U.S. DEPARTMENT OF TRANSPORTATION
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PIPELINE AND HAZARDOUS MATERIALS
SAFETY ADMINISTRATION

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GAS PIPELINE ADVISORY COMMITTEE

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WEDNESDAY, NOVEMBER 29, 2023

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The Advisory Committee met in Jefferson I-III at the Westin Crystal City Reagan National Airport, 1800 Richmond Highway, Arlington, Virginia, at 7:30 a.m., David W. Danner, Chairman, presiding.

GAS PIPELINE ADVISORY COMMITTEE MEMBERS PRESENT
HON. DIANE BURMAN, New York State Public Service Commission
HON. DAVID W. DANNER, Washington Utilities and Transportation Commission
SAMUEL T. ARIARATNAM, Arizona State University
PETER E. CHACE, Public Utilities Commission of Ohio
ALEX DEWAR, Boston Consulting Group
J. ANDREW DRAKE, Enbridge Gas Transmission and Midstream
WILLIAM "CHAD" GILBERT, United Association International
SARA ROLLET GOSMAN, University of Arkansas School of Law
SARA W. LONGAN, U.S. Army Corps of Engineers
ERIN MURPHY, Environmental Defense Fund
ARVIND P. RAVIKUMAR, University of Texas at Austin
STEVE SQUIBB, City Utilities of Springfield, Missouri

TERRY L. TURPIN, Federal Energy Regulatory Commission
BRIAN R. WEISKER, Duke Energy Natural Gas Business Unit
CHAD J. ZAMARIN, The Williams Companies, Inc.

PHMSA STAFF PRESENT and expected to attend
ALAN MAYBERRY, Associate Administrator for Pipeline Safety; Designated Federal Official
TEWABE ASEBE
DAVID BIRCH, OST
CLAYTON BODELL
ROBERT BURROUGHS
LAUREN CLEGG
NATHAN COLE
IAN CURRY
AMAL DERIA
SETH DICKSON
SEAN FORD, OST
BEN FRED
KELSEY GAGNON
JOHN GALE, Director, Office of Standards and Rulemaking
ALEXANDRA IORIO
ROBERT JAGGER
MARK JOHNSON
JENNIFER KELLY, OST
JOE KLESIN
KATHLEEN "KATY" MAITLAND
LANE MILLER
STEVE NANNEY
CAROLYN NELSON
SAYLER PALABRICA
MIA PETRUCCI
GABRIELA ROHLCK
EMMA M. ROSS
CAMERON SATTERTHWAITE, Office of Standards and Rulemaking
RODRICK "ROD" SEELEY, National Safety Coordinator, Pipeline Field Operations
ANNA SETZER

JOSEPH ST. PETER
MASSOUD TAHAMTANI, Deputy Associate Administrator
ERMIAS WELDEMICAEL
CONOR WALSH
JOE WILLIAMS
BRIANNA WILSON
DAVID YORK

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

(7:33 a.m.)

MR. DANNER: All right. Good morning, everyone. Today is day three. It's Wednesday, November 29th. And we completed last night the public comment on advanced leak detection, and so we are now just going to get into the committee discussion. I think we'll start with gathering lines, and I'll turn it over to John Gale.

MR. GALE: Morning, committee. Thank you, Chairman. We have a slide up here again from last night. We're making a couple changes to it; we're hearing from some of the Committee members. There was a recommendation to split out transmission discussion and gathering discussion.

Chairman, if I may, we would recommend actually we would start with transmission, and then move to gathering, and then move to gas distribution lines, and then move on to some of those other discussions

there. If I could have that slide back, the slide switched on me. And then move on to things like the program elements, use of human senses, et cetera. So the recommendation now is to really move to the discussion of gas transmission ALDP standard.

MR. DANNER: All right. And who would like to start? Erin Murphy, your tent card is up.

MS. MURPHY: Thanks. Good morning. Erin Murphy with EDF. I think just to dive right into it, we have a recommendation, or I have a recommendation on the ALDP performance standard. I have some language that I shared with PHMSA staff that I'd love to walk through for the committee.

MR. GALE: We just need one minute. We're almost there.

MS. MURPHY: Okay. I can provide some introduction before my language is shown on the screen. I think, you know, a lot of the public comments that were submitted into the

rulemaking docket and folks who spoke yesterday, there's a lot of consensus that the 5 ppm at 5 feet proposal in the NPRM alone is not adequate to capture the full breadth of advanced leak detection technologies that are commercially available that many leading operators are already using, and that PHMSA is wanting to see uptake across the industry for implementation of this proposed ALDP standard.

So recognizing that the limitation of 5 ppm alone, and the recognition that leak flow rate is a really appropriate metric, especially when thinking about trying to capture the climate impact of these leaks, we have recommended, and this is drawn from joint environmental comments that were submitted in the docket, and then I've incorporated some additional components in the proposal I'm presenting to the committee today in the hope of seeking compromise more quickly.

MR. GALE: We're closer.

(Off-microphone comments.)

MR. GALE: Chairman, if I may. Erin, if you could just double check our type up of this.

MS. MURPHY: I think this is right. If anything jumps out to me, I'll flag it as we go. I know this is a lot to talk through, and we probably want to break it up by sector, but I asked PHMSA staff to display the full recommendation together so that folks can see that, you know, we tried to identify appropriate standards by each type of pipeline, so recommending 3 kilograms per hour threshold for transmission lines, 10 kilograms per hour for gathering lines, and 0.5 kilograms per hour for distribution lines.

I can walk through in a little more detail each section, of if we want to just start with transmission, I can walk through that and then open it up for discussion. Maybe I'll do that and pause, and if everyone wants to hear more from me, then I'll keep going.

So the transmission recommendation

is a 3 kilogram per hour threshold which would capture, you know, aerial or mobile type surveys with a follow-up survey of leak indications on the ground with handheld equipment at 5 ppm. We recommend a probability of detection standard for all of the flow rate based technologies at 90 percent. And we would be comfortable with the use of OGI consistent with EPA's proposal for above ground appurtenances, which is not something that was originally proposed by the environmental commenters, but we recognize there's a lot of interest in that.

MR. DANNER: So, Erin, can you explain follow-up survey and how that works? Do you have timelines or anything?

MR. GALE: Yeah. Absolutely. So my understanding with the aerial technologies is that they will provide operators with leak indications, right, where that sort of fly-over technology has identified an indication of a leak, and then will provide some estimate of

the flow rate, you know, giving you a sense of the size of the leak. And then, you know, a crew will go out on the ground. Based on that identification that was provided by the aerial survey, crew will go out on the ground using handheld to pinpoint the location of the leak and confirm its existence, confirm its extent, and then make a, you know, plan for repair.

MR. DANNER: Andrew Drake.

MR. DRAKE: Good morning, bright and early. Andy Drake with Enbridge. I think it's fine to break them out by segment. I do think we're going to have to have some sort of conversation at the beginning that sort of cuts across about technologies' capabilities, you know, some sort of how this might work for all the sectors.

But just sort of frame this, I appreciate that you've broken out above-ground and pipeline because I think that's different. They're different problems, different technologies that are going to come into play.

I think there may be, dare I say, different thresholds even in the different technologies -- I mean in above and below ground. And for transmission pipes typically are not a big source of leaks. It's the above ground appurtenances are more the driver. And so we can use the different technologies in the sites than we would use across pipeline.

Now I want to be very careful just to sort of frame that as we set these thresholds, you know, yesterday I heard a lot of comments about people that have been experimenting with this. Or not experimenting, we've been trying it on, working on it. And we've been one of them, I know Williams is as well, and some of the others around the table.

Hearing that data, I think this Committee's going to have to balance between false calls and a really low threshold, and I think the thing that I'm going to put out here is the word "all" is all. And all at any cost is something we really are going to have to

wrestle with. We wrestled with it a little bit yesterday. We talk about we want to go after all anomalies at any cost. Well, the two words that bother me are all and any. That's an incredibly out of balance conversation, and we need to -- this Committee's going to have to help us all figure out what is an appropriate balance.

I think that some of the conversation we heard yesterday about data, I'd like the data to come into this conversation to help us make that choice. And I do think that, you know, as we look at some of the -- as we look at the conversation really around thresholds, we also have to look at being careful not to eliminate technologies because they can, and I think that's -- we're at the very beginning of this ship. If we -- and I'm not advocating for very high thresholds, either. That's not the point either. The point of this is go find things and go get them.

But if we aren't careful, we, you know, if we picked 5 ppm, and I know you have now moved off of that, or you've made a motion to move off of that and I appreciate that. If we pick that level, we start to screen out a lot of aerial patrol technologies. And I think that's very dangerous because that's going to be actually the most viable way for us to look for leaks across the pipeline. We may not want to use some of that technologies for stations, but for pipelines, that's really important to keep that open. Otherwise we're going to end up walking thousands of miles of right of way to look for very small leaks, which is not practicable on the transmission system.

But I just wanted to kind of park that thought out there. And I think that, you know, I'm sure that other members here, we were leaning over just a second ago going, well, how are we going to talk about all these technologies if we're going to cover transmission first. So I think as we talk

about this for transmission to start with, let's open this conversation up to talk about the technologies and things that may come across all the groups. Does that make sense? Okay. Thank you.

MR. DANNER: All right. Chad and then Brian.

MR. ZAMARIN: Okay. Chad Zamarin with Williams. Yeah. And I do think it is important to take a step back and summarize maybe a couple of the key themes that came out of yesterday. I mean -- and the public comments I think were important. You know, one of those is I think we need to be very careful that we don't jump straight to numbers that exclude technologies that are being used, that are proven, that are in wide utilization today. And so I think, you know, we have to be careful.

I think PHMSA has to make sure that whatever number comes out of, you know, a limited number of folk' input, and it sounds

like, you know, we want to put, you know, specific numbers on the table, that what I heard yesterday is there's technology widely in use, and, you know, this is the first standard in this space. This isn't like something that's been, in many cases, we're updating standards that have existed for decades. And so I do think we need to be careful that there -- I wonder if there's a way to allow for the technology that's being used today to be used and effective for some period of time.

But the first thing that I would note is this seems like a good start, but I think we've heard, we've talked about on transmission lines the issue is not small leaks. And what I'm more focused on as an operator is figuring out how to develop technologies that continuously monitor our systems. And we're primarily looking for larger leak indications, and if we lower the threshold to 3 kilograms per hours, my understanding is we will effectively screen out

effective aerial technologies, satellite technologies. And I think it's better to have a higher threshold and more continuous monitoring than a lower threshold that would exclude technologies.

And so, you know, for example, I'd like to see satellites, we're investing in and exploring satellites, but it's just the start. I mean, we've launched two satellites that we're supporting and those are the first two for our company. I know there are some others. But I think we've got to have the ability to have technologies that can more continuously monitor even if it means we need a higher threshold.

And again, that threshold, we're looking for, on transmission systems, large emission sources. And so we've proposed 10 kilograms per hour for pipelines on transmission. I still think, even at that level, we've seen false positives. High degree of false positives. And so we do have to be

careful that, again, we're detecting things. We're putting people in trucks. We're driving out to locations. If we're not careful, we're creating more emissions than we're detecting and eliminating.

And so I think it's important to get this right to find that balance. And so, you know, I would propose that on transmission, the number be 10 kilograms per hour. But, again, I am concerned. I think drawing hard lines on these numbers, from what we heard yesterday, I'm concerned that we will potentially have unintended consequences. Thank you.

MR. DANNER: Thank you. Brian.

MR. WEISKER: Good morning. Brian Weisker, Duke Energy. And, you know, we haven't gotten to the distribution portion yet, but I do think we need to be looking at this from a technology standpoint of what is the technology -- what technologies are out there, what are they capable of, and then producing a menu of options for the operators to choose

from for what's best for their system.

Right now, I mean, we'll eventually get there, but it looks like we're picking winners and losers here as far as for distribution. You see there, it's mobile survey. Satellite's not on the list. And so there's other tools that are developed. We're doing that as a company right now as far as utilizing satellite technology. So I just think from, you know, from an overarching, take a step back and a step up, it's like what are the technologies capable of doing, and then we go from there.

MR. DANNER: All right. Thank you. Commissioner Burman. Pete.

MR. CHACE: Thank you. Excuse me. Pete Chace, NAPSR. First off, I appreciate the effort to try and develop a compromise position. My own thought is it looks to me like if you start trying to define numeric minimum performance threshold for all the various different technologies out there, you

can get sucked into a quagmire pretty quickly.

Quickly frankly, I kind of question the need for specific numeric performance standards at all. I think if somebody is performing an inadequate leak survey or an inadequate leak rating, I can get to them through other segments of the code. I could picture just look, you know, use a leak survey or a leak rating, it has to be done with instrumentation capable of detecting the concentration or flow rate of gas in the atmosphere. And then those performance standards are kind of understood by the need to be able to grade the leaks accurately.

The other thing I'll add is on this, quite frankly, I don't understand why transmission methane is different from gathering methane is different from distribution methane.

MR. DANNER: All right. Commissioner Burman.

MS. BURMAN: Thanks. First of all,

I appreciate you taking time to put this up there and give us something to reflect upon and figure out where we all are. I just want to be clear that I am a true believer in that technological advances are very important, and that the more we can help foster innovation and figuring out new ways of doing things that help and that have accountability, I think that's really helpful.

For me, I am just a little confused because the kilograms versus hours, it doesn't resonate with me and like what is that? Does that match up with, you know, the terminology, the use that, you know, my state does versus -- and other states. I think we all, my understanding, deal in ppms, so I'm not sure how it translates.

But the thing that I think resonates with me is that it seems like it's becoming a little bit too prescriptive on, you know, exactly what to use here that seems to me, without having a broader understanding, is that

we may be getting locked into picking winners or losers, or not having an opportunity for the states to kind of work through the technological advances that they're trying out with their operators, seeing if it works.

And I look at it more as, you know, sort of -- I'm always cognizant as a state regulator that I'm not trying to be overly prescriptive, and understanding that the best available technology today will likely not be the same in the future, and wanting to look at it more holistically.

And so I just raise for myself that I also want to make sure that we don't undercut the state regulatory process that's already ongoing in working with the different technologies and figuring it out. And, you know, something we have to worry about is not just picking winners and losers, but also the fact that it's still a work in progress. And so we don't want to have the bar set so low that where there's so many false positives that

it becomes unworkable.

And we also want to make sure that it is targeting, you know, we have, you know, I don't have the data for this, but we did hear yesterday from some of the operators that even some of the technology is still not picking up known leaks. So we have to be really careful because we can go, you know, all over the place and it's not necessarily targeting what we need to do at the first threshold.

So I would just like us to kind of remember, my principles are for this one, don't get ahead of the state regulation, ensure that we are not setting it so that we are being overly prescriptive on the technology. That we're actually perhaps keeping out good technology that's still, you know, being used, but also good technology that's being closed out.

And then the other thing is what is -- I don't know what this does on impact to rate payers, and what that actually means in

application. So thank you.

MR. DANNER: All right. Thank you. Alex.

MR. DEWAR: Good morning. Alex Dewar with BCG. I think fantastic that we're fully into a discussion of flow-based measurement. I think everybody, you know, seemingly wants to get there, and that's the right discussion to have.

I think a couple things to add to the discussion about thresholds though, in making decisions about technology, it's not just about thresholds. It's also about probability of detection, and it's about frequency. And there are tradeoffs made within that. And you could get to two very different outcomes actually, depending upon just taking that frequency point.

If we're going with what the regulatory minimum is, we spoke about yesterday on the surveys, arguably you would actually need an even lower threshold than this if this

is really only once a year or multiple years. But as we know, many operators are doing the surveys much more frequently than that, and so that actually warrants a higher threshold level with more frequent observation could yield, you know, better results at a lower cost potentially.

So I just want to put that out there. And, Arvind, this is kind of getting more to your camp overall. I'm sort of speaking from a -- seeing this from the operator perspective, but I think important for us to recognize that. And so maybe just -- the turning question to PHMSA would be helpful to hear a little bit more about your consideration of flow-based detection thresholds, why that wasn't in -- how any consideration about that as we sort of further progress the discussion?

MR. DANNER: All right.

MR. PALABRICA: Hello. This is Sayler Palabrica. I think to get to the proposed performance standard, it's helpful to

go back to the act. Let me get that up. Sorry. Just one second. So it directs PHMSA to establish standards for new and existing technologies and practices through periodic surveys with handheld equipment, equipment mounted on mobile platforms, and other means using commercially available technology.

And so for the current requirements, like the vast majority of the surveys are on those distribution systems using handheld equipment that is measured in ppm. So our attempt was to set a standard that is attainable with a careful handheld survey with high quality leak detection equipment.

We were also aware of the EPA alternative technology standard in the supplemental notice. Our concern with -- well, I won't say our concern. Our main issue with that was that, one, emissions abatement's not our only goal. Like as we've heard from many of the commenters, a lot of concern with safety. And as a safety agency, like, we're

not only concerned with emissions mitigation, we're also interested in leaks that may not have significant surface expression because it's accumulating underground or in structures.

Now we did understand that there were certain circumstances where that calculus might be different, which is part of the reason why there's the 192.18 notification for the transmission surveys in the Class 1 and 2 locations. And that's sort of what we had in mind with that. But we do certainly appreciate the comments in the written record and in this room.

MR. DANNER: All right. Arvind.

MR. RAVIKUMAR: Thank you. Arvind Ravikumar, University of Texas. Very good points have been raised just over the past 20 minutes. What I'd thought I'd do is provide some information because this is something we have been working on for the past five to ten years looking at new technologies and their applications across the oil and gas supply

chain. I want to highlight sort of a few high-level principles as we discuss through some of the specifics of design, and in the process hope to answer some of the questions that have come up.

Over the past three to five years, we have tested over 20 to 30 different technologies, 20 more working with oil and gas companies across the supply chain and production, mid-stream distribution companies deploying these technologies, understanding their performance parameters.

There are about 50 to 60 different technologies in the United States that are developing leak detection solutions. A majority of these companies are based in the United States. A majority of these companies have tested their technology in controlled-release conditions. A majority of these companies have also deployed these technologies in collaboration with operators as we have heard in public comments as well as in

written comments.

My point in laying that out is that it is high time we move towards adopting some of the standards so that these new technologies can be deployed much more widely. What I've seen over the past three years, this is a very similar discussion we have had with the EPA in the introduction of new technology. And we see why these new technologies are really cost-effective and fast in detecting some of the biggest leaks in the system, and that's been used by several operators in the process.

And so insisting on using a technology standard that is maybe three decades old I think is a little too -- it's not right given the fact that we have all these new innovation technology being tested on a daily basis.

The second point I want to make, and I think something that Commissioner Burman brought up on why we are moving from a ppm to a kilogram per hour standard, I think part of the

reason is innovation. You know, at the time the ppm standard was written, that was the only technology available, and so you had to choose a standard based on what was possible then.

The challenge with ppm, especially with these new technologies, is that it does not have a linear correlation with your leak rate because the ppm rating depends on other things such as environmental conditions, how far you are away from the leak, how deep under the ground is the pipeline buried. And so the point is if you have a ppm standard, small leaks can have a high ppm, and large leaks can have a small ppm depending on where and how you measure that.

And so moving to a leak rate standard is much more direct in terms of addressing the biggest leaks in the system. And on a practical basis, many of the new technologies that we have heard about that are currently being deployed measure kilogram per hours and flow rate as opposed to ppm, so it

makes a lot more sense to use that standard to be able to allow operators to choose whatever new technologies are available.

The third point I want to make is multiple people made this point before. I completely agree that we absolutely need technology neutral standards. We don't want to be picking what technologies companies should be using. In fact, I work with operators who wanted to try six different technologies and then choose which of those is the best for that type of facility in that geographic location.

So I think technology-neutral standards are extremely helpful. And what this does, this sort of thresholds of, you know, 3 or 10 kilogram per hour, both of them are fine with me, is that it tells operators, you know, what you need to look for. So again, kilogram per hour for example, does not restrict technologies. It just provides a suite of technology options an operator can choose from.

The threshold we need to set here is

to ensure that we don't set it at a level where you don't see any leaks. For example, my colleagues at Stanford, my former boss, we tested about 20 different satellites through direct-control released tests, and the best case scenario, the satellites under the best of conditions can see a leak rate as small as 100 kilograms per hour. 100 kilograms per hour is about 5,000 SCFs.

And one of the reasons to set technology standards is that, in many cases, and I think some of the operators in the room will agree with me, is that they don't see leaks like 100 kilograms per hour. It's an extremely large leak. And if you have an 100 kilogram per hour leak in a distribution system, I think you've got much bigger problems than an LDAR program.

So the reason to put these numbers, minimum numbers, is to make sure that the appropriate technology, suite of technologies are chosen for the appropriate segment, and

it's okay to have this knowing that putting the standard does not limit options, but provides operators with some guidance on the suite of technologies they can choose from.

And the last thing I want to say and then stop is false positives are an issue. I've seen it during testing both in controlled conditions as well as with operators. But I think this is something that's specific to a technology. There are technologies that have high false positives. There are technologies that are lower. But I don't think this committee should be deciding which technology's the right one.

Once you set this high-level standard, I believe we can work with operators to help -- they can choose which technology they want based on the false positive rate, the cost, and other parameters that they might want to consider. I'll stop here and then come back later.

MR. DANNER: All right. Thank you

very much. Erin Murphy.

MS. MURPHY: Thanks. Erin Murphy, EDF. Before I respond to anything, I did want to flag that I believe there's something missing from the language I submitted to PHMSA staff, and I know you all are trying to fit it onto this slide. But for the distribution sector, and this is consistent with what EDF and other environmental groups recommended in comments that we filed in August in the docket, we recommended a 0.5 kilogram per hour mobile survey plus handheld survey with follow-up survey of leak indications with handheld. And I would love if that could be added to the slide to reflect the proposal that I wanted to bring forward. And will just articulate now while I am asking for that, that --

(Off-microphone comments.)

MS. MURPHY: No. So EDF and other commenters recommended a 0.5 kilogram per hour mobile survey, and a handheld survey of a distribution system in addition to a follow-up

handheld leak indication confirmation.

And I wanted to explain that because we have heard from a lot of distribution operators the sort of, you know, there's a lot of -- the handhelds are well-known devices, there is a lot of safety implications related to gas, you know, building up in and around buildings. And so we've heard a lot of, you know, desire to continue deploying handhelds.

Our perspective is that in addition to the use of handhelds, the mobile survey that collects leak flow rate data adds a lot of value and has been shown to find leaks that are not always found by the handheld devices. And so that's why the recommendation that we put forward would be a dual use of both technologies. Well, let me make sure that's now reflected. Okay. Sure. Yeah. I think that captures it.

So I think while I'm on that point, I wanted to respond to some of what Commissioner Burman and a couple other folks

talked about, and just make the point that these recommendations are made within the scope of the ALDP program as it's articulated in the NPRM, which is designed to grant operators a lot of flexibility to select. And, you know, from our perspective, we hope select a suite of technologies, right?

We feel like that's what the research and what leading operators are finding is that it's not a one-size-fits-all approach. The use of multiple technologies to sort of tackle different parts of a system is really what makes sense. And so, you know, these recommendations are not intended to narrow the options, but we do feel that, you know, within that flexible program, there is a need for a clear performance standard. And so these leak flow rates as well as the 5 ppm for the handheld equipment is the performance standard that we're recommending.

And I think, you know, one thing to keep in mind there is that the program as a

whole would have to satisfy the performance standard. That doesn't mean that every single technology that might be part of an operator's program would always meet this same standard, by which I mean to say if an operator is choosing, you know, 3 kilogram per hour aerial survey on their transmission line, but then also wants to do, you know, a human senses survey in addition to that, great. Right? Like incorporate a suite of options.

Just a couple other points I wanted to make. On the 3 kilogram per hour for transmission, from our perspective, there's a lot of uncertainty and a lack of data related to leaks on transmission lines. And, you know, we hear from transmission operators that these are not leaky pipes. That's not the nature of the infrastructure. But at the same time, you know, EPA calculates the annual greenhouse gas emissions inventory and the data points that are used to calculate the methane leakage from transmission lines are data points from

distribution surveys from years ago.

And to us that just introduces a level of uncertainty around exactly where leakage is at on transmission lines. And so that's why in our comments, we recommended a slightly more cautious approach of a 3 kilogram per hour standard. But I know that industry has recommended a 10 kilogram per hour standard. But just wanted to explain the basis for our recommendation there. Great. Those are all my points. Thanks.

MR. DANNER: All right. Thank you. Steve Squibb.

MR. SQUIBB: Steve Squibb, City Utilities. Yeah. Erin, I appreciate -- I was looking ahead at the distribution; appreciate the exception you have there for the small operators to use handheld at 5 ppm. But thinking about there's several operators that, primarily distribution, they also have a very small amount of transmission. And typically we just survey that transmission when we do our

distribution with the distribution equipment there at the 5 ppm.

So I'd be interested in some sort of a provision in transmission for the 5 ppm survey because it just would not be, to me, reasonable, cost-effective to go to this other technology for such a small portion of a system that really, like we said, is not leaking and, you know, transmission line pipe very seldom leaks. I don't know if we found a leak on our transmission system. So thank you.

MR. DANNER: All right. Chad, and then Brian.

MR. ZAMARIN: Thanks. Chad Zamarin, Williams. Again, I want to take a step back and wonder if this is the right kind of proposal from this group. Again, I said I think something like 10 kilograms per hour. That's a number that I have really no technical expertise to propose.

I think from a principle perspective, I think it's important for us to

say that whatever's implemented by PHMSA needs to allow for technology evolution. I mean, we just heard that there is a tremendous amount of work going on in this space. It's evolving very rapidly. And I get very nervous, you know, when we pick numbers and don't necessarily understand those consequences.

I mean I thought about this last night. I mean I'd rather have a continuous monitoring piece of equipment that has a detection threshold of 11 kilograms per hour than something that I use annually at 9 kilograms per hour. So like picking a number in this room today not knowing where the technology's going is potentially, I think, a problem.

I'm supportive if that's the direction we want to go, but I think stepping back from a principles perspective, I think, you know, I would rather us say as a group what are the key principles for what PHMSA should use as a threshold. I think one should be

let's not pick something that excludes aerial survey, that excludes satellite technology development, because those I think are our best chances for continuous monitoring of infrastructure. Let's also not, you know, exclude technologies that have been in use and been proven.

But, again, I don't think the absence of data on leaks on transmission should mean we should lower thresholds. I mean the reason we have very low leakage on transmission, we've said this many times, is a leak is a precursor to a rupture. So we use integrity management aggressively to eliminate leaks. The leak data we've shown and the emissions from the transmission are caused, like massively predominately, by known releases that are because of planned maintenance, not because of leaks on pipeline systems.

So, again, what lower thresholds do is they will drive a lot of false positives. They will drive people driving out to

facilities. I mean we're running in-line inspection tools to find leaks on pipelines. We're not using aerial surveillance in trucks and handheld devices. So I do worry about unintended consequences here.

And so again, if this is the direction we want to go, I think we can do that. But I do worry about whether this is the right forum for establishing numbers versus establishing principles. Thanks.

MR. DANNER: Okay. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. And I just want to say I agree 100 percent with what you're saying, Chad, is this is the right forum for establishing numbers because you mentioned it, Arvind, we're changing technologies.

Technology is evolving at a rapid pace. Just as an example, you quoted a number on satellites. We've been doing, as our company's been doing testing,

controlled-release testing that would take the number you quoted and really reduce it by a factor of 100. So I mean that's just one example of how the technology is evolving.

So I think where we go with this as far as are we the right body to establish numbers, it just doesn't necessarily feel that way. I do also want to talk about, you know, what we've just added for distribution. I think, and we've kind of finished up leak survey yesterday as far as frequency of leak survey. Now we're adding to it with the language on the screen, do a mobile survey and do a handheld survey. That's two surveys.

And I thought we completed that discussion yesterday as far as what our survey frequency would be. We're going to do a survey. If it's a leak-prone pipe, we're going to do it annually. And if it's going to be non-leak prone pipe outside of a business district, it's every three years with the caveat that was added in there. So I mean I

guess if we want to go backwards, we can, and have that discussion. But I don't think we want to.

MR. DANNER: Thank you. Andy Drake.

MR. DRAKE: Andy Drake with Enbridge. Great conversation. That's what we're hoping for I think is get some things out on the table here, you know, we're at the front of the ship. I appreciate the comments about a flow rate and ppm. I do think it's important. We may have to do something there to frame this conversation a little bit. But I think it's a worthy conversation to work through.

I think one data point there is I do think we should be thoughtful about work that others are doing in this space, and that is obvious, EPA. I mean they come up with numbers, you know, they're talking, I think, if I got my numbers right here, something in the range of 500 to 1,000 ppm, you know, so why did they pick that number? They've studied this for a while, too. So, you know, I think that's

just something to put out there. We're not the only ship in the ocean here.

I think the other thing I appreciate is the recognition of OGI. I think that's helpful. So those are good points I think in helping keeping tools available to us. I liked Arvind's point yesterday about frequency, and I think it goes back to Brian. Frequency is key. We want to keep these inspections turning so that we get more inspections and more surveys going.

Thresholds to manage the volume of discharge is not the big driver. And I can give you some data that we have, and I think this is just -- this is not the only data. I mean there are other people out here. I heard Enbridge had some data. I know Chad's got data.

But this year we run 2,325 miles of aerial leak survey on the pipes, and the technology was capable at 5 ppm. I think we were setting thresholds somewhere around 10

kilograms per hour. But we had 105 indications through the survey, 65 were ground confirmed. That means 40 -- when we got to the ground, 40 of them -- or 45 of them or 40 of them were not -- they were false calls. All of them were not on the pipe. All of them. They were all on valves, tubing, flanges, other appurtenances.

To your point, what is this thing about the, you know, these comments that we're making about the pipes aren't the leaks. I don't want to make a leap of faith, and I don't want anybody to hear that this is binary like we're saying we shouldn't survey the pipes. It's just how much energy do we want to put into the pipes.

I think Chad made an excellent point. We operate largely above the leak rupture threshold. We have to drive integrity programs to make it. If we're waiting to find a leak, we have an integrity problem. I think that goes back to Arvind's point earlier. If

you have a leak on a transmission system that's operating at 70 percent of SMYS, that's not a good thing.

So we're trying to find those before, which is good, but where is the gas coming from in fugitive emissions? It's coming from appurtenances and above ground facilities largely. So, again, not advocating that we wouldn't do surveys. It's just be cautious about how tight we screw down these thresholds because I think you're just going to drive up the number of false calls, which means we're probably going to be digging things up that aren't real.

And I think that we want to -- I think we want to consider where we are in this conversation. Like I said, I think we may have to set a threshold. I hear everybody here kind of wrestling with that just to sort of frame something. It's not that vague.

But I do think we want to keep technologies on transmission open that allow us

to look at the pipe more frequently and more readily. And then switch off for above-ground appurtenances for different kind of technologies. So I think those are just some framing thoughts that I have for this conversation.

MR. DANNER: All right. Thank you very much. Diane, and then Arvind.

MS. BURMAN: Great. Thank you. So I do have a question, and then I have some comments overall. I'm going to start with the question, and this is to Erin to help me understand. And then I'll get back to sort of what I see as the core principles that I'm hearing, and I think we all perhaps agree with.

So you're talking about two surveys here plus leak pinpointing, one ALD followed by a walking survey. And I'm just trying to sort of understand what you mean by that, so this follow-up survey. And can you explain it a little bit? Is it like a complete resurvey? You know, what goes into that? I mean we, you

know, so I just want to understand that a little bit.

MS. MURPHY: May I direct respond?

MR. DANNER: You may.

MS. MURPHY: So my understanding is that after a mobile ALD survey is completed, similar I think to what I was describing earlier with an aerial survey on a larger pipeline. So a mobile drive-by survey in a distribution area takes place that yields a number of leak indications, and then the operator will typically follow up to where those geographic locations of those leak indications are with a handheld, and walk that area to pinpoint the location of the leak with a handheld. Is that responsive?

MS. BURMAN: Yeah. I have to process that a little bit, but I was trying to understand, you know, what exactly we were talking about with that. So this is what I'm hearing from my perspective, and I do think -- for me it's always about what are the

principles, what are we trying to accomplish?

So I'm hearing that setting standards may make sense. That provides clarity. That helps us with, you know, sort of level setting. That flexibility is key. That it's important to have technology-neutral standards, and we're not picking winners or losers. It's important for us to understand the language and what that means. And that we are focused on understanding that the technology is still evolving.

There's a lot of focus here on false positives, but I think it's just as important as we heard yesterday, false negatives are maybe even more important in missing. So there's a sensitivity standard that needs to be incorporated into that so it's not too low, not too high.

But that, for me, I think we probably all could agree with some general principles on the standard and give the flexibility there. But that the tension

probably comes, and this gets into sort of getting ahead of technology and also getting ahead of where states are, is that -- and also keeping in mind, you know, the efforts that go into that as we're moving forward.

So to me it's about not mandating specific tools that will crowd out or not allow other tools in the toolbox, and that if we could come to some agreement on the principles of having a standard with flexibility without it being a mandate, I think we probably all could get there, and then we're moving forward in a way that is helpful.

MR. DANNER: All right. Thank you. Arvind.

MR. RAVIKUMAR: Thank you, Chairman. So a few things, and I think I largely agree with what has been just said over the past 15 minutes or so. One of the things that might be helpful in this context, to Andy's point about not having to send someone for false positives and wasting both resources and time.

I think we need to separate the survey part and the follow-up action part. Like you can do a survey with this technology, it's going to give you data on where they found leak indications. And then beyond that, separately is, okay, these are the indications that the technology tells us. Which of these do you send follow-up crews to, to check in on something?

I think those are two separate things, and we don't have to tie them to the technology. And that would help address some of your concerns about, you know, are we sending too many people to go test false positives? And I think Commissioner Burman also brought up the same point. And I think we can do that with these new technologies as we go forward.

The second point I make, and I think I really liked what Commissioner Burman said right now that, you know, we need to set some standard. It cannot be too low, nor too high.

I think that's a really important point. You know, I've worked with a number different technology providers and operators as well, and one of the concerns there is that it's really important to strike a balance between being too prescriptive and being too vague.

Here is the scenario that will happen. If don't put a number, a minimum standard, like you have to detect at least 10 kilograms per hour which is considered a large emitter for most respects, the problem becomes for technology developers, they don't know at what level should they be developing the technology. Should they be aiming for a very high sensitive technology which increases your cost? Or are they allowed to trade off on having a slightly lower sensitivity but increase their speed and reduce their false positives.

But without a number there, they don't know what number. Is it 1? Is it 10? Is it 0.1 kilograms per hour? And the lower

you think that number is, the more expensive and challenging it becomes to detect. So I think setting a reasonable number like 10 kilograms per hour helps the technology developers as well because they know, okay, I don't have to worry about the little ones, the 1, 2, 3, 0.5, 0.6, and we can start at 10. That significantly helps reduce cost of technology and technology development.

MR. DANNER: All right. Thank you. Erin.

MS. MURPHY: Erin Murphy, EDF. I just wanted to respond to, I think, Brian's comment earlier on the distribution proposal and share that, you know, from the experiences we've had in engaging with distribution operators, there's often been a conversation around, okay, you know, you're talking about a new technology, an advanced technology that operates differently than sort of the traditional handheld approach. We're interested in trying this out. But we're not

ready to replace, you know, the use of the traditional handheld.

And so what we were, you know, trying to think about and incorporate in this recommendation is continuing that reliance on the traditional handheld devices while also layering on to that, you know, the mobile technology that moves a little faster and lets you, you know, cover a lot more miles per day in a survey.

And I just wanted to note, I know there's a lot of operators that are using a wide variety of technologies, but wanted to point out that, you know, some of the programs I've familiar with, that is how they operate. So Con Edison had an advanced leak detection, high-emitter program approved by the New York Commission where, in addition to their handheld surveys which are conducted, they survey their entire distribution system every month in New York. In addition to that, they're surveying one-third of their system with a mobile ALD

each year, which means that over a three-year period, they will survey their entire distribution system with the mobile ALD.

And then I will also just point out one other example, which is PG&E in California. Haven't looked at their filings as recently, so I apologize if they've updated the program. But last I checked, they're operating at a -- they survey their entire distribution system every year with a mobile advanced leak detection device. And some portion of that is a super emitter detection threshold of 10 standard cubic feet per hour. And then, as I said, they recently lowered that to 7 standard cubic feet per hour as a super emitter threshold. And then another portion of it, I think it used to be a third, but I'm not sure if that changed, is a full leak survey, so picking up every leak indication possible with the mobile.

So just want to point out that that's what we were trying to get to is to not

suggest that the 0.5 kilogram per hour mobile survey standard that we recommended would replace handheld. But at the same time, not wanting, you know, because the ALDP program explanation and the NPRM lists out all of these advanced technologies and gives operators flexibility to select among them, I think the concern we had with that with the distribution systems is that a 5 ppm handheld, my understanding is that's a norm in the distribution sector and that's widely in use now.

And so thinking about the congressional objective here of moving forward with more advanced technologies, wanted to make sure that there would be uptake of those more advanced technologies. Thanks.

MR. DANNER: Thank you. Sara Gosman.

MS. GOSMAN: Sara Gosman. Thanks very much. I think a couple of notes here. We are supportive of EDF's proposal. The Pipes

Act requests PHMSA to set performance standards for advanced leak detection technologies and practices. And this means we need to give clear guidance to manufacturers of these technologies and practices as to what the minimum standard is so they know what to invest in. This isn't picking winners and losers. This is setting the bar so that they know for the future, right, what to invest in.

