promise there, it would 16 transition to a Phase 2, which would go into our 17 core R&D Program for more development. So, I 18 mean that is how we are visioning it. 19 The only thing, Tim, I MR. WIESE: 20 would like to add to that is most of these 21 projects haven't even played out yet. So, it is 22 so new. We are very much excited about the

I think you can see from the number 1 potential. 2 of students that it is attracting, it is 3 providing funding in an area of common interest to all of us, for a number of years of their 4 5 graduate work. And so the professors' and 6 students' involvement, I think what we need to do 7 more of is more of the poster sessions. Get more 8 of your folks at these conferences, the R&D 9 conferences talking to them. 10 Actually, at the last one, one of the 11 professors publicly complained because people 12 were talking to his students and he said wait a 13 minute, they need to finish this program before 14 we start hiring them. So, I consider that to be 15 a mark of success. Right? 16 Anyway, we are really optimistic but 17 it is too soon to really say. 18 DR. GANT: Just really quickly to 19 extend on Jeff's comments and in answer to Andy's 20 question. Absolutely, there should be a restored 21 level of some sort of meaningful funding for R&D 22 I think it sort of is obvious that in this area.

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it has been underfunded.

2 But also, I think it is important the 3 conversation that is happening here about the appropriate way to collaborate. And there are 4 5 some things that a regulator must necessarily do 6 on their own. 7 And also, one of the things we are 8 conscious of in our role in our office, and the 9 way I talk about it, is we are the office of 10 science for regulators, whether they our federal 11 partners or state regulators, they turn to us to 12 understand what the center of the science tells 13 them. So, there are things that we can do 14 through our work, independently. And we do, we 15 help PHMSA evaluate, for example, projects that 16 are proposed. We participate in PHMSA's forums 17 so we learn and we can integrate the findings and 18 the observations from those forums into our R&D 19 strategy and try to make sure that we are 20 focusing our efforts in a way that is additive to 21 what PHMSA is doing.

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And in addition to the work we do

1 within our lab, we also have another means for 2 collaborating with industry and other 3 stakeholders in participatory research. 4 So, as I referenced earlier, we are in 5 the stages of beginning to formalize our R&D 6 program, new R&D program in this area and the specific types of projects we are going to focus 7 8 So, it is very timely to hear from folks on. 9 around here and from PHMSA where we can 10 specifically focus that will be value-added and 11 where there are opportunities for us to 12 collaborate. 13 MR. WIESE: And I would, forgive me, 14 I don't want to box it in but I would say where 15 it worked really well historically was DOE would 16 fund longer term work. We would take it in a 17 handoff from DOE and take it into the development 18 and testing, move it out to commercialization. 19 We are inherently, pipeline safety, we are 20 inherently short- to mid-term focused. We don't 21 go any further than that. You have to have a 22 pipeline of things coming along, ideas that

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percolate up in the cost share at that phase is a lot lower, when you get to our side. Remember, we used to be a 50 percent cost share. So, at 30, I think we are being generous. We think the ideas have real legs under them by the time we take them and run with them.

7 DR. GANT: Just really quickly Right. 8 to add to that, we have talked about some things 9 we are working on. A more leading edge thing 10 that we are working is smart materials. As part 11 of NETL, we have a material science lab in 12 Albany, New York, and so we have a host of people 13 who are ready to get to work on how do you have 14 pipe that tells you something itself. So, to 15 Jeff's point, that is the farther out stuff. But 16 again, we want to make sure that we are working 17 on the things that someone else is not working on 18 and that would actually be useful. 19 MR. TAHAMTANI: Chad.

20MR. ZAMARIN: Thanks. Chad Zamarin,21Cheniere Energy.

Ken, I think you mentioned over 20

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1 patents and I was just wondering if you could 2 just give a little color. Are those patents 3 that, from a strategy perspective, are held by 4 PHMSA? Are there revenue-generating 5 technologies? I mean what is the color there? No, they're not held by 6 MR. LEE: 7 PHMSA. It is federal government money and -- do 8 you want to? 9 MR. WIESE: Yes, the only thing I 10 would say is I think there ought to be an equity 11 interest here but we have tried to sell that 12 before and have always lost. You know actually, 13 someday, we will have a good talk about R&D and I 14 thought if the federal government could ever make 15 up its investment in the company and then get 16 back and take the money and put it back in the 17 pool. No one is looking to make money here but 18 if we help somebody to make money, let's get back 19 what we gave them and put it back in the R&D 20 pool. But I am pretty darn sure we will lose 21 that one. 22 MR. TAHAMTANI: All right, if there

1 are no other questions on this subject, Mr. Lee 2 has another presentation on LNG. Mr. Lee. 3 Thank you. Now, I want to MR. LEE: 4 give you a brief update about our LNG activities. 5 So, PHMSA we have 49 CFR Part 193. 6 These regulations apply mainly to LNG facilities, 7 if they are connected to a 192 pipeline with some 8 exceptions. And one of the key things to note is 9 it was written back in 1980 when the main use of 10 LNG, at that time, was for peak shaving. So, it 11 did not envision today's LNG world. 12 This is our public NPMS map of LNG 13 plants throughout the country. And you can see 14 almost everything there is peak shaving, except 15 for the blue triangles and the pink pentagons, 16 which are the marine import and export that are 17 located along the Gulf Coast and there is one on 18 the Atlantic Coast. 19 The last time that I spoke about LNG 20 last year, the focus was on marine export, where 21 we are a cooperating agency to FERC, where we 22 perform reviews of Part 193. We are still busy

1 with that and so far, we have issued 14 letters, 2 14 project letters of no objection for marine 3 export. I won't be talking about that this 4 5 I am going to focus on these new different time. 6 LNG facilities that we are seeing now. 7 So, this is driven by cheap, natural 8 gas and stricter emissions regulations, to 9 encourage people to switch from fuel oils to 10 So, the LNG world in the past was natural gas. 11 peak shaving, which was FERC and non-FERC 12 jurisdictional. That transitioned about a decade 13 ago, I guess to marine import and then expert, 14 which is under FERC. And now we are starting to 15 see small-scale LNG, which much of which is non-16 FERC jurisdictional. 17 So, in the past, I mean the 18 traditional use of LNG is that it came from a 19 natural gas pipeline, gets liquefied in the 20 summer, and then gets vaporized in the winter and 21 it gets put back into the pipeline. So, it I 22 used for storage capacity to meet peak winter

demand.

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2	What we are seeing now is a lot of
3	plans to use LNG as a fuel or to be transported
4	by trucks, trains, or ships. So, this LNG is not
5	going back into the pipeline. This is a very new
6	use for LNG.
7	We have a public web page with many
8	LNG FAQs. Right now it has over 30 questions and
9	we added a new FAQ for small-scale LNG. Many of
10	these companies don't know that they are
11	regulated or jurisdictional and we wanted to get
12	the word out to them.
13	It also has a link to a seven-page
14	document that talks about what facilities are
15	jurisdictional under Part 193 and you can see
16	small-scale LNG is there. And we describe a lot
17	of different type of facilities and whether they
18	are jurisdictional or not; truck loading, trains,
19	ships.
20	Small-scale LNG often involves
21	different transportation modes like pipeline,
22	truck, train, ships. So, it crosses many

1 jurisdictions and we are trying to coordinate 2 with other agencies like FERC, Department of 3 Energy, Maritime Administration, Coast Guard, who 4 have jurisdiction and, also, a lot of many state 5 and local agencies who have jurisdiction. So, the small-scale LNG world, it 6 7 crosses many jurisdictions many times so it 8 involves new outreach and coordinating 9 activities. 10 So, 193, one of the biggest issues 11 with our LNG regs is that it references older 12 standards. So, right now, it references the 2001 13 edition of NFPA 59A and that is because we have 14 safety issues with newer editions. This was 15 announced in the Federal Register notice back in 16 2009. And in turn, this 2001 version of NFPA 17 references the 1992 version of the ASME Boiler 18 and Pressure Vessel Code, which the unfortunate 19 thing is pressure vessels are made to the newest 20 edition of ASME and that is mandatory by ASME. 21 Therefore, they do not need Part 193. 22 There are some significant differences

between the current ASME Code and the 1992, which 1 2 includes a higher allowable stress and a lower 3 hydrostatic test pressure. So, I guess you can 4 see in the chart on the bottom there, the newer 5 ASME Code allows you to run at higher stress and 6 allows you to pressure test at a lower ratio than 7 the 1992 edition that is required by Federal 8 Code.

9 So, we have been working with several 10 operators, individually, on finding a resolution 11 to this and we are working on an industry-wide 12 conditions to provide safety equivalency for 13 these ASME tanks that are built to later codes, 14 later editions. And these include conditions 15 like asset integrity management, which is like 16 integrity management for pipelines, additional 17 inspections, corrosion monitoring, and also API 18 510 inspection of these ASME tanks.

