

UNITED STATES OF AMERICA  
DEPARTMENT OF TRANSPORTATION  
TECHNICAL HAZARDOUS LIQUID PIPELINE SAFETY STANDARDS  
&  
TECHNICAL PIPELINE SAFETY STANDARDS COMMITTEE  
**JOINT COMMITTEE MEETING**

Hyatt Arlington Hotel  
1325 Wilson Boulevard  
Arlington, VA  
Senate Salon C

Thursday,  
March 27, 2003

The above captioned matter convened, pursuant to  
notice at 9:00 a.m.

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Associate Administrator for Pipeline Safety

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

2 9:10 a.m.

3 Welcome

4 MR. O'STEEN: I'm James O'Steen. I'm the  
5 deputy associate administrator for pipelines. And I  
6 want to welcome you this morning to the Technical  
7 Pipeline Safety Standards Committee Meeting.

8 And it's -- it's a beautiful day outside  
9 today. Sorry to have to keep you in here, but we've  
10 got a lot of important work to do, and so I suggest we  
11 get started. And so I'm going to turn it over to  
12 Chairwoman Kelly, and let's proceed.

13 MME CHAIRMAN KELLY: Good morning. We'll  
14 begin by asking the Committee members to introduce  
15 yourselves, please? We'll begin with Mr. Feigel.

16 MR. FEIGEL: I'm Richard Feigel with the  
17 Hartford Steam Boiler Inspection and Insurance Company.

18 MR. DRAKE: Andy Drake with Duke Energy Gas  
19 Transmission out of Houston, Texas.

20 MR. WUNDERLIN: Jim Wunderlin with Southwest  
21 Gas out of Las Vegas, Nevada.

22 MR. ANDREWS: Ben Andrews, Oak Ridge,  
23 Tennessee Utility District.

24 MR. COMSTOCK: Mike Comstock, City of Mesa,

1 Arizona.

2 MS. GERARD: My apologies for being late.  
3 Stacey Gerard, associate administrator for pipeline  
4 safety.

5 MME CHAIRMAN KELLY: Linda Kelly, chairwoman  
6 of this panel -- Committee and commissioner from the  
7 Connecticut Department of Public Utility Control.

8 MR. THOMAS: Eric Thomas, Southern Natural  
9 Gas Company, Birmingham, Alabama.

10 MR. NIKOLAKAKOS: Steven Nikolakakos, Russell  
11 Corrosion Consultants and representative --

12 MR. COTTON: Rickey Cotton, Mississippi  
13 Public Service Commission.

14 MR. ISRANI: Mike Israni, Office of Pipeline  
15 Safety.

16 DR. WILLKE: Ted Willke, TLW Solutions. I'm  
17 located out of Pittsburgh.

18 MR. LEMOFF: Good morning. Ted Lemoff,  
19 National Fire Protection Association, Quincy,  
20 Massachusetts. I'm a public member.

21 MR. LEISS: John Leiss from the Federal  
22 Energy Regulatory Commission here in Washington.

23 MS. GERARD: Good morning to all of you. I'd  
24 like to make an opening comment about a little bit of a  
25 departure from our normal format for the meeting today.

1 We have a couple items on the agenda, but the  
2 dominating item is our consideration of comments and  
3 briefing the Advisory Committee on comments that have  
4 made -- been made on the record so far for the Gas  
5 Integrity Management Rule.

6 And I see this meeting as -- as largely  
7 preparatory for the next meeting that we're going to  
8 have in which we will be asking the members of this  
9 Committee to vote on the proposed rule. And that is  
10 the appropriate procedure, is for the Committee to vote  
11 on the proposed rule.

12 There has been an enormous amount of  
13 discussion and dialogue on the public record for this  
14 proposed rulemaking. It's extremely productive and  
15 we've -- we've been having meetings every couple of  
16 weeks that are public meetings. And I -- I wanted to  
17 be sure that the Committee had the opportunity to be  
18 briefed and prepared and informed, as is the staff of  
19 OPS, on some of the proposals and comments.

20 And so we've designed the meeting today to be  
21 presentations both by OPS and by panelists who have  
22 previously proposed, you know, concepts for  
23 consideration with this proposal. I have asked that  
24 one of our consultants, Roger Houston from -- take  
25 minutes from this meeting in addition to the transcript

1 in order to facilitate getting comments, action items,  
2 and concepts down so that it could be immediately  
3 prepared and dispatched to the members of this  
4 Committee because it will be your responsibility over  
5 the next couple of months to prepare for a vote.

6           And we want to be sure that you have the  
7 advantage of notes and well articulated concepts and  
8 alternatives that might be discussed today at your  
9 disposal so that you can prepare yourselves as a  
10 committee during the meeting and when you leave the  
11 meeting, that you can consult with each other, email  
12 each other, and circulate your views in preparation for  
13 the -- the meeting we propose to hold at the end of May  
14 in which we will ask you to vote on the proposal with  
15 whatever additional comments and recommendations you as  
16 the Committee so choose to make.

17           So, there will be OPS presentations and panel  
18 presentations. And I have also asked for a  
19 representative from the Washington Citizens Committee  
20 -- Washington State Citizens Committee who  
21 participated in the last public meeting who had a lot  
22 of views to present to be part of the panel as well as  
23 some of the industry representatives, the NAPS  
24 representative who presented -- wasn't able to attend  
25 this meeting.

1           So, that's my explanation as to why the  
2     format's going to be a little different at this  
3     meeting. And we can take until about 3:00 to discuss  
4     the Gas Integrity Proposal, at which time we'll have to  
5     move on with our second agenda item.

6           MME CHAIRMAN KELLY: Similarly, the vote  
7     that's listed on your agenda for the Cost Benefit  
8     Analysis tied to the Integrity Management Rule will be  
9     discussed but not voted on. Those will be voted on  
10    together at the meeting in May.

11           All right. Let's begin.

12           MR. LEMOFF: A question, please?

13           MME CHAIRMAN KELLY: Yes?

14           MR. LEMOFF: Just so I know the -- has there  
15    been a date established for the May meeting?

16           MS. GERARD: We have several days booked at a  
17    hotel in Washington.

18           I'm looking for Cheryl.

19           PARTICIPANT: The 27th through the 29th.

20           MR. LEMOFF: Thank you. Just wanted to be  
21    sure.

22           MS. GERARD: Is it Loews L'Enfant Plaza?  
23    Right near the DOT Building.

24           MME CHAIRMAN KELLY: The 27th through the  
25    29th.

1 MS. GERARD: We're also still thinking about  
2 saving the 30th as a public meeting on mapping, to  
3 discuss in public some of the concepts we talked about  
4 yesterday.