I just also want to zoom out here because I think sometimes when we're talking about costs, we forget that there are already costs being borne by society, by climate, from leaks. It's just that we don't actually see them and monetize them, right, except through, you know, RIAs, I suppose.

So the cost here is occurring right now through the world of climate change. Somebody has to bear that cost. The question is how can we create regulations that allow for seeing those costs so that we can address climate change more directly. Technologies are

going to be expensive. We should choose the most cost-effective ones that get us to the point where we want to get to. But we have costs right now that we are bearing.

MR. DANNER: All right. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. And, Erin, I appreciate your comments. You know, I think it kind of helps lead to the point of every operator is unique, right? So Con Ed's got a unique situation with where they're at, their setting, legacy pipe, not legacy pipe. PG&E, same way.

So I think, you know, as we're walking through this and developing I'll say a suite of tools for operators to use, we'll probably see different operators doing different things throughout it. But per the language on the screen, either the -- I understand and support. We've seen it. I mean whether it's satellite, whether it's mobile, the survey gives you an indication, and then

you have to follow up with a handheld to go out and localize and pinpoint, grade the leak to take the next step in the process. But we do not agree with that doing both, you know, either the mobile survey is -- I mean we have operators, that's their leak survey is using a mobile survey. This is now adding a survey to the frequency of surveys, which again, I believe we finished that up yesterday.

MR. DANNER: Thank you. Chad.

MR. ZAMARIN: Thanks. Chad Zamarin. Williams. And I totally agree, Sara, but I also want to put some context around cost, because this is something I'm very focused on at Williams, and I think we are, as an industry. What I want to make sure is that we drive the very best dollar-per-CO2 emissions reduction possible, and that we put resources towards how we best reduce emissions.

And there are a lot of things that feel good, you know, that are very expensive from a CO2 emissions reductions perspective.

It's one of my frustrations with what happens when we pick, you know, ideas that feel good, but don't necessarily deliver results. And I'll say that because I'll give you concrete examples.

You know, we're looking at -- we're looking at projects that would cost hundreds of dollars per CO2 emissions reduction. There are incentives for us to do those, so we're going to do those. But what we've shown on transmission lines is reducing blow downs and changing maintenance requirements for blowdowns, those cost literally less than $10 per CO metric ton emissions reduction.

So like we should be doing things, we need to make sure we're doing things that have the highest return on the dollar we invest for emissions reduction. That's how we get the biggest emissions reduction possible. And when we drive, you know, activity that doesn't actually reduce a lot of emissions for the investment that we make, we take away from the

ability to invest in those things that drive down emissions much more rapidly.

And that's the math that I'm constantly trying to figure out is how are we making sure that we're driving the work towards where we're going to get the greatest emissions reduction per dollar invested possible. And that's the way we should think about, I think, everything that we do. I think we're on the same page from a -- but I want to make it clear, that's how I approach this.

And my concern is, you know, for example, we will screen out today's technology from a satellite perspective. I think -- I'm not a satellite expert, but I think we'll be screened out by the numbers that we're proposing here on the board. That to me is a very troubling idea because -- and we talk about 5 ppm being the handheld detection limit.

We heard yesterday from Con Ed, they can put a constant monitoring device on your meter. That may not be 5 ppm, but it's

constant monitoring. Like, that, to me, sounds like something that we should be careful we don't screen out from a technology perspective because on a cost per affective basis, like, that's the kind of stuff that, to me, sounds like will have a greater -- I mean, we heard it. The more we look, the better I think we will be, versus setting standards that actually reduce the amount of inspection that we can do.

And so that's my concern. I'm not an expert in the numbers. I go back to principles. Like, I think we should be telling PHMSA, okay, if you got to pick numbers, pick numbers, but let's make sure we're consistent with EPA and the standards being set by EPA. Let's make sure we're encouraging a broad array of technologies, and not just, you know, focused on a single set of capabilities. Let's allow for current technology that's being proven to be used by operators to be continued to be deployed across these systems. Thank you.

MR. DANNER: All right. Thank you. Andy, and then Pete.

MR. DRAKE: Andy Drake. Again, I want to come back. This is a good conversation. I want to make sure that everybody here -- we're not saying we're not going to do this. We're trying to figure out how to do it. It's new. We're trying to figure out how to do something that moves the needle efficiently. And I really appreciate your comment, Chad, about how do we move this efficiently where we're putting resources in the place that makes the maximum impact, you know?

I think one thing that I wanted to come back to is a conversation, Brian, and here's how we were playing out multiple technologies. It really wasn't multiple surveys. And I don't know if that's what you're saying. It's as we're doing the aerial survey, we have indications. Then we drop down to the ground, and we use a different

technology in the sites where we had indications.

Some of those involve digging, you know, which is unfortunate because that's a lot of effort to try to make sure that nothing's there. But we're deploying cascading technologies. It's not that we're doing aerial, and then we walk everywhere on the ground also. It's once we get a hit from an aerial, we drop down and use a different technology on the ground. And actually, when we dig, we may deploy another technology in the soil. So that's three technologies. But it's not three surveys of the whole system. It's sort of narrowing down like a funnel.

I do think that the thing that troubles me a little bit is I'm worried, and maybe Arvind or someone knows what is the detection threshold for the satellite? That to me -- I liked the conversation yesterday about, all right, let's keep the frequency tight, you know, and just keep looking and gathering data,

gathering data. But if, you know, to do that, we need to be able to do that efficiently, you know?

And I think if we set a threshold that's too -- and we say, well, satellites can't do that, then we're sort of back to not very efficient ways of looking for these things. And I think there's some -- how do we -- how do we figure out how to accommodate that? And I don't know the answer right now. I'm just thinking out loud here.

But I think that we're just really trying to define the information necessary to make a decision here. And I'm kind of coming to a place where I think some kind of thresholds help provide some sort of tangibility. But how do we keep the door open for technologies that are really a more efficient way of managing this threat, this problem?

So, anyway, those are just thoughts I have right now. I'm not trying to reach a

decision at this point. I'm just trying to get all this collected in my thoughts.

MR. DANNER: All right. Thanks. Pete, and then Sara.

MR. CHACE: Pete Chace, NAPSR. You know, that's apparent to me this is a field with a lot of pretty fast moving technological developments. I know in Ohio, we have leak surveying and grading rules above and beyond what's in PHMSA, and we're dealing now with technologies such as laser spectroscopy or satellites that didn't even exist the last time we opened the rule.

So I guess my thought is I'm -- again, I'm leery that trying to define numeric standards for specific technologies, maybe it's more appropriate for PHMSA to do something like put that in enforcement guidance, frequently asked questions, things of that sort so they can be changed as time goes forward.

Thinking about enforcing these standards, you know, quite frankly, I'm not

sure why an operator would pay for a leak survey that can't detect leaks. And if they did, I'm confident I could get them through 192.706 or 192.723. Those are my thoughts. Thank you.

MR. DANNER: All right. Thank you. Sara.

MS. GOSMAN: Yeah. I just want to, again, sort of set the context here, right? So performance standards are very common in environmental law. And actually, the sort of history of environmental law, say like the Clean Water Act, is of setting standards of performance that at the time people thought there was no way anyone was going to be able to meet, but when the message went out to folks in the sector, they were able to create the technologies needed. I mean it's kind of -- it's a technology forcing sort of approach to regulation.

I don't think we're really in the world of technology forcing, necessarily, but

we are setting sort of standards for technologies. And we have a long history of doing that in the world of regulations, certainly on the environmental side and in other places as well.

I do maybe have a question here about the alternative standard. It seems to me like some of these concerns could possibly be addressed through that alternative standard if, you know, if an operator wanted to go to PHMSA to say here's this other technology that we're interested in, and you, you know, you decide whether we can use it. Or program I should say more accurately. So I'd be interested in that conversation, too.

You know, we talked about leak survey frequencies yesterday, and I guess my thinking is still, right, the reason that we wanted to have three years, right, in terms of frequency say for outside of business districts, is so that we could find leaks. And in order to find leaks, we have to have a

performance standard that allows us to find those leaks. And so that's a sort of simple way of saying it, but I think that this is the right approach.

MR. DANNER: All right. Thank you. Alex.

MR. DEWAR: Alex Dewar, BCG. You know, yesterday I thought was a constructive conversation when we were engaging on survey frequency. But then, you know, really started to grapple with complexity that while these are the bare minimum standards, operators are doing things in different ways, and in large part, performing above those standards. And I think what we're trying to avoid is unnecessarily hemming in operators unnecessarily driving higher cost where there are efforts already underway that go above and beyond, right?

And so I think if we take that approach and some of that spirit from yesterday and apply it to here, you know, I propose there may be an opening in this to start to describe

where certain exceptions may come into this. And as an example, and maybe picking up on the satellite conversation because Arvind, as you've said, you know, to my knowledge, GHGSat for example, has a 100 kilograms per hour threshold limit. That's going to be well outside the minimum.

But I have seen data that suggests when that is done on a daily, or even a weekly basis, you know, given this is an entirely a probability-based approach here, you can still pick up relatively smaller leaks, you know, beneath that threshold, right?

And so just as an example, right, there's multiple ways to bring together different technologies incorporating as well operator data on flow rates, operating equipment parameters, integrating as has been said before, integrity management into this. So there's many ways to get at where the leaks, you know, not just through, I think, this bare minimum approach of surveys on a regular

frequency with set minimum standards, right? That's one very narrow way I think that we can envision leaks actually get identified.

So I just want to float that and see if there's willingness to start to go down that path of saying there may be some exceptions to this, so integrating different technologies on different timelines that, you know, allows operators to not have to, you know, strictly stick to this. And especially to, you know, continue using or to develop approaches that may be more effective at lower cost.

MR. DANNER: All right, thank you. Brian.

MR. WEISKER: This is a -- Brian Weisker, Duke Energy. Sorry. For the Chair or for Alan, I mean are we revisiting frequency of leak surveys?

MR. DANNER: Well, I mean we've been having a very open discussion. I think at this point we're focusing on transmission as -- or I think we should focus on transmission. But,

Alan, you want to --

MR. MAYBERRY: Not at this time. But, you know, at some point it'd be nice to isolate transmission and isolate these different segments. I think this has been a great conversation. It's been helpful for all of us, I think. But you may want to -- well, I'll just --

MR. WEISKER: But if we're not --

MR. MAYBERRY: Yeah.

MR. WEISKER: -- revisiting leak survey frequencies, then we need to remove the leak survey with handheld equipment where that's doubling up on leak survey requirements and doubling up on the frequency.

MR. MAYBERRY: Okay. That's -- yeah. You guys can definitely consider that. Yeah.

MR. DANNER: All right. Thank you. Arvind.

MR. RAVIKUMAR: Thank you, Chairman. Two things. I think Andy's absolutely right.

These are tiered surveys. That's what we call them. But, essentially, you use one of the advanced technologies, do a quick survey, find your hot spot, and then someone to follow up just in those areas that was identified by your new technology. And that's how almost all of these new technologies work except continuous monitoring systems perhaps.

One of the broader points that I wanted to make is that I don't think this is the right forum to be talking about specific technologies or technology classes. The goal is to just set a standard and allow the market to figure out, you know, how do we develop a sensor that's on a satellite, or on a plane, or on a drone, or on something else to achieve that standard. And so I want to keep this discussion at the minimum standards level and nothing more.

To Andy's direct question on satellite technology. I think one of the things we need to think about is, yes, the more

surveys you do, the more leaks you find. But that's true up to a certain point. For example, let's say you take a technology that only sees leaks about 8,000 kilograms per hour, and you do a survey every hour, you're not going to find anything because we don't have leaks that are 1,000 kilograms per hour. And so it doesn't matter if you do it every hour, or every day, or every week. It's not going to see anything.

And just based on the limited data we have doing all of these measurements over the past several years, we don't have a lot of hundred kilogram per hour leaks on pipelines. I mean the operators can correct me if I'm wrong, but I don't think we have very large leaks in the pipeline sector, which is why I think having a threshold that says hundred is essentially saying like, well, you're not going to see anything here.

And, you know, Brian was right. There are new technologies, new satellites that

might come down to even 1 kilograms per hour as he noted. And so, you know, yes, there might be satellites that have been launched in the past three years that does not reach 10 kilograms per hour, but it looks like there's already technology that could get that level.

So I think our goal should be say, okay, 10 is a reasonable number. Anything below that, you start picking up too many small ones. Anything much beyond 100, you don't see anything. So set a minimum level, allow the technology companies to develop systems that cater to that standard.

MR. DANNER: All right. Thank you. Andy.

MR. DRAKE: Andy Drake with Enbridge. Thank you, Arvind. I heard something that you said, Sara. And, Alex, I think you picked the same -- you were going down the same trail, you know, that Sara brought up. And I just want to take that and kind of put out a possibility thought there for

a minute because it sort of opened a door of thinking. And I think Arvind may help frame it, too.

And that was, you know, creating some sort of opportunity here, given where we are, to say that we would create some sort of record here that if an operator was to propose something that increased the frequency, sorry, Brian, you know, or tighten the frequency up, not longer frequency, shorter frequency, and try the technology as an alternative with higher frequencies, so more continuous monitoring to Chad's point earlier, and I think Con Ed's comment, continuous monitoring that may not meet 10, but we could calibrate it as a test, that may actually help us drive the engine that we're trying to look for, which drives technology evolution.

But I think we're going to have to create some sort of door here for those conversations if -- or at least I'm just possibility thinking right now. But I'm not

advocating for recklessness to look for 1,000 kilogram leaks or anything, but I think if we had a technology like a satellite that was around 10, and we were running it all the time, is that a good trade? Well, I don't know. I think that's what we would want to create possibility thinking here to create a door for that kind of work to happen because that's how you would drive continuous improvement.

And it's not reckless, but it would be -- I'm just throwing this out here as a thought, because I think this is important given where we are right now. So I just, like I said, just possibility thinking listening to the group here.

MR. DANNER: All right. Thank you very much. Erin, and then Diane.

MS. MURPHY: So recognizing we've been talking about this for over an hour at this point, it does feel to me like it would be helpful to think about how to try to reach a committee conclusion on this discussion. I

think based on the conversation, I would be comfortable with a 10 kilogram per hour threshold for the transmission segment.

I also wanted to just pose the idea because there's also been some discussion around, you know, the challenge of reaching agreement on a number and whether it's appropriate for this committee to put forward a number. I think one way, you know, this discussion has been captured in the record, and I think it's hopefully really helpful for PHMSA in evaluating and making decisions for a final rule.

It does feel like there's clear consensus, at least to me, on the idea of leak flow rate as being an appropriate metric for part of a performance standard. And so I wonder if it would be more efficient for the committee to just agree to recommend to PHMSA, you know, the incorporation of leak flow rate into the performance standard that it adopts for the ALDP program.

MR. DANNER: So thank you. I think, you know, I'm getting back to Diane's principles that she talked about earlier, which is you have to allow for the development of new technology, understanding, as Sara said, that we do have -- the PIPES Act does require PHMSA to set a standard. And other principles, technology neutral, I think we do have agreement that flow rate is the way to go.

So it could be that we develop a package where we say, okay, flow rate is the recommended method or methodology. That we want to have processes so that alternatives can be considered. And, you know, I think that would probably be sufficient to capture what I'm hearing this morning. Okay. So that's my two cents. Diane?

MS. BURMAN: Thanks. So I just want to level set. When I look at Section 113 under Leak Detection and Repair, and it talks about minimum performance standards, and it says, "The final regulations promulgated under" blah,

blah, blah, blah "for the leak detection repair programs, minimum performance standards that reflect the -- the minimum performance standards that reflect the capabilities of commercially available advanced technologies that with respect to each pipeline covered by the programs are appropriate for the type of pipeline, the location of the pipeline, the material which the pipeline is constructed, and the materials transported by the pipeline."

It then goes on to talk about the requirements should be -- it should be, "Leak detection repair programs shall be able to identify, locate, and categorize all leaks that are hazardous to human safety or the environment, or have the potential to become explosive, otherwise hazardous to human safety."

So the reason I focus on that is I think to the extent that we stay close to, you know, the tenants and the intent in Section 113, I think is helpful. I do think that we

need to just back up, and I'm glad, Chair Danner, that, you know, you mentioned sort of the principles, too, because I'm wondering if we can come first with the general principles of we all agree we need to set a standard.

We perhaps need to allow the operator to perform traditional leak surveys using traditional handheld equipment. We can have Type 1 and Type 2 leaks. They can get fixed under prescribed timeframes. And then if there are Type 3 leaks, we can look -- and I just lost my train of thought here. We can then look about having operators use ADL in the TIMP and DIMP program so that Type 3 leaks are fixed on a priority. It lets us prioritize leaks, drive down backlogs.

I know this is a discussion on the standards, and we do need to separate out that we, you know, addressed the survey frequency, repair frequency. So I just am kind of looking and saying maybe we need to just make sure that we all can agree with the general principles,

whatever they are, and then give some considerations for to PHMSA in light of, you know, making sure that we're not then going too far away from being even too prescriptive to you in sort of what the direction is here.

And I think that might help us, one, make sure that we're all in agreement on the general principles, and then get into, okay, where can we maybe have some wiggle room in what we're agreeing to. And I think that kind of gets us all in a comfort level, and gives you the tools that you need to, you know, hear from the committee and understand that there will be some disagreement on the exact specifics, but that this is the general framework.

I mean to me the key takeaway here is that there needs to be some flexibility in understanding that the technology is still evolving and what this means going forward.

MR. DANNER: Thank you. And I mean let's keep in mind that there is already a

process in the NPRM under 192.18 for consideration of alternates. And so I would be very comfortable with what's up on the slide right now. I'm going to turn it over to Steve, Brian, and then Andy.

MR. SQUIBB: Steve Squibb, City Utilities. So I just want to bring up, there's several operators have been using -- trying to advance technology and use other equipment that may not be covered here I think. So one is, you know, what I call traditional mobile, where we're using mobile devices, trucks, cars, with more traditional equipment. I want to make sure that that's not excluded. And also handheld laser based equipment. And I believe that's measured in ppm meter.

So I just want to make sure we don't have unintended consequences with this of excluding some technologies and some things we've been trying to do to advance our surveys. So I would suggest a, okay, you got the ppm meter on there as an option, so. Are there any

other unintended consequences of excluding technologies is what's in my head that we need to make sure we're not doing that. So I think been addressed in my comments. Thank you.

MR. DANNER: All right. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. A follow up to that. I think that, first, as we're working through this that -- as written that 10 kilograms per hour or to align for being able to use traditional mobile survey techniques of 4, 5 ppm, I'll call it performance standard, for aerial or mobile -- either/or to be able to allow those that are using standard mobile survey to continue to do so.

CHAIR DANNER: So I want to go back to what Arvind said about some of the limitations with that technology. You know, is this group comfortable doing that? Okay. Andy, and then Chad.

MR. DRAKE: Andy Drake with

Enbridge. I appreciate Commissioner Burman's thought on principles, and I think that's really helped ground this conversation. I do think, based on the conversation that I'm hearing, that we do need to set some sort of target here. Otherwise, we're just sort of adrift with a lot of good ideas or good intentions that may be a little too foggy.

Ten, I think at this juncture, is reasonable and practicable per our voting guides. I think you are going to get a lot of false indications for a while. We've got to work on technology, help us get better at that. I think cascading technologies help us work through that. It's not without zero impact to the environment because we will now be digging things falsely. But hopefully we'll get better at that over time.

I do think it's important maybe to translate here. If I understand it, and maybe Arvind, you can help correct me, I think it's important for us to have both kilograms per

hour and ppm because different tools work different ways. If I understand it, 10 kilograms per hour translates to about 500 ppm.

And I think that just for the record, I'm not trying to get voting slide here, but I think for the record, we need to know that, anchor that just for practicability sense going forward to keep different tools working for us. I like, well, where we're going here with this, and I appreciate your comment, Chairman Danner, about 192.18. It gives all kind of permitting.

But I think on this, we should keep a special provision here because it is so apparent to where we are, so tied to where we are right now, and that is we should be looking for operators, and I don't want to say encourage, but we should be open explicitly here for operators to come with proposals that tighten up the frequency with continuous monitoring that may work to a different threshold. And they should be trying to drive

those proposals in front of PHMSA or the states for review because I think you may end up with a better mousetrap and a better answer.

And I think we should put that in here explicitly because on this issue, I think that's so appropriate to recognize where we are. And if we don't do that, I think you're going to -- I think a lot of operators are just going to say, fine, let's just go dig up Ohio because we aren't flying over it at 10 kilograms an hour and got a 40 percent false rate. That's not the thinking we want coming in to here.

MR. DANNER: Do you have -- or can you wordsmith on the fly here, give us a bullet point?

MR. DRAKE: Yeah. I hazard to wordsmith on the fly. But --

MR. DANNER: Okay. Well, I'm going to --

MR. DRAKE: Let me think on that for a minute --

(Simultaneous speaking.)

MR. DANNER: You think on that.

MR. DRAKE: -- and I'll come back to you.

MR. DANNER: I'm going to turn to Chad, and then Sara, and then Brian.

MR. ZAMARIN: Thanks. Chad Zamarin, Williams. I just want to endorse, I thought your summary of the principles was important. I'm fine with, you know, this concept that's on the table. But I do think the principles are really important. Like I think our role to summarize the comments that we heard yesterday and the issues around this I think are really important because I do think we're at an early stage in the development of this technology.

And I think, you know, I think about things that we are still trying to evolve from, and some of those, you know, you think about the history of our regulations. At the time, you know, we had requirements that made perfect sense, and now we're trying to move to newer

capabilities and it's hard to undo those. So I think we do need to be careful that we don't put things in place that inhibit that evolution and development.

And so I like the principles. I don't know if we need to put them on the slide, or if that's a follow on. But I do think the summary that you laid out is really important coming out of this because, you know, when you look at all of the comments that we've heard, I think the biggest concern here is whatever we pick today will not likely be right tomorrow in such a fast evolving space.

And so I think we've got to frame this. If this what we approve, I'm fine with that, but I think we've got to frame it around the concept that we've got to be careful not to stymie new developments. I don't think it's as simple as a number. We've talked earlier, like I truly believe if we all sat down and said I've got something that I can do once a year at 9.5 kilograms per hour, or I can do something

every day at 10.5, we say, you know what, I'll pick the 10.5. And so I do think we've got to be careful that we don't leave space for that kind of, you know, evolution that I think is going to be important. Thank you.

MR. DANNER: All right. Thank you. Sara.

MS. GOSMAN: I'm comfortable with principles, but I like the specifics here on this slide, and I think we should vote on this particular language. I mean I went back to read again, the alternative advanced leak detection performance standard provision, and to me it really seems to cover the concern that I'm hearing, right? It's actually to use an alternative performance standard, right, and supporting leak detection equipment with prior notification.

The actual standard for determining whether the operator can do this is is it consistent with pipeline safety, and equivalent to the standard in Paragraph B for reducing

greenhouse gas emissions and other environmental hazards? So I look at that provision, and I think, Chad, that your concern there about 10.5 but more frequent surveys is -- or, you know, or monitoring, right, is built into this because almost by definition, you know, a different performance standard is a different performance standard.

So I'm fine with referencing this provision in here just because I think it is an important part of our conversation, but it seems to me like that does address the concerns I'm hearing from you all. And then I, again, just, you know, want to say I think if anything, right, we're going to, you know, choose this particular 10 kilograms per hour flow rate standard, and we'll find out in like, you know, three or four years that actually the way the technology is going, we could have done something like 3, right? I mean I actually think that's the direction. It just makes sense to me that that would be the direction we

would go in the world of technology.

So I think actually the risk here is, to me, that we actually do a higher number than we should, just based on the fact that technology is going to innovate. But I'm willing to, obviously, deal with that risk because I like us to get to a decision now, and I think this one is a good one for where we are at.

MR. DANNER: All right. Brian, and then Alex.

MR. WEISKER: Brian Weisker, Duke Energy. I want to go back to, Chairman, the question you asked before, and the standard mobile survey is proven technology. We have operators that are using it today. So I don't see what the flaw would be with adding the 10 kilogram per hour or 5 ppm as the standard for aerial or mobile survey. If we don't, we're going to be taking a tool away from what operators are using today. So I think it's a pretty simple update that --

MR. DANNER: All right.

MR. WEISKER: -- we can put in there.

MR. DANNER: All right. John Gale.

MR. GALE: Yeah. Thank you, Chairman. Member Weisker, did you mean 500 ppm? Not 5?

MR. WEISKER: I meant 5.

MR. GALE: Because 5 is up there right now?

MR. WEISKER: That's for handheld.

MR. GALE: You want 5?

MR. WEISKER: I'm talking for a mobile.

MR. GALE: Okay.

MR. DANNER: Arvind?

MR. RAVIKUMAR: Yeah. I think -- no, Brian's right. Mobile technologies do have ppm thresholds as well, so I would say handheld or mobile equipment 5 ppm or ppm meter. Would that work, Brian?

MR. WEISKER: As long as -- Brian

Weisker, Duke Energy. As long as, I guess, number one doesn't supersede number two. I think if they work in tandem together, it answers the question.

MR. DANNER: It does say "or." Alex, Diane, and Sara. Or Erin.

MR. DEWAR: Yeah. Alex Dewar, BCG. I think connecting this specific proposal to the principles we've been talking about as well, which agreeing with others, important at least for the record to lay out the principles here, I think there's a couple at play in this and why I think this is a good proposal, A couple of the principles at play here.

One is it starts to move toward some explicit harmonization with EPA, which I think is helpful for the industry. We haven't talked a lot about it, but there are operators that have upstream assets and some midstream. And I think important to open the door to being able to use technology consistent across that for them. And, explicitly, you know, calling out

consistency with EPA here as well on above ground OGI.

And I think the second is, Sara, building on your point, you know, there is, I think, a real principle at play here of evolving innovation, of setting the bar somewhere today, but recognizing that that can and should move forward and advance, you know, down the line. And I'm sensitive as well to the comments from PHMSA that, you know, you have to set this on the basis of what's available today, right?

So there's a bit of balancing act, and I think an important, you know, principle to bring in here as we're trying to make this achievable. But to raise the bar over time, and to effectively create the demand for the supply to be there of these technologies.

MR. DANNER: All right. Thank you. Commissioner Burman.

MS. BURMAN: Yeah. I'll just say I am uncomfortable not knowing if current

technology can meet this, what that looks like. And so I just am a little worried about that. But going forward, I want to take a step back because we've all been talking about setting some principles that worked well the last ten days, it feels like ten days.

So I understand that we're getting closer here, but we've missed the step of laying out the principles because that shows to me, again, what it is that we're actually trying to accomplish and what it is that we are ensuring gets incorporated as a whole when we get down to some of the weeds.

And I think that we have gone from we all recognize the need to set standards. We may disagree on what that looks like. We understand that we need to have some flexibility. And so I think just laying out sort of the core principles, you know, I think is helpful. And it's not just about going back in the discussion. It's actually clearly up there on, you know, on this screen for us to

all ensure that that's a takeaway, and I think we should do that first.

MR. DANNER: All right. Well, I believe the principles I heard were, obviously, that we need to set standards, and we agree that flow rate is an acceptable standard to include. We want to allow for the development of new technologies and be flexible to them. And, of course, we do have the alternative performance standard that's provided for in the rule.

We want to be technology neutral. I think we've captured that. And I mean I think those were the principle that I heard. And I think they are captured in what's on this slide here. So we've got Erin, and Andy, and then Chad.

MS. MURPHY: I had a point on this, so I can defer if you all want to talk principles first.

MR. DANNER: We will come back to you. Andy?

MR. DRAKE: Andy Drake with Enbridge. I don't know that my principles, but actually I was just throwing out a couple thoughts here. I think we're narrowing this down. I'm open to trying to find words that reflect the principles if they're not up there.

But one thought, just maybe seemed minor, but I think it's back to your point about keeping open is aerial and mobile, do we just take those words out and say screening survey because I don't know what a satellite is, but I'm not sure it would be called aerial. So, you know, if we take that, I don't think we lose anything.

And my other thought is, Sara, I'm good if you want to put some language to what you said, and that exactly addresses, I think the issue. But I do think it belongs here. Just some reference that that's a key tenant to what our conversations were. Those were my only two comments. I think we're really close.

MR. DANNER: All right. Chad, then

Arvind, and then back to Erin.

MR. ZAMARIN: Yeah. Chad Zamarin with Williams. I mean mine's pretty simple. I do like -- I would ask you if we're willing to put the tenants that you just described on the page because I do think those are important. I think the one -- I think it's, again, covered here. But we're not going to get into the weeds on a lot of this section. There's a lot in here, so I do think memorializing those principles is a good takeaway for this committee.

And I think we cover one of them also that wasn't maybe in your list, but it's up there, is I think make sure whatever we do is consistent. If standards are being developed by EPA, I think that we should try to maintain consistency between regulatory structures. And I think it's referenced up there, but I do think that's an important principle.

MR. DANNER: So my question is these

principles are not just for transmission. I would think that they would also be for the others. And so what I would suggest is let's take that last bullet point, put it aside. Let's see if we can reach an agreement on the transmission. Take a break, come back. Develop the principle language that we then put on top of everything that we're doing with gathering lines and distribution as well.

MR. ZAMARIN: I think that's great.

MR. DANNER: Okay. Arvind.

MR. RAVIKUMAR: Yes. Just a point, I would support Andy's proposal on calling it screening surveys as opposed to naming any technology class.

MR. DANNER: Okay. So take out aerial and mobile, and add screening surveys?

MR. RAVIKUMAR: Yes.

MR. DANNER: All right. Erin, back to you.

MS. MURPHY: Thanks. Erin, Murphy, EDF. Yeah. I'm also comfortable with that. I

think it's the flow rate standard that's really key.

I want to note, and I really did take your point, Steve, earlier on, you know, for smaller operators who might have a really limited transmission mileage, and wanting to be able to use, you know, the handheld or whatever, you know, the common technology is that's used on the distribution system for the transmission as well.

I hope you can appreciate, though, from my perspective the challenge of adding that as an "or" here because the 10 kilogram per hour, or what was originally the 3 kilogram per hour, standard is, you know, for me what's so central to this. That is, you know, incorporating leak flow rate into this technology standard for the ALDP programs for transmission lines.

So I'm trying to think as we've been sitting here, you know, something that I could be comfortable with. But just inserting an

"or" and completing opening it up in a way that now, you know, no transmission operator actually would have to meet a 10 kilogram per hour flow rate if they just met a 5 ppm standard is -- it's challenging.

So I think if, you know, there's consensus amongst others, and the committee wants to vote on it, that's totally fine with me. I don't want to hold us up because I don't know if I have a wordsmithing proposal, but just wanted to articulate that.

MR. DANNER: Well, so his concern was with systems that have a small number of miles, and I just wonder if, would you consider if we were to set a cap on small systems that have fewer than X miles, that they would allow that? Or is that something that we should basically drive towards the alternative performance process?

MS. MURPHY: Yeah. The thought I was having is that, you know, there's the alternative option, and maybe that's a way for

an operator to pursue this pathway. I guess the mileage idea is also one to consider. I don't know what that number would be, but.

MR. DANNER: I don't either. All right. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. As we're wordsmithing, in the second bullet there where we have handheld or mobile equipment, I think we should put at the end of that leak survey so that it makes it clear it's -- you got the, you know, screening survey with the then pinpointing leak survey, leak indication survey, or leakage survey -- there you go.

MR. DANNER: So we just say --

MR. WEISKER: There you go.

MR. DANNER: All right.

MR. WEISKER: That's -- thank you.

MR. DANNER: All right. Steve, did you have any suggestions on mileage?

MR. SQUIBB: Steve Squibb, City Utilities. Not at this time.

MR. DANNER: How many miles is your utility, or does your system have of transmission?

MR. SQUIBB: City Utilities has 49 miles.

MR. DANNER: All right. So you want to put a placeholder of 50 miles?

MR. SQUIBB: No. I appreciate the recommendation, but, no, no, I don't think so.

MR. DANNER: All right. So holding that thought, we have language in front of us that I think captures the principles that we have talked about, and we will actually get a slide up with principles after our morning -- after our first morning break. And I would entertain a motion on this slide.

MR. RAVIKUMAR: All right. I'll do it.

MR. DANNER: All right.

MR. RAVIKUMAR: "A motion to proceed with the proposal as published in the Federal Register, and as supported by the Preliminary

Regulatory Impact Analysis and Draft Environmental Assessment regarding that advanced leak detection program performance standard for gas transmission pipelines is technically feasible, reasonable, cost-effective, and practicable if the following changes are made:

Pipeline, 10 kilograms per hour flow rate standard for screening surveys. Follow up survey of leak indications with handheld equipment, 5 ppm or 5 ppm meter. Or leakage survey with handheld or mobile equipment, 5 ppm or 5 ppm meter. Recommended probability of reduction standard for all flow rate based advanced leak detection technologies, 90 percent. Above-ground appurtenances optical gas imaging consistent with EPA."

MR. DANNER: All right. Is there a second? Andy?

MR. DRAKE: This is Andy Drake with Enbridge. I don't mean to be a stick in the spokes here, but I would like some additional

language in here about a proposal for alternatives because I think that captures this conversation. I'd just like to reflect it up here. And that's kind of where I was throwing the ball back to Sara. It could be one line. I just think it's important to capture it here. Other than that, I'm great with this language.

MR. DANNER: Okay. You've had ten minutes to write it up.

MR. DRAKE: I thought she had it.

MR. DANNER: All right. Sara, do you have some language that would do that?

MS. GOSMAN: I do. I mean the reason I didn't present it just now was I thought it was going to go in the principles. But if you would like it in here, I'm also fine with that. It seems that the language, as it's stated here, is "if the following changes are made," and what we're doing is recognizing a process that's already proposed. And, frankly, that was a little difficult for me to like wordsmith suddenly.

But I mean the language, if we want to go that direction, I would just say the Committee recognizes that there is a process for operators to use an alternative performance standard in section 192.763(c).

MR. DANNER: Which is a little different than the language that's up there right now? Is that consistent with what you were saying?

(Off-microphone comments.)

MS. GOSMAN: Okay. So I'm looking again at this language, and I see that this is for transmission in Class 1 or Class 2 locations. Is that your understanding of this provision?

MR. DRAKE: I'm going to throw a curve ball here. Does it make sense for us to do the principles slide first because that should be the framework that any recommendation we put forward is based on? That may be kind of where I'm struggling is we're voting on this language before we've nailed down exactly what

the principles are. And, again, not trying to be a boat anchor here, but if we clarify the principles, then this language all makes sense. And what's in here or not in here I think becomes more in context.

MR. DANNER: So I actually am confident that the principles -- that we've got consensus on the principles. And I think, with your indulgence, I think we can go ahead with --

MS. GOSMAN: I --

MR. DANNER: -- getting this one done.

MS. BURMAN: I've had my tent card up for a while, so.

MR. DANNER: Well, yeah, and you are next on my list, so.

MS. BURMAN: Okay. So I can speak now, Chair?

MR. DANNER: You can speak now.

MS. BURMAN: Okay. Thank you. So I've got to say I do think that we need to just

take a step back. Andy's not throwing a curve ball. We're actually -- been ignoring the fact that all of us agree that the principles are important. That lays the groundwork for where we're going. We're asking to come up on the fly. If we actually do the principles, then take a break, and then it all flows into it because the principles are going to be part of transmission, gas gathering, and distribution.

And so I feel like we're doing it backwards, and we're losing sort of the flow of what we're trying to accomplish, what we all agree with. And I just, you know, I feel like I'm just a broken record and let's do the principles.

MR. DANNER: All right. Thank you. Steve.

MR. SQUIBB: Steve Squibb, City Utilities. Wanted to respond to Erin with your concern about the handheld and mobile equipment bullet point. The 5 ppm equipment in that bullet point will find a 10 kilogram per hour

leak in the first bullet point. Does that address your concern?

MS. MURPHY: Direct response?

MR. DANNER: Yes.

MS. MURPHY: Heard and understood. I'm not sure if that addresses my concern just of creating a dual standard. Whereas, the original proposal was a single standard. Yeah.

MR. DANNER: All right. We have a motion in front of us, which has either going to go forward with the last bullet point, or we're going to set it aside and deal with the principles first. So, Arvind, could I ask you to withdraw your motion so that we can --

(Simultaneous speaking.)

MR. RAVIKUMAR: Yeah. I withdraw the motion.

MR. DANNER: All right. Thank you. So could I ask that this be set aside? Let's put a new voting slide up, and we can talk about the principles that we want to add. And I would say, if you could take this last bullet

point and put that on the other slide when we bring it up.

Can I get a sense of the Committee, would it be better to take our morning break right now, come back and deal with the principles? All right. We are --

MS. BURMAN: I think that what would be helpful, I think that's great. So I appreciate, Chair Danner, your indulgence on this. It would be nice to see the principles up there so that we, during our break, could actually perhaps look at it so we can come back fresh. But I do think a break is a good idea.

MR. DANNER: Well, okay. I'm not sure that the principles are going to -- how fast they're going to get up there. We do have to -- I mean the principles that I've seen that I have been taking notes of.

MS. BURMAN: We can take the break and --

MR. DANNER: Okay.

MS. BURMAN: -- they can still be

there. So we know that --

MR. DANNER: Yeah.

MS. BURMAN: -- we have to maybe wordsmith. But it gives us all the opportunity to grab more coffee.

MR. DANNER: All right. Thank you much. We are in a break until -- why don't we come back here at 20 till? All right. Thank you.

(Whereupon, the above-entitled matter went off the record at 9:23 a.m. and resumed at 9:49 a.m.)

MR. DANNER: All right. We are back on the record. We have some recommended principle language in front of us. Let me first call on Sara Gosman.