And this is intended to provide a
safety equivalency, essentially meeting the NFPA
59A Section 1.2. Because many of these tanks
that are built now, it is very difficult or

1 impossible to go back and pressure test those and 2 to go backwards with that or change the maximum 3 allowed working pressure. So, this is a plan for 4 tanks that have already been built and it is a 5 plan to address the safety delta going forward. We have plans to update Part 193 and 6 7 this includes updating references to older 8 standards, like I have just discussed. And we 9 are going to consider also putting in issues, 10 conditions to address the newer types of LNG 11 facilities like the export with the faction, safety risks, and small-scale LNG to incorporate 12 13 newer technologies and safety advancements. And 14 we are planning on a public meeting next year to 15 talk about the update to Part 193. 16 So, that is a real brief summary of 17 our busy LNG work that we are doing. 18 MR. TAHAMTANI: Thank you, Ken. Any 19 questions for Ken on the LNG presentation? 20 Apparently you covered it very well. 21 Thank you so much. 22 We could take a very quick break, or

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we could continue.

2 MR. WIESE: If that didn't generate 3 questions, I'm thinking a break is in order. MR. TAHAMTANI: Maybe there was 4 5 something in the lunch that did it. You don't 6 have any questions? No questions. 7 We could take a quick break, or we 8 could move on to the next presentation. Any 9 preference? I'm looking at the older people 10 around the table. 11 (Laughter.) 12 MR. TAHAMTANI: But then again, you 13 all don't come back on time. So, no breaks. 14 MR. WIESE: Ouick vote. Show of 15 hands. Who wants a break now? Okay, I'd say we 16 take a short one. 17 MR. TAHAMTANI: All right, ten 18 minutes, please. 19 (Whereupon, the above-entitled matter 20 went off the record at 2:24 p.m. and resumed at 21 2:35 p.m.) 22 MR. TAHAMTANI: All right, thank you

1 all very much. Please have a seat, if you are a 2 committee member. 3 All right you know when I made the rules about the committee members going on a 4 5 break and coming back, that doesn't apply to me. 6 Having said that, we have one more 7 presentation by -- is Max here? 8 It's a variety of folks. MR. GALE: 9 MR. TAHAMTANI: Are you the one? 10 MR. GALE: No, we have a variety of folks that are going to talk. 11 12 MR. TAHAMTANI: A variety of people? 13 DR. GANT: A variety of people. 14 MR. TAHAMTANI: All right, who is 15 first? 16 MR. GALE: Steve Nanney, but I would 17 like to just open with a couple of comments. 18 MR. TAHAMTANI: Okay, John, then it is 19 all yours. 20 MR. GALE: All right, what we are 21 going to do is provide an overview of three of 22 our rules that we recently published, our

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Operator Qualification Rulemaking, our Plastic Pipe Rulemaking, and our Excess Flow Valve Rulemaking. This is just an overview. This is not a meeting to have a vote or debate what was in the NPRM.

And so we can answer questions that 6 7 will help improve your knowledge of the rule but 8 we can't get into a debate with you about the 9 rulemaking right now. If you would like to make 10 a statement or make a comment about the rule, 11 that is all great and we will take that into 12 consideration as we develop the final rule but we 13 are not looking for a debate right now. That 14 will come later this year or early next year, 15 when we have our committee meetings to have a 16 vote on the rules.

17 So with that said, what I would like 18 to do is introduce Steve Nanney, who is going to 19 give us an overview of the operator qualification 20 and cost recovery rulemaking.

21 MR. NANNEY: Good afternoon. I'll be 22 going through this, and what I have tried to do

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1 is highlight the rulemaking and give you an idea of what will be in it. And by the way, don't 2 3 shoot the messenger. It doesn't mean I had 4 anything to do with the rules. I think Jeff did 5 all of those. Again, just to give a brief overview 6 7 of the updates, in here what we tried to do is, 8 from the mandates we have gotten from the 2011 9 Act address some of those, also to address 10 several NTSB recommendations. As far as the first item, I am just 11 going to do in order starting with Part 190 12 13 through 191, 192, 195 as we go down and the 14 things I highlighted in red for me, it just gives 15 me a guide of the key points that I want to make 16 to everyone. So, I am not going to try to read 17 all of this but I want to give you the key 18 points. So as far as the special permits, 19 190.341 has been in the regulations for a long 20 time. We are getting more of these special 21 permits. We are putting some effective dates on 22 some of them where you have to come back and get

reauthorization. This is outlining what we have got in practice as far as resubmitting and what the procedure is. Also, some operators may have things going on that are confidential that they give us that they also want us to treat as confidential, so we have put in a section there to be able to handle that.

8 As far as cost recovery, one thing 9 that we did several years ago and it was put in 10 the 2011 Act, this had to do, first of all, when 11 we were looking at projects in Alaska, some of 12 those were going to take a lot of our resources, 13 a lot of our dollars. We did put this in go to 14 Congress and we got approval, as you can see 15 here, for projects over \$2.5 billion to be able 16 to go to that operator to set up a cost recovery 17 system for doing these special projects. And 18 again, it has to be over \$2.5 billion or it has 19 to be some type of new technology or novel design 20 that PHMSA would be spending a lot of extra 21 effort on.

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In the regulation that we got in, you

1 can see here we will have a scope; applicability 2 notification; example master agreement, which is 3 similar to what some of the other agencies that have reimbursement authority have; a fee 4 5 structure; and then the procedures for billing and payment. And it would be a collaborative 6 7 effort where we would, on notification, get with 8 the operator and work out the timing of the 9 project and when PHMSA would be doing inspections 10 and what the staff would do.

And again, as I said earlier, the fee structure would be based upon our direct cost and also it would be based upon how the fee structure was scheduled. PHMSA would be direct billing the operator of the project.

And just going back, the reason for that is if you look at some of these big mega projects, if it is a \$40 billion project and PHMSA is spending four or five years inspecting it, it can be a big percentage of the overall budget for a year or for a four or five year period. We didn't think it was right for

1 operators that normally pay fees to PHMSA through 2 their mileage should be footing the bill for some 3 of these mega projects that have a lot of costs. As far as definitions, we have added 4 5 some new definitions. I see up there that one of 6 them is probably a noncontroversial and one of 7 them has had some comments through it. And 8 again, I think the new and novel technologies is 9 the controversial one and I think everybody likes 10 the confirmed discovery, Jeff. 11 But anyway, I'm not going through 12 that, other than letting you know that it is 13 spelled out in there. 14 As far as immediate notice of certain 15 incidents to go along with the confirmed 16 discovery, again, it spells out as we directed 17 through the congressional mandate for the one 18 hour of confirmed discovery and then, amount of 19 product loss, and then, within 48 hours, 20 confirmed discovery. 21 So we have, what we have done here, we 22 have gotten -- I know we have heard some input

1 We have gotten some input from NTSB. vesterday. 2 And as this is out for public notice, any 3 comments we get there we will be taking that into 4 account as we go through this rulemaking process. 5 As far as pipeline and LNG operators, you can see the Code sections, the 191.22 and the 6 7 915.64. We have, as far as notification to PHMSA 8 for new construction, and we have added 9 replacement pipeline to the language of giving us 10 the 60-day notification, also there is a lot of 11 pipelines that are being reversed, that are 12 reversing the entire system. The reverse flow of 13 product, again, there is a 30-day notification 14 there that has been added to the Code. And then 15 the last bullet there is a pipeline converted for 16 service. In other words, if it is going from 17 product service to natural gas or natural gas to products. 18 19 Also, for the gathering lines under 20 192.9, whether it is a Type A or Type B line, it 21 has got to have an OQ Program now, an Operator 22 Qualification Program. And one year after

publication of the final rule, it would need to
 be in place.

Again, in 192.14 and 195.5 for the conversion to service, whether it is natural gas or liquids, again, the notification to PHMSA 60 days before the conversion occurs.

The last one down there, the 192.175,
there was a formula error for metrics and that
area was changed in the Code. In English units,
it was fine but there was an error for metrics.

11 On welding procedures, whether it is 12 in 192.225 or in the Liquids Code 195.214, we did 13 add Appendix A for maintenance welding so that if 14 you do use API 1104, you can use the Appendix B. 15 We are catching up with something that has been 16 added for several years on maintenance welding 17 into 1104.

Control room management, whether it is in the Liquids Codes or the Gas Codes, again, both of these sections are totally new. And it is based upon recommendations that we have gotten there. And again, it is authority to direct or

supersede. In other words, if you are a
supervisor over someone that is a gas controller,
you have got to have the same training as they to
be able to go in and tell them to do something
different. So, you need to read the whole scope
there of what it is saying.

As far as training, control room team
training and exercises, should include everyone.
In other words, it would not only include the
controllers but the other individuals that would
be interacting with them.

12 The next one is 192.740. Again, this 13 is Farm Taps. This would be for pipelines that 14 are in rural areas, where you might have a farm 15 tap that was put in years ago, probably 30, 40, 16 50 years ago that feeds a farm or a farmer or a 17 single person. Again, we are excluding farm taps 18 from DIMP. But if you go down and you look at 19 192.740, you will also see that it will be 20 requiring inspections of the pressure-regulating 21 pressure relief devices that are on those farm 22 It would have to be every three calendar taps.

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years, not to exceed 39 months.