5 Is there -- if there's a problem with that  
6 date, you guys can talk to us about it at break.

7 MME CHAIRMAN KELLY: Yes, Mr. Drake?

8 MR. DRAKE: As a point of some closure from  
9 the last meeting, I want to at least -- I'll wait until  
10 we get focused.

11 (Pause)

12 MR. DRAKE: As a point of closure from the  
13 last meeting of this group, there was an -- an exchange  
14 between then-Chairman Willke and the DOT about a public  
15 release that was made summarizing the fall-out or the  
16 conclusions from the last meeting. And I would at  
17 least like to address that. Yes, very much talking  
18 about the press release.

19 I think many on the Committee agreed with Mr.  
20 Willke that the press release did not represent the  
21 transactions or the conclusions or the recommendation  
22 of this Committee. And I want to at least go on record  
23 that I thought that Mr. Willke's letter was appropriate  
24 and that the out-of-context public release was not  
25 really appreciated, at least on this person's behalf. I

1 can't speak on any other people's behalf.

2 But I think that it is important that the  
3 matters of this Committee when they're disclosed for  
4 public political purposes be kept in context or it  
5 undermines the very fundamental reason we're here.

6 MME CHAIRMAN KELLY: We'll pass on your  
7 comment to RSPA. Thank you for that comment.

8 Anything else? Mr. Willke, did you have any  
9 comments?

10 DR. WILLKE: No.

11 MME CHAIRMAN KELLY: Thank you.

12 Mr. Israni?

13 MR. ISRANI: Thank you.

14 Briefing: HCAs for Gas Transmission Pipelines

15 MR. ISRANI: Good morning. OPS decided to  
16 have the Gas Integrity Rulemaking in two steps. First,  
17 we published the high consequence area designations.  
18 We published that August 6th, 2002. And then we  
19 prepared the proposed rule on integrity management  
20 requirements in those high consequence areas, and we  
21 published that on January 28th, 2003.

22 In the first step I'm going to talk about the  
23 high consequence areas. I'm going to give you all a  
24 picture of what we proposed, why we proposed, and later  
25 I'm going to discuss what we have heard so far, before

1 we pass on to Industry panel.

2           The high consequence area regulation that we  
3 issued in August had four major components. It had  
4 populated areas, which are currently defined in our  
5 regulations as Class 3 and 4 locations; it had  
6 buildings or facilities having persons who are  
7 difficult to evacuate, for example, schools, hospitals,  
8 nursing homes, and prisons; and it also had places that  
9 people congregate, examples, playgrounds, camping  
10 grounds, recreational facilities.

11           The fourth component we had, we had broad  
12 corridors where we felt the potential impact can be  
13 felt. And we had these broad corridors at 300 feet,  
14 660 feet, and 1000 feet. And we also said that most  
15 pipelines less than 12 inches and pressures less than  
16 1200 will have an impact rate of not beyond 300 feet.  
17 And we wanted to have that fixed corridor.

18           And pipelines which are greater than 30  
19 inches and greater than 1000 psi may have impact beyond  
20 660 feet and be fixed at 1000 foot -- a corridor for  
21 that.

22           Now I'll go through each and every component  
23 on why those are picked. And I have the slide for each  
24 component, an illustration to make it easier.

25           (Slide)

1           MR. ISRANI: Class 3 and 4 locations, as I  
2 said, are the populated areas currently defined in our  
3 regulations. And they have been there for over 30  
4 years, and they have also been ASME B31-8 Standard for  
5 over 30 years. And we chose Class 3 and 4 locations  
6 because we know that operators already had this data,  
7 this information, and we thought it would be much  
8 easier to stick with those for populated areas.

9           We wanted to expand beyond these Class 3 and  
10 4 locations as a result of recent accidents and what we  
11 have learned over the years from our inspections and  
12 accident investigations, so we introduced these areas,  
13 buildings and facilities which are difficult to  
14 evacuate and places where people congregate.

15           Now, we -- at that time we had not  
16 established the impact zones to -- to determine how far  
17 off the pipeline segment longitudinal -- longitudinally  
18 we go for the buildings and facilities or places where  
19 people congregated. So we introduced that in the  
20 proposed rule which we issued this January.

21           (Slide)

22           MR. ISRANI: When we issued the proposed  
23 rule, we also introduced one more component of HCA, and  
24 that's the area of an impact circle with threshold  
25 radius 1000 feet or larger that has 20 or more

1 buildings. What we did was we -- when we issued the  
2 HCA definition rule, we had not considered the housing  
3 units which go beyond 660 feet. So we introduced that  
4 component in the proposed rule to be added to the  
5 original four components.

6 And we also defined potential impact areas,  
7 threshold radius, potential impact circle, and  
8 potential impact zone. These are all variations from  
9 the C-FER equation, the base which we use for  
10 determining the potential impact radius. And threshold  
11 radius was additional safety margin that was added to  
12 the C-FER equation and also to make it a standard  
13 corridor and not varying corridor.

14 And potential impact circle is, once you know  
15 the radius, you can determine where is the impact  
16 circle. And potential impact zone, the last one, is  
17 when inside this circle, you can determine what the  
18 zone is. And I'm going to show you these illustrations  
19 now.

20 (Slide)

21 MR. ISRANI: The very first item on the  
22 agenda was Class 3 and 4 location. And this is a  
23 simple illustration of what class location is. As you  
24 can see on this display here, Class 3 location is where  
25 46 or more buildings are located in a sliding mileage

1 area 660 feet on either side of the pipeline. So that  
2 -- this one is about a quarter mile and this is about a  
3 mile, 46 buildings. That's a Class 3 location.

4 This is a simple illustration. The  
5 arrangement of buildings, everything can vary, and this  
6 length may go beyond one mile. But this is what  
7 currently we have in the regulations.

8 (Slide)

9 MR. ISRANI: Here I show an illustration of  
10 Class 1 where there are less than 10 buildings.

11 (Slide)

12 MR. ISRANI: And here is a Class 4 location  
13 where there are four-story or higher buildings  
14 prevalent by definition.