MS. GOSMAN: Okay. Thank you very much. So, Sara Gosman, I appreciate these principles that are up on the slide. So I would suggest that we change the text a little bit, so I'm going to try to talk slowly here to make sure that you capture it.

So the need to set technology neutral standards, I would keep the same, comma, incorporate a flow rate alternative, comma, drive technology innovation, comma, allow for flexibility through the alternative performance standard, comma, recognize supply chain interruptions as an issue, comma, and be consistent with EPA standards, period.

And then the language below that, I think there's a lack of clarity in the proposed rule about whether this particular alternative performance standard was intended to cover all gas transmission lines. It could be read to say that it's only Class 1 and 2. So I would say clarify the scope of the alternative performance standard in Section 192.763(c) to cover all gas transmission lines.

MR. DANNER: All right. Thank you for that. Chad.

MR. ZAMARIN: Chad Zamarin with Williams. I would ask, are we -- I agree, it's unclear. I don't know why we wouldn't just say

to cover all pipelines because there's a lot of kind of lead in on that section. I think we're saying that there needs to be a process for alternatives. So are we comfortable just saying cover all pipelines? Thank you.

MR. DANNER: Alan.

MR. MAYBERRY: I was just going to suggest, since we're going to topic by topic, we may end up there, Chad. But, you know, maybe cover -- since we're on transmission, cover this. And then we can address it as we go.

MR. ZAMARIN: Yeah. I think these are the principles though, for all I think, Alan.

MR. MAYBERRY: Yeah.

MR. ZAMARIN: And then we'll get into transmission.

MR. DANNER: Yeah. That --

MR. ZAMARIN: So does that work?

MR. DANNER: That was what we were thinking that these were going to be

overarching principles for all three groups.

MR. ZAMARIN: Okay. Thanks.

MR. DANNER: So --

MR. MAYBERRY: Defer to the Committee?

MR. DANNER: What's that?

MR. MAYBERRY: Defer to the Committee?

MR. DANNER: Yes. Defer to the Committee. All right. Andy, and then Sara Longan.

MR. DRAKE: Andy Drake with Enbridge. I think something -- I like this language. This is a good exercise I think at the center. But one thing I think that doesn't pop out up there right away, and that is recognizing that where we are in the evolution of this, I think the importance of the need to develop standards. We say technology neutral standards. Okay. That's good. So we're not screening out technologies.

I think just basically, we need a

note up there that says we need to develop standards on how to do this recognizing that there is a huge vacuum there of how to execute this. And that we need to fill that space in can be fundamentally important as a principle.

MR. DANNER: Do you have some proposed language?

MR. DRAKE: I think you could just -- the need to develop standards, including the need to develop standards and make sure those standards are technology neutral is all I'm saying. I think there's two thoughts there. It's not just keep them neutral. They need to exist.

MR. DANNER: So the need to develop standards, the need to ensure that standards are technology neutral, comma.

MR. DRAKE: Yes. Thank you.

MR. DANNER: And drive technology innovation and so on. So add an "and" after technology neutral. Thank you. Okay. Sara Longan.

MS. LONGAN: Thank you, Mr. Chairman. Sara Longan, Army Corps of Engineers. I really like this language proposed by Member Sara. And I just have this observation as reflecting, we've made the most progress when we have realigned with philosophy. So thank you, Commissioner Burman, and the several other members who have raised this repeatedly. I think that sometimes when we slow down, we can move faster.

Each time we've discussed philosophies, several of us have recognized what DOT PHMSA, and what this committee has been working towards for many years, and that's including a risk-based approach. And for me, those words needs to be on this slide and part of our philosophy.

It's not weighted more than all of these other terms that are important. I propose raised in the proceedings consider a risk-based approach, comma, including the need to, and then continue on. Pretty passionate

about that because I recognize that when it's stated by the member, when we get so focused on a particular part of the code, for me, that risk-based approach sort of could even escape myself.

And then, Sara, I don't have strong feelings on this, but for my federal agency, we would maybe not be comfortable using this very direct term drive technology innovation. I don't know that that's an appropriate role. I can live with that language. But I would support being flexible with because I think that's what is an achievable goal by PHMSA.

MR. DANNER: Would you be okay with the word encourage instead of drive?

MS. LONGAN: That would work. My partner just suggested allow. Drive seems like a high goal. So encourage or allow I think would work for me. Thank you.

MR. DANNER: All right. Thank you. Commissioner Burman.

MS. BURMAN: I just have -- first, I

do appreciate this. I like this. I just have two perhaps knits. Where it says, "allow flexibility for new technologies in the proposed and alternative performance standard," I think it's really allow flexibility for technologies whether they're new, existing, or future. So I think we just take out new, that captures it.

And then the other thing is I don't see in here any sort of recognition of operator-specific needs, and I do think recognizing that somehow, maybe when we recognize supply chain issues, and the need for, you know, something to do with addressing operator specific needs because I think that gets into, you know, really from the state perspective, helping to make sure that we're not creating a one-size-fits-all, and that it is important to look at what the system is, and it gets back to Section 113 in terms of the different things to look at and keep into consideration, so.

MR. DANNER: Okay. Thank you. Sara Gosman.

MS. GOSMAN: So I'm not comfortable with expanding the alternative performance standard to everything, right, because that would include distribution as well as Class 3 and 4 gathering. It's not that I wouldn't get there, but I feel like that conversation needs to happen as we go through the particular types.

Right now, we're setting standards at the beginning. I want to see the numbers that we're looking at for each one of these as we think about that alternative availability.

And for that reason, I think that flexibility for technologies in the proposed and alternative performance standard is language that I certainly can support at this point. I could support it as to transmission lines, all transmission lines given the conversation we've just had about transmission lines. But I would like to defer an expansion

like that until we have made it through the other types of pipelines that we're not going to include in here.

MR. DANNER: All right. Andy, and then Chad. Diane, do you want to jump the line?

MS. BURMAN: I'm just wondering offering up a friendly --

MR. DANNER: Sure.

MS. BURMAN: -- suggestion, and I don't know if this flies. But clarify that the scope of the alternative performance standard process in section 192.763(c) may cover all pipelines. And then we can get into the specifics on each one. But that way it's allowing us to have this as an overall, and then for each one, we can get into it, so we might reference it back if we want to. But if you change the "would" to "may," I think --

MR. DANNER: Okay.

MS. BURMAN: -- that that then gives us --

MR. ZAMARIN: This is Chad Zamarin with Williams. I will say, I took it as a pretty important principle. What I heard is that we're comfortable setting thresholds and being very specific because there is a process for offering up new technologies and alternatives. And the language is pretty clear, the alternatives do have a standard. The standard is it has to be -- I don't have the language in front of me, but equivalent or to some degree.

So I was comfortable with setting standards that are very specific because we -- and this is going to apply to the proposal is to do that across multiple different pipeline sectors. And so I thought of it more as a principle that says if we're going to set specific standards, we feel comfortable with that knowing that there's also a way to propose alternatives that are equivalent or better, and that allows for the -- that mitigates the concern with, you know, excluding new

technologies and evolution of capability.

MR. DANNER: So just to be clear, you're talking about the second sentence there?

MR. ZAMARIN: I am. I am --

MR. DANNER: And --

MR. ZAMARIN: I think the all pipelines -- I mean we can defer that to each section, but I'm going to be very, I think, focused on ensuring that that -- wait. It felt like that was an important element of having a set standard that could have unintended consequences but allows for alternatives to be approved. So it makes sense for me to have that as an overarching principle.

MR. DANNER: So --

MR. ZAMARIN: I like the language the way that it is.

MR. DANNER: Okay. So the way it is up there now?

MR. ZAMARIN: Yes.

MR. DANNER: Okay.

MR. ZAMARIN: Thank you.

MR. DANNER: And Andy Drake.

MR. DRAKE: Andy Drake with Enbridge. I just want to think out loud for a second. 192.763 -- the context we're talking about in 192.763 is alternatives, which is good. But I think there's a provision in 192.763(c) that is a requirement that, if I remember right, came up in the commenting period.

And I just want to pause and think out loud about it. And that is that we have -- every year an operator has to evaluate the technology they've used and justify why they didn't do something that was better than the standard of care we're defining. That seems really turbulent and incredibly unproductive.

If we agree that this threshold and standard of care is appropriate, why would an operator every year have to come back under 192.763(c) and say why they do something that was better than that? And I'm good with reviewing technology and constantly driving the

improvement engine, but every year?

Some of these operators aren't going to get a chance to get their programs set into place in a year. And then every year have to revisit it. By the time we get done training them, they have to redo it over again. It's just too turbulent.

I just want to be out loud with that. I think one of the exceptions that we would have to put into the rule provision is every year evaluating why you didn't do something better than the standard of care as defined in this threshold seems ludicrous. Am I misreading that? But I heard that comment --

MR. DANNER: John --

MR. DRAKE: -- at the commenting period, and I actually got tackled a couple times here in the hallway reminding me of this. So maybe if we can just get an interpretation --

MR. DANNER: Okay.

MR. DRAKE: Is that a requirement?

MR. DANNER: John Gale?

MR. GALE: Thank you, Chairman. Member Drake, just to be clear, that issue of program elements, right, we actually have it set up as a separate discussion point under this. After we get through the three standards for distribution, transmission, and gathering, we were going to have another discussion on the program elements, this being one of the areas to discuss, 100 percent.

MR. DANNER: All right. Sara, and then Erin.

MS. GOSMAN: Yeah. So I appreciate this conversation. We have principles up here, and then we have a very specific provision related to the proposal. And I think those two things don't go together. So I think we should take this language, take it back to, you know, would, right, cover all transmission pipelines. Put it in the text of the one that's we're actually like going through the specifics on, right? Agree to that. And then have the

conversation as we move through gathering and distribution.

And again, I'm open to this. I just don't feel like at the front end without knowing where we land on gathering and distribution, that I can go and say that this, you know, that this is a change, right, to the proposal. And so --

MR. DANNER: Yeah.

MS. GOSMAN: -- I'm not comfortable getting there.

MR. DRAKE: Okay. I'm fine with that.

MR. DANNER: Yeah. And I am, too, if it's the sense of the Committee, and it seems to be. All right. Erin Murphy.

MS. MURPHY: Erin Murphy, EDF. Appreciate that discussion and the removal of that point. I think, you know, talk even further about sort of flexibility and the alternative performance standard, EDF and a number of other environmental groups

articulated in comments a number of significant concerns that we had with the way the alternative performance standard was structured.

So really struggling with this language in the principles right now about allowing flexibility for technologies in the proposed and alternative performance standard. At some point, if you allow so much flexibility, the standard is meaningless. If you can flex any way you want around the standard, it's not a standard.

And I think that needs to be considered as we're thinking about flexibility is key here in a world where technologies are improving and new, you know, technology providers are coming online. But there needs to be meaning in the standard. In particular in thinking about the discussion we were just having on transmission, right, where, you know, the group wanted to shift from 3 kilograms per hour to 10 kilograms per hour. The group

wanted to add 5 ppm, right?

That standard is now very flexible. 10 kilograms per hour is not a single technology. That's a suite of technologies. Five ppm, that's not a single technology. It's a suite of technologies. So I'm probably harping a lot here, but that's a lot of flexibility that I think we're adding there.

MR. DANNER: So in so far as these are overall principles, I mean I would be okay with simply saying allow flexibility, comma, and taking out everything in the rest of that clause.

MS. MURPHY: That would be helpful.

MR. DANNER: So --

MS. MURPHY: I'm sorry. I do have one other point I wanted to make.

MR. DANNER: Oh, yes. Go ahead.

MS. MURPHY: So maintaining consistency with EPA standards, I absolutely recognize, you know, the value in PHMSA and EPA coordinating. I think that's appropriate. I

think the agencies have done that in what they've proposed. But I think the phrasing of consistency with EPA standards might be a little tight to me.

The two agencies may not adopt identical standards. I think that's okay. They haven't proposed identical standards. And so I'm trying to think of another word there. But, yeah, I think alignment or taking into account would be great.

MR. DANNER: All right. Is that acceptable? Chad, and then Diane.

MR. ZAMARIN: Thanks. Chad Zamarin, Williams. I do want to -- I don't like the removal on flexibility. To be clear, if I had been putting up language to vote on starting the morning, it would have been consistent with what Member Chace had said that I think we should have operators implement advanced leak detection programs that they demonstrate, find leaks.

And we're putting a tremendous

amount of prescription in this section, not flexibility. We're setting hard numbers. And we've talked about the potential unintended consequences of doing that. It can lead to, I think, excluding programs and capabilities, and frankly, even investments.

We've talked to service providers who are very concerned that we're going to not follow the evolution curve in certain technologies because we're setting standards today that they can't meet.

And so I would just offer that these are principles. We're putting actually very specific standards beneath of them that don't allow for flexibility. So I think that the concept of allowing flexibility for technology, I don't remember what the term was, and then beneath that setting, a hard and fast number, that's taking a lot of flexibility out. But you're saying it within that hard and fast standard, there's flexibility to develop technology.

So I don't like watering down these concepts. We can then talk about, you know, we're putting standards beneath them that, frankly, take away flexibility. But I think it was an important point, and we heard it. It was probably the most important comment we heard from the public comments that we have to maintain flexibility in this space because it's so nascent and we're at risk of not getting it right.

MR. DANNER: So would you be okay with language that said allow flexibility to encourage technology innovation?

MR. ZAMARIN: Yeah. I'd like to see the language up one more time because just saying allow flexibility, I don't know what that means. That's a very kind of --

MR. DANNER: Well, see -- yeah. So I was just suggesting you merge it with the one in front. But, yes. Yeah. There we go. No, that wasn't what it was.

MR. ZAMARIN: No. It wasn't. It

was in both the standard and the alternative. I can't remember exactly what it was. Again, I don't know why from a principles perspective, we would limit things. We're going to limit things when we talk about specific requirements.

MR. DANNER: Yeah. There it is. Whoops. Yeah.

MR. ZAMARIN: Again, I like that term because now we're going to talk about specific standards, and we're going to talk about it sounds like the alternative performance standard as well. So I'm not in favor of removing it. I don't know why there'd be a concern.

MR. DANNER: Well, so there's a disconnect because you're saying that the standards that are on the other slide, which we will hopefully be adopting, are not flexible. So --

MR. ZAMARIN: No. I think this is saying that there will be proposed standards,

and within those proposed standards, we need to -- we need to maintain room for technology and be flexible for the evolution of technology. And I think that's an important concept.

MR. DANNER: All right. Diane, then Sara, then Brian.

MS. BURMAN: Yeah. I just want to echo, I do think Member Chace had raised a good point that then was captured in Member Zamarin's comments. So I support this. Thank you. And I do think that keeping in mind that the principles are for us to level set, and then we'll get into the specifics in each section.

MR. DANNER: All right. Sara.

MS. GOSMAN: So I'm fine with the language as it is now. I also just want to say something for the record because I feel like it's important given PST's previous comments. And we do have concerns about the process itself of the alternative. We would, you know, we would prefer an approval process. But I

think in the spirit of compromise and understanding, that this is an important part of getting to the middle here on these issues and getting, you know, getting us to standards that everyone can live with.

I think we're fine with the notification process as it exists in the alternative. What we want to see, right, is this tied to standards, numeric standards that are really, again, going to allow for technology neutral approaches, and, you know, I would say directly drive technology innovation in this space because I think that's where we need to go. So I just wanted to put that on the on record here as we move forward with this discussion.

MR. DANNER: Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. And I think it's close to -- but I just think from when we talk about flexibility, too, we need to, I mean realize, and it's in the preamble, too, around flexibility for

operators to choose from the technologies in the proposed standard. I think it's kind of written into that, but really, it's allowing the flexibility for operators to choose technologies in the proposed standard is -- I think is kind of what we're going at. But I think that it's critical for us when we think about principles.

MR. DANNER: All right. Sara.

MS. GOSMAN: That's fine, but then I think allowing flexibility -- sorry, what was the language, to choose technologies to meet the perform -- to meet the standards, right, because there is a standard, and the technologies are underneath that standard. So I would -- I'm fine with the language that you've proposed, but then I would like to include the words "to meet."

MR. DANNER: All right. Looks like -- I don't see any other tent cards. We have language before us. This is a principle, so I don't know if we need the preamble language

that we put in the voting slides. That would be a question for John or Robert.

(Off-microphone comments.)

MR. DANNER: Do we need to put up the usual voting slide preamble?

(Off-microphone comments.)

MR. DANNER: All right. Okay. And this will be captured in whatever our final report is.

(Off-microphone comments.)

MR. DANNER: All right. Is there a motion for someone?

MS. BURMAN: Hold on for a second, I'm conferring --

MR. DANNER: All right.

MS. BURMAN: -- over here on --

(Off-microphone comments.)

MS. BURMAN: I think that for consistency's sake, and to make sure we do it right, we should put that preamble, I don't know that we say preamble, but to put that up there, and then we'll read it per --

MR. DANNER: I --

MS. BURMAN: -- the lawyers here.

MR. DANNER: Okay. On advice of counsel, we will do that. No, wait. I don't know that counsel can advise us on this, but --

MS. BURMAN: With that, Chair Danner, I'm happy to read if you want.

MR. DANNER: Thank you. That would be great.

MS. BURMAN: Yeah. Okay. We ready? So I'm going to make a motion. Is everybody ready? We're good? All right. "The proposed rule as published in the Federal Register and as supported by the Preliminary Regulatory Impact Analysis and Draft Environmental Assessment regarding ALDP performance is technically feasible, reasonable, cost-effective, and practicable if PHMSA consider the following principles raised in the proceedings:

PHMSA consider the principles raised in the proceedings, including a risk-based

approach, the need to develop standards, the need to ensure that such standards are technology neutral and incorporate a flow rate alternative, encourage technology innovation, allow flexibility for operators to choose technologies to meet the proposed standards and alternative performance standard, recognize supply chain issues, address operators' specific needs, and maintain alignment with EPA standards."

MR. DANNER: Thank you very much. Is there a second? All right. Andy Drake has seconded. Cameron, will you record the vote?

MR. SATTERTHWAITE: Okay. I will say your name. If you agree with the motion, say yes. If not, say no. And I will go through. Diane Burman.

MS. BURMAN: Yes.

MR. SATTERTHWAITE: Peter Chace.

MR. CHACE: Yes.

MR. SATTERTHWAITE: David Danner.

MR. DANNER: Yes.

MR. SATTERTHWAITE: Sara Longan.
MS. LONGAN: Yes.
MR. SATTERTHWAITE: Terry Turpin.
MR. TURPIN: Yes.
MR. SATTERTHWAITE: Brian Weisker.
MR. WEISKER: Yes.
MR. SATTERTHWAITE: Andy Drake.
MR. DRAKE: Yes.
MR. SATTERTHWAITE: Alex Dewar.
MR. DEWAR: Yes.
MR. SATTERTHWAITE: Steve Squibb.
MR. SQUIBB: Yes.
MR. SATTERTHWAITE: Chad Zamarin.
MR. ZAMARIN: Yes.
MR. SATTERTHWAITE: Chad Gilbert.
MR. GILBERT: Yes.
MR. SATTERTHWAITE: Arvind Ravikumar.
MR. RAVIKUMAR: Yes.
MR. SATTERTHWAITE: Erin Murphy.
MS. MURPHY: No.
MR. SATTERTHWAITE: Sara Gosman.

MS. GOSMAN: Yes.

MR. SATTERTHWAITE: Sam Ariaratnam.

MR. ARIARATNAM: Yes.

MR. SATTERTHWAITE: The motion carries 14 to 1.

MR. DANNER: All right. Thank you very much. Now can we go put the slide back up that had the leak detection regarding transmission?

MR. DANNER: Okay. Could I get clarification as to the last bullet? Did we agree that that goes here? Sara?

MS. GOSMAN: So I think that we need to change "may" to "should." That --

MR. DANNER: Or --

MS. GOSMAN: -- would be my suggestion.

MR. DANNER: -- clarify that it covers. We could just say covers.

MS. GOSMAN: That's fine, too.

MR. DANNER: All right. Andy Drake.

MR. DRAKE: This is Andy Drake with

Enbridge. I have a question, this may be more to Erin, and that is I may be getting confused how this is working, but the how I see the "or" may be just out of alignment, then I'd want to get straightened up here.

So how I hear this working is that if an operator was to decide not to do the screening survey and drop right down to an on-ground survey that was being done at a higher performance standard, or better performance standard, somehow there's a concern about that. And I don't -- and maybe I'm missing something.

But if we're -- if a screening survey is being done at 10 kilograms an hour, and I think we would -- actually, I think it would be important to put some more language up there, at least put a provision to say 10 kilograms an hour, or an equivalent ppm rate because some tools work on ppm, some work on flow rate. So I think that would be a good add.

But if you were to do the screening survey at 10 kilograms an hour, or 500 ppm, okay, you do a survey. And then whatever you find, you drop down and do a handheld survey on the ground at 5 ppm, if an operator decided not to do the screening survey, but walk on the ground at 5 ppm, that seems better. But I heard it like a concern that that somehow is less.

Am I missing something because I think that's -- I don't think the "or" hurts here given that they're dropping to a better performing technology at closer range. Is that -- am I missing it? I mean --

MR. DANNER: Erin Murphy.

MS. MURPHY: Yeah. So I think that one of my concerns is that what we've seen, and I'm thinking about data that's not necessarily from the transmission sector, so it's hard to think about how it all carries over, but that on some pipeline systems, we've seen mobile advanced leak detection technologies identify

leaks that ground crews, using handhelds conducting walking surveys, did not identify.

And so have, you know, from my perspective, the kilogram per hour flow rate standard is really important as its own standard. And I think my concern was that the "or," you know, weakens that kilogram per hour flow rate standard.

I also had a number of folks approach me on the break, and I think have a better understanding after some of those conversations about what's intended here. So I'm still kind of processing and thinking about whether this is comfortable for me.

MR. DANNER: All right. Arvind.

MR. DRAKE: I --

MR. DANNER: Oh, I'm sorry.

MR. DRAKE: I'm sort of in the same space. I haven't decided yet. I'm just trying to figure it out. But it seems like if flow rate, and we do some sort of equivalent density or ppm rate, it's technology agnostic. It's

just a screening survey, could be aerial, it could be ground, it could be anything. And I'm kind of wondering what the second bullet really does at all actually -- I mean honestly.

MR. DANNER: All right. Arvind.

MR. RAVIKUMAR: Thanks, Chairman. So from the perspective of technology performance, I like it -- I like keeping the kilogram per hour and the ppm separate bullet points only because there's no direct correlation between an emission rate and a ppm value.

If we say, you know, X kilograms per hour or Y ppm, then it might be interpreted to mean that, you know, both are equal. Either it's 10 kilograms per hour or some ppm. And it's just not a direct correlation, so it's helpful to keep them separate.

MR. DANNER: All right. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. So the second bullet, it allows

utilization of mobile equipment tools or handheld tools that don't measure in kilograms per hour. That measure in ppm. That's the purpose of that second bullet to allow that survey technique to continue.

I would recommend that we change, for the first bullet, that be a follow up. Instead of it says, "Survey of leak indications." Just "follow-up investigation." So we've completed the survey with the screening survey, and now we're going to in and investigating the leak indications.

And lastly, as written, this will eliminate the use -- some operators utilize a CGI that reads out in percent LEL when they're doing their pinpointing. So as written, that would eliminate the ability to use that tool. Trying to think how to write that as written. I got to think about that for a second.

MR. DANNER: We will come back to you. We'll hold that thought. Okay. Andy.

MR. DRAKE: This is Andy Drake with

Enbridge. I appreciate your comment, Arvind. And I'm not trying to actually set a number up there at top. What I'm trying to do, and I think this is important, almost pragmatically, is some tools work in kilograms per hour, some tools work in ppm. So that top line, we at least need to make a provision of an equivalence.

So what I would propose is say 10 kilograms an hour, and then put parentheses, or an equivalent ppm just so that there's a recognition that there's some tools out there that work in ppm, and we need to allow them. Otherwise we're screening it right here. You're saying, nope, all screening tools will be measured in kilograms per hour, and that's not how some of those technologies work, so. But I'm not asking to specify a ppm number up there. I just say allow that, recognize it. That's just reality.

MR. DANNER: All right. Chad, is your comment on this subject, or --

MR. ZAMARIN: It is.

MR. DANNER: Okay.

MR. ZAMARIN: And it's why I think the alternative, and the principles are important, and I think alternatives are important. I mean I think we heard yesterday that if like CGI monitors and tools were excluded as a result of this, that there would be a massive need to replace equipment that may be operates under a different standard but can be demonstrated by an operator provides an equivalent capability.

So I don't know that we can -- I think that's the whole challenge is I'm not sure we can cover everything that's out there that someone may use today or may invent tomorrow. And so I think I'm comfortable as long as we maintain this premise that we're setting standards in an area of rapid evolution and broad, diverse technology. And as long as there is a principle in place that allows for alternative measuring techniques or

technologies, I'm comfortable. And that's why I think that last bullet is so important. Thank you.

MR. DANNER: Yeah. I mean what I'm concerned about, I don't want to do anything that's going to grandfather for an indefinite period of time technologies that don't work.

MR. ZAMARIN: No. But the standard does say it has to be equivalent. I mean there is a standard that is referenced. So I would hope that it, you know, wouldn't do that.

MR. DANNER: Yeah.

MR. ZAMARIN: Thank you.

MR. DANNER: Okay. Thank you. All right. Arvind, and Erin, and Brian.

MR. RAVIKUMAR: So regarding the ppm threshold, so one thing perhaps that's not clear to me is the two bullet points are there that explicitly address technologies that either do a kilogram per hour standard or a ppm standard. So I think that covers the universe of technology standards that are -- or universe

of technologies that are available.

I think the risk is inadvertently adding in language that would create massive issues for determining in the near future what the equivalency is. So I think we have had this issue in the past on who determines equivalency and how is equivalency determined. It's a very difficult question, and often impossible when you're comparing two very different technologies, which is why I think, you know, to be conservative, it's better to have those two numbers as a separate bullet points instead of asking PHMSA to determine the equivalence between different technologies.

MR. DANNER: All right. Thank you. Erin Murphy.

MS. MURPHY: Erin Murphy, EDF. So I hate to say I want to take a step back here, but I mean, first of all, the 10 kilogram per hour is a flow rate standard. #measuring leaks and quantifying them with a flow rate is what allows you to quantify a leak and understand

the scope of emissions associated with the leak. A ppm gas concentration measurement doesn't give you that same quantification ability. So I think that's one challenge with condensing these together is you're losing part of that ability to evaluate the environmental impact of the leak.

Another point I wanted to make, and, you know, I think when I was talking earlier about our recommendation on the distribution side, I was kind of getting to this and see it coming, you know, now into the transmission discussion. From our understanding, the 5 ppm handheld technology is very well established and has been in use by many operators for a long time.

And when Congress passed the PIPES Act of 2020, there's language in that act. There was discussion, you know, in Congress about the emergence of new commercially available, more advanced technologies that allow operators to find more leaks on their

system, to get more information about those leaks like the leak flow rate.

And so I just want to emphasize that because if this is an advanced leak detection program technology standard, and one of the core options is a technology that's been in use for a long time, and I'm not saying throw that technology out the window, not at all. It's in use, it's going to continue to be in use. But are we losing, right, the advanced element here? And I think that's part of why I'm really emphasizing the importance of the flow rate standard.

MR. DANNER: All right. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. It was there before, and now it's gone, the update for follow up investigation of leak indications with handheld equipment.

(Off-microphone comments.)

MR. WEISKER: Investigation instead of survey, I think --

MR. DANNER: Yeah. I --

(Off-microphone comments.)

MR. DANNER: They didn't change it. I mean we can put it in parentheses as a placeholder to make sure --

MR. ZAMARIN: No, it was up there.

MR. DANNER: Yeah.

MR. ZAMARIN: And I think there was nodding around the room that the follow up investigation of leak indications versus -- it kind of could imply that there's a second survey of all pipe. I think what we're saying here is you do a survey and then you investigate indications. I think there was generally agreement that that's better language.

MR. DANNER: Okay. I don't --

MS. MURPHY: Yeah.

MR. DANNER: I don't know what we got there. Let's see if I can -- let's get some head nodding then.

MR. WEISKER: Yeah.

MR. DANNER: Is anybody opposed to that? All right. I'm not hearing anybody speak up, so go ahead.

MR. WEISKER: And then I would also like to add in that parentheses the 5 ppm or ppmm or 1 percent LEL to allow for the use of a CGI tool as we investigate the location of a leak indication.

MR. DANNER: Any discussion of that? So I don't know if the silence is acceptance or people trying to understand that.

(Off-microphone comments.)

MR. DANNER: On the first bullet. Okay.

(Off-microphone comments.)

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

MR. RAVIKUMAR: No.

MR. DANNER: All right. Pete.

MR. RAVIKUMAR: I put it down.

MR. DANNER: Pete.

MR. CHACE: Pete Chace, NAPSR.

Erin, I guess this is directed at you. I'm not sure I understand your -- and maybe I do, maybe I don't, your comments regarding the flow rate. I think there's a lot of small operators out there, which right now technologies involving flow rate just may simply not be practical for them.

And, you know, in practical terms, they're going to be walking their pipeline with a flame pack and then verifying any leak they find with a CGI. So I think taking that kind of option off the table for them may be a challenge. I'm not sure if that's what you were saying or not.

I guess this is a technical thing, too. 1 percent LEL is basically 5 part per million. I'm not sure I see a 5 ppm standard being an obstacle to the CGI. Is it 500? Wait. All right. Well, I'll work on my math, and we will -- that's all I got. Thank you.

MR. DANNER: All right. Erin Murphy.

MS. MURPHY: Yeah. Thanks. And just in response to Peter, I think earlier we were talking about adding to that second sub-bullet on the leakage survey with handheld or mobile equipment, a designation of that for smaller operators, or operators with a small mileage of transmission pipeline. I'd be open to returning to that discussion.

MR. DANNER: All right. Noted. Alan.

MR. MAYBERRY: So I had a question. You know, when you refer to a specific device like a CGI, aren't you -- is that as specific as you a be? You're really after a performance standard of 1 percent, right, so. Correct?

MR. WEISKER: Yeah. I think we need to strike --

MR. MAYBERRY: So we're talking about ALDP.

MR. WEISKER: -- with a combustible CGI.

MR. MAYBERRY: Right.

MR. WEISKER: All of that out. Just go back to or 1 percent LEL.

MR. MAYBERRY: Thanks.

MR. DANNER: I would just -- okay.

(Off-microphone comments.)

MR. DANNER: So we leave it at 1 percent LEL. All right. Andy, and then Sara.

MR. DRAKE: This is Andy Drake with Enbridge. I haven't got my concern outlined just yet, so I'm just thinking through this. How do we actually practicability deal with the fact that new technologies, not old technologies, are coming out in ppm for the screening technology? I'm trying to figure out how that fits into this equation. We're not recognizing the reality of the world that's happening around us.

So we can say 10 kilograms per hour, but somewhere we're going to have to figure out how to translate to accommodate these new technologies. I don't know how this allows me to do that. And I'm just trying to think

pragmatic, these are new technologies that are coming out.

So you're the expert on this, I don't understand the different between flow rate and ppm that they -- I mean I'm sure it's hard to translate, I get that from an engineering standpoint, but I just don't understand maybe the impact that ppm's not reflective or ability to reflect a leak that we want to go manage.

But maybe the provision here is that we just use 192.763 to clear this. I just worry that we're not using 192.763 maybe rather than a small trail that we use to clear a few things on is now a highway because we're trying to clear whole sets of technologies down that trail when we could try to clear that up here.

So I just throw that out here as a matter of practicability. If we've got new technologies that are coming out that are in ppm as screening technologies, are we just not going to use them? Or do we all have to bring

all of those through 192.763 now?

MR. DANNER: All right. Thank you. Sara.

MS. GOSMAN: I'm wondering if Arvind wants to answer that question.

MR. DANNER: Yeah, I was thinking the same. Arvind, do you want to respond to that?

MR. RAVIKUMAR: Sure. Very good point, Andy, on, you know -- and that question is going to come up for even the flow rate standard, right? Like you're saying 10 kilogram for flow rate standard, somebody has to demonstrate that your technology detects 10 kilogram per hour consistently, which is fine. There are standard base of demonstrating that and documenting it, and several technologies have already done that.

But it would be the same mechanism. That is a generic approach to determining whether technology meets the standard, and I think we can do that for any technology. So

even if it's a ppm technology in the future, although it would have to demonstrate this, they can consistently detect a 10 kilogram per hour leak, and that would still be under that standard. So it would still be applicable.

MR. DANNER: All right. Thank you. Sara.

MS. GOSMAN: So I have some concerns with the LEL provision that we just put in. So I want to make sure my math is correct, but I believe that that's 500 ppm. So we are moving from 5 ppm, which was in the proposed rule, and was in this language, now to 500. And I'm frankly, not sure why we would do that other than that perhaps an operator is using it. But I think we need to keep to this standard of 5 ppm.

MR. DANNER: All right. Chad, and then Brian.

MR. ZAMARIN: Chad Zamarin with Williams. Just on the point that Arvind was making, would we be comfortable saying that 10

kilograms per hour or equivalent flow rate standard, because again, I think we're trying to set a standard, but it sounds like there may be a lot of different ways to achieve the same result.

(Off-microphone comments.)

MR. DANNER: All right. So it would just -- it would be --

MR. ZAMARIN: 10 kilograms --

MR. DANNER: -- 10 kilograms --

MR. ZAMARIN: -- per hour flow rate.

MR. DANNER: -- per hour flow rate standard, or --

MR. ZAMARIN: Or equivalent.

MR. DANNER: -- equivalent standard. Flow rate or equivalent standard. All right. Brian, are you responding to this, or -- if not, I think Erin is. So let me go to her first unless you're going to address that. Go ahead.

MR. WEISKER: Let Erin go first.

MR. DANNER: All right. Erin.

MS. MURPHY: Erin Murphy, EDF. First want to say honored that Andy would say I'm an expert on this a couple minutes ago. I am an attorney and not a technical expert, so doing my best like all of us here.

So I guess on that or equivalent proposal, I don't understand what the or equivalent -- I mean 10 kilograms per hour is a flow rate, right? It's the volume of gas being leaked in a unit of time. So something that's equivalent to that that, you know, if it's not meeting that flow rate, then it sounds like a standard other than a flow rate standard. So just would love some clarification there.

And also, you know, want to emphasize the discussion of, you know, if there are new technologies emerging that are, you know, measuring in ppm and not measuring a flow rate, I want to reference there's a lot of good discussion I think in the comments that were submitted by some of the technology providers on this that speak to it in more detail. But

that is a -- my understanding is that's a fundamentally different, you know, type of measurement.

And so I think the idea here in this first sub-bullet is setting a flow rate standard. And to me the second sub-bullet is what's talking about what, you know, gas concentration technologies offer.

MR. DANNER: So I think that it comes back to the point that Andy was making about new technologies coming on board that may not be flow rate technologies, right? And if we need to somehow find language that would address that. So Andy, I'm going to -- sorry, Brian. Just --

MR. WEISKER: No. Let him go.

MR. DANNER: -- hang on. Yeah.

MR. DRAKE: I'm not trying to create too much convolution here. Just recognizing the weather, and I think the conversation with Arvind helped me, and that is there has -- and that's all the provision I think Chad was

trying to get to is recognize the obvious. There's two different technologies that coming -- or there's lots of different technologies coming down, and they may use flow rate, they may use ppm.

The burden of proof will be on them to translate to this standard. But we don't want to exclude them like we don't recognize that that technology doesn't work directly on flow rate. It works on ppm. They're just going to have to translate that. And that's what I heard you say.

And that's all I really am trying to get up here is that we don't want to exclude them because they don't work in kilograms per hour. They'll just have to translate it from ppm to kilograms per hour.

MR. DANNER: So it might be that, you know, that the 192.763 process is the best way to deal with this in the short term, and then if something becomes proven and gets into widespread use, it would be incumbent upon

PHMSA to go back and revisit these rules. That's generally how we deal with development of new technologies, in my state anyway.

And, you know, because we can't predict the future. We can anticipate the future, and that's why we have the alternative performance standard. And I just, you know, I just throw out there that might be just fine for now.

MR. DRAKE: I think it may be. You know, I appreciate your comment, Erin, that you're not the expert. I think you're more tuned in on this than I am. I just hear a lot of angst when I walk out in that hall about different technologies. And things are, you know, that work on a different approach. They work on ppm.

And I don't want to open Pandora's box here and ask some of the vendors to come up and explain that to us. But I'm very careful, and we should be very thoughtful about trying to keep this to where we can deal with things

that might be different than what we're thinking right now. And that's really all I'm saying.

And I don't know, 192.763 may even handle it. I just worry this is going to turn into a highway. If half the technologies are ppm, okay, well, that didn't work for us. I don't know that that hurts us, and that's really all I'm trying to say at this juncture. I'm really not trying to get away with anything. I'm just trying to keep this open at the front of the ship.

MR. DANNER: Okay. Arvind, and then Brian, I promise, we're getting to you.

MR. WEISKER: Right.

MR. DANNER: Arvind.

MR. RAVIKUMAR: So maybe to address that direct concern, one option would be to include in the second bullet point explicitly that it also includes screening surveys. You know, the challenge is your concern -- the concern that was expressed is it excludes ppm

technologies from screening surveys, and so since we have a separate standard for the ppm and the kilogram per hour, we'll just include the screening in the second bullet point. So it'll be leakage or screening surveys with handheld or mobile equipment with that ppm standard, and then there's a separate one for the flow rate standard.

MR. DANNER: Is that language that would address your concerns, Andy?