2	The next area that we are covering
3	will be a couple of slides here is on operator
4	qualification, whether it is in the Liquid Code
5	or the Gas Code. The main key, if you look at
6	defined, there is a number of terms there that we
7	have defined. You can see adversely effects,
8	direct, and observe, emergency response task,
9	knowledge skills and abilities, qualified, safety
10	or integrity, significant changes, span of
11	control. So, there is a number of definitions
12	that have been added to the Code.
13	As far as covered tasks, the main
14	thing we have added there is construction as
15	being a covered task. And then on down, as part
16	of the new updates, program effectiveness will be
17	a new section.
18	As far as why we did the major
19	changes, and to give a little more detail, as you
20	know in both the Liquids and the Gas OQ Code
21	there was a four-part test. And what we have
22	done there is we have added the performance of

operations maintenance and the key is the construction or emergency response task. And again, it is anything that effects the safety or integrity of the pipeline system, no matter who is doing it.

6 Again, we have added program 7 effectiveness and the third item there is record 8 requirements to support the inspection of the OQ 9 program.

We have also added a management of change and a communication of those changes will be in the OQ. And you can see we have also added an OQ program covering the Type A and Type B gas gathering lines.

15 The reason for the changes, again, you 16 can read that but the main thing is to improve OQ 17 quality. So, eliminate performance areas and 18 reduce incidents and accidents.

The other thing that we have looked
at, and it is viewed as some NTSB
recommendations, you can see several of the Drug
and Alcohol Test Code provisions. Again, you

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1 have got to have specific information that the 2 covered employee's performance had no role in the 3 cause of the accident, if you do not drug or 4 alcohol test them. There is a provision for 5 retention of the samples. Again, electronic 6 reporting of the drug and alcohol testing results 7 and you have got to keep the records for at least 8 three years.

9 Another item that we have added is in 10 the integrity management area under 195.452(c) 11 and (j). We have added, again, assessment 12 methods. We have added cracks to that. We have 13 also gone in on the inline inspection tools. 14 There is several standards out on running an ILI 15 tool, it is API 1163. The ANSI provisions and 16 the NACE provisions have been added to the Code 17 or are proposed to be added to the Code. Let me 18 correct that.

Another item is what standards apply
to direct assessment for stress corrosion
cracking. Again, we have gone in and put some
more explanation on these items, where there is

1 data gathering and integration, indirect 2 inspection requirements, direct examination. And 3 the key is the items in red on the remediation 4 and mitigation. We have put in a definition of 5 what non-significant SCC is and significant SCC. And the last is we do have some post-6 7 assessment requirements. 8 Again, some of the other minor things 9 I think I have covered most of these. If you 10 look at number two, 195.3, there are some 11 additional consensus standards. I may have 12 missed one of those going through but we have had 13 to try go through and clean up any of the 14 consensus standards that we were behind on as far 15 as the additions and everything. 16 And thank you for listening. That is 17 all I have. Is there any questions on anything? 18 MR. TAHAMTANI: No debates but 19 questions. 20 MR. NANNEY: I hope not. Questions. 21 Go ahead, Rick. MR. TAHAMTANI: 22 Rick Kuprewicz with MR. KUPREWICZ:

1 Liquid. I am just a simple country doctor here. 2 So, where does all this stand? Is it like fast 3 up and running or is it being -- help me out 4 here. 5 MR. NANNEY: July the 10th, I believe, 6 it was out for proposed rulemaking. And I have 7 forgotten the date, 60 days after that, September 8 the 10th or so, is when it closes as far as being 9 able to give comments. So, it is out for the 10 comment period right now. 11 If I could, real quick, MR. GALE: 12 like Steve says the comment period ends mid-13 September. Our goal is to have an Advisory 14 Committee meeting, have a vote on this, probably 15 either late December or mid-January and we will 16 have a comment summary out to you, hopefully, two 17 months prior to that meeting. 18 MR. TAHAMTANI: Any other questions? 19 Okay, thank you. 20 John -- I'm sorry. Rich, go ahead. 21 MR. WORSINGER: Is that punishment for 22 taking a break? Rich Worsinger, City of Rocky

Mount. Just a question on one of the items that you mentioned.

The immediate notice of certain incidents, one of the things that is being asked is how much gas was released. And I guess my question is why would PHMSA require that? What would they do with that information? It is certainly not going to be readily available within one hour of an incident.

10 MR. WIESE: Actually, I will be glad 11 to step in. As I said at the beginning, we are 12 not going to be able to discuss that with you 13 now. You are entitled and you are invited to 14 comment on anything you want to but, given that 15 we are in rulemaking now, I don't know that we 16 can sit and debate the points with you.

MR. WORSINGER: I thought we were
allowed to ask questions. That was a question,
not a debate, Jeff. It was a question.

20 MR. WIESE: No, I'm saying -- not 21 that. I am saying you are entitled to make a 22 statement, if you want to, to educate others on

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1 your point of view. I just don't know that we 2 can debate -- we can't go back and forth with you 3 about it, I don't think. I mean I think John 4 would be more the expert than me on how far we 5 can go. 6 MR. GALE: Yes. 7 MR. WIESE: We are in rulemaking is my 8 point. 9 MR. GALE: Well, I would make one 10 If you look at the recent 191, there is comment. 11 the process for 48 hours to provide an update. 12 So, to the best of your ability, you are going to 13 provide that information within the one hour. 14 And if that is not completely accurate at the 15 time, you have ability, as the proposal states, 16 to update that information 48 hours later. 17 MR. TAHAMTANI: Okay, any other 18 questions? 19 MR. WIESE: Comments. 20 MR. TAHAMTANI: Comments. Go ahead, 21 Craig. 22 Craig Pierson, Liquids. MR. PIERSON:

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1	So, I was going to ask a question but I won't.
2	(Laughter.)
3	MR. PIERSON: It was on OQ. As we
4	read this, and you will see this reflected in our
5	comments when we submit it, that we understand
6	the construction being added. We understand that
7	and we got that but, as it appears to us, it
8	looks a significant expansion in the other arenas
9	outside of operations and maintenance. It looks
10	like that is what is anticipated, is a
11	significant expansion. And so we may or may not
12	be right about that and I know we can't whether
13	we are right about that. So, our comments will
14	be coming from that frame of reference.
15	And correspondingly, with OQ, the
16	administrative burden in that arena is really
17	significant when you expand the numbers of tasks,
18	the number of people involved. So, that is the
19	why behind the question.
20	With regard to the notification, we
21	share the same desire to make sure that we
22	protect the public when we have incidents. And

we will be offering some words that probably give what we think might be a better definition of confirmed discovery and take out a "may." There is a lot of uncertainty about the word may in the incident and we want to try to add a little more clarity around that and we will have the opportunity to discuss that.

8 And so we look forward to having that 9 discussion of what are you trying to achieve with 10 both of those, so we can try to find the mutually 11 agreeable goals, so maybe that will be in the 12 next meeting.

13 MR. GALE: Yes, at the next meeting, 14 we are going to bring out the rules completely 15 and have a vote, have a vigorous debate. And you 16 guys would give us a recommendation on how we 17 should move forward with that proposal. And I 18 can't stress more, any data you can provide to us 19 that can help us in our analysis in terms of 20 moving the rule forward, and even critique the 21 analysis we put in the docket, the more data we 22 have, the better job we can do in moving forward

proposals and final rules for us. So, anything 1 2 you can give us is helpful. 3 And any recommended language, I think the issue of the "may" I believe we just received 4 5 recently a letter from NTSB as a comment on the 6 rule and I think they have concerns on the issue 7 of the word "may" as well. 8 Say we will. We won't MR. PIERSON: 9 just be tossing out issues. We will be trying to 10 toss out solutions on some of the issues. 11 Thank you. MR. GALE: Outstanding. 12 MR. NANNEY: Just to add one thing. 13 We have gotten some feedback from NTSB on that 14 same subject that you are talking about on 15 confirmed discovery and the 48 hours and 16 everything that we will be looking at. 17 Okay, any other comments? MR. WIESE: MR. WORSINGER: 18 Rich Worsinger, Rocky 19 Mount. And Jeff, I quess I am confused. I am 20 confused because I thought we were to task 21 questions for clarification, not meaning as 22 debate. And I have got a bunch of things I have

1 got questions about here that we don't 2 understand. And I guess I am confused because 3 earlier you talked about using the example of the working group and I guess I am looking to ask 4 5 some questions and clarification but I feel like I have been shut down. And I'm confused. 6 7 MR. WIESE: Well, certainly, Rich, no 8 one would want to shut you down. That is not the

10 exercises, we are not in rulemaking on that 11 activity and we are in this case.

The difference between those two

I'm happy to have Counsel weigh in to 12 13 say how far we can go. But once we propose a 14 rule, it is different matter and we have to treat 15 debate a little differently than we would when we 16 are not in rulemaking, I guess. That is why we 17 do workshops, the technical workshops, why we 18 would entertain working groups to give you a lot 19 more latitude.

I would just say there is a fair
amount of restrictions on us once we drop a
proposal in the public domain.

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point.