15 So we are concentrating on these Class 3 and  
16 4 locations here.

17 (Slide)

18 MR. ISRANI: In this illustration, I show the  
19 HCA example. All the HCA components are in this  
20 example shown here. We have Class 3 -- 3 and 4  
21 location. I've shown here a Class 3 location which is  
22 HCA. The -- also, the fifth component that we added,  
23 residential areas which are beyond 660 feet which were  
24 not originally included in the HCA definition, we  
25 included those. And there was no sliding mileage

1 requirement for this residential area, so we had to use  
2 the impact circle. And then we used the examples of  
3 prisons, playgrounds, and nursing homes to show you  
4 that all these are the components of HCA.

5 (Slide)

6 MR. ISRANI: This is an example of how you  
7 determine the HCA segment. Like, if you were at a  
8 prison at a certain distance, you know your pipe  
9 diameter is 24 inches, your pressure is such and such,  
10 you need a C-FER equation to determine potential impact  
11 radius. And then we said we had these fixed three  
12 corridors which we call threshold radius, 300 feet, 660  
13 feet, and 1000 feet. So in this case, you extend --  
14 expand that to 660 feet threshold. Once you know the  
15 660 feet, then you can determine the segment of the  
16 pipeline. This is just an illustration.

17 (Slide)

18 MR. ISRANI: This is another way of  
19 determining the potential impact zone, sliding circle  
20 method. Once you know the threshold radius using the  
21 same methodology here, you slide the circle, then you  
22 -- the point which is closest to the pipeline. And  
23 you slide the circle until you reach another point  
24 which is closest to the pipeline. Then, from center  
25 line of this, this becomes the zone.

1           It's the same as what I showed you  
2 previously. You -- this length of segment would be the  
3 same no matter which method you use to determine it.

4           (Slide)

5           MR. ISRANI: This is another illustration to  
6 show you those areas that we picked up beyond 660 feet.  
7 We said in the proposed rule this fifth HCA component  
8 would have 20 buildings in a thousand-foot radius.  
9 This is a thousand-foot threshold radius. So when you  
10 have that scenario, then that becomes an HCA.

11          MS. GERARD: As a point of emphasis because  
12 it come -- it's going to come up over and over again,  
13 20 buildings, a thousand feet.

14          MR. ISRANI: Yeah. We want to stress on  
15 that.

16          (Slide)

17          MR. ISRANI: This chart is to tell you how we  
18 arrived at this threshold radius. If your pipeline  
19 diameter is 12 inches and your MAOP varies, then your  
20 potential impact radius, which is here, will be varying  
21 depending on your pressure in the line. So, for  
22 example, if you have 1000 pound pressure and you have a  
23 12-inch pipeline, you'll arrive somewhere close to 150,  
24 160 feet. This is not exactly the scale, but just for  
25 illustration purpose.

1           So, we picked up this 300 foot as a minimum  
2 corridor that all pipelines are to follow, instead of  
3 having varying circles of C-FER.

4           Similarly, if your pipeline is 24 inches,  
5 your impact circles will be varying. So we fixed on  
6 660 for -- for -- for this purpose here. Six hundred  
7 sixty per corridor for all the pipelines which fall in  
8 that category.

9           (Slide)

10           MR. ISRANI: This potential impact radius  
11 here which I show is -- is what we use the C-FER  
12 equation. So we -- we -- we want you to consider the  
13 question and go back to the threshold, 300, 660, 1000  
14 foot, varying with your pipeline. So, if you just read  
15 the terms, you maybe get confused. But when you --  
16 once you follow the chart, it becomes straightforward.

17           (Slide)

18           MR. ISRANI: This is a continuous sliding  
19 mile example. We also introduced the term "moderate  
20 risk areas" in our proposed rule. What we were trying  
21 to arrive at is to -- to look at the clusters of home.  
22 So once you have clusters of home like this and your  
23 potential impact radius -- potential impact circle  
24 falls in that zone, that's the HCA. But we said that  
25 areas which are beyond the potential impact circle will

1 become moderate risk areas.

2           So, although this is a Class 3 location, if  
3 your configuration is such that your housing is  
4 concentrated in one area, then other areas we consider  
5 as moderate risk areas because your impact on housing  
6 is less than what you would have in this area.

7           MS. GERARD: Just to clarify what our goal  
8 was at that time, we wanted to be able to provide some  
9 added protection to housing that was outside the impact  
10 zone but still within the category of Class 3 and 4.  
11 And we obviously were not completely decided about our  
12 proposal, what should be the added protection, because  
13 we asked questions in the preamble about whether or not  
14 assessment should be required in that area.

15           So we were open to considering what the level  
16 of protections would be, mindful of the significance of  
17 the additional costs in that area and trying to decide  
18 if the benefit of additional testing in that area was  
19 worth it, considering that these were areas that are  
20 still within the band of the protection zones known as  
21 Class 3 and 4 currently.

22           We thought that there would be perhaps public  
23 concerns for people in those areas who thought that  
24 they were in an area that deserved higher protection  
25 but they weren't going to get higher protection with

1 the new regulation. And so we were asking questions  
2 about what should be done outside the impact zone.

3 MR. ISRANI: Similarly, we also put in the  
4 preamble of the rule, in the proposed rule, if you have  
5 some rural churches or rural buildings in a Class 1 and  
6 2 location which currently, by definition, fall under  
7 HCA, we asked the question whether we consider those as  
8 moderate risk areas.

9 MS. GERARD: Another point here. There was a  
10 petition that was filed that, among other issues,  
11 identified the fact that the amount of mileage that  
12 would be picked up by including the rural churches was  
13 likely beyond what OPS might have understood. And so  
14 one way to address the issue of the petition would be  
15 to take that -- that population area of rural churches  
16 and remove it from the high consequence area and put it  
17 in the moderate risk area where we could decide what  
18 was cost beneficial to provide protection to the rural  
19 churches.

20 So we were attempting to respond to the  
21 petition and realizing that we might not have  
22 understood just how much mileage would be picked up by  
23 including rural churches and not wanting to put so much  
24 additional mileage in that it was no longer a function  
25 of the highest priority but much more than the highest

1 priority by virtue of so much more added mileage.