MR. DRAKE: I worry more that we stir this up, we just make more of a mess out of it. But pardon the -- I think we've created a record about this issue. I worry that if we add that to the second bullet, it somehow misses the point of the screening survey being at 10 kilograms an hour as the equivalent, then it becomes the screening survey now has to be equivalent to 5 ppm, which is a very different standard of care. I mean order of magnitude different from what I understand.

So I think we've created some kind

of record. I'm looking to Alan, do you have enough here I mean because this is really important that we don't start out of the chute automatically clipping technologies out that work on ppm?

MR. DANNER: Alan.

MR. MAYBERRY: I think we have a record of the comments, and we have what we need. You know, this last bit of discussion I think's provided good input for us to consider. So, you know, I don't --

MR. DANNER: So --

MR. MAYBERRY: -- I don't think we need anymore.

MR. DANNER: Okay. Well, we don't have consensus on the words or equivalent up there. So if we feel that PHMSA has enough, then is it enough? I mean you understand if we took out "or equivalent" that you would have enough to go on?

MR. ZAMARIN: Chair? This is Chad Zamarin with Williams.

MR. DANNER: Yeah.

MR. ZAMARIN: If that causes this not to get support, I had proposed it, then I'm okay removing it based on the discussions we've had and the principles we laid out.

MR. DANNER: All right. Thank you.

MR. DRAKE: Chad -- I mean, Chairman, this is Andy Drake. Does it cause people a lot of angst to have that in there? I just want to calibrate how anxious are people about that being in there?

MR. DANNER: Well, I think we heard from other side of the room here that there were concerns about it, so out of six --

(Simultaneous speaking.)

MR. DRAKE: Okay. If it causes a lot of angst, then we'll just use 192.763 to cover it. I just worry that's going to be very busy.

MR. DANNER: Yeah. And I also believe that once we see things that get into heavy rotation, PHMSA's going to have to either

deal with a lot of 192.763 process or they're going to have to come back and say, okay, we're starting an expedited rulemaking of some kind to deal with this. All right. Brian, do you remember what you wanted to say?

MR. WEISKER: I do, but it feels like we're at an ending point based on what Alan said.

MR. DANNER: Okay.

MR. WEISKER: If we're at an ending point, I'll just be quiet.

MR. DANNER: Okay. Thank you for that. Okay. You have to flip a coin because you both put your signs at the same time.

MS. GOSMAN: Well --

MR. DANNER: Sara.

MS. GOSMAN: So I think I had raised the concern about the 1 percent LEL, and I think Brian, you were going to respond to that. So I would like that removed, or an explanation for why we've moved to such a high number from 5 to 500 ppm.

MR. DANNER: I'm sorry. Brian.

MR. WEISKER: Okay. I didn't know if I had to wait.

MR. DANNER: Yes. No, you have --

MR. WEISKER: I'm still learning the protocol here. So Brian Weisker, Duke Energy. So, I mean the survey standard is there. It's the 10 kilograms per hour. This is just to allow for the flexibility for the actual tool to use when we go out and pinpoint the location of the leak. That's what the purpose of the 1 percent LEL.

I mean another option is we could just get rid of all of that and just say we're going to go out, follow up, investigate leak indications with handheld equipment to pinpoint the location of the leak following the survey. That's just throwing out as another option. But that's the purpose behind that, Sara.

MR. DANNER: All right. Erin, then Diane, and then Peter.

MS. MURPHY: Erin Murphy, EDF. I

did want to at least state for the record that, and I know we've gone around on a number of other issues. You know, a number of environmental organizations including EDF expressed concerns in comments with the review process associated with the alternative performance standard.

We had also read this standard as applying to Class 1 and 2 transmission lines. And had actually recommended narrowing the application of this standard. And I'm seeing how, you know, this last bullet is kind of expanding our understanding of the alternative performance standard.

So I do feel like we're close to consensus in other places, and wonder if we want to shift the discussion of the alternative performance standard to a separate item that's voted on. I think, in particular, because there's also discussion about its applicability for gathering and transmission -- or gathering and distribution.

MR. DANNER: All right. Diane, and then Peter.

MS. BURMAN: I'll defer to Peter first because I think he may address my issue.

MR. DANNER: Okay. Pete.

MR. CHACE: Pete Chace, NAPSR. Yeah. I guess I'll just direct that to PHMSA. I don't work with CGIs every day, so I'm not intimately familiar with them. But I think Brian who's -- Member Weisker, excuse me, has raised a fair point. Are we, with the 5 ppm standard, are we about to make half the CGIs in the country illegal? You know, or potentially more than that. I don't know the answer, but I think we need to think about it.

MR. DANNER: All right. Thank you. Diane.

MS. BURMAN: Yeah. It was similar. I'm just trying to make sure that we're not causing confusion because I am a little confused now on what the intent is. And kind of going back to what the intent of the rule

is, which I think is to find and fix leaks, and the quantifying the volume. I'm just having a hard time making sure that we're on track for what we're trying to do and just going back to what is it? What are we trying to accomplish?

MR. DANNER: All right. Well, I heard a proposal that we simply take all the ppm and LEL numbers out of there and just say investigation of leak indications with handheld equipment to pinpoint the source of the leaks. Did I get that right, Brian? Was that what you were suggesting?

MR. WEISKER: That's an alternative proposal to what's on the board, I support that.

MR. DANNER: All right. Chad.

MR. ZAMARIN: Chad Zamarin, Williams. I just wanted to respond to Erin. That last bullet, I understood should give us comfort in setting these standards because there is an alternative that will allow for us not to limit technology, and development, and

alternatives.

And so I think I've said this earlier, like, I would be opposed to this not having that, because it's important that if we're going to set a hard and fast standard in a nascent and rapidly evolving space, that we have to allow for alternatives.

It takes a long time to update regulations. And so I think that's a very important concept, and frankly, it was one that I think was described to us that should give us comfort that we have this alternative. And if we don't have it, I think there's a real problem in the rest of the requirements.

And so I don't know why we would be opposed to having -- the standard looks pretty clear to me. It says you have to equivalent or better safety and emissions reduction outcomes. I don't understand why we would not want that mechanism to allow for us to make sure we get it right, but also encourage ongoing development. So I think it's really important

to have that as part of this package. Thank you.

MR. DANNER: All right. Arvind, and then Pete.

MR. RAVIKUMAR: Quick point that I agree with Brian's recommendation on removing the standards for the follow up as long as it says follow up investigation of leak indications with handheld equipment to pinpoint the source of the leak.

MR. DANNER: All right. Thank you. Pete. Oh, you, your card's down. Okay.

MR. CHACE: Yes.

MR. DANNER: Sara, and then Erin.

MS. GOSMAN: I mean I guess I'll defer to the researcher over here on that question. Yeah. That's fine.

MR. DANNER: Erin.

MS. MURPHY: Yeah. I guess on that point, Arvind, I would be interested if there's more you would share there, I think I prefer at least clarity with the list of technologies

rather than totally open-ended. And I know many operators use the -- oh, gosh, CGI technology.

MR. DANNER: Arvind.

MR. RAVIKUMAR: I think that's a fair concern, but I think the broader point here is that the screening survey is going to tell you if you have any big issues, and I think every operator can choose the appropriate technology to go follow up on figuring out what their issue is.

MR. DANNER: Erin.

MS. MURPHY: Got it. Yeah. I mean I think I just differ, and I do prefer the list of 5 ppm, ppmm, or 1 percent LEL for clarity, if others are comfortable with that. I also wanted to just flag hearing Chad's comments on the alternative standard. Maybe just hone in on one of our particular concerns with the standard, and just, you know, maybe we need to talk about it now if we want to keep it in here.

I think if the standard were to be clarified to be available to all transmission lines, which I understand, you know, that wasn't how we read the NPRM, but I think, you know, others saw some sort of openness in terms of how the NPRM might be interpreted on that point.

One of our major concerns there is that the way the standard is structured ties into the notification standard, which is another part of the CFR, and which includes what I think I would identify as constructive approval, right, where the operator submits their alternative proposal to PHMSA, and PHMSA can weigh in on that. But if PHMSA does not take action, the alternative would be sort of constructively approved.

And one area that we view as important is that PHMSA have to affirmatively approve the alternative. So I don't know if we want to talk about that now or later, but if we were -- if there was openness to sort of

consensus that PHMSA would alternatively approve an alternative program, I would be a lot -- feel a lot better about this.

MR. DANNER: Do you have any language that you would like to throw up there?

MS. MURPHY: It will take me a minute.

MR. DANNER: Yeah. Okay. Chad.

MR. ZAMARIN: Yeah. I would just say I would have a problem with that. I mean we've seen -- I mean this is a resource issue. This is a timing issue we're talking about. And then we had the same concept in the integrity management rule, and I think we've demonstrated that the no objection process is a much more efficient use of people, time, and resources.

And especially in an area like this where we don't know the volume of alternatives, and the amount of work that -- and the speed at which this could evolve. I think we'd create a bureaucracy-like roadblock that would not help,

and, in fact, would go against the principles that we're describing that would allow for development and advancement.

MR. DANNER: Okay. And while Erin is working on some language, you also heard that she would prefer that we actually go back to the ppm and LEL numbers as opposed to this language here. And I think that this alternative that was up there, it was in response to a concern about LEL being there. Yeah. There are strong feelings about this language as opposed to the pinpoint source of the leak language that we had before. Sara.

MS. GOSMAN: I've gone back and forth on this, and I apologize for that. But I do think that we need the 5 ppm, 5 ppmm, or 1 percent LEL. And I'm okay with the 1 percent LEL in there. But I like the numbers.

MR. DANNER: All right. And do you want to leave the language in that says to pinpoint the source of the leak?

MS. GOSMAN: That's fine.

MR. DANNER: All right. Erin.

MS. MURPHY: Sorry, I don't know if I ever took my card down. Erin Murphy, EDF. I appreciate these changes, and I'm comfortable with this.

MR. DANNER: Andy.

MR. DRAKE: This is Andy Drake with Enbridge. You know, again, just not trying to be argumentative, but pragmatically, I think the last sentence is impracticable. If we're going to turn 192.763 into a highway, waiting for a definitive approval on every one of those doesn't work. The current 192.18 process is nine months.

So it just isn't going to work. So we got to figure out a different animal down here. You're going to lock up everybody over here trying to do something other than, you know, any alternative just doesn't happen now.

MR. DANNER: Could we add some language in there about some sort of recommendation for an expedited process if

necessary? Chad.

MR. ZAMARIN: Yeah. Again, I don't know if we're going to wordsmith every section, so I'd be comfortable removing that and just, you know, PHMSA will have the record. I think they will have heard our issues. And there is a proposed alternative process, I think we can weigh in with our comments or concerns.

But for me from a principles perspective, I think it's important to say we're adopting a flow rate standard. It's very specific. But we also have a means for an alternative. I wouldn't be comfortable voting that we all agree it should be an affirmative approval.

I think we all agree there should be an alternative process. And that, you know, the details of that may be something we have to discuss separately, but it feels like the right level is that, you know, again, we're voting on and putting forward principles that there's an alternative process that goes in line with the

standard.

MR. DANNER: All right. Diane, and then Sara.

MS. BURMAN: Yeah. So I'm just trying to figure out, and especially as I look to this last bullet that may come up when we get to distribution, I'm trying to figure out what exactly we're doing by adding "provided that the process requires an affirmative approval by PHMSA."

I guess I look at it, and I'm worried that it almost seems like -- it almost seems like to blow up the actual alternative process because I don't understand, and maybe I just need an example. I don't understand what that would look like in practicality except to basically nullify the alternative, which I -- so I'm just having a problem understanding.

MR. DANNER: All right. Erin, do you want to respond just to that issue? Or Sara.

MS. GOSMAN: Yeah. Thank you for

that question, Commissioner Burman. I think that the way I understand -- so, first of all, I will say as I said before that I'm okay with the notification process. But I do believe an affirmative approval would be better, and here's why. You know, a notification process is essentially requires PHMSA to veto, right, whatever the proposal is within a certain number of days.

So I think the assumption behind that is that we're really looking for the outliers here, and that most of the things that come through that process are just PHMSA lets go, right? And uses its veto power rarely.

But actually, here what we're talking about is PHMSA taking a careful look at these alternatives to determine whether they meet the standard that's in this, you know, that's set within this particular section. And for that reason, I think it makes sense to actually have an affirmative decision by PHMSA on these.

I think if there's a timeline concern, we have ways to handle that, right? We have a system where we could set a certain time by which PHMSA has to make a decision. So I think a lot of that can be negotiated, but I think it's really a question about sort of where we want to have the burden here, and it seems to me like PHMSA should make an affirmative decision as to these other ways. That would be my pitch, but again, I'm happy either way.

MS. BURMAN: In response to that clarifying, I'm worried that this is an unintended poison pill to the allowing the alternative, and I just want to be careful that we're not creating a new sort of bureaucratic process. And an expedited process, sometimes the expedited processes are even more complicated.

And I would defer to sort of the ongoing leaving it without that, that the process requires affirmative approval by PHMSA

because I do think that PHMSA will have to when they agree or not to clarify that the scope of the alternative performance standard process, they have this and understand that there is discussion around what this looks like. But I'm just worried.

MR. DANNER: All right. Thank you. Terry, then Erin.

MR. TURPIN: Terry Turpin with FERC. I'd also offer just a little bit of advice. I mean this is something Rob Ross touched on yesterday sort of in a lawyerly, obscure way. I think we're touching -- we're starting to touch here on something that PHMSA -- I mean this would be out of scope -- I mean as someone who's had to write NOPR before, and to deal with final rules, this large of a change, I think the Committee's starting to come up against, making promises to ourselves that PHMSA won't be able -- or may not be able to in their final analysis move forward with in a final rule.

So I think let's keep that in mind. I mean, ultimately, PHMSA's got to make a judgment call that what they move from the NOPR to the final rule is supported by the record. I'm not sure that the Committee coming up with a vote that says, you know, we only think it's practical if PHMSA provides an affirmative process is helpful to them, or allows them to do that because they've got the APA to contend with as well.

MR. DANNER: All right. Alan.

MR. MAYBERRY: I can appreciate what we're trying to do here. Just have controls on variances. One of the things we're challenged with, I mean besides resources, is, you know, I don't know what I'm swinging at here as far as volume. I don't think it would be a lot, but if it is a lot, it creates an administrative burden. Not only that, plus a bit of risk for the agency to be in the mode of approving.

There are really very few things that we approve. Although, 192.18 has been

really a system of a way to approve alternative approaches to safety. So I just have a little bit of concern just over, you know, what you're committing the agency to.

And, you know, in addition, you know, we do have the authority obviously through, you know, granted by Congress to oversee all of this. We inspect, our state partners inspect, we'll be looking at this. So if there was an issue, you know, we address it with the operator if we're dissatisfied with this. I just have a little bit of pause in, you know, just the burden we're creating. That's all.

MR. DANNER: All right. Thank you. Erin.

MS. MURPHY: Erin Murphy, EDF. Appreciate the discussion on Terry's flag on thinking about, you know, what's sort of logical coming out of the NPRM into a final rule. I think from our perspective, you know, we see it from the other side, right, which is

a concern that if the alternative standard and review process is so open-ended, that if the agency is flooded with alternative applications and the current, you know, as the NPRM is drafted, after 90 days, those are good to go, right?

I think from our perspective, that creates a concern that, okay, then will the agency just be flooded and not be able to really, you know, take a careful look at the alternatives that are being proposed. So that's why, you know, approval by PHMSA is important. And I recognize that, you know, I've kind of pulled us into this, but I think if we want to keep that last bullet in here, it's important to talk through.

MR. DANNER: Chad.

MR. ZAMARIN: Yeah. I think this is a good area where balance is important. And I appreciate if -- I mean the no objection -- there can be objections and they do occur without any, you know, apparent justification

to an operator. So like we could get into if we wanted to, I think a very deep rabbit hole here.

But the reality is, I mean 192.18 is used in certain parts of the work that we do. We have had special permits that take years, and that process has become so difficult to navigate that there are good activities that we might do that aren't allowed by the code that we're not pursuing. That is happening today. It is not making us safer because it is so difficult to navigate through the bureaucracy of approval, that we're actually doing things that are less effective and less safe.

So I worry, again, about putting hard and fast standards in place, and then putting, you know, bureaucratic handcuffs around the ability to continue to innovate and improve. And I think there's a balance where if you have an alternative, you have to submit it. PHMSA can object, I mean under the language, for no reason at all. If they've got

too much work, they can just say no.

I mean we're not asking for a standard, which we could, that says if you're going to object, I want, you know, these, you know, detailed responses and justification. I think we're finding a good balance between, you know, whether you get an affirmative approval, or there's no, you know, process at all because, again, where I would have started with this is get rid of all this language and do what we've done in many parts of the regulations, require an operator to set a standard for their leak detection program that demonstrates they can find leaks during surveys, and then pinpoint them on the ground. You know, it's what Member Chace talked about at the very beginning of the day.

So, again, I think we're finding the right balance here. And I think I've heard that generally, and I appreciate, Erin. But I will be clear, like living in it, the process of asking the government for approval to do

things does not work fast. And I wish it wasn't that way, but that is the unfortunate reality that we operate within.

And I think in this area where we're trying to drive rapid technology development, that would be a really, really unfortunate mistake we would be making if we put additional bureaucracy on top of that. So I'm sensing that there's pretty broad support. I would hope we'd have your support as well for removing that because I do think it's not a practical solution. Thank you.

MR. DANNER: All right. Andy Drake.

MR. DRAKE: This is Andy Drake with Enbridge. Ditto. Ditto to what Chad said. I'm very concerned about the practicability of what we've just done, frankly. By not figuring out some sort of provision to allow for equivalents, we now have a whole host of tools that will have to go through 192.763 or 192.18. That's a lot of traffic down a road that doesn't move very fast.

So that's a crossing pattern right away, and this group should be aware of that, to Terry's point. You just created an unobtainium solution that PHMSA's going to have to try to deal with. So I'm going to back this back up again.

192.18 is not a bad process. I think it's an important process to look for alternatives, try to find opportunities to be creative. It's just very bureaucratic. It take a very long time. Those are incredibly intensive discussions that last a year. That's fit for some things if we're going to try some very new thing that's never been done before, an alternative to class occasions, okay, I get it.

But what we're talking about here doesn't fit in that box. And trying to put it in that box is just going to lock any opportunities to do anything other than -- we now just picked technologies inadvertently. We just picked technologies right here, which

violates one of our principles by the way, because a lot of these technologies do work on ppm.

Now they're going to have to go down through this lower requirement. They're going to have to get approval. That's going to take a long time, so people aren't going to use them. We just decided those technologies aren't allowed now anymore. That's not what we just set out as our principles. How can we figure out a way to make that work?

I think it's important for PHMSA to review and approve and be on board. And I do. No one's trying to circumvent. How do we just deal with the pragmatic practical issue here of a lot of tools that are not flow rate tools? They're ppm tools. How do we deal with that?

And I think one of the principles that we talked about was we're here to find leaks. Flow rates are good. They help calibrate. But there's other ways to find leaks. Is it required that we quantify the

leak to find it because -- or can we translate that? I'm asking, not telling.

MR. DANNER: So, Andy, what if we replaced the language in red at the bottom there with something like PHMSA shall provide -- or should provide meaningful and timely review of requests for alternative standards?

MR. DRAKE: Can we get a definition of timely? I'm not being argumentative.

MR. DANNER: I mean, you know, we're dealing with -- I mean this is guidance to PHMSA, right? We're not -- we're not writing CFRs here. So, you know, that's why I throw that out as an alternative. All right. Sara Longan.

MS. LONGAN: Sara Longan, Army Corps of Engineers. I just really want to strongly support Member Turpin and his earlier comments regarding process and prevailing a challenge. I agree, Chairman, that we're not writing regulations here, but we're asking PHMSA to consider, and I believe we need to be really

careful and operate within the bounds of process.

I'm not the attorney, and I'm not going to extend my comments on my concern, specifically in that area. The words added in red, to me, cause a transparency issue. I also do not believe that that was scoped as part of this NPRM. We can come up with advice and add additional suggestions, but I support Member Turpin and his earlier concerns.

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

MS. BURMAN: Yeah. So I support that as well. I'm really concerned that we're actually changing the process that's already in 192.18, and 192.763(c) and creating an additional level of bureaucracy that's just unattainable.

And also PHMSA, I don't think that you have the staff to now have a new process that's going to, you know, create a bottleneck. And I think we need to figure this out in terms

of how to get rid of that language and still make folks comfortable.

The issue is to me, this is changing the processes that are already in 192.18 and 192.763(c) by establishing this new affirmative requirement. And it actually, I think, will cause confusion in why this one. And so I don't think that it's appropriate for us to do that. And, frankly, I don't think it's appropriate for us to say, PHMSA, you shall provide meaningful and timely review of notifications. I just don't think that's helpful.

MR. DANNER: All right. Thank you. Robert Ross.

MR. ROSS: So thank you. Robert Ross from PHMSA. You know, clearly, I don't opine on, you know, like whether an affirmative approval is, you know, like, you know, advisable or not. You know, and like Alan's already mentioned some of the -- like some of the considerations in connection with the

192.18 notification processes.

One thing that I do want to flag as a potential consideration for the Committee, apart from the bureaucratic, you know, like potential challenges or issues as well as the substantive, you know, like issue about what's approved and what's not, is the 192.18 and 192.763 procedures do have a potential information collection/gathering, you know, like value to them, you know, like that in so far -- like apart from this authorization or non-authorization, you know, that could come into play, you know, it also gives PHMSA an opportunity to get information, you know, like on what those emerging technologies are and actually what the value that they provide, you know, for public safety and environmental protection, you know, could be over time. Just want to make sure that that is part of the Committee's considerations as well.

MR. DANNER: All right. Thank you. Terry Turpin.

MR. TURPIN: Thanks. Terry Turpin, FERC. Just as a 25-year bureaucratic practitioner, I just kind of wanted to point out, like most of these concerns seem to be coming from the side of PHMSA being overwhelmed and not being able to deal, and therefore, people just running amuck with unapproved ways to tackle this.

And I would note that, and not to put Alan on the spot, but, you know, if I were -- if I were in their shoes, I mean their language actually says, as Chad pointed out, that, you know, you can't move forward if PHMSA sends you some notification that it needs additional time. And, frankly, if I'm in the position of the regulator, and I've suddenly been overwhelmed by a lot of requests that have a 90 day clock on them, you all are all getting a letter that says I need additional time to sort it out.

So I think the safeguard's built in there that PHMSA won't be overwhelmed, and the

method that it has gives them the ability to prevent that overwhelming, but also it prevents this bottleneck of being, you know, having to have all these resources to do the positive review and the affirmation every single time. Thanks.

MR. DANNER: All right. Thank you. Erin.

MS. MURPHY: Erin Murphy, EDF. So circling back to a comment Andy made earlier, I do want to note that despite, I've raised it a couple of times, an interest in making the leakage survey with handheld or mobile equipment at 5 ppm or ppmm, you know, I proposed limiting that to smaller operators, and there doesn't seem to be interest from others on the Committee. So I think because of that, that is there in the standard in terms of ppm technology being available. Just wanted to note that.

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

MS. GOSMAN: Yeah. I appreciate Member Turpin's sort of statement about the way the notification process works because that was something I was going to bring up too, just that PHMSA can certainly ask for additional time to conduct its review. And so there are a lot of pieces here of this process in terms of information needed. And so I would hope that PHMSA would take its time to make the right decisions here.

I just have a question to PHMSA. When notifications come in and, you know, to the extent that PHMSA decides to object to a particular notification, is that information available to the public? Is there some place that the public can go to determine, you know, how many of these are coming in, what PHMSA's determinations have been?

MR. DANNER: Alan, you want to take it?

MR. MAYBERRY: I'll have to double check on that. Let me get an answer for you on

that. I mean we definitely respond to them, but let me just see where we -- I mean they're subject to public disclosure, obviously. But are they posted, let me double check. I actually don't think they're posted to our website, but I'll confirm.

MR. DANNER: All right. So we have some language in red there. I don't know that we have achieved any kind of consensus on that. Could I take a reading of the room? If that language came out, would we see objections? If the language in red came out? Erin Murphy.

MS. MURPHY: I think there's two different parts to me there. One was the -- first, we added the affirmative approval, and then the idea of providing meaningful and timely review. I hear the discussion, and I think if affirmative approval were removed, which it sounds like is important and is being emphasized by a number of other Committee members, maintaining the idea of meaningful and timely review would be helpful to me. I would

maybe prefer a should rather than a shall just because I don't know if the Committee's really telling the agency what to do per se.

MR. DANNER: Yeah. Actually, that was my proposal.

MS. MURPHY: And also, you know, Sara just raised whether or not this information is publicly available, and I think if we also added that PHMSA, you know, should make information about alternative standard applications and application decisions public, that would be helpful.

MR. DANNER: All right. Chad.

MR. ZAMARIN: Yeah. I support -- I'm okay leaving -- because, again, I think from a philosophical principle perspective, PHMSA providing meaningful and timely review I think is a good add. And I appreciate, I think I heard that we'd be okay removing affirmative approval.

I don't know if we want to reference the reporting section. I don't know if we

should -- and maybe it's consider -- or should this be a topic we discuss in the reporting section that if you're submitting, you know, does it fit better there when you're asking about, you know, what's being -- again, we kind of were capturing the things that might need to be reported on, and if an operator submits this, does it go into an annual report or some --

MR. DANNER: Yeah.

MR. ZAMARIN: -- reporting mechanism. I don't know what the right answer there is.

MR. DANNER: All right. Thank you for that. Alan. Okay. Erin, then Alan. Oh, Alan's here.

MR. MAYBERRY: No. I just wanted to respond. We do not post the notifications. When the Committee gets to the part on reporting, you may want to consider a recommendation related to that.

MR. DANNER: So -- all right. We

have this language here from the Committee, we should decide whether we want to have that here or we want to save that for the reporting discussion. Erin, and then Sara.

MS. MURPHY: Yeah. In the spirit of compromise, I would really like to see this stated here. If we're removing the idea of PHMSA affirmatively approving these alternative proposals, having clarity that the Committee recommends that that be public, would be pretty central to my support for this.

MR. DANNER: All right. Thank you. Sara.

MS. GOSMAN: Yeah. So I'm not sure that this is a reporting issue for me because I think that PHMSA already has this information just based on the fact that they are receiving the notifications and making determinations about whether to object.

So I think that this is, you know, you talk about highways, and how much is going to go through here. I think a big piece of the

puzzle is transparency around how this program is working. And so I like the language about making information on notifications available to the public.

And I'm sorry to have brought this in at the last moment. It was part of my consideration about sort of process here and ways to work on this alternative performance standard process. But I think we should all be in agreement that, you know, for this program to work going forward, right, people need to have trust in the system, and understand how much is going through the alternative. And so for that reason, I hope that it is not controversial to include this language now.

MR. DANNER: All right. Diane, then Chad.

MS. BURMAN: Yeah. So thank you. I think this has been a good conversation. I will just say my own sort of discomfort is that I'm looking to make decisions or offer up recommendations on things that I don't have a

real handle on ongoing processes that I may inadvertently be creating other roadblocks to processes that are within PHMSA already that have been helpful, which is, for me, just mindful of that.

Taking out the "requires affirmative approval," and leaving in the other section, at least the first part of it, "PHMSA should provide meaningful and timely review of notifications," especially because we changed the shall to a should, I'm comfortable with that.

I will just point out that as to the second bullet, "and make information on notifications available to the public," I do think we need to wordsmith that because it may not be that they need to make every single document available, but really what I think is you're trying to accomplish is to be getting relevant information to be able to look at and understand.

And so perhaps there's some

wordsmithing that can be there so that it's not, you know, since this is a process that really will require how are they then sharing that information, what's acceptable, maybe just a summary, you know, list of it. And I just want to make sure that we're not locking them in to a detailed process and I think we're all on the same page with that. So I just offer that up.

MR. DANNER: All right. Chad, and then Andy.

MR. ZAMARIN: Thanks. Chad Zamarin, Williams. Yeah. I agree. Again, and I don't generally have any issue with the concept of sharing information. I think the challenge, again, might be one of unintended consequences. So I wonder if we say allow PHMSA to consider making information instead of just making it a definitive statement because from a practical perspective, I've seen that adding processes like these add additional time, complexity.

I think in the environment,

unfortunately we operate in, it's a very, you know, legal kind of protective environment, and unfortunately, that often times stymies activity. And by, you know, I just think we need to make sure PHMSA has the latitude to figure out what the resources that they have, what they can -- what they can do.

MR. DANNER: You know, in our state, when somebody files something with us, it gets posted. So, you know, unless something is filed confidentially or request for confidentiality, it gets posted. I just would mention that. Alan, did you want to speak?

MR. MAYBERRY: No, I just, you know, we can manage this. We're used to posting information publicly. It's something we do. And certainly not -- it's noted, not everything we do is necessarily posted. But, you know, we can work with the stakeholders to make sure what we post is effective, so.

MR. DANNER: All right. Andy, and then Sara.

MR. DRAKE: Andy Drake with Enbridge. Yeah. I appreciate the conversation on transparency. I think we need to be transparent. I think one thing that might help solve something here for PHMSA on the record is how quickly is it posted because it may change the venue that were used to post? Is it every single posting as quickly as possible? Or is it quarterly, or annually?

I think creating transparency is important, but what is the concern and that is, is it every single application, or is it are we making progress? And I think that's important in the context of guidance back to PHMSA. So I just ask that. And I do have a follow-on point, but I'll stop there because I think the other one's a different direction.

MR. DANNER: All right. Sara.

MS. GOSMAN: Yeah. I'd just like to respond to that point. I'm actually going to pick up on something that Alan said. I wonder if we can make a recommendation that PHMSA work

with stakeholders to make information on notifications available to the public because there's a lot of detail here, and I see that. I don't know that we want to spend a lot more time trying to work through that.

And I honestly think it would be a much more helpful conversation to get stakeholders together, and we've done this, you know, in the past with PHMSA where we've brought together, you know, representatives from industry, and Pipeline Safety Trust, and other organizations. Think about performance indicators, right, for IM.

There's a lot of precedent for these kinds of conversations about how to make information available. I think we should just move it that direction and call it a day, at least as to this.

MR. DRAKE: I think that's an excellent recommendation. I do like -- and I'm just going to keep coming back to this because my goal here is to be mindful of the traffic we

create down below. Is there anything that we can do here, or is there enough of a record for Alan to say that tools that work on ppm, if they can translate, to your comment, Arvind, if they can translate to a volume, that they don't have to go down through this? That's a big deal of how many tool -- how much traffic we're going to get on that road.

If we can agree that if they can translate, through calibration or other studies, to a 10 kilogram flow, and they're using ppm technology, that we're good with that because if we're not, I think you're going to load up that road unnecessarily.

And I just think that helps alleviate, back to Terry's comment, we don't need any more traffic on this road. If we can agree to some things that take the traffic off the road, that helps them be more timely, which helps this whole machine work better. So I just want to put that out there.

MR. DANNER: Alan.

MR. MAYBERRY: Just to respond. Staff indicates we do have enough information, so I'm confident.

MR. DANNER: All right. Thank you. Diane.

MS. BURMAN: Thank you. First of all, I want to say yay to Sara for mentioning voluntary information sharing. That's a thing that I dearly appreciate. I just want to -- so I'm comfortable. I really like how we looked at collaborating on that issue.

I do just want to go to bullet two. If someone could explain sort of what that really means, how would it be measured, I'm trying to just understand it a little bit, especially as it relates to -- I get it from a, I think, from a false positive perspective, but I'm not sure how you would deal with false negatives in that.

MR. DANNER: Arvind, do you want to respond to --

MR. RAVIKUMAR: Yeah.

MR. DANNER: -- Commissioner Burman?

MR. RAVIKUMAR: Yeah. Just a quick response. So, no, whenever we set a standard with any number, in this case 10 kilograms per hour, it's not that technology will never see below 10 kilograms per hour. Sometimes it'll see, the conditions are perfectly ideal.

So you want to set and say, okay, you want to do 10 kilograms per hour 90 percent of the time. And so that's what the second bullet point says, the probability of prediction standard for whatever number we set up there is 90 percent detection. But that doesn't mean it won't see below that, but that's the standard -- that's how you test it.

MS. BURMAN: Okay. Thank you for that tutorial. I appreciate it.

MR. DANNER: All right. Committee members, are we ready to bring this one to closure? Erin.

MS. MURPHY: Erin Murphy, EDF. Proposal in the spirit of extreme efficiency.

Because we changed the flow rate standard for transmission lines from 3 to 10 kilograms per hour, which was also what my proposal was and what EDF and other commenter's proposal was for gathering lines, I'm looking at this, and feeling like all of this is also applicable to the gathering line ALDP standard, and wondering if we could save ourselves a chunk of time today and make this a transmission and gathering recommendation.

MR. DANNER: Thoughts? Andy Drake.

MR. DRAKE: Yeah. Since I proposed separating them, I think I feel obligated to come back in. I think there is an issue with C that warrants its own conversation, but I think applying it straight to A and B, no contest. And the C issue has some other hair on it I think that they may want some public comment on. But for A and B, no contest.

MR. DANNER: I believe we've already taken the public comment. So, John.

MR. GALE: Thank you, Chairman.

Just for the Committee's purposes, I think it's Topic 6 we're going to get back into gathering, and in that section, we will discuss should the rule in its totality apply to Type C lines. And I'm sure, you know, if it's decided that it should, the technology may come up again, right? And I think it's better context to have the discussion at that time.

MR. DRAKE: Yeah. I'm fine with how you want to do that. I'm just answering your question. If we want to do A and B, I don't think there's any contest. I think that provides some clarity in, whatever you said, extreme efficiency or, if we want to do that. But I think when we get to gathering in the later conversation, then we'll bring C back up then and talk about it there, I think that'd be helpful. Otherwise, you can appreciate, there's going to be a lot of conversation about C, so.

MR. DANNER: All right. I do appreciate the goal of achieving efficiency and

saving time. But I think we'll move ahead with this as transmission, then we'll probably bring this slide up again when we get to gathering lines. I saw Chad --

MR. ZAMARIN: Yeah. Sorry. Chad Zamarin, Williams. I think I'm comfortable that I heard this is a technology standard, and I think that this technology standard can work for a gathering pipeline or a transmission pipeline. I think applicability of the overall -- of the overall NPRM is maybe a different topic it sounds like we're going to cover in Item 6.

So I'm comfortable with this being a transmission and gathering, and obviously, it sounds like another discussion to be had on applicability of the overall rule. But from a technical -- I like that this is a technical standard. We're saying it's good for a pipeline. It's good for a pipeline. And I think that's the right thing to do. So I support Erin's proposal.

MR. DRAKE: I agree.

MR. DANNER: Okay. So can I get a sense of the Committee? Is there anyone who objects to also having this technical standard apply to gathering lines? All right. So we've got an amended voting slide up there. And, Arvind, do you want make a motion?

MR. RAVIKUMAR: Sure. The motion on the table is "The proposed rule as published in the Federal Register, and as supported by the Preliminary Regulatory Impact Analysis and Draft Environmental Assessment regarding the advanced leak detection program performance standard for gas transmission and gathering pipelines is technically feasible, reasonable, cost-effective, and practicable if the following changes are made:

Pipeline 10 kilograms per hour flow rate standard for screening surveys; follow up investigation of leak indications with handheld equipment; 5 ppm, 5 ppm meter or 1 percent LEL to pinpoint the source of the leak; or leakage

surveys with handheld or mobile equipment, 5 ppm or ppm meter; recommended probability of detection standard for all flow rate based advanced leak detection technology, 90 percent; above ground appurtenances, optical gas imaging that's consistent with the EPA; clarify that the scope of the alternative program alternative performance standard process in Section 192.18 and 192.763 Subsection C covers all gas transmission and regulated gas gathering pipelines; PHMSA should provide meaningful and timely review of notifications and should work with stakeholders to address public availability of notifications."

MR. DANNER: All right. Is there a second? Andy Drake seconds. Cameron, would you record the votes please?

MR. SATTERTHWAITE: Excuse me, my apologies. One second please. Okay. I'll call your name. If you agree with the motion, say yes. If not, say no. Diane Burman?

MS. BURMAN: Yes.

MR. SATTERTHWAITE: Peter Chace?
MR. CHACE: Yes.
MR. SATTERTHWAITE: David Danner?
MR. DANNER: Yes.
MR. SATTERTHWAITE: Sara Longan?
MS. LONGAN: Yes.
MR. SATTERTHWAITE: Terry Turpin?
MR. TURPIN: Yes.
MR. SATTERTHWAITE: Brian Weisker?
MR. WEISKER: Yes.
MR. SATTERTHWAITE: Andy Drake?
MR. DRAKE: Yes.
MR. SATTERTHWAITE: Alex Dewar?
MR. DEWAR: Yes.
MR. SATTERTHWAITE: Steve Squibb?
MR. SQUIBB: Yes.
MR. SATTERTHWAITE: Chad Zamarin?
MR. ZAMARIN: Yes.
MR. SATTERTHWAITE: Chad Gilbert?
MR. GILBERT: Yes.
MR. SATTERTHWAITE: Arvind Ravikumar?

MR. RAVIKUMAR: Yes.

MR. SATTERTHWAITE: Erin Murphy?

MS. MURPHY: Yes.

MR. SATTERTHWAITE: Sara Gosman?

MS. GOSMAN: Yes.

MR. SATTERTHWAITE: Sam Ariaratnam?

MR. ARIARATNAM: Yes.

MR. SATTERTHWAITE: It's unanimous, the motion carries.

MR. DANNER: All right. Thank you, all. Now let's get into ALDP 4, distribution. Who wants to start the discussion there? I see Erin reaching. Reaching. All right. All right. Erin.