1	So, any additional counsel? You see
2	the nodding of heads, which is why I am trying to
3	tell you that that is sort of the guidance that
4	we get. But I want to invite you to put comments
5	on. Feel free to do it now so that other members
6	of the committee can hear your anxieties. But I
7	am just saying I don't think we can sit here and
8	debate it with you.
9	And I don't use debate in a bad word.
10	I mean I am happy to have this debate here. I
11	think there are limits on how far we can go right
12	now.
13	But please feel free to put any of
14	your concerns on the table. I think that is
15	fair.
16	MR. PHILLIPS: And just quickly, Jeff,
17	this is Adam Phillips from the Counsel's Office.
18	Since we have opened a public forum, having
19	started the rulemaking process, that is where we
20	run into the restrictions. So, that is the only
21	issue is we have a public forum now.
22	MR. WORSINGER: Well, if I can, then

1 I will proceed and just share my concerns. 2 Looking at the item under notification 3 of changes to OQ programs, it makes wholesale changes and what is confusing is is wholesale 4 5 changes at a higher or a lower standard than what 6 is significant change. I don't know if there is 7 a definition in there or not. 8 There is a reference under record 9 keeping to non-task specific task and we don't 10 understand what is a non-task specific task. 11 Under operator notification of 12 customers concerning EFV installation -- all 13 right, I will wait on that one. 14 Just those couple for now, then. 15 It is under record keeping, Item 5, 16 evaluation to recognize and react to an abnormal 17 operating condition, whether it is task-specific, 18 non-task-specific, which occurs anywhere on the system. And I guess we just we are confused by 19 20 We don't understand. that. 21 MS. GENTILE: Okay, in terms of the 22 record keeping portion that was expanded, the

1 intent of adding the record keeping requirements 2 was just to make sure and clarify the current 3 regulations, to make sure that the operators 4 retain the records needed by the inspectors to 5 make sure that tasks, in this case, at normal 6 operating conditions, the expectation under OQ is 7 for abnormal operating conditions to be defined 8 by the pipeline operators to be both task-9 specific and generic. 10 So, we just want to clarify that 11 operators are going to retain those same

documents that they are keeping today. It is not really a modification. It is just to add the clarity to the language to make sure that those records are retained for the inspection process, to make sure that operators have their justifications and have looked at task-specific as well as generic AOCs in their program.

MR. WORSINGER: A little later on, it talks about the covered task list is to include all task-specific and non-task-specific covered tasks. So, again --

MS. GENTILE: I don't know if that --1 2 we can go back and look -- is part of this 3 This rulemaking it was proposed some rulemaking. 4 time ago and it was recently released. But if 5 you do have recommendations to add further 6 clarification to help clarify that language, when 7 I look at that, it almost appears that it may be 8 associated with abnormal operating conditions, 9 which are typically task specific as well as 10 We define, in this rulemaking, this generic. 11 proposed rulemaking, there is a further 12 definition. We have expanded the definition for 13 covered tasks and that is to help clarify what a 14 covered task is. And I know in that definition, 15 it does not mention specific and generic covered 16 tasks. It is just a covered task. 17 And I suggest that MR. TAHAMTANI: 18 because, again, this is a rulemaking process, any 19 party can provide comments of any type with 20 questions to say this part of the rule is not 21 clear. What does it mean? And for PHMSA to 22 provide that in the process of rulemaking,

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1	instead of sitting here and trying to answer some
2	of these questions. This is a whole different
3	record than the record that you have to act upon
4	to build the rule.
5	I'm not trying to cut off any
6	discussions but I don't think you are helping
7	PHMSA, in this case, try to get to where you want
8	them to get.
9	So, with that said, Rick.
10	MR. KUPREWICZ: Rick Kuprewicz,
11	Liquids. Just a general observation, I
12	appreciate the sensitivity to the rulemaking
13	process. My general observation, based on some
14	very serious investigations of major releases,
15	there is a whole series of issues here.
16	Some major issues are being touched on
17	here. I think PHMSA should be commended on
18	trying to deal with those issues.
19	I also don't want to paint a broad
20	brush that we had to go through every one of
21	these items in detail at this kind of meeting.
22	There is another forum to do that, with a lot

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more resources, where some rational compromise
 can be worked out without throwing the whole work
 product out here.

So, I think there are some good things
that need to be done here. We are not at the
level of where the committee is voting on this.
So, we have got some breathing room.

8 I will be going through this slide 9 presentation in great detail now, just because it 10 was kind of a sleeper for me but it sounds like 11 there are some major issues. I sure don't want 12 the discussions on what may be minor issues from 13 my perspective throwing this whole work product 14 askew, nor do I think -- I don't want to speak 15 for everybody else in the committee, I don't 16 think you want that to happen either.

So, I would suggest moving it forward.
There is a formal process and I have got to do
some homework. Thank you.

20 MR. TAHAMTANI: Thank you, Rick. Sue,
21 you have your card up, I think.

MR. WIESE: So, I feel bad about the

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1 fact that you feel, A) that you are being shut 2 down. That is not the intent. I was talking to 3 Rich. I think that you understood we will come 4 to back, though, Rich. You guys have an 5 opportunity, once we launch rulemaking to submit your comments to the docket. We will come back 6 7 to this committee, not only with where we go 8 through what we proposed but we will provide a 9 detailed kind of a digest of what the comments 10 are on each of the provisions. And then this 11 committee is going to have an opportunity to 12 debate that and advise us on which way we should 13 go. 14 So, I know it feels awkward. I would

15 rather talk about these things before the 16 proposal hits the street but that is the way the 17 process works and it is better to talk 18 beforehand. I guess that is all I can say. But 19 there will be opportunity for the committee to 20 sort of weigh in on what they think. 21 MR. WORSINGER: Well, Jeff, and again, 22 I'm not trying to debate anything in here. I am

just looking for clarification --1 2 MR. WIESE: Sure. 3 MR. WORSINGER: -- so that we can make more substantive comments. 4 5 MR. WIESE: Okay. MR. TAHAMTANI: So, my nature is to 6 7 compromise and be one of the good guys in the 8 Why are you laughing at that? room. 9 (Laughter.) 10 MR. TAHAMTANI: Could, for example, 11 Erikson, or Rich, or anyone call our Director of 12 Regulation here or the General Counsel's Office 13 and ask these questions? 14 MS. BALDWIN: Absolutely. Every time 15 one of our rules is published, there is a point of contact for each of those regulations and 16 17 there is a person, we can identify who that is, 18 that is that point person for the rule. 19 I always enjoy talking MR. WORSINGER: 20 to Mr. Erickson. 21 MR. TAHAMTANI: Are you saying that 22 with a straight face?

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1	MR. WORSINGER: Completely straight
2	face. Completely.
3	MR. TAHAMTANI: Okay. I think that is
4	a great way to go about this. Any other? Let's
5	move on.
6	Now, John, do we have another
7	presentation, or are we done with these? We do.
8	All right.
9	MR. ISRANI: Good afternoon. I'm Mike
10	Israni. I'm a senior technical advisor at PHMSA.
11	So, I am going to brief you on excess flow valves
12	for multi-residential and commercial
13	applications.
14	We had proposed rule hit the street on
15	July 15th and we have comments we have open until
16	September 14th of this year. And this proposed
17	rule would pretty much close the chapter on
18	NTSB's recommendation on excess flow valves
19	because this address all applications.
20	What is excess flow valve? It means
21	to reduce the risk of explosion from unplanned,
22	you know by sharing of the gas, mostly from these

excavation damages. And the curve value is a manually operated value, which is located near the main. And we included this curve value in this rulemaking to take care of the facilities which are high-volume flow. The excessive flow values may not function properly.

7 So, I included some pictures to show 8 you what excess flow valve is. I'm sure most of 9 you already know these valves have been in place 10 for many years now and there are quite a few manufacturers of these valves. 11 In open position, 12 you can see the gas flow through the annular 13 space around the plunger in the system and 14 because on the upstream side, you have more than 15 ten-pound pressure. On the downstream side you 16 have much lower pressures. So, the flow is there 17 in steady state. The plunger remains in the 18 middle. And when there is damage on the 19 downstream side, and I say downstream side 20 because this goes on the service valve between 21 the main and the facility. So, when there is a 22 rupture in the line and there is a pressure

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differential, that shuts off the supply.

And this is a curve valve. This is a typical curve valve that in our proposed rule we show this also is placed near the main. But this is a manually shutoff valve. It needs a long stem key and we expect only gas operators and the first responders to operate this.

8 So where EFVs are currently required. 9 This is before the rule, before this proposed 10 EFVs are required for single-family homes rule. 11 only in new and replaced service lines. And it 12 has been in order since February 2010. And that 13 came as a DIMP rule, as you may recall, 14 Distribution Integrity Management Rule. And that 15 was because of the PIPES Act of 2006, when we 16 introduced this. In 2006 Act, it mandated that 17 we do excess flow valves for single-family homes 18 but it did not mandate for branch service lines 19 or multi-residential or commercial facilities. 20 So, at that time, focus was only covered single-21 family homes.

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And then as soon as that rule came

1 out, we started working on the multi-family 2 rulemaking. In fact, we put out the advanced 3 Notice of Proposed Rulemaking before even this 2011 Act came into place. We are meeting with 4 5 our stakeholders, we are meeting with the fire marshals and other folks, including manufacturers 6 7 and then we introduce the Advanced Notice of 8 Proposed Rulemaking and then the Act came out. 9 If you notice the language in this Act 10 it says new or replaced branch service lines, 11 multi-family, and small commercial facilities. 12 And look at the NTSB recommendation which came 13 out in 2001, which says all new and replaced 14 service lines regardless of customer 15 classification. So, that pretty much includes 16 all kinds of facilities, all kinds of customers 17 who get the gas. That could be schools, 18 hospitals, industrial plants, universities, 19 anything. And you will see now a proposal. Ι 20 will show you what language we have used in this 21 rulemaking.