2 (Slide)

3 MR. ISRANI: The last illustration I have  
4 here is another example where the housing development  
5 is such that it is all beyond 300 feet in the Class 3  
6 location, as you can see in this area, this example  
7 here. And for small operators -- operators with a  
8 small diameter pipe and low pressure where the impact  
9 circles are only in this zone and they would not pick  
10 up most of the buildings, we wanted to consider those  
11 also as MRAs, meaning moderate risk areas.

12 And similarly, this scenario also can happen  
13 in your Class 4 location, you're barely touching 660  
14 feet, and you're currently falling in a Class 4  
15 location and you have a small diameter pipeline. You  
16 may have that area also as MRA.

17 As Stacey explained earlier, MRA idea -- we  
18 asked the question -- we have asked the questions in  
19 this proposed rule whether we should have just a  
20 confirmatory direct assessment which is a streamlined  
21 version of direct assessment or we should have less  
22 requirements. But these are questions that we asked in  
23 the proposed rule.

24 (Slide)

25 MR. ISRANI: Okay. So this -- this concludes

1 my presentation on the high consequence area, what we  
2 had put in the rule -- in the proposed rule and the  
3 final rule of this. And now I want to continue on this  
4 by telling you what so far we have learned from the  
5 meetings regarding high consequence areas.

6 MS. GERARD: This is the public meetings.  
7 He's commenting on what OPS has learned from the public  
8 meetings that have been held in the last few weeks.

9 (Pause)

10 MR. ISRANI: If you'll bear with me for a  
11 second, I'll just bring this slide up.

12 (Pause)

13 (Slide)

14 MR. ISRANI: Now, the proposed rule got  
15 published on January 28th, as I said earlier. And  
16 since then we have participated in the -- couple of --  
17 two workshops and one -- conference. We had a joint  
18 sponsored public workshop sponsored by AGA and INGAA  
19 and then we had another conference of AGA, APGA, and  
20 other associations. And we had on March 14th our  
21 public meeting to address the issues that were raised  
22 in these previous workshop and other conference and to  
23 better explain our rule.

24 There were several issues that were raised.  
25 Some needed clarification and some reconsideration. In

1 this slide I highlighted some of the issues that we  
2 have some ideas on how we can arrive at a common  
3 ground. These are simply preliminary ideas, and we are  
4 not going to lock ourselves up into these ideas because  
5 the comment period is still open until April 30th. And  
6 we'll get more ideas when we receive the comments. We  
7 also have an advisory committee to give us  
8 recommendations on those ideas.

9 MS. GERARD: So, Committee Members, these are  
10 -- this is fertile ground for you to be looking at and  
11 making your personal notes. As Mike tells you, we're  
12 considering these additionally beyond our proposal,  
13 that when you come into the meeting in May, you may be  
14 thinking about areas where you might want to, looking  
15 at some of these ideas and things you'll hear later in  
16 the day, consider recommending changes to the proposal.

17 When you vote, you can say, we support the proposal  
18 with recommendations to make the following changes.

19 So this is a very important area to make sure  
20 you're digesting what Mike is covering because it is  
21 not written down in our proposal. But it's on the  
22 public docket as ideas for further consideration.

23 MR. THOMAS: Stacey, would you want any of  
24 those inputs individually before that May meeting?

25 MS. GERARD: You can make whatever comments

1 you want to make today on the record to indicate your  
2 initial reactions.

3 MR. THOMAS: I was thinking about mail-in,  
4 you know, after today but before May.

5 MS. BETSOCK: Any member of the committee can  
6 also submit comments. It is open to public comment.  
7 We extended the comment period, so you certainly can.  
8 If you want to commit to comments as a Committee, it  
9 really is -- it should be done through the process of  
10 the Committee, through the meeting.

11 MR. THOMAS: Okay.

12 MS. GERARD: If the Committee should want to,  
13 you can ask us to set up a phone conference of the  
14 Committee between now and May, if that's necessary, and  
15 we would notice it in the "Register."

16 MME CHAIRMAN KELLY: Another option is, if  
17 before the meeting Committee members would like to  
18 share thoughts with other Committee members, you can  
19 certainly email those to the Committee members. I  
20 think what counsel is telling us that it's not official  
21 unless you either do it pursuant to the "Federal  
22 Register" requirements or you do it in a Committee.  
23 But certainly, you could share comments with Committee  
24 members in advance of the meeting, which would give us  
25 another basis for discussion.

1 Yes, Mr. Feigel?

2 MR. FEIGEL: Could I ask for a point of  
3 technical clarification before we go on?

4 MME CHAIRMAN KELLY: Yes.

5 MR. FEIGEL: Mike, you may have explained it  
6 and I may have just missed it. How did you derive the  
7 radius for the MRAs? I mean, I'm looking at Slide 13  
8 in the last portion of your presentation. Slide 13 of  
9 my hard copy.

10 MR. ISRANI: Okay.

11 MR. FEIGEL: Slide 11, I think.

12 MR. ISRANI: Eleven, okay.

13 MR. FEIGEL: Yeah, 11.

14 MR. ISRANI: This -- as I explained earlier  
15 that your impact circle is based on threshold radius.  
16 You know, 300, 660 feet, or 1000 feet. We had three  
17 fixed corridors.

18 So, your impact circle you're determining  
19 after you know what your threshold -- threshold radius  
20 is. Threshold radius I said was when you use potential  
21 impact radius, which is a C-FER equation, you know, the  
22 equation which is a basic equation for determining your  
23 -- your impact zones. And I showed you a chart how we  
24 arrived at fixed corridors, 300, 660, and 1000.

25 So you already know from your pipeline

1 diameter and pressure what your impact circle is, based  
2 on this. And when you have configurations like this  
3 where you have buildings spread out and you don't have  
4 -- the Class 3 location requires 46 buildings. And you  
5 find only one or two buildings, you know, a small  
6 number in that 300-foot circle. So that becomes like  
7 you have a -- not a same kind of consequence as you  
8 would have with your larger pipeline in that diameter  
9 because your circle impact zone will not even go that  
10 far.

11           So your -- that -- that rectangle, that  
12 portion of the pipeline becomes -- or that -- that  
13 segment becomes a moderate risk area segment. Because  
14 your circle -- circles are going to be -- you know, if  
15 you -- if you look here on this, your circles are going  
16 to fall -- if your pipeline diameter is less, 12 inches  
17 and 700 -- the impact circles will be smaller here.