MS. MURPHY: Erin Murphy, EDF. Since this was the proposal that I floated, I figure I can kick us off again. So just to reorient ourselves, this was a proposal for a 0.5 kilogram per hour mobile survey and a leakage survey with handheld equipment at 5 ppm sensitivity, followed by follow up survey. I think follow up -- oh, gosh, what was the term

we used?

(Off-microphone comments.)

MS. MURPHY: Follow up investigation, thank you, of leak indications with handheld equipment at 5 ppm. And then proposing an exception for smaller operators with less than 250,000 services, and that is consistent with an exception found elsewhere in PHMSA regulations in 192.631 control room management. So that's why we recommended that threshold.

And then that PHMSA consider an alternative standard for inside piping. And then continuing consistent with transmission and gathering, recommending a probability of detection standard for all flow rate based ALD technology of 90 percent.

MR. DANNER: All right. Thank you. Pete, and then Brian.

MR. CHACE: Pete Chace, NAPSR. As I mentioned before, I think, and I don't know the answer to this, but we should look, I'm not

sure if many commonly used CGIs can meet that 5 ppm standard. And I don't see why they're a problem, quite frankly. The second thing is this almost reads like we're mandating the use of mobile surveys for large operators.

MR. DANNER: All right. Thank you. Brian.

MR. WEISKER: Brian Weisker, Duke Energy. So I want to go back to the comments from, I feel like yesterday, but from earlier today where -- I mean are we going backwards on going back to talk about the leak survey frequency, what the first bullet for requiring both a mobile survey and a leakage survey with handheld equipment. I propose that we -- that second "And leakage survey with handheld equipment," that that be removed from this.

MR. DANNER: Thanks. I wonder -- I mean this was -- when Erin Murphy brought the proposal this morning, she covered all three groups. We've had a lot of discussion on the previous slide, and we've added a lot of

things, which are not brought over to this one because this is basically cut and pasted from the first proposal this morning. I wonder if it would be useful to put the other slide up and see what elements of that we want to carry over to this.

MR. WEISKER: I agree.

MR. DANNER: So maybe you would want to take a look at that and see what you want to propose, Brian.

MR. WEISKER: So with that same section, that we just duplicate that same section for the first portion of that.

MR. DANNER: So in other words, the --

MR. WEISKER: The pipeline.

(Simultaneous speaking.)

MR. DANNER: -- bullets under pipeline?

MR. WEISKER: Correct. I think we'll probably have some discussion on the kilogram per hour flow rate, but duplicating

that.

MR. DANNER: All right. So carry that over to the other slide, but leave the original language on the other slide. Don't delete it. All right.

MR. WEISKER: Second bullet. All right. Okay. So you got -- okay. I'm getting confused here. That was what was in the proposal from Erin, the second one, correct? There you go.

MR. DANNER: Yes. The --

MR. WEISKER: So I'll let him do his magic here for a second.

MS. BURMAN: Chair? I think where it says mobile survey and a leakage survey, I think that "and" is supposed to be "or."

MR. DANNER: So I'm hearing from PHMSA that it's an "and."

MR. WEISKER: That's the point of my comment. So the point I'm looking -- it's not an "and."

(Off-microphone comments.)

MR. WEISKER: So should be a --

MR. DANNER: 0.5 kilogram an hour --

MR. WEISKER: -- 0.5 kilogram per hour.

MR. DANNER: -- mobile survey and a leakage survey. You're saying it should be "or a leakage survey?"

MR. WEISKER: I would leave it with a 0.5 per kilogram mobile survey with -- I still want to leave some discussion for the actual kilograms per hour, but just, to me, the portion in red is struck. We're now requiring two leak surveys as that is written. But it would be a 0.5 kilogram per hour mobile survey, again, discussion on the rate, with a follow up investigation of leak indications with handheld equipment.

MR. ZAMARIN: Excuse me, Chair. This is Chad Zamarin. Can I just ask a question maybe of Erin?

MR. DANNER: Yeah.

MR. ZAMARIN: If were to replace the

10 kilogram per hour in the first bullet with 0.5, would that be an acceptable starting point? Or is this different because I'm not sure -- I don't know that I understand the differences between distribution and transmission and gathering?

MR. DANNER: Erin.

MR. ZAMARIN: Just trying to help --

(Simultaneous speaking.)

MR. DANNER: You want to respond to that?

MS. MURPHY: Yeah. So I think this is a continuation of the discussion we were having in the transmission and gathering slide. I will try not to be too repetitive. You know, I had concerns in the transmission and gathering space about the "or." But I became comfortable with it in part because there was a lot of discussion about how the ppm would primarily be used by small operators with limited mileage of transmission to distinguish in the distribution space the recommendation

that I presented is different. It's a recommendation for a 0.5 kilogram per hour mobile survey and a handheld equipment survey.

And I hope I explained this clearly earlier. I'll try to summarize that perspective a little bit. You know, it's our understanding that the use of handheld equipment, which largely meets the 5 ppm standard, is very common for distribution operators, and that there's a desire to continue using that equipment. And we respect that.

Our perspective is that the mobile advanced leak detection surveys are also a critical tool to finding leaks, and particularly to finding super-emitting leaks and to quantifying the flow rate of those leaks. So our recommendation, and I understand that there's not unanimous support for it, but our recommendation is that dual survey requirement.

And I wanted to just make another

point here to maybe help folks understand why we're recommending that. A 2018 peer reviewed paper, Weller et al 2018 Vehicle-Based Methane Surveys for Finding Natural Gas Leaks and Estimating Their Size: Validation and Uncertainty, which is cited and submitted to the rulemaking record in our comments, found that the utility crews using traditional handheld technologies were able to locate only 35 percent of the leaks that were found using advanced leak detection methods in the surveys that were characterized in that study. So that's kind of background to give you a sense of why we're really looking to propose the use of both technologies.

MR. DANNER: All right. Thank you. Brian, do you want to respond to that?

MR. WEISKER: I mean if this is "and," then I think we need to go back to where we were yesterday and go back to leak survey frequency because this is prescribing two leak surveys. So we've now increased the frequency

of leak surveys. So if we're going to -- if this is the proposal we're going to go with, we need to go back to the subject that we closed out yesterday on the leak survey frequency.

MR. DANNER: All right. Thank you. Pete, and then Andy.

MR. CHACE: Yeah. Pete Chace, NAPSR. Is it really our intent to force operators to use one specific form of leak surveys? That's what the, you know, the way this reads to me is, essentially, for large operators, you're doing a mobile survey whether you like it or not.

MR. DANNER: All right. Thank you. Andrew.

MR. DRAKE: Andy Drake with Enbridge. Erin, a point of clarification. You said in that report that they found that people with handheld devices missed things that were found in mobile. So my conclusion from that is that mobile is higher confident performance. So if someone did mobile, why would they want

to do also hand if mobile's performing better than hand?

I'm missing something in the logic of the "and." If the reason why we're proposing this is because mobile performed better than hand, why would mobile not be good enough by itself? Maybe just a point of clarification.

MS. MURPHY: Direct response?

MR. DANNER: Yes, you may.

MS. MURPHY: So this is somewhat anecdotal, and I don't work for a utility, but this is the product of a lot of conversations and what we've sort of heard in regulatory proceedings and engagement with utilities that there is a real desire to continue using the handheld. And maybe another sort of context here is that the way the ALDP standard is proposed in the NPRM is there is, you know, a list of handheld, aerial, all these different technologies and the requirement that operators evaluate them and make choices for their

program.

And so our concern in looking at the way the NPRM is structured is that, especially with the 5 ppm standard, that operators could just, you know, review the technologies and essentially land on we're going to continue using handheld 5 ppm.

And I just want to iterate that only using that for your leak survey is a continuation of business as usual, and we don't feel it necessarily reflects kind of the Congressional objective of adoption of more advanced technologies.

MR. DANNER: Thank you. Brian.

MR. WEISKER: Yeah. I mean I'm going to go -- there we go. So we have it struck from that top bullet up above. But I mean the goal here is reducing emissions, and, you know, what we see on the screen from a mobile survey and then -- we're going to - there are going to be -- there are, without a doubt, we've heard it from several of the

folks, it's their, you know, the mobile survey isn't going to work for everyone potentially. It's not going to get all areas for everyone.

So I think there's going to be a -- it's definitely going to be a combination for multiple utilities with flexibility on choosing the tools that are going to be best for their system in order to eliminate leaks.

And so I think that's an important note, you know, and that we -- and so I think that's going to be critical for us as we develop these rules for distribution that we have the potential and the flexibility for operators to choose the technologies and the tools that are best for their given system.

MR. DANNER: All right, I think we've got two different proposals before us. Is there anything else we wanted to add to this slide?

We had some language on the other slide about alternative processes. Do those need to be carried forward, Brian?

Or, Andy, I'm sorry, Andy, you first.

MR. DRAKE: Yes, I just want to make a point. I'm going to harken back to the principles, these sort of guiding lights which I think are really helpful.

I'm not in the distribution business right now at least. My company is getting into it quite actively. But when I read this, I think we're violating our principles again. We're picking technologies right away. I can't -- by definition, we're picking technologies.

I think setting thresholds is what we've said we would do. And that just seems -- just seems appropriate here. So I'm going back to our principles that are center to this conversation. We should be setting a threshold and then finding technologies that fit that threshold, period.

MR. DANNER: All right, Brian?

MR. WEISKER: Brian Weisker, Duke Energy. I also would like to take the

exception for the small operator under the EDF proposal. And I make that for both these proposals.

Because as we've heard from several folks around what that small operator looks like, and what the impacts of this rule are going to be to them, I think keeping that -- and I really do appreciate, Erin, your proposing that as an option for the smaller operators out there.

I'd also like to change the Member Weisker proposal to be three kilograms per hour screening survey. And we've talked about it, Arvind, about all the different approaches and data. And as we continue to work our way down and continue to evaluate technologies, I don't want to eliminate potential technologies that our distribution operators can use.

I keep -- to be able to utilize tools that fit their tool set and allow for flexibility, I think, is, like I mentioned before, is critical. And, you know, as time

goes on, we're going to continue to improve and improve as we see, you know, the technologies that'll drive that kilogram per hour screening survey lower and lower. But for a starting point, I think this is a good spot for us.

MR. DANNER: Erin?

I'm sorry, Erin, there's a few others here I didn't catch. Diane and then Peter?

MS. BURMAN: Yeah, I got a question. Did I hear you right that you said mobile is better than handheld, or is showing? Because I don't know that -- I'm just a little concerned by that being out there as a fact.

MR. DANNER: Yeah, and, Erin, you may respond.

MS. MURPHY: Sure. So the study I was referencing is not every, like, leak survey ever, right, it was a 2018 peer-reviewed study in which the mobile CRDS advanced technology, which is, I think it was a bacaro vehicle, though I'm not sure of the technology provider,

but it was that mobile advance link detection technology in -- and they compared, you know, the leaks that were found during that survey with what the utility crews had found with the handheld and found that the utility crews had located only 35 percent of the leaks that were found with the ALD methods.

I will also just say anecdotally, I've heard the other way happen sometimes, too. Sometimes a handheld picks up a leak that wasn't picked up on the mobile. So it really seems like, you know, both technologies are a valuable part of an operator's leak survey program, which is, you know, why we recommended it.

MS. BURMAN: Okay. So I'm going to push back a little bit, because I do think that I've been on the Public Service Commission for over ten years. And over this time, we have had a lot of different experiences that have helped us continuously improve, especially in this area.

You know, EDF was focused on bacaro and mobile devices initially. There was a lot of -- and I think a great conversation and great discussions helped get people focused on, all right, what are we trying to actually do, how do we make the mapping better, how do we make the devices better, looking at handheld.

And then with -- even within that, it's not just about the equipment, it's also about the processes that are in place in the utilization of that equipment, the data collection for that, and then working with, you know, you know, our gas safety staff in looking at the approval process for the use of those devices, but also helping to unblock our own sort of stagnation of approving devices to get it out into the field and help.

I am just worried that this is setting up unrealistic barriers and expectations. Frankly, I worry that it's also pushing one product over another. And I just want to really kind of make sure that we are

not chilling the use of technologies, but helping to give different -- in different situations, different tools will need to be used and it shouldn't just be that we have to now set up this expectation.

I do think it should be an or in the mobile survey or leakage survey. I do think that it's needing to look at what we're trying to do and accomplish without locking in to something that I think is just going to, frankly, be cost prohibitive that may not actually get to what we're trying to do and the value of that.

And so I just wonder if there's some alternative way to help us in the utilization of technologies that are appropriate for the specific -- and understanding that it's an ongoing process that the companies are working with and they do work with their state regulators as we go forward.

MR. DANNER: All right, Pete?

MR. CHACE: With mobile -- the

mobile leak surveys, well, I have to point out, there are some areas of the system where you just simply can't assess it with mobile survey technology. We have a large operator in our state that started -- that started -- they've been using it for three, four years now. They've, in my opinion, gotten very good results.

But they still take about ten percent of their system that they have to hand walk just because you can't get to some of these places without a tank or some kind of all-terrain vehicle and violating all sorts of property rights laws. It just won't work. So I believe that any proposal mandating the use of a mobile leak survey, it isn't going to be feasible.

MR. DANNER: All right, thank you. Steve?

MR. SQUIBB: Steve Squibb, City Utilities. Just one clarification on the small operator exception that went back in there.

Thank you, Brian, for catching that before I had a chance.

The -- it says handheld, but we need handheld and mobile, I think was in there, or at least it was on the transmission slide. Can we get that?

MR. DANNER: Was that on the other slide? I don't -- is that -- okay.

MR. SQUIBB: You need that in the exception.

MR. DANNER: Yeah. Chad, you had your card up. You're good?

MR. SQUIBB: I'm sorry, I just wanted to add that requiring this ALDP, this mobile survey to all distribution companies, not just the small ones, but we do have small ones, I mean, that, like I said earlier, yesterday, ten employees, very, very small distribution companies, very low mileage.

And to impress this on them that they must use this technology, again, is not, I think is not reasonable, not cost effective,

and is very burdensome to try to have them invest in this at this time, especially at this stage of the technology. We heard from the public commenters all the issues that they're still having with the technology at this point. I think it would just be overwhelming for the industry.

MR. DANNER: All right, thank you. Erin?

MS. MURPHY: So on that specific point, I did propose an exception for smaller operators. I guess I'm hearing that you don't view that exception as adequate. But that's an exception that's in another part of PHMSA regulation. So I thought it was fairly standard.

I just want to make a broader statement here seeing the shifts in Brian's proposal. I think, you know, we tried to think really hard about a proposal that would drive forward progress and adoption of newer technologies in the distribution sector.

And it does not feel to me like there's going to be consensus on this committee, and I think that's okay. I think we just, you know, should probably make a decision to take a vote on one or on both of these proposals.

But my big concern is that a three kilogram per hour standard, I do not see that as driving progress or the adoption of newer and more advanced technologies in the distribution space. I see that as a standard that allows for the continuation of business as usual in many ways, and that's concerning.

MR. DANNER: All right, thank you. Arvind?

MR. RAVIKUMAR: Yes, thank you. I thought I'll bring up some numbers that we have learned on distribution systems. Now, thankfully, distribution systems is one of the places where we have actual public data on for the emission rates of various leaks, measured and everything.

And I think everything we have discussed earlier in the day as well as yesterday about the leaks per mile varying in different types of pipe materials are all correct and fine. But some numbers for discussion. There were three studies, at least that I could pull up, where you went out and measured individual emission rates for distribution system leaks.

There were a lot of other studies that did surveys, but they won't point to a single leak. But for those studies that did individual distribution system leaks, there were three.

And the largest leak they could find, and some of these studies had thousands of leak measurements, the largest leaks they could find were 1.8 kilograms per hour, 1.9 kilograms per hours, and .8 kilograms per hours. These were the largest leaks in the distribution system.

So my point here is that the volume

of the leaks in the distribution system are generally lower. And so if you're going to use a screening method, I think .5 kilograms per hour is a more reasonable number because, based on data that's available, there are no leaks at three kilograms per hour.

MR. DANNER: All right, thank you very much. Sara?

MS. GOSMAN: Sara Gosman. Pipeline Safety Trust certainly supports EDF's proposal here. And I think that we should take what Arvind said as a strong indication that .5 kilograms per hour is the correct threshold.

I also just want to reiterate the point that Congress directed PHMSA, and thus us, as we're reviewing this proposed regulation, to move forward on leak detection. If all we're doing is codifying what operators already do, we have not made progress. And that does not seem to me to be the intent.

I think, you know, I would certainly be open to language that says, you know, where

mobile surveys are impractical, operators can use handheld surveys. That is to address the issues around those -- that last ten percent of areas where we just can't do mobile surveys.

But I think if all we're left with is handheld surveys that we're already using, then I think we have done -- we have not done what we needed to do here.

MR. DANNER: All right, Diane?

MS. BURMAN: I'll defer down there and then I think I'll -- may address my issues.

MR. DANNER: All right. Brian and then Chad?

MR. WEISKER: Brian Weisker, Duke Energy. First, Arvind, thank you for the data. I think that's important. I also think it's important that we don't screen out some of our technologies. So I do -- and I think I can get to 0.5 kilograms per hour. I think I can get there for the screening survey.

You know, I do, you know, think about, too, when we're digging into this and

what we heard for others who have been utilizing, whether it's mobile, we've been utilizing satellite technology. We've got to also consider, we know there's false calls. We heard that from some -- from others, and that's just, you know, that's cost, that's emissions that go with this.

I also want to reiterate, too, that I think it's the, you know, when you're looking at the preamble, I think, you know, PHMSA, this --from the preamble I think is, you know, obviously it'll stand by, but -- stand by it, but flexibility for operators to choose from a baseline of high quality equipment for their unique needs, PHMSA -- another location PHMSA does not need to propose to require the use of any particular leak detection equipment or technology for every operator to use.

So I think, you know, language like that makes it clear that saying it's got to be mobile wasn't the intent, that we give a suite of tools available for the operators to choose

from to evaluate their system with handheld, you know, handheld is one. I think aerial is one; satellite is one; mobile is one. That there's a suite of tools available for the operator to choose from that helps to reduce emissions.

MR. DANNER: All right, thank you. Diane, are you ready to go or do you want --

MS. BURMAN: Yeah, I guess I'm just looking at this and saying what, again, what are we trying to accomplish and does the proposals up there help to make it workable? And I can get behind the first proposal as workable. I struggle on the second, especially because I think that I'm not sure that 2018 study is -- would -- I'm worried that it might be a little stale.

And I'm also worried that it's probably addressing the leaks. I will be curious if they're addressing the leaks on jurisdictional facilities. There's a distinction that has to happen there.

So to go with 2018 study that I don't -- I haven't -- it may have been peer-reviewed then. It may have been very good. But I think that we've had many different changes since then that have showcased, you know, other -- perhaps would show that that information is no longer relevant to draw from.

Especially when we heard yesterday from the public comments that the experience of the operators as to the handheld versus mobile and some of the data that they have, again, I wonder if it's -- that study was related more to -- the leaks were related more to jurisdiction -- not jurisdictional facilities.

MR. DANNER: All right, thank you very much. Chad?

MR. ZAMARIN: Thanks, Chad Zamarin from Williams. I mean, I thought that was compelling information from Arvind. And I agree with Sara, your comment as well.

So, I, you know, just not, again,

not as a distribution operator, but just hearing all the information, I think the .5 sounds like it makes sense.

And then, but I am having a little bit of trouble following, you know, I think our goal was here to set a standard. And maybe I don't understand it enough, the difference between the mobile and walking. But is it not -- are we not able to just set the standard and allow for the technology selection to be, you know, decided upon, but also have language like you described, Sara, where if it's impractical to use a certain type of technology, then you have to defer to a handheld device.

I don't know what the right answer is, but it does sound like there may be a more artful way to do this and let the details get hashed out later. But I think it feels like there's generally space here to get something done, I just don't know how we converge kind of the issues that we're hearing into the language on the page.

MR. DANNER: All right, thank you. Andrew?

MR. DRAKE: Andy Drake with Enbridge. I appreciate your challenge, Sara. I think that's appropriate, and I appreciate you answering the challenge, Arvind. I think that gives us a lot of tangibility that we work with. And I think basing this decision on facts and data is really important.

I think, in my perspective, I think one thing I'd caution against is, again, we're sort of violating one of our principles in choosing technologies. Now we're choosing technologies based on a report that's five years old, but we're pinning them into a rule that lives on in perpetuity, so to speak. That's very dangerous.

I think we want to go with an aggressive threshold that moves the needle to your quest, Sara, and then leave the threshold as the guiding light which I think is maybe where you're going, Chad, is that's our guiding

light. We're going to find technologies that fit that guiding light, and we're going to deploy them.

Now, we don't need all these caveats of where I can ride mobile devices or where I'm walking or whatever. You need to get to this threshold everywhere with -- whether it's a car or walk -- walking or anything. I think that simplifies that, and it lets us go forward with a rule that deals with how this is going to evolve over time.

Basically, what we're doing now is saying well, this is basically the technology we had five years ago, so this -- we're going to pin a rule going forward based on that. That violates one of our principles right out of the shoot.

And I just -- I'm just having a hard time going there. So I'm good with .5. I think that's really appropriate.

MR. DANNER: All right, thank you. Arvind?

MR. RAVIKUMAR: Yes, thank you. And I think the screening language for the .5 kilogram per survey is fine by me as well, and it mirrors the language we had for the other two.

MR. DANNER: All right, thank you. Brian?

MR. WEISKER: Brian Weisker, Duke Energy. What we have on the screen with -- I would like to take for, you know, take the exception for the smaller operators almost, I'll say, anything over one so that it would apply whether it's Member Weisker or Member Murphy's proposal, that we keep that smaller operators with less than 2,500 that that's available for all.

MR. DANNER: Yes, can you just copy that sentence and that bullet and put it up above as well? Okay, that works.

MR. WEISKER: Thank you.

MR. DANNER: All right, Erin?

MS. MURPHY: Erin Murphy, EDF. I

wanted to -- and I don't know if I should just stop sort of trying to explain, you know, the objective of our proposal. But my concern with Brian's proposal is that by only including a 0.5 kilogram per hour screening survey, it feels like we're sort of missing the duality and the value of using multiple technologies.

And the 0.5 kilogram per hour screening survey idea is really kind of a super emitter type of survey, right? And so our proposal for that combined with a handheld survey was trying to get at sort of the combination of those two. And we lose that, right, if we only have sort of the single standard.

And I want to acknowledge, I don't know if there's a path to consensus here, but that remains a concern.

MR. DANNER: So, Arvind, do you mind, if I can go back to your earlier statement, you said you were comfortable with it. What about the need for handheld equipment

leakage survey? Do you have thoughts on that?

MR. RAVIKUMAR: So the thing with the screening survey is that if you're doing a screening survey, whether using a mobile technology or something else, you are going to need some kind of follow-up to that. If a screening survey finds a big emission at a corner of a block, you send someone with a handheld technology to figure out exactly what the issue is and fix it.

So the follow-up investigation, my belief is it takes care of the handheld technology in combination with the screening system to find the leak.

MR. DANNER: Sara Gosman?

MS. GOSMAN: Okay, I'm going to try some language here, with the caveat that I'm not sure that everyone who's been talking on this side agrees. Okay?

So, but here's my proposal. So maybe we need like a pipeline Member Gosman proposal or something just because I think it's

going to be a separate one. Why not, right?

Okay, so for the first bullet, here's what I would recommend. So .5 kilograms per hour screening survey -- oh.

Should I go ahead or wait? Okay, then semicolon, leakage surveys that utilize only handheld equipment, parentheses, 5 ppm, parentheses, should be limited to pipeline segments where advanced leak detection methods are impractical. I would keep the exception in.

MR. DANNER: Thank you very much. Now, Peter and Diane had their cards up, so let's -- we'll get to them, and then we'll address Sara's proposal.

Pete? Or, I'm sorry, Diane?

MS. BURMAN: You can go first.

MR. CHACE: Thank you. Pete Chace, NAPSR. I would point out with the exception, first off, for smaller operators, the limitations with low -- mobile leak surveys are really a function of terrain and road

infrastructure, not a function of operator size. So I don't see where the smaller operator exception, to me, makes a lot of sense.

Also, I will point out that, again, in Ohio, we've had rules dealing -- addressing leak survey and leak grading for a while back. And we are dealing now with how to apply these rules to mobile leakage surveys where that technology didn't even exist when we made the rule.

I can see something else happening down the road. And it's like, well, we've got this other technology we can use and it's really great. But this rule says we have to do a mobile leak survey. So I don't -- I think it ties the operator's hands.

The last thing I'll say is I'm not sure I understand what's wrong with handheld equipment. It's, you know, I don't -- it seems like we're saying that if you can hold the equipment in your hand, then it's not advanced.

But I don't think that's true. I think handheld equipment surveys can be adequate.

MR. DANNER: So just to clarify, your original statement had to do just with Brian's proposal up top or is it with all the exceptions in all three of the proposals?

MR. CHACE: It was with all the exceptions. I believe the limitations to these, you know, mobile surveys, it's not a function of operator size, it's a function of terrain and road infrastructure.

MR. DANNER: Okay. And then with regard to Sara's, it's saying that handheld equipment is okay when advanced leak detection is impracticable. And you're saying that handheld equipment actually can be advanced leak detection equipment?

MR. CHACE: Yes.

MR. DANNER: Okay, thank you. Brian?

Oh, I'm sorry, Diane first and then Brian.

MS. BURMAN: Thank you. So I just have a couple of things. I do find this very helpful as we go through it and trying to figure out where we all are. And I definitely appreciate, Erin, your sort of bringing forward and, you know, things from your experience.

And the citing to the 2018 wasn't meant to question that study. It's really just meant to sort of say are we -- is that what we're locking ourselves into? And it kind of goes to, Sara, your talk about we're trying to get not just where we are, but kind of the future, right?

So I'm looking at this, and I'm worried that by saying mobile survey and a leakage survey, we are actually creating now two surveys, which goes back to the survey frequency. But also, it doesn't account for, you know, just other things that are going to come along that are actually better, perhaps, than, you know, the leakage survey, the mobile survey. Like I just am worried about sort of

us capturing -- trying to have language that actually allows us to have flexibility for better things that are there or that may be there.

And then the other is I think I heard you, and this really, I'm trying to process this, I think I heard you say that the .5 was to capture super emitters. Is that -- because there was a reference to that, and I -- I just -- the reason I ask that is because I'm trying to understand and ask what EPA would say a super emitter was in terms of kilograms versus hours? And does that translate?

MR. DANNER: Erin, do you want to respond?

MS. MURPHY: So I am trying to translate information that has been explained to me by technical folks and doing the best I can. And Arvind might have more to say here.

In the distribution context, often we refer to super emitters as 10 SCF -- 10 standard cubic feet per hour, right? But we

were trying to present a sort of unified technology standard that all used the same kilogram per hour just for uniformity.

So I think 0.5 kilograms per hour is quite a bit larger than 10 SCF, but I'm not sure what the translation is there.

MS. BURMAN: Okay. Yeah, only because, again, we started the conversation in the beginning of the day about the fact that, you know, ppms is what we know. And so I just -- I guess I'm just looking at this and trying to understand.

And, again, I don't expect you to have all the information, I just do think that it's important for us not to lock ourselves into something that we think we're addressing and we're not, so.

MR. DANNER: All right, thank you. Brian?

MR. WEISKER: Brian Weisker, Duke Energy. I want to say, Peter, thank you, I -- with your comments. And I agree wholeheartedly

with the fact that a handheld leak device, it is an advanced leak detection tool.

Your comments around the small operator, the small operator is really not about -- I'll say, it's around the cost effectiveness of driving towards an advanced leak detection program. So I think that's the reason and the thinking behind that small operator approach. So, and I think that's it for now.

MR. DANNER: All right, thank you. Arvind?

MR. RAVIKUMAR: To Commissioner Burman's question, 10 SCF is considered a large emitter in the distribution system. That translates to about 0.2 kilograms per hour. So the .5 threshold is fairly above that.

And I also agree with Commissioner Burman that, you know, in not just here in general, you don't want to rely on just one study to tell you what your numbers are and what threshold you should set. I think broadly

speaking, when looking at this .5, by looking at everything that's publicly available, like I think there are about four or five studies, where we are finding largely that the biggest leaks are less than -- are between 1 and 2 kilograms per hour. And, you know, the top 20 percent of the leaks are something between like .4 and .5 kilograms per hour.

That's where this .5 number comes from. And I think that's reasonable given what we know. We might see something different if we go out and do more surveys. And we might find larger leaks that we didn't know existed. But I think, based on what we know, .5 is a reasonable number.

MR. DANNER: All right, Pete?

MR. CHACE: I realize -- thank you -- I understand if we are going to force operators to use certain technologies over others, the smaller operator exception does make sense from an economic standpoint.

MR. DANNER: Okay, so, we have three

proposals before us. One moment, please.

All right, so we're going to cogitate for an hour and take our lunch break now. And we will return at 1:30, and we will pick this up.

MS. BURMAN: Before we go, Chair, I think that to the extent that we keep this slide up --

MR. DANNER: Yes.

MS. BURMAN: -- would be helpful so that in case we have ways of merging the three or coming up with a fifth.

MR. DANNER: Thank you very much, yes.

MR. WEISKER: With that slide, can we put the except -- because we kind of -- we showed the small operator exception, small operator exception, put it on the -- either put it on the other slide or it needs to be with --

MR. DANNER: On your proposal?

MR. WEISKER: Yeah.

MS. BURMAN: Could you do one slide

with that?

MR. WEISKER: It's up there now.

MS. BURMAN: Do you know the ones where it had all the clarifying?

PARTICIPANT: It's not all going to fit on there.

MS. BURMAN: Right, can you do one slide that way and one with just the other?

MR. DANNER: You can't split them.

MS. BURMAN: Okay, okay, that's all right.

(Whereupon, the above-entitled matter went off the record at 12:23 p.m. and resumed at 1:32 p.m.)

MR. DANNER: We have three proposals here for leak detection with regard to distribution pipelines. And I'd like to get a sense of -- the proponents of each of these have heard the counterproposals and have had an hour to think about them. I'd just sort of like to get a sense of where we are at this point.

So, Sara, can I turn to you and you can give us your assessment first?

MS. GOSMAN: Yeah. So I'm going to pull my proposal here. I don't think it gets at the issues that I see.

So I think that, frankly, I'm struggling here because we're trying to do two things, right? We're trying to do leak surveys and address the safety issues coming off of those, and we're also trying to address environmental issues around things like super emitters. And we're doing that through a different set of mechanisms.

And so, Brian, I take your point, right, that this looks like two surveys. And yet I don't know how to -- I just don't know how to square the circle on that because they are doing, to me, different things.

So I know Erin has a proposal that she'd like to share with us all. But I think that's basically that's my struggle.

MR. DANNER: All right. And before

I turn to Erin, I saw that Diane's card was up.

MS. BURMAN: Yeah, I'm going to wait. I do think it's important for us to hear each other. And I don't -- there's sort of a new flavor to this. I do appreciate, Sara, you withdrawing that and looking at these two things. Thanks.

MR. DANNER: All right, thank you. Erin, do you want to go ahead?

MS. MURPHY: Thanks, Erin Murphy, EDF. So I want to acknowledge, I think the update to my proposal, I don't know that it is going to, you know, win a unanimous committee support, but wanted to make sure that, you know, what I've put forward is kind of the final language that I would like to recommend and might suggest if we discuss it a bit and then move to a vote.

So I just wanted to update -- okay, yeah, thank you -- to 0.5 kilograms per hour mobile survey, and a 5 ppm leakage survey.

So just wanted to clarify that, you

know, I am still recommending a dual survey approach for the reasons I've articulated, but that the 5 ppm leakage survey might not necessarily be with a handheld device since there are mobile options, I believe, available as well.

And I would also support adding in, you know, an exception for the .5 mobile survey for areas that are not accessible by mobile survey. I know Peter made those comments earlier, and I didn't put that in here, but just wanted to articulate that as well.

MR. DANNER: Okay. Sayler, can you add something there to reflect that? Basically, creating an exception where the area is not accessible.

All right, Brian, while he's doing that, do you want to --

MR. WEISKER: For clarity, I think, I mean, that's still two leak surveys is what is being proposed.

MS. MURPHY: Correct. Well, maybe I

would say, I mean, it's using two different types of technology on a system wide basis.

MR. DANNER: Brian?

MR. WEISKER: I mean, I'll just start with, I mean, I -- you know, that I'm going to stick with what I had proposed up there is the best approach. And I thank you, Erin, I'm -- you know, I heard your comments earlier and all the different operators.

There's a couple different operators that you quoted as far as some of the work that they're doing. And know them, know some of their leadership. And I know they're doing some great work.

And I know there's some others that are going down that road of doing different technologies, but I also heard quite a bit from several other operators on where they're at with their journey in -- towards an advanced leak detection and utilizing different tools. We heard ghost meters. We heard, you know, different indications, false indications,

challenges with implementing.

I do think we're taking a big step forward as an industry, and we're going to -- we've agreed to the annual leak prone pipe survey. We've agreed to the three-year leak survey for the non-leak prone pipe outside of business districts. You know, earlier today, we agreed with the .5 kilograms per hour.

But the proposal for dual survey, it just, to me, it doesn't take into account, you know, some of the other risk-based programs that we have, integrity management, public awareness, damage prevention. And that's one right there that's going after the largest source of emissions on our distribution system.

And I just don't see how a prescriptive approach that's, you know, that's contrary, and, again, mobile survey, picking a specific survey type which is contrary to our principles is going to reduce emissions in an efficient way.

So, I mean, I just -- operators know

their system. We need to give them the flexibility to choose the tools for their system. They know what's best and the best way to go after reducing emissions on their systems and need to be able to have the flexibility to utilize the tools available to them.

And I just -- I don't agree with the dual -- two survey approach in this -- in the approach that you've proposed here.

MR. DANNER: All right, thank you. Commissioner Burman?

MS. BURMAN: Yeah, thank you. So what I'm struggling with, and I'm looking for some help in understanding this, so we have the principles, and then we had the transmission section. And we came up with going through that and the standards and looking at that, and obviously the numerical number is different.

And so when we went here, in my mind, we would be figuring out what the right numerical number was, kilograms per hour, ppm, to place for distribution. But that the same

framework would make sense unless there was a rationale why it didn't make sense.

And so I feel like, in some ways, distribution is getting penalized and not allowed to have the same flexibility that was built into the transmission part, which seemed to make sense, got us to screening survey and follow-up investigation. And so it feels to me like there's now something that really has taken us backwards to other -- in having two surveys, that now gets me wondering just in my seat as a state regulator, what does that look like in practicality and the value and then the impact to rate payers. But also I don't even understand why we're not -- why we don't have language around the survey that opens it up for really any technology that is workable versus here, the mobile and the leakage. I'm just -- I'm struggling with the rationale from where we -- where we were to where we are now.

MR. DANNER: All right, thank you. Chad?

MR. ZAMARIN: Thanks, Chad Zamarin, Williams. Yeah, I just, I agree with Commissioner Burman. And really what I'm struggling with is, now kind of understanding this, the idea that we're adding additional surveys.

I mean, the structure of this section in the NPRM was establishing a threshold for surveys and then follow-up activities. There are processes in here that require annual evaluation of the program and continuous improvement of the program.

And it does seem like we're now, you know, talking about -- in the second proposal, we're talking about two surveys instead of, I think the intent of the NPRM was, you do a survey. Let's set the threshold.

And what we've been asked to weigh in is what that threshold should be if a volume based threshold made more -- or a kilogram per hour threshold made more sense than a parts per million threshold. It feels like that's what

we did in the first proposal, and it follows with the intent of the NPRM.

And so I'm struggling with changing a requirement that explicitly ends up resulting in adding an additional survey to the program. That seems like that's not in line with the intent of the rule.

MS. MURPHY: So, Erin Murphy, EDF. I guess my role is to advocate for the dynamic, the standard that will, from our perspective and from our research and analysis, you know, result in the greatest reduction in methane emissions on the pipeline systems we're talking about and also improve the safety of those systems.

And I think from, you know, what we've seen, first of all, I, you know, I'm hearing this one versus two survey discussion, but there were also so many operators up during the public comment period talking about all kinds of different devices they use and different devices that they use on different

parts of their systems and different phases of a leak survey.

And so it feels a little unrealistic to me to be trying to make this so simplistic as if there's only one technology. There's not, right? There's a lot of technologies in use today and hopefully, you know, more continuing to come on line.

So I think, from my perspective, you know, what we're recommending is what we view as the most effective combination of solutions to mitigate emissions on the system. I don't know if we're going to come to consensus, and I think that's okay. So if we want to, you know, try to wrap it up, I think that's fine.

MR. DANNER: All right. Andy Drake?

MR. DRAKE: This is Andy Drake with Enbridge. I think, you know, what I hear is that we're not -- not we, you are not convinced that .5 kilogram threshold is going to result in the outcome of managing appropriately leaks on distribution systems.

And I was compelled by Arvind's comments about the data associated with .5 and what we would find and what we would not find. And then we would cascade from there, pinpointing leaks for further activity at 5 ppm, which is not a standard.

And I think the one thing that we're setting here, which I think is quite helpful, is you're setting a standard of performance in the follow-up investigation that 5 ppm is the standard of care that distributions been having for a while, but it's now applied to all distributions, it's now applied also to all of gas transmission, and it probably will be to gathering as well.

Which I think is raising, like Stacey Gerard used to say, float all the boats. You're floating all the boats of the sectors to 5 ppm on follow-up which I think a really good advancement.