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So when we had the stakeholders

meetings and the Advanced Notice of Proposed 1 2 Rulemaking that we put forward, the comments we 3 received on that, these are the highlights of We found out that excess flow valves are 4 those. 5 available from most manufacturers up to 5,000 6 standard cubic feet per hour, even though some of 7 the manufacturers, like UMAC, has up to 10,000 8 standard cubic feet per hour and the pressure is 9 less than 1,000 pounds.

10 But one of the biggest concerns that 11 operators had are all those who are using these 12 excess flow valves is that because of the large 13 load variations with all these different 14 customers, they were demonstrating that there be 15 some fairly excess flow valves and they needed to 16 replace some of these valves. So, if they 17 account for the larger service applications then 18 they need to put the bigger valves on larger 19 sized lines and then it may not even function 20 properly. It may not do the needs that we have. 21 Our valves may not close for small leaks. So, 22 these are some of the concerns we have.

They also were concerned about inadvertent closing of these valves due to some operation maintenance activities like drawing liquids through the lines or some particles or other things getting in the lines. So, there are some exceptions given in the rulemaking that you will see.

8 And this DIMP rule and damage 9 prevention requirements should reduce incidence 10 and need for EFV. So one of the comments they 11 say okay, DIMP rule just came out and we have very strong damage prevention program. 12 We have this one-call notification and we haven't even 13 14 been given the chance to have all those go in 15 place before we introduce this rulemaking. In 16 fact, they wanted to put a hold on for some time. 17 But we had the NTSB recommendation since 2001 to 18 cover all kind of applications. So, we went 19 forward and also the Act came out in 2011. 20 And 2001 Act also required us to issue 21 a final report. So, we put the final report on

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the docket, which pretty much highlights what

NTSB recommendation is, what regulatory actions 1 2 we are taking today, and what will different 3 views of stakeholders and comments on the advance 4 notice, what standards are available. We even 5 looked at many international standards on excess 6 flow valves, which countries have it, what standards they use for excess flow valves. 7 We 8 also wanted to have some operator experience, if 9 some of the operators will voluntarily install 10 these valves. So, this report covers all of that 11 information. 12 So now we go to the proposed rule, 13 what we really proposed in this NPRM that got 14 published on July 15th. So, it says that after 15 January 3, 2014, you notice we have gone back to 16 2014, each operator must install excess flow 17 valve on new and replaced service line. We are 18 still in the proposed rule stage but because 19 mandate calls for operators to install these 20 valves, that is why we put the date there. And 21 this is for new and replaced service lines, for 22 branch service lines, multi-family residences but

only up to 1,000 standard cubic feet per hour 1 2 because we, from the comments we received from 3 industry, from everybody, they all felt comfortable to have these valves up to 1,000 4 5 standard cubic feet per hour, which is not too If you think a typical home maybe 6 many homes. 7 150 to 200 standard cubic foot per hour. So, it 8 would cover fourplexes and all those. But for 9 others, we will have option to put in curve 10 valves or if the line is divided into branch 11 lines, they can put multiple excess flow valves. 12 So, small commercial. This was an Act 13 requirement. Small commercial also only up to 14 1,000 standard cubic foot per hour. And 15 exceptions are also given like the pressure, if 16 there is less than ten pounds -- psig, pounds per 17 square inch gauge and their contaminants. Their 18 history of contaminants in the gas stream, the 19 record that these excess flow valves can 20 interfere or if the EFVs are not available for 21 the services they need, then they don't have to 22 install these valves.

We have also introduced in this 1 2 proposed rule the customer has right to request 3 Here, we are talking about existing an EFV. 4 They can request the service and the customers. 5 operator has to provide notification, written 6 notification to customers that they have a right 7 to request an EFV. But we are not going to 8 interfere or we are not going to mention who 9 charges what. That is under the state 10 jurisdiction and we will let the state and the 11 commissioners to decide that the operator and the customer, how they determine that. 12 Federal 13 government will not interfere in that. 14 And each operator have to report EFV 15 measures, which are in the annual reports, 16 meaning number of valves installed and what 17 services they are installed. 18 And we have a requirement for manual 19 shutoff valves when the capacity of the service 20 line exceeds 1,000 standard cubic foot per hour, 21 which is the majority of the bigger schools, 22 hospitals, nursing homes, et cetera, multiple,

1 these apartment buildings, office buildings will 2 fall there. Here, we require them to have manual 3 shutoff valves by the curb site just next to the 4 main. 5 Manual shutoff valve must be installed 6 to allow accessibility during the emergencies. 7 Accessibility should be to operators and the 8 first responders only. 9 And that is all I have in this 10 rulemaking. 11 MR. TAHAMTANI: All right, any 12 questions for Mr. Israni? Go ahead. 13 MS. CAMPBELL: Cheryl Campbell, Xcel 14 I just want to mention that AGA and, Energy. 15 frankly, many of the member companies are very 16 supportive of expanding EFV installations. And 17 we showed that support by the commitment to 18 enhancing safety and most of our member companies 19 have been installing them since 2013. 20 We do have a couple of concerns and we 21 will reflect them in the comments. 22 Just my own personal experience, I

1 just have to throw out there, we are starting to 2 see a critical mass on the system and I do see 3 the emergency calls come across my phone on a 4 fairly regular basis. And it is getting to the 5 point where I am starting to see enough of them, quite a few them are now said gas off on arrival, 6 7 EFV valve. So, just a positive around that. 8 But like I say, we do have a couple of 9 concerns and we will address those in the 10 comments. 11 MR. ISRANI: Thank you. 12 MR. TAHAMTANI: Rich. 13 MR. WORSINGER: Rich Worsinger, City 14 of Rocky Mount. Mike, thank you for your 15 presentation. 16 I want to echo AGA's comments and, in 17 my own personal career, EFVs have proven to be a 18 great technology. They have the same thing, many 19 times upon arrival gas was off. There has been 20 times when somebody is excavating, one of our 21 guys excavating at a service and accidently cuts 22 it, EFV shuts it off. It is great technology.

Mike, I don't think you were here 1 2 yesterday when my presentation about APGA and who 3 We represent the 1,000 small gas systems we are. in the country. And of those 1,000 gas systems, 4 5 I think there might be two or three or four that 6 are regulated by the states' Utility Commissions. 7 Our rates are set by our City Councils and our 8 Boards and governing bodies, not by the State 9 Commission. So, just understand, when you 10 reference that in the future, that is not who 11 sets what we charge.

12 And then just one comment. One thing 13 that gives me a lot of concern and that is having 14 first responders operate these valves. This is 15 contrary to the pipeline emergency firefighting 16 training that PHMSA funded. It is contrary to 17 First responders the policies of most operators. 18 can't tell if an underground valve is a curve 19 valve or in fact a valve in the street that they 20 could be operating and causing much, much larger 21 incidence. And we will be commenting about that. 22 Thank you.

1	MR. ISRANI: Thank you.
2	MR. TAHAMTANI: Any other comments or
3	questions? Michele, you don't have any more
4	comments, do you?
5	MS. JOY: I'm sorry.
6	MR. WIESE: I just wanted to make a
7	quick comment because Sean Ford is one of our
8	counsels from the Secretary's Office who we work
9	really closely with on most of our proposals.
10	And I want to make sure I am clear that the
11	problem, and Rich, this is more back to your
12	original question, is the principle at play here
13	is that once we propose a rule that all
14	communications related to that rule have to be
15	made available to everyone sort of at once.
16	And so the only way we could achieve
17	that in some sort of a dialogue here would be for
18	us to get the transcript back sooner than we
19	normally could and to get it into the docket.
20	While I realize there is a broad cross-section of
21	stakeholders here and I think that is important,
22	it doesn't provide access to that.