18           MR. FEIGEL: I understand --

19           MR. ISRANI: Yeah, right.

20           MR. FEIGEL: -- the actual -- what's the  
21 basis --

22           MS. GERARD: I think -- I think it's -- what  
23 I was trying to say earlier was that in consideration  
24 of the fact that these houses that are in current Class  
25 3 and 4 fall outside the impact zone, therefore as we

1 were defining impact zone based on the threshold  
2 radius, they fall outside. But they're currently in  
3 Class 3 and 4. We thought that we should consider  
4 adding protection to anything that's outside the  
5 proposed HCA -- outside the threshold radius but inside  
6 Class 3 and 4.

7 MR. FEIGEL: That's the answer to my  
8 question.

9 MS. GERARD: That is?

10 MR. FEIGEL: The MRA is essentially the  
11 current Class 3 definition.

12 MS. GERARD: Right. What is -- what is  
13 between the threshold radius and the --

14 MR. FEIGEL: Right, yeah.

15 MME CHAIRMAN KELLY: Yes, Mr. Lemoff?

16 MR. LEMOFF: I have a question. And just so  
17 I can better understand, can I request that Mike  
18 briefly summarize for us -- now, he's clearly  
19 identified the triggering -- the trigger. What are the  
20 impacts on the pipeline itself? In other words, if I'm  
21 in an MRA or an HCA, what do I have to do to the pipe  
22 in that area that I don't have to do if it's just in a  
23 Class 3 or 4?

24 MR. ISRANI: Right. Our second session we're  
25 going to talk about integrity management requirements.

1 We'll address that.

2 So I'll go back to the next slide.

3 (Slide)

4 MR. ISRANI: Okay. Here's a list of comments  
5 that we heard at the public meetings and the workshop  
6 that we have some ideas on. There were a number of  
7 other issues, but these are the areas where we  
8 currently have some -- some ideas on -- that we want to  
9 place on the table here.

10 MS. GERARD: These are issues that OPS has  
11 synthesized from the public meeting that are of  
12 interest to us that we are focusing our thinking on  
13 from what we've heard. We're -- we're indicating to  
14 you from what we've heard that has been discussed those  
15 areas where we are really focusing our attention at  
16 this point in time today.

17 MR. ISRANI: The very first option -- this  
18 was one of the biggest comments and we had quite a lot  
19 of discussion on this. We proposed -- we -- we had in  
20 the high consequence areas class location as a  
21 populated areas. Industry felt that we should use  
22 impact circles to determine the populated areas.

23 The high consequence area rule is a final  
24 rule. It has already been published. And with this  
25 idea in mind, we would be able to consider both

1 options. Like, we'll have an option for operators to  
2 choose between the impact circle or the class location  
3 as populated areas.

4           And the reason I'm saying this is there are  
5 some operators who would find it much easier to have  
6 the impact circle determination of housing because they  
7 can have area photography and surveys and they can  
8 determine the housing count. They may already have  
9 some ideas on -- the homes are. And then there are  
10 other operators who may not have this kind of  
11 arrangement or they're not willing to spend any more  
12 money when they've already spent so much money and time  
13 over the years to determine what class locations are.  
14 So we'll give them the option of choosing class  
15 location. This is our first concept.

16           MS. GERARD: So what we're saying is that we  
17 find the discussions that have been put on the public  
18 docket to be within the scope of our proposal.

19           MR. ISRANI: It has been in the scope because  
20 the impact circles we proposed in the proposed rule --  
21 it was not in the HCA definition. So we could still  
22 use this as already proposed.

23           MS. GERARD: But that is using the impact  
24 circle as the method to determine where protection  
25 would be brought along the entire length of the

1 pipeline.

2 MR. ISRANI: Correct, correct.

3 And the second item, as you see, is what  
4 industry proposed, that we should have a fixed 20  
5 building count for any impact circle as an HCA  
6 criteria. This was industry's proposal. They thought  
7 we should have one fixed number, 20 buildings, as an  
8 HCA criteria. That criteria we used for a 1000-foot  
9 circle. And we had ideas what we think is more --  
10 right idea in our mind, to use 10-building count for  
11 the impact circle.

12 And I'll tell you why we arrived at 10-  
13 building count idea. If you -- if I showed -- when I  
14 showed you a Class 3 location, 660 feet on either side  
15 of the pipeline, if you draw the impact circle in that  
16 660-foot -- 660 feet on either side of the pipeline,  
17 which is a quarter mile -- quarter mile by a mile of  
18 the pipeline, if you do a mathematical calculation,  
19 you'll find that 46 buildings in one mile by a quarter  
20 mile, you'll have the same density if you were to  
21 consider a 660-foot circle -- if you have one -- one --  
22 pardon me.

23 You have 46 buildings in a one-mile by  
24 quarter-mile rectangle area. So you want to calculate  
25 how many buildings would fall in a 660-foot circle. If

1 you do this mathematical derivation, you will arrive at  
2 10 buildings. You will actually arrive at 9.1-  
3 something buildings, but we say a 10-building count.

4 MS. GERARD: There is a white board there if  
5 you want to draw it.

6 But isn't it -- Mike, my understanding was  
7 that the population density of a Class 3 would be the  
8 same within 660 as 10 buildings. But outside 660,  
9 going to 1000 is 20. No?

10 (Pause)

11 MS. GERARD: Why don't you bring the board a  
12 little closer to the Committee?

13 (Pause)

14 MS. GERARD: Why don't you see if you can  
15 take the mike to you?

16 (Pause)

17 MS. GERARD: This may be the \$64,000  
18 question.

19 (Pause)

20 MR. ISRANI: Our current definition of Class  
21 3 location is 46 buildings in a mile- by quarter-mile  
22 rectangle. Now, if you calculate the area of a mile by  
23 a quarter mile, 46 buildings in that, how many  
24 buildings would fit in a circle of 660 foot -- 660  
25 foot, as you see, will be -- a quarter mile circle.

1 And that number, mathematically if you calculate,  
2 considering uniform building distribution, will be 9-  
3 point-something, 9.1 or so, which we say 10 buildings.