But I think somehow, I'm with Chad, I think the goal is to set a threshold on a

screening exam that we feel is constructive and manages not everything, not all, but practicable, reasonable, cost efficient, getting at the biggest core provider or core source of leaks. And I was compelled by Arvind's conversation that that number seemed appropriate.

And I'm having a -- I'm not compelled with two surveys with two different standards of care. It just seems like we're missing the point of this conversation was set a threshold, do a screening example that we think is conservative and appropriate, and then follow it up with appropriate standard of care to pinpoint and remediate.

And I'm just having a really hard time with the parallel nature of this with two different thresholds. So that's -- I'm just trying to be out loud. And I open the door for follow-up because I just -- I'm struggling with it, quite frankly.

MR. DANNER: All right, others?

All right, I think at this point, we are -- we've had the conversation. We have two proposals before us. We, under our processes, we have to take them up one at a time.

So if there is a motion, I -- all right, Diane?

MR. WEISKER: I was going to make the motion.

MS. BURMAN: Before you do --

MR. WEISKER: Or you're going to make a comment? Okay.

MS. BURMAN: Yeah, I guess I'm not -- I am feeling like there's been this, well, we should just vote on the two and see where it goes, right? And we're missing, I think, the critical rationale on what the underlying basis is for having two surveys.

And also it's, you know, Erin, you said rightfully that there were public comments that had all different types of technologies, all different experiences. And so frankly, even getting to just the -- I'm missing the

rationale on why distribution is treated differently here, forget about the -- whether -- what the number is, but that, you know, .5 or -- for me, I don't understand the rationale on why distribution is getting treated differently on the surveys, why two here and transmission has, I think, the right flexibility there.

And then further, as it is, we're putting in here -- we're picking a technology over other technologies that may exist, do exist, that they will not be allowed to use. And I don't understand that. I'm just trying to understand because -- and then what is it that -- what's the impact on this to rate payers? It's a huge issue.

MR. DANNER: All right, Pete?

MR. CHACE: Pete Chace, NAPSR. I will be blunt and just ask the question. Is this being driven by a desire to get data on emissions in a flowrate of kilograms per hour for use in climate modeling?

MR. DANNER: Erin, if you'd like to respond?

MS. MURPHY: No.

MR. CHACE: Thank you.

MR. DANNER: All right, so, again, I think at this point, let's entertain a motion. Brian, do you want to make a motion on yours?

MR. WEISKER: I do, but that's -- the other one. There you go.

I make a motion to approve the -- or that the proposed rule as published in the Federal Register and as supported by the preliminary regulatory impact analysis and draft environmental assessment regarding the advanced leak detection program performance standards for gas distribution pipelines is technically feasible, reasonable, cost effective, and practicable if the following changes are made.

Performance standards for pipelines, 0.5 kilogram per hour screening survey and follow-up investigation of leak indications

with handheld equipment, parentheses, 5 ppm, 5 ppmm, or 1 percent LEL, or leakage survey with handheld or mobile equipment at 5 ppm or 5 ppmm.

Consideration of alternative standard for inside piping, recommend probability of detection standard for all flowrate based advanced leak detection technology at 90 percent.

Clarify the scope of the alternative performance standard process in 192.18 and 192.763(c). Covers gas distribution pipelines.

And PHMSA should provide meaningful and timely review of notifications and should work with stakeholders to address public availability of notifications.

MR. DANNER: All right, is there a second?

All right, Andy Drake seconds.

All right, Brianna, would you record the vote, please?

MS. WILSON: When I call your name,

please answer yes or no. Diane Burman?

MS. BURMAN: Yes.

MS. WILSON: Peter Chace?

MR. CHACE: Yes.

MS. WILSON: David Danner?

MR. DANNER: Yes.

MS. WILSON: Sara Longan?

MS. LONGAN: Yes.

MS. WILSON: Terry Turpin?

MR. TURPIN: Yes.

MS. WILSON: Brian Weisker?

MR. WEISKER: Yes.

MS. WILSON: Andrew Drake?

MR. DRAKE: Yes.

MS. WILSON: Alex Dewar?

MR. DEWAR: Yes.

MS. WILSON: Steve Squibb?

MR. SQUIBB: Yes.

MS. WILSON: Chad Zamarin?

MR. ZAMARIN: Yes.

MS. WILSON: Chad Gilbert?

MR. GILBERT: Yes.

MS. WILSON: Arvind Ravikumar?

MR. RAVIKUMAR: Yes.

MS. WILSON: Erin Murphy?

MS. MURPHY: No.

MS. WILSON: Sara Gosman?

MS. GOSMAN: Yes.

MS. WILSON: Sam Ariaratnam?

MR. ARIARATNAM: Yes.

MS. WILSON: The motion carries, 14-1.

MR. DANNER: All right, thank you very much. Erin?

MS. MURPHY: Yeah, I'd like to withdraw my proposal from a vote.

MR. DANNER: All right, thank you very much.

This takes us up now to the compressor station exceptions. John, do you want to make any comments as we get into that discussion?

MR. GALE: Yeah, thank you, Chairman. And hearing from the committee, there

was -- it seemed to be about three more elements left in this area to discuss.

One was a discussion of the coordination with related EPA standards. The other one, we're not sure if we've already covered it, which was the alternative performance standard. And then, 192.18. That may be really off the record at this point, I'm not sure. But of course, we want to hear from the committee.

And last, but not least, was the issue on the ALDP. One of the issues that was raised by Member Drake earlier were some of the provisions in there as how you'd consider and determine the appropriate ALDP standard for your system. So with that being said, those are the three remaining elements for this sector.

MR. DANNER: All right, Chad, do you want to start the discussion here?

MR. ZAMARIN: Thank you. Chad Zamarin with Williams. I'm comfortable that,

based on the principles that we laid out that included alignment of PHMSA's efforts with EPA's efforts that we addressed that issue.

So if anyone else disagrees, let me know. But I'm comfortable with us having addressed that issue. Thank you.

MR. DANNER: I would agree. Is there anyone who disagrees with what Chad has said?

All right.

MR. GALE: Just to be clear, as I understand, we would be done with this section and we'd moving -- oh, there's one more? Sorry.

MR. DANNER: Yeah, Andy Drake?

MR. DRAKE: Andy Drake with Enbridge. I think that was just one bullet, not the whole thing.

MR. DANNER: I'm sorry, got a little excited there, Andy, my apologies.

MR. DRAKE: That's all right, no, not to drag us down here, but I don't want to

get over zesty. I do think we need to talk about some of the program element issues, particularly the annual review.

MR. DANNER: All right.

MR. DRAKE: 763, but I don't want to skate past the human senses one either, unless someone has something there.

MR. DANNER: Okay. So does anyone have anything they want to raise on human senses and alternative? Yes, Erin?

MS. MURPHY: Yes, I had sent some language to PHMSA staff on human senses. Are y'all able to put that up?

PARTICIPANT: We're going to need a minute on that, Erin. But we can talk about elements.

MR. DANNER: You want to talk about elements? Is there any further discussion on program elements?

So you said that you didn't want to skip over program elements, and I was giving an opportunity not to skip over program elements.

MR. DRAKE: Okay, I was just making sure I didn't run over the human senses thing.

This is Andy Drake with Enbridge. Maybe I can ask John to make sure we have Robert's Rules of Order here on when we talk about the program elements here, are we talking about it just in the context of ALDP or are we talking about it kind of in all the aspects of program elements?

Because the piece I brought up earlier was about the annual review. And if this is the right place to bring it up, I'm glad to talk about it here or do you want to cover it in another section?

MR. GALE: This is the appropriate place.

MR. DRAKE: All right, perfect. I do think it's important here for us to deliberate a little bit over the practicability of an annual review for the operator to evaluate whether or not they use the best technology regardless of the thresholds.

I think that's a lot of churn. That means every year we're coming back and evaluating or justifying the technologies we chose that meet this standard to see if there was something else we could have done to meet a better standard.

I'm all for continuous improvement. That just seems like a really short cycle. We're basically going to set up programs that's going to take us years to get into place. Then we're going to deploy them. While we're doing that, every year we're going to be evaluating and defining whether the decisions we made in that year could have been better even though they meet the standard.

I would propose that we should be looking on like a three to five year cycle for that kind of discussion. Otherwise, you just create so much turbulence about the processes and the procedures we put into place that they're basically invalid at the time of writing.

Give us a chance to put them into place, practice them, do them, and keep looking at it, and then set a cycle to review and upgrade and improve that's long enough for us to have some stability in deployment. It's just a matter of practicability, frankly.

MR. DANNER: Chad?

MR. ZAMARIN: Yes, just maybe to carry on with that, I think it makes a lot of sense to have that review continuous improvement process. So I think it's actually a really good section.

But I do think, you know, if what we're trying to do is make sure we're staying updated with emerging technologies, you know, it seems like the life cycle is something more like what Andy described as three to five years.

You could always say, you know, you need a minimum of a five year review window or, you know, or faster if technology, you know, if there's some reason to do that. But these are

big programs that are going to put -- get put in place and, you know, putting kind of an annual recycle on the program.

And again, I don't know that we need a vote on this issue. These are just comments that I think are important to be heard unless someone else, you know, does want to vote on it.

But I do think it's important when you think about that, we're putting a program in place and an annual kind of review and update is pretty -- could be pretty disruptive, and I don't think it fits with the intent.

MR. DANNER: So, I mean, this is what is being proposed. So do you want to address this and --

MR. ZAMARIN: Yeah, I mean, in my comments, I'm addressing I think that that should be not to -- I think it should be three or five years or not to exceed five years. If I had to put a number out there, that's my personal view.

But, again, I'm glad to be on the record on it, I'm happy if we want to go deeper and actually become formal on it. But I generally think, for all of us to know, this is a really important part of the process that's being implemented that will continue to drive improvement in this area.

MR. DANNER: All right. Sara Gosman?

MS. GOSMAN: Yeah, Sara Gosman. So I'm looking at the language here. And what I see is, in sub-I there, that the operator must evaluate the program at least once each calendar year, but with a maximum interval not to exceed 15 months. And then there's a set of more specific requirements here that relate to analyzing performance, et cetera.

So I guess I just wonder whether we're having two different conversations here? I mean, I would think that you would want to evaluate in the broadest sense your program every year.

The issue is, are you forced by that evaluation to change, like, horses, you know, in -- after that year? Is that -- so, I feel like those are two separate issues. And if we're just going to put this on the table and sort of have records, the sort of comments into the record, I wanted to say that I feel like, you know, we could do both, right? We could have both evaluation each year and also have the sort of, the deeper dive on the analysis over a longer time span.

MR. DANNER: All right, so Brian and then Andy.

MR. WEISKER: Brian Weisker, Duke Energy. I do think it's worthy of discussion and a vote, not just for the record because I do think, you know, this is going to -- because it's not -- you can read through all the elements and operators must analyze at a minimum performance detection. It's a lot -- it's going to be a lot of work.

And like Andy said, it's, you know,

we're talking about, when we're going to build out a program here, that we're going to be implementing and it's going to be implemented for, you know, for years, right?

And so this -- just don't think that the annual review as proposed is necessary. And I do like Chad's approach, I think not to exceed five years would be a good starter for the conversation. But I do think we need to vote on it.

MR. DANNER: All right, Andy, and then Peter, and then Chad.

MR. DRAKE: This is Andy Drake with Enbridge. Thank you, Sara.

The essence of my concern here is that, you take a good idea and when you regulate it, and then you try to enforce it, sorry, Rob, I had to come back to you on that, it becomes a paperwork bureaucratic nightmare.

It's not about are we willing to continuously improve and evaluate the program. Yes, we should. And I think people will.

It's just when you turn this into a regulation then you put a tight time frame on it, the amount of paperwork that has be generated to go through this analysis and justify every piece of the program that could have been evaluated and whether it was done it right or wrong becomes quite burdensome.

Is there some way to bifurcate that or be very clear in our guidance through PHMSA, which is our objective here, about what the intent is? The intent here is not to create a paperwork nightmare. It is to evaluate the technology, make sure it's staying current, and that we're thinking and learning and improving.

But it's not to create books of stuff so that we can get through an audit on did we do this annually at incredible, nauseating detail. So I appreciated your concept about somehow to separate what is the intent here, because right now, it's pretty onerous.

MR. DANNER: So, I'd like to

actually -- if PHMSA would be willing to share its thinking, because it put it in the rules and I'm pretty sure that its intent was not either to create nausea or a bureaucratic nightmare. So I just wonder if they could explain how they got to this?

MR. PALABRICA: Similar to other programs like IM, we saw value in requiring operators to reevaluate these programs periodically, especially since you're bringing in a lot of new information with the leakage survey and repair requirements, and considering the development of technology over time, which has been a theme of the discussions today. So that's the purpose of the periodic evaluation improvement.

MR. DANNER: Could I ask how you define periodic review? I mean, how thorough are you looking at it to be? How much documentation, how much justification for things, because I'm hearing it characterized by the industry that this would be incredibly

burdensome. I just want to know what your thinking is since you're asking for it on a one-year time line.

MR. PALABRICA: I guess that I would defer to Rod or others on how we've done inspections on this for IM and similar programs in the past. That's sort of what we had in mind.

MR. SEELEY: Rod Seeley, PHMSA. So you're right. We've had expectations and requirements to do review on integrity management for one and the public awareness for another.

It's the idea of taking a step back and evaluating what you've done to see: is it meeting what your perceived expectations are and is it meeting the regulatory requirements in its simplistic version?

But also, it gives you a reason to pause and say, should I be doing something different? And that's the essence of what these effectiveness reviews or periodic reviews

are asking.

The debate, we have what we put in here as a time frame. I think we're open to hearing what the Board has to say in reference to that. But the essence is don't just keep doing what you're doing because you're doing it.

Take a pause, evaluate it, and decide should I be doing something different or am I satisfied with what I'm doing. And that's a choice an operator has to face.

MR. DANNER: So again, my question is what does that review entail? Because you can step back and say, okay, let's take a look at this, and say, how's it going? There's another thing to write a 300-page report and put it in the file.

So I'm just trying to figure out when you think of an assessment like this, what are you thinking it entails?

MR. SEELEY: Typically in situations like this -- Rod Seeley again, sorry -- an

operator would have performance measures. What do I expect to happen?

There's performance criteria, sometimes in regulations and sometimes the operator creates their own performance criteria. It would be an evaluation against the expected performance criteria. Did we find what we should have found?

I can't give you the specifics because I don't know what everyone else's programs are going to have, but it's on a very simplistic note. Are the procedures adequate? Do we need to make them better?

Are we using the right equipment based off of what we expected it to do? And if not, do we need to do something different? It could be anything. Do we need to train people differently because we're not getting the results we should be getting?

So it's a lot of variety. It's really an internal reflection of are we getting what we expect to get? I can't give you an

exhaustive list of performance measures to compare it to, but that's what it would be based off of, your performance metrics.

MR. DANNER: All right. Thank you.

Chad?

MR. ZAMARIN: Thank you. Chad Zamarin, Williams. And just to build on that, I think what Rod's describing is it helps to frame the fact that it is not a trivial exercise.

We do this integrity management. It is not just a quick review. We document the results of what we do, the analysis, and the expectation here would be the same. I think that process is a great process and makes sense.

On something like this, we have some survey intervals that are beyond the time frame of even measuring and improving the program. It just doesn't seem like you're going to have the ability in an area where we're going to implement an ongoing program.

A lot of times what we do in other areas is over a period of time, you're looking at the results and the trends. Are you getting the expected results you expected? Meanwhile, is technology evolving alongside of it? Are there lessons being learned in other parts of the industry or elsewhere that you can incorporate?

That is a robust exercise we go through. And anytime it's mandated in the regulation, we have to document it thoroughly, and it is subject to audit and enforcement. So we take it very seriously, and it is a very comprehensive review that gets done.

MR. DANNER: All right. Diane?

MS. BURMAN: Thank you. I think it's appropriate to have some type of periodic evaluation and improvement requirement.

I appreciated, Rod, your perspective on the different things you might look at, not binding PHMSA to anything.

My concern is that a yearly

evaluation even if it's not intended to be onerous will in and of itself be onerous, and may wind up just being hard for both the operator and the regulators to actually gather the data that's needed and gather helpful information.

And that in a sense, you're going to just constantly be in the cycle of focused on getting ready for the next periodic evaluation and improvement. And I'm not sure that you're going to have the actual information, especially for the fact that surveys are three years on non-leak pipe.

It seems to me that if we're looking at doing a periodic evaluation and improvement that has value, we should be looking at an interval of three to five years. And whatever that number is, I don't know, but it definitely shouldn't be an annual because that seems like it's not going to actually provide any legitimate information and will be too onerous for folks.

MR. DANNER: Thank you.

Alan?

MR. MAYBERRY: Just for guidance, I'm going to offer some input related to what we're always referring to in integrity management where there's a requirement for evaluation. You may consider it not reinventing the wheel.

In your recommendation, it talks about an operator must conduct a periodic evaluation as frequently as needed to assure the integrity of each covered segment. In this case, the relevance of the leak detection repair program or something like that without a time period.

Also, I don't think I saw a comment related to this change in the comments from the industry. Now is fine though.

MR. DANNER: All right. Thank you.

Steve?

MR. SQUIBB: Steve Squibb, City Utilities. I just wanted to mention that

192.605 already requires an annual O&M review. That includes survey procedures and calibration of equipment. We already report number of leak and incidents to PHMSA.

Just to make sure everybody realizes what's involved and what's proposed, when considering changes to program elements, operators must analyze at a minimum: the performance of the leak detection equipment used, the adequacy of the leakage survey procedures, advances in leak detection technologies and practices, the number of leaks that are initially detected by the public, the number of leaks and incidents, and estimated emissions from leaks detected pursuant to this section.

So that's quite involved. It would be not reasonable.

MR. DANNER: All right. Sara?

MS. GOSMAN: I'd prefer specific language about the interval rather than as needed. I think particularly because we're

incorporating changes in technology over time, I want to see more specifics here. I would tend towards an interval of three years as to three and five.

I do think that I want us to both recognize that continuous evaluation and improvement is critical to pipeline safety and environmental issues across the board, that we all support that. And then for a deep dive in terms of a periodic evaluation, I think three years is an appropriate time span for that.

MR. DANNER: So I would actually like to see that principle, the first one, the periodic evaluation and improvement is essential to the development of the program, and have that as kind of an introductory sentence here.

I'm also concerned -- I think five years is too long, especially at the beginning when you're setting this thing up. I don't want to wait five years and then find out that you're going down the wrong track. So I think

I would ask that a preliminary evaluation be done within two years and then three years after that.

Let's see. Brian, you're next.

MR. WEISKER: Brian Weisker, Duke Energy. I'm going to say something that's probably contrary to what you just said, David, but my thought for language would be that an operator must conduct an evaluation every three years to assure the adequacy of the advanced leak detection program, just something simple like that.

MR. DANNER: Okay. And again, when you're kicking the program off you're -- it does seem when you're starting a program, it would make sense at the very beginning that you review and make sure that you're going down the right track. So I just offer that.

Pete?

MR. CHACE: Pete Chace, NAPSR. Thank you, Mr. Chairman. I'd point out that we've got most of the pipes now on a three-year

schedule. So a three-year reevaluation interval at the start seems appropriate because you won't have the data coming in until the three-year cycle is done.

MR. DANNER: All right, point well taken.

Andy?

MR. DRAKE: Andy Drake with Enbridge. Just pragmatically, I agree with Commissioner Chase. At the beginning you're just getting started, so it's just getting going. I don't think we want to go a long time. Five is too long. I think two may be a little quick. We don't have the data to do much with.

I think we are going to be -- no one here is saying we're not going to do continuous improvement. I think people are going to constantly be looking at how to dial this in, create procedures, develop. I think three seems reasonable, frankly, and I appreciate that it ties to other inspection frequencies.

That just seems more reasonable and practicable as we talk about enforcement. I know those discussions get pretty long and there's going to be a lot of questions in there. I just want to be very realistic about how it's going to happen.

It's not going to be a quick conversation. There's going to be a lot of things that we're going to talk through. So I think getting data on it, letting the program stand up, get it to run a little bit and see, and then on a set frequency makes sense.

MR. DANNER: All right. Thank you. Diane?

MS. BURMAN: So just to make clear as we are looking at the initiation of this, you're going to need at least two surveys to see if any improvement has occurred or is needed. While you may look at considering info of three years to assess, you're going to need at least three years for the surveys, plus some time to evaluate the results.

So I think just from a practical perspective, to have real data, when you start to kick it off, you're going to have to think about what that looks like in an effective date because you're going to need to make sure that you're not starting off the first time you do it with inadequate data. It's not going to be of any relevance.

MR. DANNER: All right. Thank you.

Peter, then Sara? All right. Sara?

MS. GOSMAN: Yes. Thank you very much. I think I'm still very comfortable with this language because I feel like if three years is the interval, there will be time in there to also be doing these surveys and getting feedback as it goes along.

The Committee recognizes that periodic evaluation and continuous improvement is necessary because the language I hear again and again from operators is continuous improvement. Everything else on here looks good to me.

MR. DANNER: Although I would change the but to and.

MS. GOSMAN: Very good.

MR. DANNER: All right. Steve?

MR. SQUIBB: Steve Squibb, City Utilities. I propose the following language.

MR. DANNER: Are you preparing to make a motion?

MR. SQUIBB: No. I'm just clarifying Brian's suggestion.

MR. DANNER: All right. Go ahead.

MR. SQUIBB: An operator must conduct an evaluation every three years to assure the adequacy of the advanced leak detection program.

MR. DANNER: Okay. And that is in addition to the language that is there?

MR. SQUIBB: I think it would probably fit in just -- I think what you're saying is fit that in. A PHMSA should consider requiring an operator to assess the adequacy. There you go. There it is, an operator must

conduct.

MR. DANNER: Does that work for you? That's good.

MS. GOSMAN: Chair, can I ask clarifying language? I'm not sure why this language is different than the previous language.

MR. DANNER: I'm struggling with that myself.

MS. GOSMAN: I mean, otherwise you wouldn't be changing it, but I don't know what the change is.

MR. DANNER: Brian or Steve, do you want to --

MR. ZAMARIN: I think the previous language was fine too.

MR. DANNER: Okay. All right, Andy and then Chad.

MR. ZAMARIN: Sorry. I think Andy is about to make a motion. This is Chad Zamarin with Williams.

I just wanted to say I actually

agree with your concept that you described earlier, Chairman Danner. The idea of earlier and then extended intervals makes sense.

I sense that we're coming to the end maybe of patience on this issue, but I would have liked to have seen every three years and then five years thereafter, or initially within three years and five years thereafter. I'm fine to have us vote on just this language. Thank you.

MR. DANNER: Thank you. I know I mentioned two years to begin with and three years after that.

What I heard was we've got to collect the data first. I agree with that, although I'll put it out there with the common sense admonition that if it looks like it's not going the right direction, fix it as soon as possible.

All right. Diane?

MS. BURMAN: Yes. So I don't mean to get locked in. I actually see this as

important that when we initially start to do this, we do it right, and that you do need at least two surveys to be able to have the real data to evaluate. It does not mean that as you're going through, you're not doing your own evaluation on the things that you do have.

For this to be a periodic evaluation and continuous improvement, if you don't have the data sets of the two surveys, it's not really going to give you a complete picture. It will be fine after this gets up and running to go to perhaps a three-year cycle.

In my mind though, it should be: what about the first year? When PHMSA is determining that three-year to kick in is important. So looking at this, I would see it as more what about the first year being at five years and then every three years after that, which I think is different from where Chad is at.

However, I do think that you need to think about the trigger date for that three

years because you're going to need the information to be able to do it. It just doesn't make any sense.

MR. DANNER: Yes. Again, I just think that PHMSA on the basis of this will know how to start the implementation and set the deadlines. So I'm speaking for myself. I'm not sure that that's necessary.

Sara and then Andy?

MS. GOSMAN: Thank you. So what's happening is we have a bunch of different survey frequencies. I think my concern about moving to five years initially is that we have yearly frequency for leak-prone pipe, plus inside the business district, if I got that one right.

So I think we've given PHMSA some information to ponder about the right frequency. We've heard some different numbers here. I think with that, I'd be comfortable voting on this language, but also acknowledging that PHMSA is going to need to think about data

collection and whether operators do have enough.

MR. DANNER: All right. The question is, do we want a motion on just this before we go to human senses or do we want to do the other one first? Do you want to do this alone?

Andy, do you want to make a motion?

MR. DRAKE: Yes, I'd like to make a motion. I do appreciate Commissioner Burman's comment. I think there's a lot going on here. I think we've created a record that gives PHMSA guidance.

I'm looking at Alan on how to set a start date. I think that's important. I see you shaking your head yes. That's good.

With that, I do think a three-year interval even at the beginning. We may be dealing with a lot of pieces and parts for a while, but I think it's important to formalize that because it's a vertical learning curve. So with that, I'd like to propose that the --

MR. SQUIBB: Is this the final for the program elements --

MR. DANNER: I'm sorry. Could you turn your microphone on?

MR. SQUIBB: Steve Squibb. Sorry to interrupt. Is this the final discussion for program elements or will we have more program elements to discuss?

MR. DANNER: I'm not aware that there's others. I think we would be going from this to human senses.

MR. SQUIBB: I have another element to discuss.

MR. DRAKE: All right. Partial motion withdrawn.

MR. DANNER: We didn't have a motion yet.

MR. SQUIBB: Sorry about that.

MR. DANNER: All right, Steve. Go ahead.

MR. SQUIBB: Continue? Okay.

Sorry about that, Andy.

The element of tool selection. I know we spent quite a bit of time this morning talking about performance standards of these tools. Does that now allow us to simplify the tool selection where we just say the tool will be selected based on the performance standards that have been established?

What's proposed involves engineering analysis and quite an exhaustive selection process when we select a tool. My proposal is just to select a tool that meets the performance requirements.

MR. DANNER: Yes. Speaking for myself, I'm not sure that we need to have that. We've talked about providing flexibility in setting this up. I think that would be up to the operators as long as it conforms to everything else we've done.

Any other thoughts on that?

Andy?

MR. DRAKE: Andy Drake with Enbridge. I think Steve brings up a good

point. I just think that we may have created enough of a record here.

Again, I'm looking at Alan. Keeping you in the spotlight, buddy.

I really think we did set thresholds. There is some requirements in there for rigorous engineering analysis. I think that would be more if we were going down the alternatives trail.

If we're not picking technologies, we do have some validation to do that the technology meets the standard of care and defines the thresholds. After that, I don't know how much rigorous engineering there is unless you go down an alternative trail.

So I think we've got a record here that records that. I wouldn't think that there would be a lot of detailed engineering about tool choices if they can prove that it meets the threshold.

Is that reasonable or do we need to do an engineering analysis to prove that the

vendor has validated it? I'm looking. I'm asking.

MR. DANNER: Alan?

MR. MAYBERRY: Well, you would need to do a credible analysis to assure that it performs as advertised and that it meets the requirements of the code.

MR. DRAKE: Okay, but that's the extent of it? Like we would do on an ILI, some sort of validation effort that the tool works for those capabilities, that's what we're talking about?

MR. MAYBERRY: Right.

MR. DRAKE: Okay.

MR. DANNER: All right. Sara, then Arvind, then Pete?

MS. GOSMAN: So I'm looking at this language. I assume we're talking about 192.763(a)(1)(iii). Is that right, that's the language we're focusing on? Okay.

So what I see is documented analysis. And then considering things that I

think you would be considering, my confusion is these all seem like very logical things that you would consider in choosing your suite of technologies.

That is, you'd want to look at the state of commercially available leak detection technologies and practices. You'd want to look at your pipeline system, your system operating parameters, environment, and analyze the effectiveness of the different tools.

Is this because you're worried about the paperwork side of it? It seems like a very logical description of the decision-making process you would do.

MR. DANNER: Steve?

MR. SQUIBB: Steve Squibb, City Utilities. Yes, I think it's going to be burdensome to do that. As long as we have a tool that meets the performance standard, then it should perform per the program. So I think that should be sufficient.

MR. DANNER: Thank you.

Arvind?

MR. RAVIKUMAR: I agree with the comment made earlier that for any new alternative technology, you have to ensure that it meets the standard that we have set here, but I think that's more technical discussion on what kind of testing you need to do to achieve the standard.

And I don't think it's appropriate for this Committee to recommend those details. That can be done later.

MR. DANNER: All right. Thank you for that. Pete?

MR. CHACE: Pete Chace, NAPSR. In reading and thinking about (iii), I believe that the average small to mid-size operator is going to be completely bewildered about what the expectations are for them to comply with this.

I think it's really going to be, well, the manufacturer's specifications say this ought to work. I think that's what you're

going to get.

The other thing in reading some of this, boy, it sure reads a whole lot like the requirements for periodic evaluation and improvement of your leak management program. So I wonder if maybe this is going a little overboard.

If not, maybe the small operator exemption may be appropriate for some of this. Again, we're talking about small operators that don't have an R&D staff. They're not going to know what to do. Look, I got this thing and the manufacturer says it's supposed to work.

MR. DANNER: All right. Andy?

MR. DRAKE: This is Andy Drake with Enbridge. Sara, you're exactly right. These are logical things that should be considered and thought through.

And I appreciate the smaller operators, are they going to get buried on this? The question may actually be -- and this may something that as we evolve in this and

it's kind of new -- who is to do that?

We may need to create a standard of care of what are those issues and then actually pass that to the vendors. It's kind of how we do it now with ILI. We have standards that tell the vendors how to qualify ILI tools, how an operator should even check on them. That takes some of the burden off of the small operators.

I think it's prudent to do this. I just think that it may be almost more who is doing it.

If we can tell the vendor community, which we're kind of doing right here a little bit, that that's an expectation for them to come to the table with the engineering analysis done that validates there's tools performance, and they can provide that to the operator who then can review it, that's different than having to do the review by 2,000 different operators every single time.

So I just throw that out there as a

practical means to getting what we want accomplished here. If an operator picks a tool that doesn't have any validation to a certain standard, then everybody's ears should go way up.

And then that operator should have to sit down and go through it personally. But if they can get some sort of UL-approved stamp on this, so to speak, that would service everybody.

MR. DANNER: Can we see the motion language? Can we change the second bullet to PHMSA should provide guidance on performance standards for compliance with (a)(1)(iii) with special attention to small operators?

And then I throw that out for your consideration. I think I said tool selection analysis for compliance with (a)(1)(iii). Any thoughts on that? Arvind?

MR. RAVIKUMAR: I would remove the words tool selection because it's a little too vague. What is a tool? It's a combination of

a sensor, a platform, a program, and how often you do it. So I think PHMSA should provide guidance on --

MR. DANNER: Yes, I think that's fine, or compliance with.

MR. RAVIKUMAR: Yes.

MR. DANNER: All right. Brian?

MR. WEISKER: Brian Weisker, Duke Energy. Hopefully, this is one last question. I think this is for PHMSA.

Is the intention for the operator to prove why they picked the technology or that they evaluated and made a selection on something that's technically feasible and best for their system?

MR. PALABRICA: Yes. That's basically correct that by considering those factors, they've chosen an effective tool for their system.

MR. WEISKER: Thank you.

MR. DANNER: All right. Again, we're asking PHMSA to provide that guidance, so

I think we can step back.

Pete, did you have something to say before Andy makes a motion?

MR. CHACE: I think this is going to be something that enriches some consultants who are going to be writing these things for small operators who don't know what they're doing.

MR. DANNER: We'll see what the PHMSA guidance looks like. That would perhaps address some of those concerns.

Chad?

MR. ZAMARIN: Chad Zamarin, Williams. I just had a follow-up and it was more a question. There was a comment made that I thought was a good one during the public comment period. There's a segment in here on leakage survey frequency.

And was interested in understanding why that wasn't in the section of the NPRM on survey frequency. It seems out of place here geographically to be having this section intended to be a technical standard and having

a separate section that was focused on leak survey frequency.

So more just an editorial comment. I have nothing to debate on the content of that section, but I thought that was a really good comment from the public. I think it's always helpful to compartmentalize things if we can. Thank you.

MR. DANNER: All right. Diane?

MS. BURMAN: I just want to make sure that I get this in for the record about the special attention for implementation by small operators because I do think that special attention is really important, especially as it relates to looking at the feasibility of operators being able to buy multiple devices to evaluate. If it meets the standard, it could be used.

I think I worry that we spend a lot of time on standards, and now looking at operators needing to evaluate multiple devices may actually -- just keep in mind that is

really important to me in terms of looking at what are we doing, and how is this impacting from a cost perspective as well.

MR. DANNER: All right. Thank you. Andy?

MR. DRAKE: Based on this conversation, I'd like to propose that the proposed rule is published in the Federal Register and as supported by the Preliminary Regulatory Impact Analysis and Draft Environmental Assessment regarding the advanced leak detection program elements is technically feasible, reasonable, cost effective, and practicable with the following considerations.

One, the Committee recognizes that periodic evaluation and continuous improvement is necessary, and recommends PHMSA consider requiring an operator conduct an evaluation every three years to ensure the adequacy of the leak detection program.

And two, PHMSA should provide guidance on compliance with paragraph

192.763(a)(1)(iii) with special attention for implementation by small operators.

MR. DANNER: All right. Thank you.

Is there a second?

Sara?

MS. GOSMAN: I second.

MR. DANNER: All right. Sara Gosman seconds.

Brianna, will you record the vote?

MS. WILSON: Please vote yes or no when I say your name.

Diane Burman?

MS. BURMAN: Yes.

MS. WILSON: Peter Chace?

MR. CHACE: Yes.

MS. WILSON: David Danner?

MR. DANNER: Yes.

MS. WILSON: Sara Longan?

MS. LONGAN: Yes.

MS. WILSON: Terry Turpin?

MR. TURPIN: Yes.

MS. WILSON: Brian Weisker?

MR. WEISKER: Yes.

MS. WILSON: Andrew Drake?

MR. DRAKE: Yes.

MS. WILSON: Alex Dewar?

MR. DEWAR: Yes.

MS. WILSON: Steve Squibb?

MR. SQUIBB: Yes.

MS. WILSON: Chad Zamarin?

MR. ZAMARIN: Yes.

MS. WILSON: Chad Gilbert?

MR. GILBERT: Yes.

MS. WILSON: Arvind Ravikumar?

MR. RAVIKUMAR: Yes.

MS. WILSON: Erin Murphy?

MS. MURPHY: Yes.

MS. WILSON: Sara Gosman?

MS. GOSMAN: Yes.

MS. WILSON: Sam Ariaratnam?

MR. ARIARATNAM: Yes.

MS. WILSON: The motion carries. It's unanimous.

MR. DANNER: All right. Thank you

very much.

Now do we want to deal with the language submitted by Erin?

MR. GALE: Yes, Chairman. We have the language submitted by Member Murphy on the issue of human senses. It's up on the screen. Erin?

MS. MURPHY: Thank you. Erin Murphy, EDF. I know this is a lot of words, but I wanted to start with the context of the congressional directive. Part of Section 113 of PIPES 2020 directs the agency to identify any scenarios where operators may use leak detection practices that depend on human senses.

What I would like to recommend the Committee consider recommending to PHMSA is to remove the proposed exception from using leak detection equipment from class 1 or 2 location transmission or gathering lines -- that should probably say regulated gathering lines there -- or offshore transmission or gathering.

And then to correspondingly add some language into the 763 ALDP program section that would permit operators to voluntarily use human senses for leak detection in addition to their leak detection equipment surveys. And then the red lines that might be recommended to PHMSA are laid out below.

The basis for this recommendation is that there's been a lot of discussion about the value of using leak detection equipment, of quantifying leaks that are found on systems. And I think that applies to transmission and gathering lines. That's relevant and valuable practice regardless of the class location of the pipeline.

I also wanted to ask the Committee to consider that when we're thinking about aerial fly-over surveys that are the most common choice for aerial leak detection on transmission and gathering lines, those are often flown in flight patterns that can cover a large amount of upstream and midstream

infrastructure in one go.

So again, this drawing the line on the class location didn't make a huge amount of sense to me as a cutoff for when leak detection equipment would be used.

And then I guess the voluntary language at the bottom is to acknowledge that operators may want to use human sense leak detection, and just make that a voluntary addition to the ALDP program.

MR. DANNER: All right. Thank you. And thank you for bringing this before us.

Pete?

MR. CHACE: Pete Chace, NAPSR. I can understand moving the second exception.

The first one, we don't regulate offshore lines in Ohio, but I can picture a visual for something underwater making some sense. Maybe I misunderstand, but it seems to me like the first point is an adequate form of leak detection.

MR. DANNER: All right. Chad

Zamarin?

MR. ZAMARIN: Thanks. Chad Zamarin, Williams. It may be helpful to hear from PHMSA since this is a pretty significant proposed change. It'd be helpful to understand where maybe PHMSA sees this having been used and why it may make sense -- I mean, it was proposed by PHMSA -- why it may make sense to have. The context may be helpful.

MR. GALE: Thank you, Chad. John Gale, PHMSA. As Erin points out here above, in the statute itself, in Section 113 we were directed to identify any scenarios where operators may use leak detection practices that depend on human senses.

When it came to offshore pipelines, we thought it was very appropriate to use human senses in those scenarios. We thought it would be very appropriate as well in certain situations where it may be less risky to the public to at least give the option for class 1 and 2 locations for both transmission and

gathering lines to come in for a 192.18 notification.

We're not saying that that's going to be an easy bar to get over or hurdle to get over, but we thought it was reasonable to give them that option if there was a scenario that they thought it would be appropriate, while also really being clear that we thought it was in direct compliance with the provision in Section 113.

MR. DANNER: Andy Drake?

MR. DRAKE: Andy Drake with Enbridge. I'm going to maybe pick this one at a time, literally.