1 So, I just wanted to make sure you are 2 clear it is less a reluctance to talk about the 3 subject that once you get into rulemaking, Sean will steer me clear if I am going off, it is more 4 5 that everyone needs to be given access to that discussion. 6 That is the ex parte principle. 7 But at any rate, I think we can 8 achieve some of what you are looking for but we 9 will have to have our counsel there. And we have 10 to grab it and throw it into the docket as soon 11 as we do it. 12 MR. WORSINGER: Jeff, thank you for 13 that explanation. And I know John Erickson will 14 be following up with John Gale and then that can 15 allow you to include any of those comments. Ι 16 believe that is proper. 17 MR. WIESE: Yes. 18 MR. WORSINGER: And don't worry. I'm 19 not letting the air out of your tires or anything 20 like that. 21 (Laughter.) 22 No, John did that already, MR. WIESE:

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1 I'm sure. 2 MR. TAHAMTANI: This is great. We are 3 trying very hard to end this meeting on a good note and we are almost there. 4 5 This is the member roundtable. MR. GALE: One more presentation, 6 7 Massoud. 8 MR. TAHAMTANI: I am trying to get to 9 Richmond. 10 MR. GALE: You really want to see your 11 wife, don't you? You are a good husband, 12 Massoud. You are a good husband. 13 We have one more presentation from 14 Cameron is going to give us an overview Cameron. 15 of the Plastic Pipe Rulemaking. 16 But before we commence with that, I 17 would just like to say one moment of thanks to 18 Mike Israni. There is some rumors going around 19 that he may retire one of these days. For those 20 of you who don't know, Mike has been instrumental 21 in many of the safety programs that we have been 22 debating today or have been working on for a

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1	number of years from Gas Transmission Integrity
2	Management, to Hazardous Liquid Integrity
3	Management, to DIMP, to the rulemakings we are
4	working on today.
5	And as a coworker, Mike, and as the
6	mentor that you have been to me, and as a public
7	servant, and as an advocate for pipeline safety,
8	I want to say thank you.
9	Cameron it is up to you now.
10	MR. SATTERTHWAITE: Gee, thanks, John.
11	MR. GALE: No problem.
12	MR. SATTERTHWAITE: Now to follow that
13	one. But we are doing everything we can to make
14	it harder for Mike to retire I mean excuse me,
15	to thank Mike for all his hard work.
16	Right now this is a quick briefing on
17	the Plastic Pipe Rulemaking. And basically the
18	Notice of Proposed Rulemaking was published back
19	in May of this year and the comment period closed
20	back on July 31st. We allowed for comments to
21	come in after that. So, we got a couple of
22	comments in and we have received those.

1 We got comments from like 39 entities 2 and broken down, as you see, above. And of 3 course some people may say well, you only got 39 comments, well actually over 39 commenters and 4 5 once you break that down, the comments can jump up to like 200. So, right now we are spending 6 7 our time summarizing those comments. 8 And basically the scope of this 9 rulemaking is focused on gas alone. And, of 10 course, the areas of transmission, distribution, 11 and gathering lines and the focus, of course, if 12 plastic pipe and plastic pipe rule. A lot of the 13 background for this rule is based on staff 14 recommendations, things that were seen during 15 inspections, petitions that we have received over 16 the years. That is pretty much it. 17 The issues are broken down to what you 18 see above, tracking and traceability. There are 19 some design factors, some extended use of 20 plastics that are allowed right now, PA11, the 21 welcoming of new materials such as PA12, 22 corporation of risers. I am going to step

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through these quick.

2	Tracking and traceability, yes, we
3	have gotten quite a few comments on this area.
4	And basically we were looking at providing a new
5	standard for operators to basically track and
6	trace. So, basically, know where their materials
7	came from and know where they are in their
8	system. That is pretty much it. And this is in
9	relation to new repairs and replacements.
10	Design factor, looking at raising for
11	polyethylene, 0.32 to 0.4 as far as the safety
12	factor.
13	Extended use of PA11, while
14	maintaining the design factor, just allowing any
15	increase in the pressure that is specified here.
16	I think currently we are 200 and we are looking
17	at allowing the use to go up to 250, while the
18	pipe size have to be below six inches.
19	And this is pretty much allowing the
20	use of PA12 to come into the pipeline
21	infrastructure for plastic pipe and not to exceed
22	six inches.

1 We are also looking at including 2 regulations for design, installation, and support 3 for risers. And in addition, we are looking at 4 5 including some requirements for fittings, as far as the use of category 1 fittings, which are 6 7 basically fittings that provide seal and resist 8 pullouts. 9 And also including some installation 10 requirements for plastic pipe. There are some 11 things as far as like backfilling and other areas 12 that we wanted to address and that is why we 13 proposed those things in this rulemaking. 14 Also, there are some provisions on 15 repairs that were included. The team went to put 16 some things in as far as like scratches and 17 gouges that exceed a certain limit, you know it 18 would be handled as repairs and so forth. 19 And there were some general provisions 20 that were addressed in this rulemaking. There 21 are some thing -- of course when you incorporate 22 new materials, there are other reference

documents that need to be included as well. So there are quite a few things being added to the incorporation by reference section.

4 And then for right now, the next steps 5 we are to continue summarizing those comments and 6 to prepare for the Advisory Committee meeting 7 vote, which John said will probably sometime 8 between December and January. And once that vote 9 is -- pretty much that vote will get a chance to 10 present to you all the comments, you know what 11 the general feel of the comments were and then, of course, allow the opportunities of folks to 12 13 propose changes in the language there as well.

And after we complete that, then we are moving into the final rule process and onto publishing the final rule. And that is all I have.

18 MR. TAHAMTANI: Thank you, Cameron.
19 Any questions for Cameron?
20 MR. BROWNSTEIN: Maybe it outside the

22 anything in the rule that pertains to when you

scope of the rule but I am curious.

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Is there

1 have got two different materials being conjoined? 2 So, I realize this plastic pipe that often times 3 plastic pipe is being grafted onto an existing Is there anything in the rule that 4 svstem. 5 addresses those issues? MR. SATTERTHWAITE: I mean the basic 6 7 answer is if it touches plastic pipe, then it 8 would pretty much be in this rule. So yes, 9 something that is non-plastic and plastic, then 10 it could very well be covered in this rulemaking. 11 Any other questions? MR. TAHAMTANI: 12 Any other presentations that you all want to pull 13 out of your hat? 14 (Laughter.) 15 MR. GALE: Nothing is left, Massoud. 16 MR. TAHAMTANI: Is that it? 17 Yes, we are done. MR. GALE: 18 MR. TAHAMTANI: Okay. We made up a 19 lot of time. Actually, we are in great shape. 20 Are there any comments from the 21 public? Anybody who has been holding some 22 comments back from yesterday and today and want

1 to get up? That does not include you, John 2 Erickson. You are not actually public. 3 All right, let the record show that we 4 offered the opportunity for the public to 5 comment. 6 So with that, I want to go into the 7 member roundtable. And I understand that you 8 want to give Carl an opportunity to speak about 9 whatever he wants to speak about. 10 We didn't go that far. MR. WIESE: 11 You didn't go that MR. TAHAMTANI: 12 far? 13 Carl has -- I wanted MR. WIESE: No. 14 to give a word of endorsement for Carl's Annual 15 Pipeline Safety Trust Conference in New Orleans 16 for the last time. He said he is going to 17 consider another town at some point in the 18 future. 19 But that being said, I have been to 20 every one except for one, and I had to lay low 21 that year, but I, personally, really enjoy these. 22 And for those of you who haven't had an

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1	opportunity to, I wanted to give Carl an
2	opportunity to talk a little bit about the
3	conference.
4	MR. WEIMER: Yes, and I have got a
5	PowerPoint. It has only got about 100 slides.
6	No, I was just I mentioned the
7	other day our conference and I think a lot of
8	people around the table have been there before,
9	is the 19th and 20th of November in New Orleans
10	again. We adopted a theme this year that I will
11	thank Mr. Pierson for. He didn't know that we
12	adopted the theme from him but it is "Embrace the
13	Conflict" which he talked about a little bit last
14	year when he was there. And you can let your
15	mind wander in all kinds of directions about that
16	thing.
17	MR. WIESE: Constructive.
18	MR. WEIMER: Constructive, yes.
19	So, and it is a unique conference
20	because it brings together the three main legs of
21	the stool, regulators, state and federal, lots of
22	industry folks, and we try to rope in some

constructive advocates from around the country. 1 2 And it is always fascinating. Two 3 years ago we had protestors there protesting our 4 conference. So, welcome to the game. 5 MR. WIESE: What are you going to 6 focus on this year, broad themes? 7 MR. WEIMER: Oh, a whole lot of 8 different things. I mean the theme is "Embrace 9 the Conflict" so, we are looking for those places 10 where people don't agree, to bring people 11 together to discuss some of those. So, some of 12 that. 13 There is going to be a thing about 14 state versus federal inspections and enforcement 15 and who does the job well and who doesn't. There 16 will be lots of stuff about transparency. 17 MR. TAHAMTANI: Do you sell tickets to 18 this when you have these "Embrace the Conflict?" 19 And then you say states and federal, who does a 20 better inspection. I can tell you does a better 21 inspection. 22 Yes, if you buy enough MR. WEIMER:

1 tickets that weighs who we will say. 2 No, it is all online. People can 3 register online. Go to our website, it is right 4 on the homepage. 5 MR. WORSINGER: What was the date 6 again? 7 November 19th and 20th MR. WEIMER: 8 and we are smack dab overlapping with an AOP 9 Leadership meeting. So, we are going to lose 10 some of those folks but that opens up some seats 11 for the rest of you. 12 MR. TAHAMTANI: All right, well, thank 13 you Carl. 14 The next item, I think, Jeff, you want 15 to talk about is the broader use of the committee 16 with subcommittees that could come together and address some issues like we saw this morning, I 17 18 believe. So, you want to comment on that? 19 Well, I will just open it. MR. WIESE: 20 And then this was meant to draw out comments from 21 the members. 22 I have been approached by several

members of the Committee, who have observed the use of the working group -- I am being careful to use the word working group -- on issues as opposed to subcommittees for a lot of legal rules.