4           There was one other derivation to see the  
5 same density population. And the other simple rule of  
6 thumb is, this is a quarter mile. Six hundred sixty  
7 foot on either side of the pipeline is a quarter mile.

8 So you'll have four circles. Forty-six buildings in  
9 this. So you'll come roughly to 10 buildings in each  
10 circle, with some buildings here. This is uniform  
11 distribution.

12           This was one of the reasons we wanted to use  
13 a 10-building count. And there are other reasons I'm  
14 going to discuss.

15           It's a simple mathematical derivation.  
16 Forty-six buildings in a mile by quarter mile. How  
17 many buildings will be in a circle of 660 foot? Six  
18 hundred sixty foot -- this is  $\pi$  by  $4d$  squared. Or  $\pi$ -  
19  $r$ -squared,  $r$  being 660 feet. So if you calculate that  
20 area, you will come -- you will get an exact number of  
21 9-point-something.

22           MS. GERARD: A point of clarification. In  
23 the rule where we use -- was between 660 and 1000,  
24 right?

25           MR. ISRANI: Yeah.

1 MS. GERARD: Where mathematically.

2 MR. ISRANI: Yeah. Also, I want to say that  
3 if you calculate how many buildings would be in a 1000-  
4 foot circle and if you said  $\pi r^2$ ,  $r$  being 1000,  
5 you'll come to 20 buildings. That's important to note.

6 You'll get 20 buildings for a 1000-foot  
7 impact zone. You get 10 buildings for a 660-foot  
8 circle.

9 MR. DRAKE: I think one of the important  
10 assumptions here is the key word that you use is  
11 "uniform distribution."

12 MR. ISRANI: Right, right.

13 MR. DRAKE: It's a very simplistic math  
14 model. It doesn't reflect the real world.

15 MR. ISRANI: We'll discuss the real world  
16 when you come down to 20 buildings.

17 MR. DRAKE: I just wanted that on record.

18 MS. GERARD: Important point. Noted.

19 MR. ISRANI: Okay. That was one -- one  
20 derivation.

21 Another reason is --

22 MS. GERARD: I just want to clarify. While  
23 your slide shows Number 1 as an acceptable -- as  
24 something we might consider acceptable that came from  
25 the public meeting --

1 MR. ISRANI: Yeah.

2 MS. GERARD: -- your second item, you have  
3 the number "20" up there on the slide, but your voice  
4 said "10."

5 MR. ISRANI: No, I'm saying these are the  
6 comments from the public meeting.

7 MS. GERARD: Right. Okay. But I'm just  
8 making sure that everybody's clear that --

9 MR. ISRANI: Yeah.

10 MS. GERARD: -- you commented on Option 1 as  
11 being within the scope of our proposal. You're now  
12 commenting that Number 2, to take the fixed building  
13 count of 20, would not be consistent with our proposal,  
14 that what would be consistent would be the number 10  
15 because it's consistent with the current population  
16 density in a uniform distribution as what is in Class 3  
17 now.

18 MR. ISRANI: Currently, by the Census Board,  
19 1000 people per square mile, 1000 people per square  
20 mile is a high population area. And if you consider 20  
21 buildings --

22 MS. GERARD: Wait. They may not be familiar  
23 -- you're talking about the value we use for a high  
24 consequence area in the hazardous liquid rule. We took  
25 the definitions of the Census and we gave equal

1 treatment to the Census definition for high population  
2 areas and other population areas.

3 The comment at the public meeting was that we  
4 used the definition 1000 people per square mile, but in  
5 reality we gave equal protection to the category  
6 "other," which is about half the population density of  
7 1000 people per square mile.

8 MR. ISRANI: So, if you were to consider 1000  
9 people in one square mile, one complete square mile,  
10 not this rectangular mile, one square mile, and if you  
11 calculate how much would fall in a quarter, it'd be  
12 one-fourth of that. In a Class 3 location, you'll have  
13 one-fourth of that, and you'll arrive at double the  
14 number of buildings. You'll arrive about 86 or so  
15 buildings. So that's a high population.

16 And our Class 3 location says 46 buildings,  
17 which is half of that. Because we're considering other  
18 populated areas.

19 MS. GERARD: What you're saying is that 46  
20 buildings, which is our current Class 3, is consistent  
21 with other populated areas, not high.

22 MR. ISRANI: It is in between high population  
23 and other populated areas.

24 So that was another reason why we chose to  
25 use a 10-building count actual derivation.

1           The third important point why we think that  
2 10 should be the criteria -- HCA criteria is the first  
3 four components that I showed you on the slide, that  
4 there will be 20 or more people gathered in an area in  
5 Class 1 or 2 location. People -- where people  
6 congregate. Twenty people we are protecting if they  
7 are in the camp area. And if you set 20 buildings as a  
8 criteria, you're protecting one person per building.

9           So, if you consider -- if you want to have an  
10 HCA criteria for 20 people to protect outside, you want  
11 to use the same criteria inside the class location  
12 also.

13           Our current rule, as I said in the very first  
14 slide, 20 buildings -- outside in the -- outside the  
15 area where people congregate, playgrounds or churches,  
16 camping grounds. Use two persons per house and you'll  
17 arrive at 10 buildings.

18           These are just generalizations of why we  
19 considered 10 housing criteria as more uniform to use  
20 instead of 20.

21           MS. GERARD: Did everybody get that last one?

22           MR. ISRANI: I can --

23           MS. GERARD: Ted didn't get it. Do it -- do  
24 it again, Mike.

25           MR. ISRANI: Okay. I'll -- I'll go back to

1 the slide.

2 (Slide)

3 MR. ISRANI: If you -- if you notice this  
4 component here, places that people congregate,  
5 playgrounds, camping grounds, and recreational  
6 facilities. In the rule, HCA rule, we said 20 or more  
7 people congregate there for 50 days in a year. We are  
8 protecting this -- this -- this population, 20 or more  
9 people in a Class 1 or 2 location. So it would be fair  
10 to have the same criteria of 20 people protection -- at  
11 least 20 people protection within the class location as  
12 well.

13 So that's why we --

14 MS. GERARD: So, 20 people --

15 MR. ISRANI: Yeah.

16 MS. GERARD: -- is the same as 10 houses with  
17 two people in it.

18 MR. ISRANI: Correct.

19 MS. GERARD: Trying to be consistent on the  
20 population.

21 MR. ISRANI: Right, population. So these are  
22 three different factors we considered in arriving at  
23 the 10-building count.