I think number one, the human sense that we're driving off of is visual. I think this is really important. It's very effective offshore to look for bubbles. We have been really good at that.

I don't think deploying ALD offshore is going to help improve our ability to find those leaks. I really don't. I think the best

thing we do is get people looking all the time for leaks and bubbles, not on any interval but constantly.

I think taking that out and bringing in ALD offshore isn't going to add anything in the scheme of things here. If we couldn't see it with our eyes, we're not even going to know where to go when we're out there. I don't know what else we would do. If we brought in ALD and it detected something that we can't see with bubbles, I literally don't know what we would do.

So practical is, I think, where I am on the offshore part. The second piece I'll let some more conversation happen on. I'm still trying to digest the second part, but I understand it.

MR. DANNER: Just for my own clarification, you're saying that advanced leak detection is not effective offshore and you don't use it?

MR. DRAKE: I would say the inverse

of that perhaps, that human senses is a better, more practicable, more efficient and effective vehicle than ALD. If I went offshore and I ran ALD out there, and I couldn't see a leak, I wouldn't know what to do with it anyway.

I would be locked up with where to go next. There's nowhere to start focusing my effort. We would use visual as the driver to make a decision on where to deploy additional efforts like remediation. If I couldn't see it, I don't even know what I would do.

I'm open here if anybody's got any better answers than that. I'm literally just responding on the fly here. That's based on my experience how I see the two stacking up.

If I had a hit on ALD, I would bring out someone to look around to see if they could see something. If they couldn't see anything, I don't know what we would do next. I don't know where we would go on the system to try to start doing diving surveys or something. It wouldn't make any sense.

MR. DANNER: All right. Thank you. Erin Murphy?

MS. MURPHY: Just to respond to Peter and Andy, I believe there are some comments in the record about the availability of some technologies for offshore, but they're not our comments. And I'm not super familiar with those technology options.

So I think I'm open to discussing whether there is a lot of practical value to retaining this exception in the offshore context.

MR. DANNER: All right. Others? Chad?

MR. ZAMARIN: Yes. I'm not hearing a whole lot of good data or justification for us basically taking a tool away from an entire offshore industry that was proposed by PHMSA and the NPRM. So I would definitely not support striking the ability to use visual inspection in offshore pipelines.

It sounds like if we wanted to

discuss that, we'd need a much deeper dive into this issue to understand it better. That doesn't seem like we can make that kind of recommendation. Thank you.

MS. LONGAN: Mr. Chairman, Sara Longan, Army Corps of Engineers, trying to offer this comment just to be helpful because I'm still trying to understand the justification. If there is one, then I really want to pay attention and learn.

There is a chance that some of those could be Section 10, Rivers and Harbors Act jurisdictional waters. And I don't know if you had any deliberation with other agencies, for example, Army Corps of Engineers. I'm just trying to understand what we're taking away here and where other agencies may be interested.

MR. DANNER: Any other discussion on this? Sara?

MS. GOSMAN: Yes. I'm convinced by the arguments here as to the first one, the

offshore, but I remain very concerned about human senses on the onshore side.

I'll just repeat that what we're doing here is an advanced leak detection program. I think that in that context, even with the limitations that PHMSA has put on this through the notification process, human senses really should be in addition to and voluntarily chosen by operators as opposed to the leak detection technology that we're going to be using.

I'm struggling even to understand how someone would explain how a human sense would meet the five-ppm standard or the 0.5 kilograms-per-hour standard. I don't think that notification process is going to be helpful on this issue. I think we shouldn't be using human senses in this context.

MR. DANNER: Can you go back to the proposal that Erin Murphy had? All right. So what you were putting up on the other slide, you're simply removing offshore transmission or

clarifying that this is only limited to onshore; is that correct? You were the one who --

MR. GALE: Yes. Member Gosman's recommendation was to retain (a)(1) regarding offshore, but to delete (a)(2) with regard to onshore pipelines at class 1 and 2 locations. So we've written up some language on both slides that would show that.

MR. DANNER: Okay. Just for clarification, Sara Gosman, does that reflect what you were intending to propose?

MS. GOSMAN: Yes, that's fine.

MR. DANNER: Okay. Chad and then Erin?

MR. ZAMARIN: Thanks. Chad Zamarin with Williams. Just as a transmission operator, I agree with Sara.

I don't think our intent here is to be using human senses for onshore pipelines. That's why we just spent the last two days doing what we're doing. So at least I'm

supportive of what's proposed here.

MR. DANNER: All right. Erin Murphy?

MS. MURPHY: Just to follow up on the discussion, I'm also supportive of the removal of the removal of the exception for offshore.

I would ask -- I didn't hear any opposition, if there is any, to voting simultaneously on what's up here, but also voting on a recommendation to add to 763, that line about the voluntary use of human senses in addition to leak equipment.

MR. DANNER: Any opposition to that clarification and that addition? All right. Diane?

MS. BURMAN: Yes. I just want to make sure that we, from a principles perspective, just keep in mind that for me, and I think everyone would agree, human senses are needed and make sense, but obviously should complement other leak devices.

So in other words, if you see, hear, or smell, you should not discount. I know that we understand that, but I just want to make sure it's in the record that getting rid of that doesn't mean that.

MR. DANNER: Thank you. I think that is the general understanding and the intent.

All right. So again, clarification. Does this capture your -- you agreed to the removal of the removal. Does the remaining language capture your intent of what you put up on the other slide with that change?

MS. MURPHY: Yes.

MR. DANNER: Okay. Thank you. I just wanted to clarify that.

Can we put the preamble up there and entertain a motion?

Erin Murphy? We're waiting for the preamble language.

MS. MURPHY: Is that not it?

MR. DANNER: It's there. I'm sorry.

It's a different font. It confused me. It threw me for a loop. Go ahead.

MS. MURPHY: So I'll make a motion for a vote on the following language.

The proposed rule as published in the Federal Register and as supported by the Preliminary Regulatory Impact Analysis and Draft Environmental Assessment regarding the use of human senses and the alternative performance standard within the advanced leak detection program is technically feasible, reasonable, cost effective, and practicable if the following changes are made.

The exception for using leak detection equipment for onshore class 1 and 2 transmission and gathering lines in Section 192.706(a)(2) is removed. Add to Section 192.763 that an operator may use human senses in addition to leak detection equipment.

MR. DANNER: Thank you.

Is there a second? Andy Drake seconded.

Brianna, will you record the votes, please?

MS. WILSON: Please vote yes or no when I call your name.

Diane Burman?

MS. BURMAN: Yes.

MS. WILSON: Peter Chace?

MR. CHACE: Yes.

MS. WILSON: David Danner?

MR. DANNER: Yes.

MS. WILSON: Sara Longan?

MS. LOGAN: Yes.

MS. WILSON: Terry Turpin?

MR. TURPIN: Yes.

MS. WILSON: Brian Weisker?

MR. WEISKER: Yes.

MS. WILSON: Andrew Drake?

MR. DRAKE: Yes.

MS. WILSON: Alex Dewar?

MR. DEWAR: Yes.

MS. WILSON: Steve Squibb?

MR. SQUIBB: Yes.

MS. WILSON: Chad Zamarin?

MR. ZAMARIN: Yes.

MS. WILSON: Chad Gilbert?

MR. GILBERT: Yes.

MS. WILSON: Arvind Ravikumar?

MR. RAVIKUMAR: Yes.

MS. WILSON: Erin Murphy?

MS. MURPHY: Yes.

MS. WILSON: Sara Gosman?

MS. GOSMAN: Yes.

MS. WILSON: Sam Ariaratnam?

MR. ARIARATNAM: Yes.

MS. WILSON: The vote is unanimous. The motion carries.

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

It is 2:54. It is time for our afternoon break. We will reconvene at ten after 3:00. Thank you.

(Whereupon, the above-entitled matter went off the record at 2:54 p.m. and resumed at 3:19 p.m.)

MR. DANNER: All right. Welcome back. Good afternoon. We're now going to move on to leak grading and repair. I'm going to turn it over to John Gale.

Wait a minute. Before we do that, I want to have a check-in with Alan Mayberry and PHMSA. We are making good progress with regard to the leak detection rules, but we have a long way to go.

And I think the original intention that was we were going to complete both the class rules and the leak rules this week. And I'd just like to get a -- let's check in with Alan and see what we want to do there.

MR. MAYBERRY: Thanks, Mr. Chair. Okay. We're at about 3:20 on Wednesday. We're making good progress. The conversation has been amazing. The collaboration has been exceptional.

It's fair to say we're not going to get through class location, which is the next rule that we have on the agenda after we finish

leak detection repair. If we're lucky, we may get to it sometime Friday, but here's what we'll do, you know subject to any recommendations you may have.

I am going to say we'll end up scheduling another meeting. We'll have to obviously go through the process of announcing it in the Federal Register, which we'll do. It will be either another in-person meeting or a virtual meeting. Personally I would prefer a virtual meeting, but we'll announce what type it will be.

And then just stay tuned after that. But we will -- it's obvious we're going to need to schedule more time for class location because we just won't get to cover it with any sort of quality time if we even get to it this week.

MR. DANNER: So can I get a clarification on that? It would be your intention, let's say if we finish the leak detection rules sometime Friday morning or

midday Friday, you would just at that point adjourn and we would pick up the class location at a later date?

MR. MAYBERRY: Well, I defer to the Committee, but we could set up the conversation on class location possibly on Friday if --

MR. DANNER: Okay. Chad and then Diane? I hope we're not going to have a long discussion on this.

MR. ZAMARIN: Yeah. I just do have to say, though, we've been kicking the can down the road on class location now for 20 years. I think it's very frustrating to not get to that important topic.

We're sitting around talking about minute leaks, but that is an opportunity to eliminate some of the largest venting exercises that we do. So I just want to continue to reinforce the importance of us getting to that.

I also just want to make the comment that I don't know that virtual meetings will be as effective. I've seen a lot of in-the-room

and outside-the-room collaboration, and I think there's real value in that. So I would just ask that you consider that when you think about future meetings. Thank you.

MR. DANNER: All right. Thank you. Commissioner Burman?

MS. BURMAN: Yeah, I want to ditto that. I think in-person is really helpful. I also think it's really important to have -- and I know we have to go through the federal process, the Federal Register process, but I think it's really important to have a date certain so that we are all sort of moving forward and not having to wait around for a meeting to be selected. Thank you.

MR. MAYBERRY: Thanks for the input. To be clear, both of the topics we're dealing with are congressional mandates. So we're very sensitive to that. They're both high priority, but we need the quality time. Thank you.

MR. DANNER: Okay. And just a reminder that flying from Alaska takes a long

time.

MS. LONGAN: Mr. Chairman, thank you for the attention. And I support my colleagues in that the in-person meetings bring a lot of value. Thank you.

MR. DANNER: All right. Thank you for that. All right, now let's talk about leak grading and repair. John Gale?

MR. GALE: Yeah, thank you, Mr. Chairman. Mr. Klesin and Mr. York are going to lead us through a discussion on leak grading and repair. It's a fairly long slide deck. I think it's roughly 50 or so slides, so bear with us.

And then what we were hoping to do is at that point open it up for public discussion, maybe give a summary of a recommendation on how to move forward on a discussion and vote strategy, and just kind of close out for the day depending on what time it is at the conclusion of the public comments.

With that being said, we'll turn it

over to Joe. Joe?

MR. KLESIN: Thanks, John. Joe Klesin, PHMSA Eastern Region. Okay, so a little bit of background. Current requirements under 760, the proposed leak grading and repair proposal, 192.760.

Current requirements, only generally applicable repair requirement is to repair hazardous leaks. The term hazardous is not defined but understood to equate to grade 1 leaks in the GPTC guide. Part 192 and GPTC guidance do not require repair of leaks that are non-hazardous, and do not include criteria for ensuring repair of leaks that are hazardous to the environment.

Under the NPRM proposal, the proposal on the new 192.760 requiring an investigation, classification, repair of leaks prioritized by risk to public safety and the environment. Also proposed grading standards consistent with GPTC guide recommendations with modifications for enforceability and to ensure

the protection of public safety and the environment.

Some more background with the GPTC guide. The proposed grading repair criteria derived from the framework in the GPTC guide.

The GPTC guide is not incorporated by reference in part 192, but PHMSA has referenced it in guidance, and several state operators have adopted the grading framework in whole or in part. The GPTC guide recommends classifying leaks by grade, and classifies potential hazard based on location and gas concentration.

Repair time lines. Grade 1 leaks are the highest priority, hazardous leaks requiring immediate repair. Grade 2 leaks are scheduled for repair within 15 months, and Grade 3 leaks are the lowest priority and do not have a defined repair time line, but must be periodically monitored until eliminated.

The PIPES Act directs PHMSA to establish a time line for repair of all leaks

except those with a volume so small as to pose no potential hazard to people or the environment.

Current requirements. Hazardous leaks must be repaired promptly per 192.703. However, promptly is undefined. DIMP requires an effective leak management program, but does not specify repair requirements. The GPTC guide recommends time line for the repair of grade 1 and grade 2 leaks, but does not define a repair schedule for grade 3 leaks.

Grading definitions. Some proposed new definitions would include confined space, means any subsurface structure other than a building of sufficient size to accommodate a person and in which gas could accumulate or migrate. These include vaults, certain tunnels, catch basins, and manholes.

Gas associated substructure means a substructure that is part of an operator's pipeline, but that is not itself designed to contain gas. Lower explosive limit means the

minimum concentration of gas or vapor in air at which propagation of a flame does not occur in the presence of an ignition source at ambient pressure and temperature.

Definitions continued. Substructure means any subsurface structure that is not large enough for a person to enter and in which gas could accumulate or migrate. Substructures include but are not limited to telephone and electrical ducts, conduit, gas and water valve boxes, and meter boxes.

Tunnel, subsurface passageway large enough for a person to enter and in which gas could accumulate or migrate. Wall-to-wall paved area, an area where the ground surface between the curve of a paved street and the front wall of a building is continuously paved, excluding intermittent landscaping such as tree plots.

Under the proposal, a grade 1 leak includes any of the following: any leak that in the judgement of the operating personnel at the

scene is of sufficient magnitude to be an existing or probable hazard to persons or property or a grave hazard to the environment; any amount of escaping gas that has ignited; any indication that gas has migrated into a building, under a building, or into a tunnel; any reading of gas at the outside wall of a building or areas where gas is likely to migrate to an outside wall of a building.

Grade 1 leaks also include any of the following: any reading of 80 percent or greater of the lower explosive limit in a confined space; any reading of 80 percent or greater of the lower explosive limit in a substructure, including gas associated substructures of a gas pipeline or non-associated gas pipelines from which gas would likely migrate to the outside wall of a building; any leak that can be seen, heard, or felt by human senses; or any leak reportable as an incident as defined in 191.3.

Under the proposal for grade 2

leaks, a grade 2 leak is any leak other than a grade 1 leak that represents a probable future hazard to persons or property or a significant hazard to the environment, including a leak with any of the following characteristics: a reading of 40 percent or greater of the LEL under a sidewalk in a wall-to-wall paved area that does not qualify as a grade 1 leak, a reading of 100 percent of the LEL under a street in a wall-to-wall paved area that does not qualify as a grade 1 leak, a reading between 20 percent and 80 percent of the LEL in a confined space, or a reading of less than 80 percent of the LEL in a substructure other than gas-associated substructures from which gas could migrate.

Grade 2 leak continued. A grade 2 leak is any leak other than a grade 1 leak with any of the following characteristics: a reading of 80 percent or greater of the LEL in a gas-associated substructure from which gas is not likely to migrate; any reading greater than

zero percent gas on a transmission or type A or C gas-gathering pipeline that does not qualify as a grade 1 leak; any leak with a leakage rate of ten cubic foot per hour or more that does not qualify as a grade 1 leak; any leak of LPG or hydrogen that does not qualify as a grade 1 leak; or any leak that, in the judgement of the operator personnel at the scene, is of sufficient magnitude to justify a scheduled repair within six months or less.

Some of the requested topics on the grade 2 leak criteria. The proposed rulemaking requested input on the following: proposed criteria for identifying grade 2 leaks that constitute a significant hazard to the environment and whether ten cubic feet per hour is the appropriate emissions rate for grade 2 leaks; other criteria that could be used to identify leaks with significant environmental harm, including criteria based on gas migration extent for below-grade leaks.

The preamble included the discussion

of the Massachusetts environmentally significant leak, including a leak with a leak extent of 2,000 square feet or greater.

Grade 3 leaks. Under the proposal, a grade 3 leak is any leak that does not meet the criteria for a grade 1 or grade 2. Some examples, non-exhaustive, of grade 3 leaks include: a positive reading of less than 80 percent LEL in a gas-associated substructure from which gas is unlikely to migrate, any positive reading under a street in an area without wall-to-wall pavement where gas is unlikely to migrate to the outside wall of nearby buildings, or a gas reading less than 20 percent LEL in a confined space.

On to proposed repair requirements. The time line currently under the GPTC guidance for a grade 1 leak is immediate. Under the new proposal, it would be immediate.

A grade 2 leak under GPTC guidance provides a 15-month deadline. Under the proposal, the repair deadline is six months.

Transmission gathering HCAs of class 3 or class 4 would be 30 days. An operator must have procedures for prioritizing grade 2 leaks, and they have to re-evaluate leaks once every 30 days.

Under a grade 3, suggested no time frame for repair, suggested 15 months for re-evaluation under the GPTC. Under the new proposal, the repair deadline would be two years. Five-year replacement deadline for leaks on pipelines scheduled for replacement.

An operator may also request a delayed repair time line with a 192.18 notification if repair is impractical or would release more gas to the environment and there is no hazard to public safety. And then also would require a re-evaluation of leaks within six months.

Post-repair inspections. Under the proposal, a leak repair must be inspected to confirm that repair has been successful. A leak repair may be classified as complete if

the operator obtains a gas concentration reading of zero percent gas by volume at the leak location during a post-repair inspection. The inspection must occur between 14 and 30 days after the date of the repair.

Recordkeeping. Under the proposal, operators must retain records documenting the complete history of investigation and grading of each leak prior to completion of the repair for five years after the date of the final post-repair inspection. Records associated with the detection, remediation, and repair of each leak must be kept for the life of the pipeline.

With respect to upgrading and downgrading, under the proposal, if an operator receives information that a higher-priority graded condition exists on a previously graded leak, the operator must upgrade the leak to that new grade.

A leak may be downgraded, but only if a temporary repair has been made or a

permanent repair was attempted but gas was still detected during the post-repair inspection. While a grade 3 leak cannot be further downgraded, as noted previously, the repair deadline for grade 3 leaks may be extended on a case-by-case basis.

Grading definitions. Industry trades, operators, and industry consultants expressed opposition to or concern that the proposed rule's new definition of confined space differs from the OSHA definition and suggested aligning the definition or using a different term.

If PHMSA does not adopt OSHA's definition of a confined space, industry trades and operators suggested the term enclosure be used instead of confined space to differentiate between the two definitions.

GPTC said the definition for gas-associated substructure, lower explosive limit, substructure, and tunnel have long been recognized as appropriate and should continue

to be acceptable.

Industry trades said the definition of gas-associated substructure is too vague. The commenters supported the definition for substructure and tunnel. However, they noted that these terms may need to be further defined.

Another operator suggested adding additional clarity to the definition of tunnel, such as whether it is man-made, has both an entrance and an exit, and whether passageway means entering by walking, crouching, or crawling.

PHMSA notes, PHMSA intended to define confined space consistent with the GPTC guide, but will address conflicts with federal programs described in the comments.

Some additional comments. Multiple operators and industry representatives expressed opposition to the proposed leak grading criteria. Multiple operators and a state regulator urged reliance on GPTC leak

grading guidance, as this material is used broadly throughout the industry.

An industry trade group added that state leak grading requirements do not conform with the proposed criteria. Multiple industry representatives urged PHMSA to allow operators and state regulators to employ alternative leak classification systems. Senator Cruz, et al. asserted that PHMSA exceeds statutory authority by mandating the repair of all leaks.

Multiple industry representatives urged PHMSA to provide a clear and technically feasible distinction between a leak that poses an existing or probable hazard to persons and property and one that represents a grave hazard to the environment. An industry trade stated that it does not recognize pipeline leakage as a grave environmental hazard.

NAPSR and multiple operators urged clarification of the term significant hazards to the environment. Multiple industry trades and operators expressed support for limiting

grading requirements to confirmed leaks and not merely investigations of leak indications.

Another operator requested that PHMSA clarify that within a given leak grade, an operator is permitted and in fact encouraged to prioritize leaks that are a hazard to public safety.

Another operator was asking PHMSA to clarify the intent of investigated immediately and continuously, as this operator uses mobile leak detection at night and operators are concerned that the little interpretation would require deployment of leak surveyors in driveways and yards at night.

Multiple industry trades and GPTC asserted that the proposed requirements should provide operator flexibility to eliminate the leak with immediate and continuous action without grading the leak first. Grading all leaks would delay repair and risk mitigation solely for the purpose of recordkeeping at the expense of public safety.

A trade association stated that the leak grade should refer to percent gas instead of percent LEL as the LEL could be unique to each operator, unlike percent gas. PHMSA notes, PHMSA will clarify grading requirements for immediate repairs in the final rule. PHMSA notes that the introductory language was intended to be descriptive and not an actual grading criteria.

PHMSA also does not intend to restrict an operator's ability to grade and repair leaks in a more conservative or expeditious manner. PHMSA will consider allowing operators to separately report leaks that are repaired immediately from grade 1 hazardous leaks.

Comments on grade 1 leaks. Pipeline Safety Trust expressed general support for the proposed grade 1 leak provisions. An operator stated that only grade 1 leaks should be considered hazardous.

Multiple industry representatives

expressed opposition to the seen, heard, or felt criterion. Commenters noted that as proposed, it deviates from the GPTC guidance and could bump every leak up to a grade 1 classification. In addition, PHMSA failed to explain how this serves as a proxy for potentially significant environmental or safety consequences.

GPTC noted that PHMSA added in more conservative language such as could migrate, which could lead regulators to interpret any leak as a grade 1 leak. Industry expressed concern regarding grading leaks by feel as unsafe. NAPSR requested PHMSA clarification on how the grading criteria would apply to toxic and corrosive gases that are not flammable.

Pipeline Safety Trust on grade 2 leaks. Pipeline Safety Trust expressed general support for the proposed grade 2 leak provisions. A leak detection company expressed support for including a flow rate threshold in the grade 2 leak criteria.

Multiple industry trades and operators noted a discrepancy between requiring a leak detection tool with a parts-per-million determination -- threshold and then using leak flow rate for leak grading. The commenters were concerned that the two units are not comparable or convertible.

Environmental advocacy groups documented three operators who implemented survey programs targeting high-emitting leaks defined as ten standard cubic feet per hour or less.

GPTC and multiple operators, industry trades opposed the proposed ten-cubic-foot-per-hour leakage rate requirement, commenting that it is not feasible for practical application. The technology has not yet evolved to the point of accurately and consistently measuring flow rates. Grading all leaks would be nearly impossible due to the number of leaks and their location below grade.

An operator added that the equipment

used for measuring flow rate does not provide precise or instantaneous readings. And another operator noted tools that can accurately determine a below-grade flow rate are not widely available.

Another operator requested PHMSA consider allowing operators to estimate flow rates based on other information, as most commercially available equipment will not determine a flow rate.

Another operator and an industry trade said it is inappropriate for PHMSA to govern the methodologies used to calculate leakage rate or leak extent. And an operator asserted that requiring a measurement of emission rates during leak grading would be inappropriate.

Industry trades proposed a grade 2 leak would meet either of the following: a flow rate of ten cubic feet per hour or greater, leak extent, land area affected by gas migration of 2,000 square feet or greater.

PHMSA notes that the preamble of the proposed rulemaking discussed an alternative based on gas migration extent which has been adopted by the Commonwealth of Massachusetts and mirrors the alternative recommended in public comments.

Multiple trade groups and industry representatives expressed opposition to excluding transmission and type A and type C gathering lines from grade 3 classification, noting it is inconsistent with GPTC guidance and that PHMSA does not explain why this classification is prohibited.

Industry trade groups suggested that PHMSA allow grade 3 classification for LPG leaks either in general or specifically for above-ground leaks. Multiple environmental advocacy groups support that all leaks on transmission lines and type A and C gathering lines are graded at a minimum of grade 2 due to the higher risk of rupture on higher stress level lines.

PHMSA notes, PHMSA requests Committee recommendation on allowing grade 3 leak classification for gas transmission, type A and type C regulated gas-gathering, and LPG pipelines. The minimum grade for gas transmission and type A and type C regulated gas-gathering pipelines was proposed due to the higher operating stress levels of such pipelines.

Additionally, for gas transmission pipelines, PHMSA understood that operators typically repaired leaks when found. PHMSA notes that the GPTC guidance requires pipelines operating at 30 percent SMYS or greater in higher-consequence locations, for example class 3 or 4, to be classified as grade 2. Grading of hydrogen will be addressed separately.

As far as recordkeeping, NAPSR contends that records associated with the complete history of the investigation and grading of each leak must be maintained for the life of the pipeline if the repaired component

is still in service.

MR. YORK: Good afternoon. David York, PHMSA. I'll review the comments specific to repair time lines.

General comments received included from the Attorney General of New York et al. expressed support for the repair time frames as the requirement struck a middle ground between GPTC's recommendations and, in some cases, more stringent state requirements.

Multiple operators expressed support for retaining the current leak repair requirements, and an industry representative asked for current GPTC leak repair deadline guidance to be used.

In addition, operators and industry trades expressed concern at the expedited leak repair requirements as it would move operators to a reactive leak mitigation and would adversely impact pipeline replacement activities or other higher-risk initiatives.

A form letter campaign, senator, and

multiple public and environmental advocacy groups suggested requiring leak repair within a month. An elected representative expressed general support for the leak repair time lines.

Environmental advocacy organizations commented that emission modeling demonstrates that the proposed repair requirements could triple the emission reductions compared to the legacy repair rules. They also listed several states with repair standards that meet or exceed the time lines proposed in the NPRM, demonstrating that the proposed standards are practicable.

An operator anticipates that the proposed requirements to repair very small leaks would be a financial burden to small operators with little safety or environmental benefit.

Specific to grade 1 repair time lines in proposed 192.760(b), Pipeline Safety Trust expressed general support for the grade 1 leak provisions. An individual commenter

alleged that PHMSA didn't clarify the meaning of promptly.

And an operator expressed that PHMSA should clarify that immediate and continuous action is no longer required after the repair has been made, but the post-repair inspection or recheck has not yet verified completion.

Specific to grade 2 leak repairs in 192.760(c), an industry trade group suggested a 12-month repair time frame as a shorter interval could be impracticable to meet due to weather, resources, or other constraints. This would allow operators the ability to bundle projects.

An operator expressed that the six-month proposed time frame would present significant challenges and instead proposed a 36-month interval. An industry trade group stated that the proposed grade 2 repair time frame would disproportionately impact the Alaskan North Slope due to extreme climate conditions in the winter months.

Continuing with grade 2, Pipeline Safety Trust and Attorney General of New York et al. supported the grade 2 leak provisions and repair time lines. A state regulator requested that PHMSA clarify if quantifying leak rates was necessary if an operator repaired all grade 2 and grade 3 leaks within the grade 2 repair time frame.

There were multiple operators that expressed concern about the proposed time lines to repair grade 2 leaks. An individual commenter suggested a 30-day repair time line for grade 2s. And industry trades opposed the requirement for operators to define a 30-day repair criteria for certain grade 2 leaks within their procedures.

Regarding grade 2 extensions, an operator stated that the grade 2 repair and replacement time line should permit for extensions as soon as practicable for uncontrollable challenges.

There were multiple operators and

industry representatives that asked for extended time lines on grade 2 repairs in the event that pipe segments have been scheduled for future replacement. An industry trade suggested extending the repair exception to grade 2s for pipelines where replacement is scheduled to be completed within five years.

GPTC and two operators suggested extending the repair deadline for transmission lines in highly populated areas from 30 to 90 days with allowances for additional delay in instances where permitting, material acquisition, and system constraints prevent repair within 90 days.

Industry trades expressed that the requirement for all known grade 2 leaks to be repaired within one year of the publication date should instead be changed to within 36 months of the effective date of the final rule.

PHMSA notes that it's requesting the Committee recommendations on the proposed repair time lines for grade 2 leaks, and also

that the GPTC repair recommendations require that grade 2 leaks were repaired within 15 months.

Concerning the weather in 192.760(c) on grade 2, multiple operators, industry trades, and industry representatives stated that parts 192.723(e) and 192.760(c)(5) are redundant regarding mitigating the risks associated with environmental change.

An operator expressed concern with the requirements to repair grade 2 leaks ahead of the environmental changes, and most of those events are unpredictable. This requirement in essence uprates a grade 2 to a grade 1.

An operator stated that investigating grade 2 leaks in areas vulnerable to environmental changes is more prudent. An industry trade's comments in response to leakage survey requirements suggested replacing the proposed repair requirement within the leak investigations proposed in 192.723.

PHMSA notes here it's requesting

that the Committee discuss if investigation rather than immediate repair of a grade 2 leak addresses the potential risks associated with environmental changes that could impact gas migration. Also, it notes that uprating requirements would apply should a hazardous condition be discovered through the course of an investigation.

Specific to grade 3 leaks in 192.760(d), the Attorney General of New York et al. and the Pipeline Safety Trust expressed support for the proposed grade 3 repair time lines. Multiple public and environmental advocacy groups stated that a proposed two-year time frame is wholly inadequate.

An industry representative said they were unaware of the safety rationale requiring operators to repair grade 3 leaks. A commenter said that environmental and safety analysis should be conducted.

Multiple industry trades said that rulemaking should focus on larger emitting

leaks rather than repairing all of the grade 3 leaks. A leak detection technology provider proposed a minimum emission rate greater than one-half cubic foot an hour. An operator suggests PHMSA consider allowing lower priority grade 3 leaks to be monitored instead of requiring repair.

An operator suggested that PHMSA allow grade 3 leaks repair time lines to be extended to as soon as practicable. Industry trades proposed that grade 3 leaks should be repaired in 36 months rather than the 24 months proposed. An industry trade supports the repair exception for grade 3 leaks on pipelines that are scheduled for replacement, but suggested that you extend the deadline from five to ten years.

There were numerous public and environmental advocacy groups, including the Environmental Defense Fund and multiple form letter campaigns, that urged PHMSA to remove or reduce the exemption for repairing

soon-to-be-replaced pipes.

Environmental advocacy groups commented that PHMSA should require operators to consider pipe retirement in addition to replacement or remediation as an option for addressing leaks that are hazardous to the public safety or the environment.

PHMSA notes, PHMSA is requesting the Committee recommendations regarding the repair time line for grade 3 leaks in general and for those scheduled for replacement.

On the post-repair inspections in 192.760(e), there were multiple industry trades and operators said delayed post-repair checks were only necessary in cases where the leaks permeated surrounding soil. A zero percent reading can be made immediately after repairs in most cases and should be permitted.

Multiple operators and an individual commenter said the 14-day period would cause resource constraints, inflate operating costs, and redundancy. And the commenter suggested

allowing immediate repair confirmation to be permitted through approved methods.

An industry trade said that the offshore gathering lines should be exempt from post-repair requirements as the post-repair checks would be challenging underwater. Environmental advocacy groups suggested defining a successful repair based on the proposed ALDP performance standard.

An industry trade said that a zero-percent standard was contradictory as repairs would continue to be made even though the leaks are below the proposed five parts per million sensitivity standard. The commenter suggested that part 192.760(e) be revised to account for this contradiction, as well as environmental factors that might prohibit a reading of zero percent such as swamp bogs.

Multiple industry trades and operators commented that post-repair rechecks to be completed between 12 and 72 hours after repair not be required for leaks eliminated

through routine maintenance work. And they added that reinspection is only needed for completed repairs with subsurface gas indicators.

Industry trades said that offshore transmission lines should be exempt from post-repair requirements as post-repair checks would be challenging underwater. Industry trades proposed the following actions in response to a recheck. If a zero percent reading is obtained, then the leak repair should be considered complete. If gas concentration is shown to be lower than the previous reading, then a follow-up should be scheduled within 30 days and repeated monthly until a zero percent reading is obtained. If the gas concentration reading is greater than the previous reading, then the leak must be investigated and repaired.

PHMSA notes that it will provide clarification in the final rule concerning recheck requirements to address these comments.

On the upgrading and downgrading found in parts 192.760(f) and (g), there were multiple operators and industry trades suggested downgrading be permitted for leaks that are erroneously graded through operator error and proposed taking actions under subpart N if this should occur.

An operator added that the prohibition on downgrading ignored the fact that venting could lessen the severity of a leak.

An industry trade referenced the prohibition on downgrading unless temporary repair had been made, but said that the temporary repairs would not be allowed for grade 1 leaks. The commenter suggested a clarification that temporary repairs would be allowed for grade 1 leaks.

PHMSA notes here that they intended for temporary repairs pending a permanent repair to be allowed for all leak grades.

On repair extensions in 192.760(h),

there were multiple industry trades and operators expressed that the ad hoc extension for grade 3 leaks under 192.18 should also be applicable to grade 2 leaks. An operator and an individual commenter stated that there should not be a notification process for extended time on grade 3 repairs.

On recordkeeping, an operator said that it supported the application of the proposed requirements to buried gas pipelines, but not for above-ground facilities, that it would lead to a high administrative burden and costs.

Absent a definition in the rule, industry trades suggested that the term leak investigation be removed.

Multiple operators expressed opposition to the new record retention requirements, reasoning that they were confusing and contradicted other record retention requirements. An industry trade supported a modification of the retention time

frame for transmission and distribution to ten years to align with DIMP requirements.

NAPSR suggested investigation and grading records instead should be maintained for the life of the pipeline if the repaired pipeline remains in service. And an individual commenter suggested a record retention of five years or less, and referenced the EPA's requirements as an example.

PHMSA notes that it did not intend to impose duplicative, contradictory recordkeeping requirements and will address any overlap in the final rule.

On the preliminary regulatory impact analysis, the Attorney General of New York et al. commented that measures adopted by several states demonstrate that the feasibility of the proposed changes to leak grading and repair criteria.

Multiple industry trades asserted that PHMSA didn't quantify the safety benefits of the proposed leak grading and repair

criteria. Additionally, industry trades asserted that PHMSA didn't consider leak grading and repair criteria alternatives in the PRIA.

An industry trade group asserted that the description of grade 1 and grade 2 leaks is inconsistent between the NPRM and the PRIA language. According to the commenter, it is not clear whether costs and benefits of the grade 1 proposals were assessed.

Multiple operators expressed that the cost of repairing a leak at $5,650 is incorrect. Leaks depending on the system type and location can cost substantially more to repair. The PRIA assumes that the proposed leak grading and repair requirements are generally consistent with existing practices of gas-gathering and transmission operators when that is clearly not the case.

The proposed grade 1 criteria would include any leak that can be seen, heard, or felt, and would effectively supersede all other

criteria and make every leak on a pipeline a grade 1. In addition, timing of pipeline repairs have been expedited.

Industry trades alleged that PHMSA assumes significant environmental benefits without accounting for the cost and greenhouse gas emissions of fixing small grade 3 leaks. Industry trades provided an estimation of the costs associated with the changes to post-repair inspections. The association said that its estimations for annual cost far exceeds PHMSA's estimated cost.

PHMSA notes here that it will consider the comments and update the PRIA as appropriate. This concludes PHMSA's response to the comments on leak grading and repair.

So specific topics raised by commenters that PHMSA is requesting Committee recommendations are, in general, grading of leaks, toxic and corrosive but not flammable gases, the repair timing for leaks existing prior to the effective date of the rule.

Specific to grade 2 criteria, grading for gas transmission and above-ground LPG pipelines, the ten-cubic-foot-per-hour criteria and potential alternatives.

On grade 2 repair time lines, a six-month repair time line for grade 2 leaks in general, a 30-day repair time line for operators to find priority repair criteria, a 30-day repair time line for transmission lines in a high-population area, and extensions of grade 2 repairs.

Specific to grade 3 repair time lines, the 24-month general repair time line and a five-year time line for pipelines scheduled for replacement.

MR. DANNER: All right. Thank you very much. We will now begin the public comment. I ask people who wish to comment on leak grading and repair to please line up on the right side.

I'm going to have to step out for a few minutes, and Commissioner Burman will chair

the Committee in my absence. I'll be back as soon as I can.

MS. BURMAN: All right. Everybody is here. We're going to start with public comments.

A couple of things just to level set. We do have a lot of people. I'm going to give each of you two to three minutes maximum. State your name and your association, and you're ready to go.

MR. LAMBERT: Great. Thank you. Good afternoon. My name is Jason Lambert. I'm a staff regulatory compliance specialist for Williams Companies, an INGAA member company. My comment is regarding the proposed language that does not allow a transmission system to classify a non-hazardous leak to people or property as a grade 3 leak.

By prohibiting the use of a grade 3 leak classification, a transmission operator is forced to categorize all non-hazardous leaks to people or property as grade 2 leaks, thereby

requiring, as proposed, a leak repair within six months.

This is concerning for Williams and fellow INGAA operators. It is important to put this concern into context and the likely unintended consequences of this prohibition.

A plausible leak scenario that I will now describe illustrates the consequences caused by repairing a non-hazardous leak on a transmission pipeline and how the emissions caused to repair the leak will far exceed the emissions caused by the leak itself when awaiting repair, even if the leak is not repaired by the INGAA-recommended 36-month repair time frame for grade 3 leaks.