6 But I agree. I mean I think we have 7 a very good cross-section of people in this forum 8 that you don't find in many other places. And I 9 think we will have to be cognizant of populating 10 But so one of any working group, accordingly. 11 the things I wanted to do is provide an 12 opportunity for those members to actually talk. 13 If there are things that they want to see the 14 committee tackle, we can throw them on the table 15 now and wrestle with them in our next meeting, 16 which isn't that far off. You know or you can 17 move to take one on now.

MR. TAHAMTANI: Andy.

MR. DRAKE: Andy Drake, Spectra
Energy. I think it is a great forum. You have
got, as Carl said, the three legs of the stool
here and I think it is important to get that

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cross-section together on some of the issues that we face to maybe even more proactively deliberate even the rulemakings that we face.

4 I think two things. One, the 5 integrity rules that we are getting ready to 6 face, I appreciate where Chuck was yesterday. We 7 are going to talk about something that has had 20 8 workshops, and a huge background, and a lot of 9 intricacies and changes over time. It will help 10 us if we can use this committee kind of more 11 proactively, informed, and fueled, and even kind 12 of segmenting some of these discussions down 13 about some of these big rules so that we are, I 14 think, informed proactively and can participate 15 constructively in advance of the discussions of 16 the meetings.

I know that we did that so many years
ago in Integrity Management 1.0, as you call it,
and the committee was used very, very actively.
As a matter of fact, I think the committee
actually met every other month for two years, if
I remember, something like that. I'm not sure

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everybody is in for that one again but it was pretty rigorous use of the committee to have those debates because it was a significant change. I don't know that we want to go to every other month but I mean something more intensive, I think, would be helpful.

7 The other thought that I have is very 8 specific and that is, you know I think this group 9 provides a unique opportunity to vet out issues 10 that we all have a different perspective in and 11 that if we just stand back and polarize on our 12 positions as sometimes rulemakings come to bear 13 or positions come to bear, we don't seem to 14 unwind the issue. If we can sit down and talk 15 through things like the Midstream Group did, I 16 think we can find common ground and actually 17 advance the ball.

18 One of those for the gas industry is 19 class location. It was probably one of the 20 fundamental issues that supported from a cost-21 benefit standpoint, the Integrity Management 22 Rules of a very long time ago. It just has not

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yet gotten traction. And I think people are very polarized around the issue. Sometimes the gas industry, I think, is heard as saying we want to get rid of the class location scheme and I think some people are put off by that and I can appreciate why.

7 I think the issue where we probably 8 are is there is a middle ground where it is not 9 all the situations warrant release from the class 10 location. It is not none either but currently, 11 we are at none. And it is very frustrating to 12 operators to see those huge amounts of resources 13 going into very unproductive areas, when we have 14 a much more precise tool at hand. If we could 15 just sit down and work through what is that 16 criteria, I think it would be an excellent 17 candidate for a working group to be appointed to 18 look at and I think come back to this committee 19 with some ideas on ways to close that gap. 20 MR. WIESE: Can I ask if anyone has an

20 MR. WIESE. Call I ask II anyone has an
21 idea that is not about a rulemaking in process?
22 That will complicate it a little bit. And I will

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also confer with our counsel and talk about it. 1 2 You know an idea like midstream, we 3 didn't have a rulemaking in process. It is a lot 4 different. If you want to talk about R&D, that 5 is a lot different. You know we can do that, 6 solving problems. 7 But in talking about anticipated 8 rulemakings, you see all the mandates we get. 9 You know why are we getting these mandates? We 10 didn't have any accidents, by the way. I would 11 like to point out we didn't have the accident but 12 when the mandate comes, we don't go into 13 rulemaking for a while. So, I think that would 14 be a good time to be talking about hey, we 15 understand the mandate. And we have to take care

So, the question is, what is the smartest way to go about achieving the results? It is just I am trying to draw a line in-between those things that we have already proposed and now doing it. Now, class location isn't one of those.

of that.

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1	So, I don't know. I am certainly open
2	to it. The class location would be easier.
3	MR. DRAKE: The first issues is not so
4	much about working groups. It was really in
5	reference to Chuck's comment from yesterday and
6	that is, how to help the committee get prepared
7	to talk about very convoluted issues that are
8	very intricate with lots of history, where we are
9	in a better position to engage in the
10	conversation, not so much a working group.
11	MR. WIESE: Okay, fair enough.
12	MR. DRAKE: I appreciate the
13	regulatory process. Just when you do want to
14	engage us, how can we get engaged more informed.
15	MR. WIESE: Okay and that is a fair
16	point. I'm sorry, I thought you were swinging at
17	working groups.
18	MR. DRAKE: No, the second one was
19	about working groups.
20	MR. WIESE: Okay, good.
21	MR. MAYBERRY: I was going to add,
22	Andy, also we have a report that was required by

1 I think after that comes out, and that mandate. 2 is still working its way through the process but 3 I think after that comes out, it will probably be 4 a better just time to start the dialogue on that 5 and our rulemaking agenda, too. So, thanks. Well, let's cogitate on 6 MR. WIESE: 7 that because I think that is not an active 8 rulemaking. We could talk about the next meeting 9 kind of chartering and have an agreement, a vote, 10 that we want to create a working group on 11 something. I am happy to do it. 12 I would also like to tackle some of 13 these non-regulatory issues like the R&D. You 14 know we have got Paula on the committee now. We 15 drug her on here on purpose. They have access to 16 a lot of things at DOE. She wants to play in 17 that arena with us. So, I think it is an 18 opportunity to talk about how do we amp up our 19 game in R&D and make sure it is sharply focused, 20 make sure we have an element of innovation in it. 21 You know I think that is important. 22 You can pursue the stuff that has been

1 incremental R&D for a while but you also need to 2 reserve a little bit of our attention for 3 innovation, stuff out of left field nobody was 4 anticipating. 5 MR. TAHAMTANI: Any other -- Chad. Chad Zamarin, Cheniere 6 MR. ZAMARIN: 7 Energy. 8 No real new ideas but maybe just to 9 second first the thought about R&D. I think we 10 have seen for a long time a lot of different 11 efforts and priorities oftentimes that overlap 12 but aren't always collaborating and communicating 13 as effectively as we think they can. We talk 14 about that a lot. So, I think this could be a 15 good form for that. 16 Also, maybe a forum that helps verify 17 the priorities and not have it be politicized 18 like we have seen it in the past. This is a 19 group of advisors that collaborate across the 20 different stakeholder groups and I think though 21 we each have our own interests, what comes out of 22 this group, I think, is pretty balanced and I

1 think it is recognized as such. So, I think it 2 makes a lot of sense on the R&D side. I would 3 just second also in the class. 4 And what we did through the midstream 5 effort I think is parallel. It is an issue that 6 I think philosophically there is alignment on but

it is a complex issue with challenges that are hard to fully understand, when you just say we want to change class locations.

10 So, I think it is one that my bias is, 11 my belief is, there is an outcome that everyone 12 could feel good about. It is hard to envision 13 that through a rulemaking process alone before us 14 getting together and trying to crystalize a 15 common interest. And I think there is one there 16 that we can achieve and make everyone better for 17 it. We can make sure the resources are going 18 into the right investments for safety. So, I 19 think we could come out with a product that would 20 help maybe guide the future direction on that 21 issue, without which I don't think much will 22 happen because it is a complex issue.

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So, that's all. Thanks. 1 2 MR. TAHAMTANI: Michele. 3 So, following up on that and MS. JOY: 4 the good work you did in the Midstream Group, as 5 far as working groups, one area that we are kind 6 of tracking and keeping an eye on that I would 7 like to at least have us think about is how PHMSA 8 and the Department of Transportation can really 9 help us working with other agencies, much like 10 you worked with OSHA, to really try to speed up 11 and better implement some of the things we are 12 trying to do for safety. 13 So, for example, we are dealing with 14 river crossings. Most river crossings, when you 15 want to fix them, you involve Army Corps of 16 Engineers, states, others. And there is probably 17 a better process than there was a decade ago, in 18 terms of ensuring coordination but there is also 19 a very laborious review process, which keeps 20 getting layers added onto it. And the party we

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don't see at the table, as we are going in and

having these discussions, is the Department of

1 Transportation. And is that something where the 2 Department of Transportation can kind of help us 3 by weighing in about why this is a priority and why we need to do these, so that it is not a 4 5 question of doing something differently but getting the focus and getting things done in a 6 7 timely way so that we don't have incidents where 8 we know we have an issue, the pipe is sitting 9 there waiting to be repaired, and we have an 10 incident because we are all waiting on the 11 That is where we don't want to be. permit. 12 MR. WIESE: I think it is a great 13 idea. I can tell you we have run at that one 14 before and you may remember it. I'm thinking of 15 -- I won't use names. 16 I'm thinking of an example, just for 17 illustration of the other members. We had an 18 operator had a piece of pipe in a very sensitive 19 They knew they had a significant issue. wetland. 20 They and we both wanted it out of there. Thev 21 were going to replace the pipe but they couldn't 22 get the permits from local and state officials.