24 And I also want to make sure again that these  
25 are our -- these are proposals. We will certainly have

1 discussions and we like to hear other criteria how they  
2 arrive at 20 buildings.

3           Advisory committee will give recommendations  
4 and they're going to, I'm sure, look at and consider  
5 and also how -- what comments we receive in the  
6 proposed rule.

7           MS. GERARD: Thank you. Mr. Willke?

8           DR. WILLKE: Just for clarification, in the  
9 current rule prior to this NPRM, is there an assumption  
10 about the number of people that occupy a building? In  
11 other words, is there a -- is there an equivalent to a  
12 number of people in buildings or is there any  
13 assumption at all? And what constitutes a building?

14           MR. ISRANI: Yeah, okay.

15           DR. WILLKE: Is an outhouse a building?

16           MR. ISRANI: Okay. Let me -- let me --

17           (Laughter)

18           DR. WILLKE: I'm really not questioning your  
19 rule at this point. Just clarification.

20           MR. ISRANI: Okay.

21           MS. GERARD: Important question. There is no  
22 dumb questions about this.

23           MR. ISRANI: Okay. This question a person  
24 would ask if he doesn't know what class location is.  
25 Class Location 3 says 46 buildings. And Class

1 Locations 3 and 4 are the only buildings or populated  
2 areas that we have included in our definition.

3           If Ted's question is about buildings or  
4 facilities where people are difficult to evacuate,  
5 there we have not defined number of persons. We have  
6 not defined a number of persons in that class -- in the  
7 class location as well as building or housing persons.

8           But we have defined the number of persons in  
9 the places that people congregate. And why we chose  
10 20, because our current regulation under Class 3  
11 definition, we have the same number, 20 people gather  
12 within a 300-foot corridor for camping.

13           So this requirement is already in the current  
14 regulation. We have only expanded it beyond Class 3  
15 locations. So if there's a camping ground beyond --  
16 beyond Class 3 locations, then we want to consider  
17 those also.

18           MS. GERARD: But the building question. What  
19 constitutes a building?

20           MR. ISRANI: Buildings. Okay. Buildings for  
21 Class 3 and 4 location definitions, that goes back 30  
22 years. They -- they consider a building as a unit. It  
23 could be an independent house or it could be one unit  
24 in the apartment building, one apartment. It can be in  
25 a town also. There could be just one unit of this.

1           So, "building" is kind of like common  
2 terminology used for that. And "building" can also be  
3 used for the facility where people -- like a nursing  
4 home or those places. Those are also buildings.

5           But Class 3 locations refers to "building" as  
6 -- as a housing unit, as places occupied by humans.

7           MS. GERARD: So, an outhouse is not a place  
8 of occupancy?

9           MR. ISRANI: Which house?

10          MS. GERARD: He asked about an outhouse. An  
11 outhouse is not a building.

12          MME CHAIRMAN KELLY: I think he was just  
13 using that as a joke. But he did have a serious  
14 question that's been responded to.

15          Mr. Willke, you had a follow-up question?

16          DR. WILLKE: So, a McDonald's restaurant is a  
17 building?

18          MR. ISRANI: McDonald's restaurant would be a  
19 building. They -- because there -- there are people,  
20 you know, which are coming in and out. Even though  
21 they're transient, it's a building, yeah.

22          So it's a very common term used in a class  
23 location to determine how -- what populated areas are.

24          Let me go back to --

25          MME CHAIRMAN KELLY: I think there was -- Mr.

1 Lemoff, did you have a question?

2 MR. LEMOFF: Just to make sure I understand,  
3 if I could -- the way I look at it, therefore a  
4 building is any place people live, work, or assemble?

5 MR. ISRANI: That -- that's what we  
6 understand --

7 MR. LEMOFF: A barn would not be a building?  
8 Would a barn be a building?

9 MR. ISRANI: A barn?

10 MR. DRAKE: I think a key operative word here  
11 that's used in the code, in the federal regulations, is  
12 "structures intended for human occupancy."

13 MR. ISRANI: Occupancy, yeah.

14 MR. DRAKE: Okay. That's an important  
15 concept.

16 MS. GERARD: Some -- some barns have people  
17 who live in them.

18 MR. DRAKE: That's -- that's actually in the  
19 regulations.

20 MR. ISRANI: That's true, yeah. Yeah, in  
21 fact, that's also in the ASME B31-8 part Andy's  
22 referring to.

23 MME CHAIRMAN KELLY: Were there any other  
24 questions?

25 (No response)

1 MME CHAIRMAN KELLY: Are we ready to move to  
2 our panel? Oh, please proceed.

3 MS. GERARD: Mike, you still are working your  
4 way down that slide, right?

5 MR. ISRANI: Yeah, right. Yeah.

6 MR. LEMOFF: Before we leave, can I ask one  
7 more question about that previous slide, Mike?

8 MR. ISRANI: Go back to --

9 MR. LEMOFF: Or Madam Chair? And the  
10 question is, this 20 people -- and I have had some  
11 difficulty with in the past -- is there an -- a  
12 specific area defined or is it subjective? Is it --

13 MR. ISRANI: No. We -- for outside areas,  
14 there's no area defined. It could be a basketball  
15 court, it could be a camping ground, it could be, you  
16 know, anything.

17 MR. LEMOFF: And I believe this has caused  
18 difficulty in the interpretation issues in the past.

19 MR. ISRANI: And we have some interpretations  
20 on our side which -- which have clarified what we  
21 consider outside gathering areas of buildings.

22 MR. LEMOFF: Well, this came up once before  
23 when we did the O & G rule, and I did submit some  
24 comments which the Office chose not -- didn't  
25 understand my logic, let me say. But I would like to

1 see as part of this, if -- if there could be something  
2 more specific in terms of, rather than 20 people,  
3 square feet. And there are ways to define that, and I  
4 think it would be much clearer and improve the  
5 usability of the rule.

6 MS. GERARD: You're saying that you -- your  
7 thinking is leading you to make a recommendation or for  
8 the Committee to consider adding more definition to the  
9 spacing issue?

10 MR. LEMOFF: In other words, better define  
11 when you say -- where people congregate. To say 20  
12 people, the question is, well, how big an area is that?