The plausible hypothetical scenario involves a leak on a 36-inch gas transmission block valve, which is your average gas transmission diameter, that requires an operator to isolate and blowdown a 15-mile class 2 line segment on either side of the block valve.

The leak rate is 10 cubic feet per hour and can be heard. With the NPRM, the transmission operator has to treat this as a grade 2 leak and repair within six months.

The pipeline operates at 700 pounds. The segment holds 53 million cubic feet when operating at 700 psi. To comply with 192.770, the operator would have to reduce the blowdown volume to meet the 50-percent reduction requirement.

This would technically allow the venting of 27 mmcf to atmosphere. At ten cubic feet per hour, this would take 308 years for that leak to vent the same amount of gas as the blowdown to fix the leak in six months.

Currently Williams is implementing an internal operational standard to reduce the blowdown emissions by at least 80 percent. Thus, in this scenario, Williams would reduce the blowdown volume to 11 mmcf to be left in the line that would be vented to atmosphere. It would take more than 125 years for the

ten-cubic-feet-per-hour leak to vent the same amount of gas as the blowdown required to fix the leak.

Further, in many areas and when feasible, Williams targets a 50 psi line pressure reduction through recompression prior to blowdown. At 50 psi, the line has 3.8 mmcf left to be vented to atmosphere. At the ten-cubic-feet-per-hour leak, it would take 41 years to vent the same amount of gas as the blowdown required to fix the leak.

This hypothetical yet plausible example demonstrates that, assuming the leak does not pose a hazard to the public, transmission operators will be faced with venting more gas to fix a leak than the leak itself would generate over tens or even hundreds of years. That is the reality faced with prohibiting transmission operator from classifying leaks as grade 3.

Providing more time for repair, such as the INGAA-proposed maximum three years for

grade 3 leaks, allows operators to bundle leak repairs the next time the line segment is down for maintenance or construction projects.

This will ultimately improve the reduction of greenhouse gas emissions and be more efficient for the operator. PHMSA should allow transmission operators to utilize grade 3 leak classification with a minimum repair time of 36 months. Thank you.

MS. BURMAN: Okay, great. That was a little over three minutes. I'm going to give folks that ability, but I'm going to weigh in if you start to go past that. And I do have this.

MS. KURILLA: Hi. Erin Kurilla, American Public Gas Association, two separate but short comments.

The first is I want to thank PHMSA for their recognition that not all operators have tools in their tool box to measure the flow rate. I think we all talked about that pretty ad nauseam this morning. So the option

to do both a leak extent per Massachusetts regulations as well as -- or I should say, or measuring the ten cubic feet per hour is an important distinction.

I would ask the Committee to consider a third alternative, which is an alternative way of measuring the significance of that leak, because we just never know what technology might be around the corner.

It might make sense to have something as a placeholder in the regulations. So either ten cubic feet per hour, a leak extent of 2,000 square feet or greater, or another methodology that the operator might determine measures that significance in a similar way.

My second comment pertains to the repair time lines on pipelines scheduled for replacement. Just in case some members of the Committee are unaware, PHMSA now has a Natural Gas Distribution Infrastructure Safety and Modernization Grant Program.

It is a grant program for our public gas utilities to replace leak-prone pipe. The period of performance for that grant program is five years. However, even the 2022 grant award winners have yet to sign their grant execution agreement because it undergoes a pretty extensive environmental review process.

Saying that, as proposed in this rule, there are individual entities that may have PHMSA grant dollars to replace pipe that would still have to repair leaks on those pipes given the current time frame allowed by the rule.

And so I just want to make sure we're thoughtful on the fact that we will be spending -- and inherently this grant program is limited to only community-owned gas utilities. So what we would be doing is we'd be taking customer dollars to repair leaks on pipe that then PHMSA grant dollars will then replace.

That just seems a little bit like a

lack of efficiency. So I just want the Committee to consider lengthening that time line for pipe scheduled for replacement. Thank you.

MS. BURMAN: Thank you. You were under two and a half minutes, so good.

MS. SAXMAN: Good afternoon. Annette Saxman, National Grid. I'm going to be talking about leak grading and classification.

On type 1 leaks, any leak that can be seen, heard, or felt is subjective and should not be referenced in leak classification. Regarding type 2 leaks, not utilizing proximity to building wall creates an arbitrary criteria with sidewalk being referenced or could migrate language. In rural areas, there may be no subsurface structures or sidewalks. Again, proximity to buildings should be utilized.

For type 3, flow rate or extent can be utilized as a supplemental data point to prioritize type 3 leaks as high emitters,

addressing environmental risk aligned within DIMP. We have been utilizing extent for several years with success as a complementary method to existing classification for repair priority.

For follow-up recheck, exemptions need to be provided such as third-party damages, entire replacement of leaking facility, valve lubrication, et cetera.

Rather than get into the concerns line by line of the proposed language in the NPRM, PHMSA should consider impact of overly prescriptive language and the knock-on effect to existing, proven, well-established, state classification models like the one in New York, which we have adopted for our Massachusetts territory.

A change to classification would result in the need to retrain and requalify over 4,000 employees at National Grid. Leak investigation is what we consider our bread-and-butter work that for public safety we

have to get right.

Time much longer than six months would be needed to make changes to training, OQ, and IT systems that capture leak investigation data, which are based upon current classification models. Thank you.

MS. BURMAN: Under two minutes. Thanks.

MR. TREMBERGER: Robert Tremberger with Con Edison, also on leak grading. There will some similarities. I'll try not to repeat.

Con Edison's leak grading system is aligned with that of New York State's public safety regulations. It uses gas and air measurements in proximity to buildings, which makes public safety paramount, especially in the urban environments within which we exist.

ConEd's got well-established procedures, software systems, trainings, OQ programs that are all aligned with this New York State classification system that's been

used for well over three decades.

Shifting to a new classification system not only would be a detriment to public safety and pipeline safety in New York, but would also require a massive cultural and procedural shift with little or no safety value for -- safety benefit. And as mentioned, it would be much more than six months to execute that.

The environments in which utilities operate is vastly different throughout the country. Our assets are vastly different. So a single classification system is impractical to require and even harder to successfully implement.

Therefore, a fit-for-purpose classification system designed by state regulators should be considered as an alternative to the current proposal. Thank you.

MS. BURMAN: Thank you. Only a little over a minute, so good.

MR. CARRE-BURRITT: Hello. Asa Carre-Burritt with Bridger Photonics. So my comments largely reflect those ones that we heard from Williams, but I want to provide additional context from the perspective of leak detection.

So ten kilograms per hour for methane, that's about 540 standard cubic feet per hour. So that's a good point of reference.

So essentially, we want to avoid a situation where we're disincentivized from detecting more emissions. The ten kilograms per hour that we discussed is supposed to be a floor and not a ceiling for leak detection.

So if we are required to fix every single leak that we detect, that could provide an unintentional consequence of preventing more sensitive leak detection and technology innovation. So let's be really conscious of that.

So in cases where we detect leaks that do not pose a hazard to personal safety

and are more of an environmental concern, we want to start looking at what are the potential environmental ramifications of repairing these leaks.

For a gathering infrastructure, we might want to consider increased venting and flaring upstream of that pipeline, as well as the maintenance operations required to repair those leaks.

Oil and gas emissions tend to follow these skewed distributions. For example, log normal distributions where there's much larger numbers of leaks the smaller the leak rate you go. So if you have a more sensitive technology, you find a lot more leaks. And if you're not benefitting the environment by repairing those leaks, that's a problem for rulemaking, and you're preventing technology innovation leak detection. Thank you.

MS. BURMAN: Thank you. Next?

MR. LANG: Good afternoon. My name is Kevin Lang. I'm the Director of Engineering

Services for Southwest Gas Corporation.

Just briefly here, Southwest Gas is a longstanding adopter and supporter of GPTC guidance material, which provides natural gas operators guidance for leak classification and action criteria, including defining grade 1, 2, and 3 leaks.

Southwest Gas utilizes grade 2 and 3 leak criteria primarily to prioritize the repair of non-hazardous leaks. We firmly believe that that prioritization is very important.

I'm going to say that because this ties to, I think, the definition of making a leak or any leak a hazardous leak. That's important because very similar to what we talk about all the time in integrity management, if you make everything a priority, nothing becomes a priority.

I don't mean that in a disadvantaged way, but it really is working with limited resources and trying to manage the effective

leaks that we have out there. And Southwest Gas, for one, manages our leaks very much so by repairing them in a timely fashion.

We also believe that PHMSA must provide a very clear and technically feasible distinction between a leak that poses an existing or probable hazard to persons and property and one that represents a grave hazard to the environment.

My final comment is on actually a portion of the preamble language with the lower explosive limit. PHMSA creates a potential regulatory uncertainty within the preamble by asserting that natural gas has a lower explosive limit or LEL of five percent.

While this is generally accurate for pure methane gas, natural gas flammability limits vary based upon tariff-allowed levels of ethane, butane, and other constituents. This may produce operator-specific LELs that range between four and five percent. Thank you.

MS. BURMAN: Thank you. Less than a

minute and a half.

MS. TOCZYLOWSKI: Hello. Lauren Toczylowski from ConEd. My comments are on post-repair inspections.

Part 192.760(e)(4) provides minimal exceptions to when a post-repair inspection would be required. Con Edison would like to highlight the additional exceptions to a post-repair inspection that Con Edison has in our procedures as well as in New York regulation.

Quote, follow-up inspections are not required for leak repairs completed by the replacement or insertion of the entire length of pipe or service line or for the repair of leakage caused by contractor or third-party damage, provided a complete re-evaluation of the leak area after completion of repairs verifies that no further indications of leak exist.

So when the repair action is the complete elimination of the pipeline which

previously leaked, then the requirement to perform a post-repair inspection is not necessary and would just be burdensome. Thank you.

MS. BURMAN: Thank you. Less than a minute.

MS. BYRNES: A hard act to follow. Corinne Byrnes, National Grid. This is with respect to leak repair of grade 3 leaks, cost and time line. Operators in the Northeast face unique challenges --

MS. BURMAN: And if you could just speak up?

MS. BYRNES: Sure. Can you hear me better? Operators in the Northeast face unique challenges replacing leak-prone pipe. The natural gas infrastructure in our region, much of which was converted from manufactured gas in the 1950s, is among the oldest in the nation.

We currently operate a gas distribution system that includes approximately 23 percent leak-prone pipe. National Grid's

7,440 miles of LPP includes cast wrought iron, unprotected steel, legacy plastic, and about 328,000 unprotected and copper surfaces.

The company also operates in a densely populated urban community including Brooklyn, Queens, Staten Island, and Boston, where main and service replacement work is more complicated than in suburban or rural areas due to underground utility congestion, heavy traffic, restricted work hours, and number of customer services per mile of main necessary to replace or transfer segments of LPP.

Often we're limited in the scope of work that we can perform by municipal work restrictions. These factors impact the rate at which we can perform LPP replacement.

National Grid's leak rates for LPP are 14 to 75 times higher than that of non-LPP mains depending on the operating company. The LPP pipe will continue to leak regardless of the number of repairs performed. It's more effective to replace the pipe with new

infrastructure to ensure both risk and emissions are eliminated.

Through our rate case and capital tracking programs, National Grid has retired about 3,000 miles of LPP pipe since 2013, reducing our LPP inventory by 30 percent. Our leaks have been reduced by 50 percent over the past seven years due to this and a multi-faceted program that includes LPP replacement, targeted rehabilitation, and leak repairs, especially around eliminating high-emitting grade 3 leaks.

The cost to repair existing leaks within a reasonable time frame is estimated to be around $180 million. In addition, the leak repair process is not emission-free. Our analysis has shown that depending on the strata, the emissions from a leak repair could be equivalent to 20-plus leaks emitting for a year.

We do acknowledge that a repair schedule should be set for grade 3 leaks.

MS. BURMAN: You're just about to run out of time.

MS. BYRNES: Okay.

MS. BURMAN: Thanks.

MS. BYRNES: If the NPRM goes through as is, we will be forced to request enforcement discretion from our state regulators in one or more operating areas.

With respect to grade 3 leaks, the company recommends allowing operators to categorize environmentally significant leaks within two years and other type 3 leaks within five years, or a pipe replacement program within ten years. Thank you.

MS. BURMAN: Great. Thank you.

MR. CAREY: Good afternoon. Patrick Carey with Kinder Morgan here on behalf of INGAA.

I wanted to put a little more color on the comments I had provided the other day regarding a valve replacement that we had to do in the south side of Houston. It really puts a

little more context around the example that Jason provided with more reality rather than the hypothetical situation he provided.

Just to recap the situation, this was during an energy-critical time frame in the Houston area in early August. We had discovered a packing leak on a 36-inch valve and scheduled some repairs to accomplish that, but we couldn't do it in that immediate time frame due to the fact that this line segment feeds two different power plants in the area.

We managed to work through that, work with a service provider that was going to try and help us repack that valve. When they came out and looked at it, determined that they would have to cut the valve out, bring it to their shop.

Luckily, we were able to identify a valve that we had in stock. It happened to be an auto-close valve, so we had to find an operator to go along with that. We had a break in the weather finally in the mid-September

time frame and were able to get in there.

So from the schedule perspective, we were able to get it done even if it was a grade 2. However, that scenario in this particular area and how critical that infrastructure is, it was on the margin.

From the context of the regulations, we need to be able to grade this as a grade 3 or provide some type of relief that we'd be able to get some notification from PHMSA to be able to work through the timing associated with that. Thank you.

MS. BURMAN: Thank you. Under two minutes.

MR. HITE: Hello. My name is Matt Hite. I'm with GPA Midstream Association. My first comment is that PHMSA assumed in developing the proposed rule that the leak grating and repair requirements are generally consistent with existing practices of transmission and gathering operators when this is clearly not the case.

The proposal departs from longstanding industry practice as reflected in the Gas Piping Technology Committee Guidance. For example, the proposed rule would require operators to treat any leak that can be seen, heard, or felt on a regulated gathering line as a grade 1 leak.

The proposed rule would also require operators to treat any leak on the type A or C gathering line that does not qualify as a grade 1 as a grade 2 leak. These proposals are not consistent with industry practice or the GPTC guidance.

My second comment is that operators of type A and type C gather lines should be allowed to use the grade 3 leak criterion. The proposed rule would prohibit operators from treating any leak on a type A or type C gathering line as a grade 3 leak.

This is inconsistent with industry practice in the GPTC guidance. When combined with an accelerated repair deadlines in the

proposed rule prohibiting the use of the grade 3 leak criteria creates a regulatory framework for type A and type C gathering lines that is impractical.

My third comment is the proposal to only treat the repair as being complete when the operator attains a reading of zero percent gas is unjustified. EPA's comparable standards, which PHMSA agrees, should govern at the compressor stations to treat or repair as complete if the gas reading falls below the applicable leak detection threshold.

Requiring operators to comply with the more stringent zero percent gas reading requirement is impractical, particularly in environments where other sources of methane emissions are present such as coal mines and wetlands.

My final comment is that the proposed lifetime record keeping requirement is unreasonable. EPA only requires repair and calibration records to be maintained for five

years or less, not indefinitely. PHMSA proposed lifetime record keeping requirement is unnecessary and unsupported. Thank you.

MS. BURMAN: Thank you. Two minutes and 15 seconds. It is not a contest, but thank you

MS. PORTER: Good afternoon. Joan Porter, Rhode Island Energy. I'd like to take one quick look at hazardous leaks. Historically we've treated them as life and property. That's how you go after a hazardous leak. Now we're putting environmental on the same level as life and property.

We have to be able to separate that out slightly. Not that environmental is not significant. However, we need to take care of the people around us right here, right now, today first, and then deal with the other large leaks. I think that's an important distinction.

The other piece is very specific to the Northeast, or actually the northern tier

states. You are proposing that we fix leaks in two years, three years, maybe five if you have a leak prone pipe plan.

The problem is we have winter so you can't actually get into the streets for two, three, four months a year so that automatically restricts how much time we have to fix our leaks, if we can even get it done in that time.

So we've worked heavily with our state regulator to come up with a plan, a leak-prone plan, place replacement plan. It's part of our DIMP program. We're working towards that goal, but that also relies on the fact that we get permits from the towns.

Currently we have three towns. We're left with basically half of our leak prone pipe in three towns. If we were to dig up all those grade 3s, that's 50 percent of our grade 3s in those three towns, there would be pot holes on every street. No town is willing to accept that so there has to be some flexibility to work with our state regulators

and our towns to make this feasible. Thank you.

MS. BURMAN: Thank you. A minute and 40 seconds.

MR. ADAMCIK: Hi. Brett Adamcik, CenterPoint Energy. We operate in six states and in one of the states we already perform monthly monitoring on our grade 2 leaks and only two percent of the time do those get upgraded to grade 1.

There's two things I'd like the Committee to think about in regards to that. Resource utilization, right? 98 percent of the time could be doing something a little more productive. Also, those were all truck roles, emissions, going out to check those leaks.

In regards to the re-check requirement, I just want to ask the Committee to have some discussions. Have some kind of reasonable dialogue around what makes sense. Not necessarily have a catch all. You know, in integrity management, we always think about

pipes joint to joint whether it's weld to weld, fusion to fusion.

If we replace a whole segment or more of pipe, to us now you have new pipe, new susceptibility to threats, new evaluation of threats, things like that. Just think about that in terms of not a catch all for any type of leak that we need to re-check. Thanks.

MS. BURMAN: Thank you. Less than a minute.

MR. COYLE: Hello. I'm Keith Coyle speaking for GPA Midstream Association and the American Petroleum Institute. My comments concern the risk assessment for the proposed leak grading and repair requirements for gathering lines.

First, with respect to type C lines, PHMSA failed to consider the data that operators are submitting in incident safety-related conditions in annual reports. Ignoring the data that type C gathering lines operators are providing and developing proposed

regulations for more than 90,000 miles of pipelines does not promote public safety or protect the environment.

PHMSA also failed to consider the unique impact of applying more stringent leak grading and repair requirements to type C lines. Unlike the other pipelines affected by the proposed rule, type C lines only became jurisdictional last year, had initial compliance deadlines that did not run until May of this year, and are subject to an enforcement discretion that does not expire until May of next year.

Second, with respect to the other aspects of the risk assessment, PHMSA relied on unreasonable assumptions. For example, PHMSA assumed without adequate supporting evidence that all gathering line operators are repairing leaks within a year and applied the same average leak incident rate to all gathering lines, even though type A, B, and C gathering lines have different compliance histories and

operational characteristics.

Finally, PHMSA failed to quantify the safety benefits of the proposed rule which are clearly relevant in evaluating the leak grading and repair requirements, particularly for small leaks. Safety considerations clearly outweigh environmental concerns as the size of the leak that must be graded and repaired decreases.

MS. BURMAN: Thank you so much. A minute and 40 seconds.

MR. MCCRATH: Mike McGrath of Enbridge representing INGAA. I just have a couple comments on some of the proposed definitions. Treating all leaks is hazardous and dilutes the importance of prompt response when there is an immediate risk of property or life or property.

Congress clearly acknowledged the existence of non-hazardous leaks in Section 113 of the Pipes Act. Congress directed PHMSA to focus on leak detection and repair programs and

leaks that are hazardous to human safety or the environment or have the potential to become explosive or otherwise hazardous to human safety.

As noted several times during this week, Congress also recognized some leaks are so small that they pose no potential hazard and, therefore, do not need to be repaired. PHMSA's proposal to treat all leaks as hazardous is not consistent with the Congressional mandate.

Also confined space. Some operators use OSHA definition in their procedures, INGAA recommended that PHMSA either adopt the OSHA definition straight up, or use a different term like enclosure. Using the same term but defining it differently will create unnecessary confusion and inconsistency in operator's procedures. Thank you.

MS. BURMAN: Thank you. A minute and eight seconds. I appreciate everyone's courtesies in keeping with the time.

MR. CHICHESTER: Good afternoon. I'm Alan Chichester with the American Gas Association. I just want to take the opportunity to remind PHMSA of Congress' acknowledgment of the importance of identifying and eliminating leak prone pipe through strategic replacement programs, not just as a means of improving pipeline safety, but also in terms of emissions mitigation.

This, of course, is articulated in Section 114 of the 2020 Pipes Act. I know PHMSA does recognize the importance and how foundational replacing leak prone pipe is to mitigating emissions.

From AGA's standpoint prompt repair of hazardous leaks is and will remain a priority, but I think it's important to note that the newly proposed repair schedules for other leaks cannot be an impediment to replacement of leak prone pipe.

Replacement programs require considerable planning and this would include

rate case approval, etc. Those replacement projects cannot be easily chopped and changed.

Moreover, one off repair of individual leaks, even minor leaks, can be hugely disruptive to customers and communities. PHMSA should preserve and expand exemptions to their strict repair schedules within this rulemaking so that money and resources are not wasted repairing leaks that are due to be eliminated by replacement in the short or medium term.

Finally, I'll just say that PHMSA's proposed re-evaluation interval is going to ensure that those leaks, even as we take advantage of the exemption for their elimination through replacement, those leads will continue to be monitored and, if necessary, mitigated prior to that replacement project. Thank you.

MS. BURMAN: Great. Thank you. Under two minutes.

MR. LONN: Rick Lonn, Director of

Compliance for Southern Company Gas. I want to remind everybody we are a large utility, four-and-a-half-million customers and 150,000 miles of pipe. I want to raise the issue -- I haven't heard it discussed yet.

PHMSA didn't put it up as a topic for discussion, but part of the leak repair and grading is tied to the issue of leak re-evaluation. PHMSA's proposed and more accelerated leak repair, or leak re-evaluation interval, moving grade 2's from once every six months to once a month; moving grade 3's from once every 15 months to once every six months.

We've done a lot of internal analysis on this change and I wanted to share the impact just for one operator. We went back and looked at all of our leak repairs for over seven years, 6,080 plus leaks. Right? 6,080 plus leaks. Only 3,744 leaks over that period of time had to be regraded. Right? And that's with the six-month and 15-month intervals. That's barely over half a percent. Right?

You take the new intervals just from this operator and say go do that now six times as often on your grade 2's, and two-and-half times as often on your grade 3's. That equates out to 44,000 hours a year for us, or over $3.3 million just to go recheck something that doesn't change. Right?

These resources could be much, much better spent fixing leaks instead of checking leaks that don't change. I would highly request that you all consider not changing the re-evaluation intervals that exist today. There's no value in it.

The second thing I would like to add is, I'm going to use our Georgia operations as an example. Atlanta Gas Light company was one of the first operators in the nation to be able to replace our leak prone pipe. We have the ability thanks to our enlightened commissioners to find a way to get that cost recovery to replace over 2,700 miles of pipe.

We did it and it cost over a billion

dollars to the rate payers in Georgia. If we'd had to fix all of these leaks in front of it, we would have doubled the cost to the rate payers at that company. Don't go and repair those leaks in front of renewal program. Focus on the renewals. Otherwise, you're going to really hurt the citizens. Thank you.

MS. BURMAN: Thank you. Two minutes and 30 seconds. Chair Danner is back so I did a good job.

MS. FRIEND: So I don't get timed?

(Laughter.)

CHAIR DANNER: I'll time you. I'll time you. Thank you.

MS. FRIEND: Mary Friend. I represent NAPSR and approximately 500 state pipeline safety inspectors who oversee 80 percent of the nation's pipelines.

NAPSR has a slightly different concern. We are concerned with the 192.18 notification requirement to PHMSA for repair extensions and deviations for the repair

criteria.

State pipeline safety authorities are much more familiar with the operators and their systems within their states. We routinely oversee repairs and pipe replacement programs and ultimately oversee the rate cases that may result from the repairs and replacement programs.

We ask -- we are concerned for the decision -- we are concerned that the decision for final determination for deviation should be addressed by the states and not PHMSA. We ask that the states take a bigger role in that determination.

As a note, NAPSR would like to put on record that 20 states have stricter leak grading criteria. However, states without codified criteria still expect operators to adhere to the GPTC guidance for grading and repairs. Thank you.

MS. BURMAN: Just thanks and, just so you know, Mary, you were under a minute and

10.

MR. MAURY JOHNSON: Hello. I was hoping to be last but I didn't get to be there. My name is Maury Johnson. Since I wasn't here yesterday, my comments will be somewhat general. We will address the things discussed here today.

I live in sacrifice zone of southeastern West Virginia along the path of the Mountain Valley Pipeline.

I'm a member of the Protected Water Heritage Rice Coalition, Preserve Monroe, as well as a member of local, regional, and national citizens coalitions dedicated to the protection of our communities and country from the harms caused by the oil, gas, petrochemical industry, and other mega industries.

We are the people who pay the external cost I have heard mentioned here several times today. We pay these costs financially, emotionally, often times with our health, and sometimes with our lives. I am one

of the very few community members who could attend this GPAC meeting, but I am far from being alone. In the past month, I have attended the PHMSA meeting held here about a month ago.

Since then I have attended the West Virginia Environmental Coalition Meeting, the We Refuse to Die Conference in Pittsburgh, Pennsylvania, the Pipeline Safety Trust meeting in New Orleans, as well as over a dozen meetings by Zoom, all at the same time watching the Mountain Valley Pipeline trying to be built across my region.

I can assure you that I speak for thousands, or tens of thousands, probably hundreds of thousands of citizens from across Appalachia, the Gulf Coast, the Northeast, the Pacific Northwest, and all across the country. We insist that PHMSA do its Congressionally mandated job to protect the American people and to decrease methane.

Since 2014 when the MVP developers

first approached me about building a pipeline across my ancestral organic farm, I have become very well educated about the direct harms that pipelines cause both during and after construction. I'm here to make sure my community and all communities who have pipelines impacting them, regardless if they are oil, natural gas, carbon, hydrogen, or other materials, are safe.

I would like to ask the Committee to ensure that pipelines have no leaks, leaks that will harmful impacts to people, leaks that in the case of large diameter high-pressure gas pipe line like the one crossing my area, would most likely result in a devastating explosion, an explosion that could take out a rural elementary school, an historic town, or even a small Appalachian city.

As an impacted citizen who has a pipeline crossing my farm near my house, across my community, and many places where I live, shop, play, and travel, I would like to ask

PHMSA to protect these areas and to adequately monitor these dangerous infrastructure projects.

It is PHMSA's mandate by the American public to use their Congressionally mandated oversight to hold companies accountable to officially identify leaks and to quickly repair any leaks found by them and others.

I would also like to say in conclusion that I was one of the 30,000 people who signed the environmental group form letter. I know what a sacrifice looks like. Thank you.

MS. BURMAN: That was three minutes. That's good.

MR. MURK: All right. My goal is under a minute so let's see if I can do that. So Dave Murk with the American Petroleum Institute. My comment concerns the data that PHMSA used in conducting the risk assessment for the proposed leak grading and repair requirements for gas gathering lines.

After PHMSA issued the proposed rule, API contracted with Highwood Emissions Management to produce a report analyzing the cost benefit issues for the gathering lines industry.

The Highwood report indicates that the average unit cost of repairing leaks is at least three times greater than the assumption that PHMSA used in conducting the risk assessment. The Highwood report also provides separate average unit cost for repairing leaks by grade and includes additional categories of cost that PHMSA did not consider in developing the proposed rule.

The Highwood report makes clear that the cost assumptions that PHMSA used in the risk assessment are incomplete and unreasonable. PHMSA underestimated the cost of grading and repairing leaks of all sizes and failed to account for the cost that would be imposed by the accelerated repair deadlines for the proposed rule so PHMSA should consider the

cost information provided in the Highwood report and other industry commenters in developing the final rule. Thanks.

MS. BURMAN: Just so you know, you didn't get it in in under a minute but it was a minute and 10 so good job.

MR. TAYLOR: I'm Eric Taylor, BHE GT&S here on behalf of INGAA. Again, we've talked about grade 3 trying to allow transmission pipelines to utilize that grading criteria. Part of that desire is we are trying to align work with new RIN 1 RIN 2 requirements, DVC remediation and confirmation also seeking to align with customer outages so we can minimize customer impacts.

One of the comments that I saw from the commenters was that grade 2 should not be allowed for transmission pipelines, but we've said multiple times here today that a lot of these leaks are going to be small leaks on appurtenances, valves, other things like that.

Again, it's really not on the

pipeline. If we see a leak in the pipeline, more often than not that is going to be graded as a grade 1 and immediately we are going to tackle that.

And then just another item as far as immediate repair and validation of repair. We've seen through our OOOO program that if it's a leak that's been identified as, say, a flange or something like that, we can immediately tighten that. We could grease the valve and do some other things that we could more immediately validate that has been repaired and is no longer leaking. Just wanted to make those statements. Thank you.

MS. BURMAN: Minute nine.

MR. KOCHMAN: Good evening, everyone. I'm Ben Kochman. I'm the director of Pipeline Safety Policy at INGAA. First, I really just want to commend the PHMSA staff for their first efforts at this proposed rule but, as we all know, it is a proposed rule and it could be improved.

I wanted to also go forward, again, to the cost benefit analysis that PHMSA did in their RIA. Basically there is an estimate that it would cost about $5,650 to repair a single leak on a transmission pipeline. That, in our opinion, is far too low. The annualized cost under that RIA was, I believe, $1.5 million. INGAA crunched the data on our own.

Oh, and I wanted to also add that it appears that PHMSA based this data off of the calculation of a utility rate case involving a single operator. As you all know, it's difficult to find data at times but I appreciate the slide that was on -- read through earlier that PHMSA is open to revising their RIA as this process continues.

With that said, INGAA has supplied some extra data for them to crunch. I would point you to our comments in tables 11 through 15. We detail specifically how you should go about looking at it. In our calculations, we estimated the cost of the leak is a four-step

process.

The first is on investigation of all indications of the leak. The second is the investigation of the actual leak. The next is repairing of the leak. Then the last is the post-repair confirmation of that leak. We estimate that total cost would be much closer to $14.5 million per year for the transmission industry.

The last thing I just wanted to touch on, and I want to make this point clear, INGAA and its member companies are committed to fixing all the graded leaks. As you've heard from other INGAA members, we would appreciate a three-graded process.

The point is it sometimes take more time to get the certain of leaks. Obviously it's a grade based off of the priority of it. I want to make the point very clear. INGAA and its member companies have the goal for fixing all of these graded leaks.

It's always been our intent. That's

why we appreciate the concept of the rule and really would hope that the committee takes that under consideration. Thank you.

MS. BURMAN: Two minutes and 25 seconds.

MS. SAMES: Okay. So good news. I'm the end of the public comments and you all have survived three days of being in this room with a lot of great conversation.

Christina Sames, American Gas Association. I want to go back to the intent that led to this rulemaking which is the Congressional mandate in the PIPES Act of 2020. Portions of PHMSA's proposed rule actually related to leak rating and repair disregards Congress' clear directive.

Congress' letter to Congress -- Congress' letter to PHMSA -- this is what happens by the end of day 3 -- Section 113 of the PIPES Act of 2020, directs PHMSA to promulgate a rule that establishes minimum requirements for leak detection and repair

programs capable of identifying, locating, and categorizing all leaks that are hazardous to human safety or the environment, or have the potential to become explosive or otherwise hazardous to human safety.

Unfortunately, PHMSA has taken the phrase "hazardous to human safety or the environment" to its most extreme interpretation rather than appropriately targeting repairing leaks to the more specific terms have the potential to become hazardous, explosive, or otherwise hazardous to human safety.

PHMSA has interpreted Section 113 in a manner that is sufficient to grant itself broad authority to enact sweeping policy in defiance of the law and the clear intent of Congress.

In this instance, PHMSA has clearly misapplied the PIPES Act of 2020 and is posed to enact needless burdensome measures that demonstrates a plain over-reach of PHMSA's statutory authority such that the NPRM requires

significant revisions to represent a proper final rule that cannot move forward in its current form.

That was signed by the various members of Congress that actually created the PIPES Act of 2020. By the way, just for the record, AGA is extremely supportive of that PIPES Act. We worked hard on it.

Congress was specific when it stated that operators should be repairing or replacing each leaking pipe except a pipe with a leak so small that it poses no potential hazard. Congress was clear that not all leaks should be deemed as hazardous and not all leaks should be required to be repaired.

Therefore, PHMSA's proposed rule disregards Congress' clear directive. The final rule must align with the directive of Congress which recognized that repairing all grade 3 leaks would actually imperil pipeline replacement of programs and efforts to reduce pipeline emissions such as the Watch and

Protect programs that we do for excavations that are a bit of a higher risk

I should also note that repairing all grade 3 leaks will actually emit more emissions than leaving those leaks go. You heard some of that earlier today. Industry's comments actually had analysis behind it. Thank you.

MS. BURMAN: Two minutes and 56 seconds.

CHAIR DANNER: Thank you so much, Commissioner Burman, for stepping in and keeping everyone accountable. I appreciate it.

I think this is bringing us to the end of our agenda today and we will pick it up with the GPAC discussion on leak grading and repair in the morning. All right.

So at this point I think we want to -- what time do we want to come back tomorrow morning? 6:30?

(Laughter.)

CHAIR DANNER: I think 8:30 is

probably when we will reconvene. All right.

Okay. With that, then we are going to go off the record and I'm going to turn it over to Alan Mayberry.

MR. GALE: Before we go off the record --

CHAIR DANNER: Oh, all right. I'm going to turn it over to John before we go off the record. Thank you.

MR. GALE: Thank you, Chairman. Just for the Committee's purposes, the staff is recommending that we break the discussion up tomorrow in these different buckets. Of course, if there's other ideas, we want to hear them.

The first bucket would be the grade 1 criteria. The second bucket would be the grade 2 criteria including repair timelines and the variety of issues that we've heard today regarding grade 2 and the revisions that are being thought of there. Then grade 3 criteria and the repair timelines associated with grade

3 leaks.

Then we kind of have a variety of miscellaneous set of different issues that have been raised. We have post-repair inspections and, of course, rechecks; upgrading and downgrading; extension of leak repair time frames; record keeping; and the investigation of repair of leaks following environmental changes.

Sayler and I are sitting over here debating if this is a separate issue or mainly under grade 2, but I'm sure the Committee can work through that as we discuss that issue tomorrow.

Again, what seems to have been helpful is if the Committee members come to the meeting maybe with some recommended language to get the conversation going. It does seem that does speed things up a little bit so any work overnight that can help us get through this is much appreciated. Thank you.

CHAIR DANNER: All right. Is that

-- anything more before we go off the record?

MR. MAYBERRY: No, I think we're good for today and appreciate the progress we made. The discussion has been remarkable so thanks.

CHAIR DANNER: Thank you for that. Thanks everyone for your work today.

Now we are going to go off the record but I want to turn it over to Alan before we all go off for the evening. Alan.

MR. MAYBERRY: Thanks. You know, today we are about mid-way through the week and we anticipated we would be well along close to ending the leak detection rule and be heading into the class location rule perhaps tomorrow and maybe wrap that up by Friday.

So this is a good time to really take a pause from the meeting today to reflect on a key member that's been with us who is actually going to rotate off. Our approach, which I also appreciate, has delayed that.

(Laughter.)

So maybe it's debatable whether it's really good use of time to recognize you today. I did want to take a moment to recognize Andy Drake who will be rotating off at some point when we finish class location I expect.

You know, I think it's important to note that Andy is the longest -- as far as I know, and I've looked up the record, he is the longest serving member of an advisory committee representing -- representative on the Gas Committee.

Andy was appointed back in 2002 by Secretary Mineta going way back in the Bush Administration. You were Duke Energy at the time. Not changing jobs but the company name changed over the time. Then you were there when PHMSA was created in 2004, a couple years later and continued your service.

You know I worked with Andy when I first started in about 2006 when we were working on the alternate MEOP stuff and you had a lot of background in ASME, but I just wanted

to say, you know, thank you for your service. We do have something, a recognition letter obviously we'll send. As you know, with our process, it can take some time.

(Laughter.)

Not three years. I just wanted to say, you know, I think, I've known you for a number of years here and you personify what it means to be a GPAC member.

A couple of attributes. I mean, they are numerous. You could think of many but you've been a role model for the Committee helping new members. You are solutions oriented. You are all about collaboration, cooperation, patience. And a really big one for us, which is important to us, perseverance because it does take that.

You are highly competent. You are articulate. You just have this masterful way of explaining complex topics to the lay person and working across, you know, between the public and the industry and government. Thank

you for that.

I just wanted to take a moment today to recognize that and appreciate your service. As you head off, I'm jealous but, you know, look forward to you not being scarce. You will attend our last meeting sometime next year I expect. Or maybe not, but anyway.

MR. DRAKE: Thank you very much, Alan. I really appreciate that. I will clear the extension of my retirement with my wife to make sure. The real boss will decide how that's going to work. It's been an absolutely honor to work with folks like this over so many years. I find that I learn something every single day that I show up in here. It's really an inspiration to see what this group can accomplish together. Thank you very much for letting me be part of it.

(Applause.)

MR. MAYBERRY: I don't see any tent name tags raised so I think we will -- that's the second adjournment we have for today.

CHAIR DANNER: Thank you. Well, you know, I haven't raised my tent since we got here. I just talk. I want to say I remember back in 2019 when I joined the GPAC for the first time Andy actually reached out before I arrived in D.C. and said, hey, let's meet and I can tell you what's going on.

Of course, I'm thinking, oh, this is an industry guy. He's going to tell me how I should vote. In fact, he's very much an honest broker. He was telling me the background. I learned a lot from him and I still learn a lot from him. Thank you very much, Andy.

(Whereupon, the above-entitled matter went off the record at 4:52 p.m.)

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C E R T I F I C A T E

This is to certify that the foregoing transcript

In the matter of: Gas Pipeline Advisory Committee

Before: PHSMA

Date: 11-29-23

Place: Arlington, Virginia

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

Neal R. Gross

Court Reporter