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1	I mean it eventually failed. It was
2	a fairly notorious case in our history. You can
3	probably look it up pretty easily. Most of you
4	already know what it is.
5	But it was a prime example, I think,
6	of what you are talking about, where safety
7	really ought to override here. Somebody else
8	will say shut it down but I think in that
9	particular case, that one, just so you
10	understand, might have been sole source supply to
11	a fairly significant airport.
12	So, there can be complexities in this
13	that kind of throw out the simple answer just
14	shut it down. Well, that is just not going to
15	work.
16	So, I think we are really interested.
17	We did have a lot of experience. We worked with
18	a lot of agencies. We came up with a model and
19	it is very difficult to convince other agencies
19 20	to prioritize your mission over theirs. And

1 that last exercise that we went through for years 2 in trying to streamline permitting, particularly 3 when it was a sensitive area, kind of left a sour It is hard to convince other 4 taste in our mouth. 5 people of that priority. If you have ideas, I think it is 6 7 something we would certainly be willing to 8 entertain like a working group, come up with 9 ideas and proposals and stuff like that. So, I 10 don't want to just shoot it down. 11 Sorry, I was just saying I had several 12 years of negative experience where I thought we 13 had a really good case. We used the NPMS. We 14 built up a model that the other agencies could 15 access online, you know secure access to all this 16 stuff and it still didn't work. 17 MS. JOY: Yes, I remember the whole CEQ 18 involvement and everything else. So, I totally 19 understand that. 20 But I also recognize that as we are 21 moving forward, particularly with some key

initiatives like river crossings, if we don't

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have a coordinated approach, it is going to be very difficult to achieve what we all want to achieve, which is better safety and fewer failures and fewer shutdowns, if we don't get some help in a kind of coordinated approach among, particularly a federal permitting authorities.

8 MR. WIESE: Yes, we do a lot of work 9 now, with those who are not familiar with FERC, 10 for example. You know I oftentimes think FERC 11 ought to pay us.

12 You know Karen Gentile was here. 13 Karen goes to tons of FERC meetings. Mostly our 14 reason there is just to talk to the public. We 15 are not there to defend FERC or advocate for 16 FERC. We are there -- if the public has 17 questions about safety, then we have someone who 18 is knowledgeable who can answer that. The CATS 19 have been doing this for years.

20 But the other thing we do is we 21 provide, like Ken was talking to, on the LNG 22 stuff, which is, unfortunately it is never like

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1	this. It is either up or down or whatever.
2	There are some really active things in that
3	arena, by the way, Chad, that we could certainly
4	talk about and have working groups on things like
5	exclusions zones. NFPA had tried to advance, in
6	one of their documents, risk-based siting
7	principles. And as I said to them, I know Andy
8	will resonate to this, we have always been
9	proponents of risk-based. The problem is that
10	you have to, in a specific case, you can analyze
11	it close enough to see, yes, got everything you
12	need.
13	In a global case, where you give
14	everyone an exemption and a pass on this broader
15	risk-based thing and you find out later they
16	don't have everything they need, that undermines
17	the credibility of what we are doing.
18	So, I don't know how to find the
19	middle ground on that stuff but I think NARUC
20	passed a resolution, urging us to adopt this and
21	we refused, basically, because we don't think
22	they are ready for it.

1 But maybe a working group on things 2 like exclusions zones is the right way to go. 3 That will effect even small scale LNG. They are trying to site in ports now, so that they can 4 5 fuel marine vessels. It makes good sense. There 6 is a lot of gas out there to be used. It meets 7 air quality things but these are congested areas 8 with a lot of potential for commercial disruption 9 if something goes wrong. 10 So anyway, just food for thought. But thank you for the idea, Michele. 11 12 MR. TAHAMTANI: Any other comments? 13 MS. JOY: Sorry. Michele Joy again. 14 I just also wanted to note, I was hoping that 15 Paula would be here, but one thing that she 16 mentioned that she sort of said very quickly that 17 is valid, that the ports are in high demand and However, the last 18 that dredging is important. 19 time we had a major dredging campaign which was 20 really needed for our ports, it has significant 21 impact on the pipelines that cross the rivers and 22 go under the ports. And many of them were

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1 required to relocate. Then you have cost 2 recovery issues and you also have safety issues 3 because sometimes they are going to dredge to 25 feet and they go to 27 feet or further and then 4 5 that puts your pipeline at risk. So, I would hope that if there are 6 7 policy things going on at DOE involving that kind 8 of activity, that you guys would be involved in 9 the discussion as well, to make sure they are 10 understanding risks and how we balance the needs 11 of the ports versus equipment and logistics that 12 are already in place. 13 MR. WIESE: I just have one other 14 I wanted to ask if anyone is interested thing.

15 in a session in the next meeting.
16 We have been through a lot, and Sean,
17 in the back there, with us over the last couple
18 of years and we know the regulatory process in
19 detail. And so we can probably answer questions

20 that you might be wondering about. But I am just 21 wondering -- you know there is only so much we 22 can do there. But what we can do is John has

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1 done, inside, John and Cam have given 2 presentations on the regulatory process, making 3 sure since you advise us on, amongst other 4 things, the cost-beneficial nature of these 5 rulemakings, the practicability, et cetera, I 6 want to just make sure that everyone here 7 understands the regulatory process and what some 8 of the requirements are.

9 There are a lot of people who are very 10 smart and savvy on this subject. We could 11 certainly bring in outside speakers and whatever. But I want to give you a better understanding 12 13 because there has been a lot of consternation 14 about why certain rules haven't been moving. And 15 I think if you understand the process well 16 enough, you better understand why they don't 17 move.

So, just a thought for you all.

MR. TAHAMTANI: I will say just since you have got several new members, some of us know how that works, it might not be a bad idea to have a presentation made at the next meeting.

18

1	MR. WIESE: Okay.
2	MR. TAHAMTANI: Any other comments?
3	Well, let me take this opportunity to
4	thank the members of the committee for their
5	engagement, presentations, participation and also
6	thank Jeff and his staff for a great agenda,
7	although it was too packed. But you notice I got
8	you there with a lot of time to still spare.
9	That is what I do well here.
10	In any case, thank you, Jeff. I will
11	turn it over for any last comments you have.
12	MR. WIESE: Very good. Thank you,
13	Massoud. I particularly want to thank you for
14	Massoud is always ready to, when I tell him about
15	ten minutes before we start that he will be
16	helping me run the meeting, he is always willing
17	and he is there for us. So, I very much
18	appreciate that.
19	I want to tell you that we heard a
20	couple of things that I want to echo back to you.
21	One of them is a need to better serve the
22	members. I am trying to figure out ways of doing

1 Some of this stuff doesn't come together that. 2 quickly. I almost wonder whether or not like a 3 webinar or a teleconference before a meeting where we can kind of brief out on some stuff 4 5 really quick, particularly if there is going to 6 be voting involved, as necessary. 7 So, just we want your ideas. I think 8 I heard Cheryl talk about it earlier. Send your 9 ideas in. Not just give it to me earlier but how 10 would you like it? Is digital good? Do we need 11 to send paper to you, et cetera? 12 So, we want to. We just need your 13 ideas on how to do that. 14 I did want to take time to give a 15 special thanks to Todd, and to Chad, and to Linda 16 and to others who worked on the Midstream Group. 17 I know they met countless hours and some of it 18 was fairly stressful. But you are to be 19 commended for the work you have done and I think 20 that that is a real testament to the value of the 21 committee. So, again, thank you so much for 22 doing that.

I wanted to acknowledge and thank the 1 2 new members. Bob stuck it out. Bob, you haven't 3 had a vote yet but wait until we get to the 4 If you thought this one was interesting, votes. 5 wait until the votes. I would have thanked Paula 6 but I knew she had to get out for a 7 teleconference. 8 Those that are our new members, we are 9 actively working to fill up some of the vacancies 10 here but I will tell you that I have always been

11 impressed by the committee and the committee 12 meetings. It is not that which is characterized 13 by some media. I have realized for years, as you 14 do, that we really run through consensus. We 15 don't vote. It is not ten to five, you lose. It 16 is a consensus.

And I will remind you of the time we did the plastic rework rule. Remember it got very contentious and we took a time out. We said we are not going to vote on this. We took another month. We worked the issues. We came back and we had unanimous support. So, I mean I

think that is how the committee works and it is 1 2 I think we will work to promote that. consensus. 3 I did want to thank the presenters as well, as well as the staff, John, and Cam, and 4 5 Cheryl, Sailor and others who were providing support. 6 7 My last comments to you as a reminder 8 to everyone, that we maintain a docket on this. 9 It is PHMSA -- in the docket system, it is PHMSA 10 2015-0173, where we will be putting all the presentations. And as soon as we get the 11 12 transcripts back, and it takes a heck of a lot 13 longer than you think it should, we will put the 14 transcript there as well, so there will be plenty 15 of information. 16 And I think beyond that, I just wanted 17 to wish you safe travels. And as Garrison 18 Keillor used to say, be well, do good work, and 19 stay in touch. Thank you so much. 20 (Whereupon, the above-entitled matter 21 went off the record at 3:56 p.m.) 22

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<u>CERTIFICATE</u>

This is to certify that the foregoing transcript

In the matter of: GPAC and LPAC Joint Meeting

Before: PHMSA

Date: 08-26-2015

Place: Arlington, Virginia

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

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