13 MS. GERARD: Now, that part of the rule is  
14 final.

15 MR. ISRANI: That's exactly what I'm saying.  
16 The -- the final rule -- we had -- for proposed rule  
17 on HCAs, and this was discussed. We commented. There  
18 were a number of comments. We responded to them in the  
19 final rule for HCA. What we are looking at here is  
20 identifying those sites. We are not here into the how  
21 we have a 20 -- there should be 20 people or 50 people.

22 MS. GERARD: The way this split, Ted, was the  
23 -- the corridor type of -- traditional corridor type of  
24 geographic definitions are in the HCA rule which is  
25 final. We introduced risk assessment type of processes

1 in the integrity management rule which is still a  
2 proposal. So, anything within the scope of that where  
3 Mike did introduce the concept of the additional  
4 housing out to 1000 feet, that is fair game within the  
5 scope of this proposal.

6 MR. ISRANI: I'll go back to the slide,  
7 whatever strategy or changes -- ideas.

8 (Slide)

9 MR. ISRANI: Okay. Now, I covered Item 1,  
10 that we are considering allowing operators to choose  
11 between class location and impact circle to identify  
12 populated areas.

13 Industry proposed that we should use 20-  
14 building criteria. And I -- I indicated that we like  
15 to take 10, and I explained our reasons for why 10-  
16 building criteria should be used.

17 And the third part is the impact circle based  
18 on the C-FER equation. This -- another very big issue  
19 that we've been discussing with the industry on the C-  
20 FER -- using the impact circle based on C-FER equation.

21 MME CHAIRMAN KELLY: Before you go forward,  
22 there's a question.

23 MR. FEIGEL: Yes, on the subject.

24 Mike, I'm certainly not personally averse at  
25 all to using prudent safety margins for a whole variety

1 of reasons. I'd like to hear, you know, what -- what  
2 bases you've -- you've established this threshold  
3 radius that's bumped up from the C-FER derivation. I  
4 mean, you've got a safety margin. That's what your  
5 original slide said. What's it based on?

6 MR. ISRANI: I'll explain --

7 MR. FEIGEL: Okay. Sorry.

8 MR. ISRANI: I said that my third comment  
9 that I'm discussing would give you reasons on why we  
10 want that safety margin.

11 MR. FEIGEL: I don't want the reasons, I want  
12 the derivation.

13 MR. ISRANI: Derivation, too. Okay.

14 Now, industry -- we had quite a lot of  
15 meetings with the industry and public and states. And  
16 C-FER, which is a Canadian Research Firm which has done  
17 quite a lot of study on this and have also based their  
18 model -- mathematical model on some of the incidents  
19 that they have measured, and they arrived at these  
20 formulas, these equations. And they -- they -- we used  
21 that as our base. We used that equation as our base  
22 for calculating the potential impact radius to  
23 determine the -- radius.

24 We want to add a safety margin on that. We  
25 want to add a safety margin of 15 percent on that. And

1 the reasons for that are C-FER equation was based on a  
2 certain flux factor which is 5000 btus per square inch  
3 per hour. And we wanted to use the flux factor of  
4 4000. And there were a lot of discussions on this  
5 issue, which one is appropriate to use. As a matter  
6 of, you know, how you consider your -- how do you  
7 determine what is, you know, high consequence.

8           Now, for example, if you use a 5000 flux  
9 factor, this was based on a building having pilot  
10 ignition, a house having pilot ignition within a 20-  
11 minute time period. This is very important to note. A  
12 20-minute time period using C-FER equation.

13           We consider that time is not enough,  
14 depending on the situation, you know, time, people who  
15 are -- the children in the house or when there are  
16 older people in the house, the middle of the night,  
17 these things happen.

18           If you use the 4000 btus, which is also being  
19 used by NFBA and a number of -- American Institute of  
20 Chemical Engineers, they use that factor also -- your  
21 time period goes to -- two hours beyond. So you have  
22 ample time before the house starts having pilot  
23 ignition, before the house starts burning.

24           MS. GERARD: Did you say two hours?

25           MR. ISRANI: Two hours or more, yeah.

1 MS. GERARD: So, from 20 minutes to two hours  
2 is the range?

3 MR. ISRANI: Two hours, yes.

4 So that gives you an ample safety margin  
5 there.

6 Another factor which is also important, the  
7 same C-FER equation. If you see the C-FER report, it  
8 tells you that using 5000 btus as a flux factor in  
9 determining the impact circle, you can get second-  
10 degree burns on your body within five seconds. And if  
11 you use the lower number, 4000, so you have a longer  
12 time period for that.

13 MS. GERARD: How much longer?

14 MR. ISRANI: It's only some additional  
15 seconds. But these are the factors to consider.

16 And another reason is C-FER model is good for  
17 flat terrain. If you have a terrain which is at an  
18 angle and -- this is your pipeline. And if your  
19 terrain is at an angle like this, your impact circle  
20 here, if you use C-FER equation, will not match. It  
21 will be -- impact circle would be higher not by C-FER  
22 equation but in actuality. And we have some incidents  
23 which prove that. This is based on if you have a hilly  
24 terrain.

25 And that will happen because if you have a

1 hilly terrain and you have flame here, you are  
2 obviously covering more ground than a mathematical  
3 calculation which is based on a house on the ground.

4 MME CHAIRMAN KELLY: Mr. Lemoff?

5 MR. LEMOFF: Could you quantify "higher"?  
6 You mean the thermal radiation received would be  
7 higher?

8 MR. ISRANI: I have some slides I could show  
9 you on that.

10 MR. LEMOFF: No, no, I just --

11 MR. ISRANI: Yeah.

12 MR. LEMOFF: -- you said "higher," and I  
13 didn't -- I want to make sure I completely understand  
14 what you say.

15 MR. ISRANI: Meaning your -- the ground --  
16 the actual footprint of the explosion was longer than  
17 what calculated -- mathematically calculated from C-FER  
18 equation.

19 MR. LEMOFF: And therefore, there is more or  
20 less radiation -- thermal radiation received by a  
21 building at that distance, more or less?

22 MR. ISRANI: Right.

23 MR. LEMOFF: In hilly terrain?

24 MR. ISRANI: Your radiation is the same. The  
25 only thing is that you are -- because of the geography

1 layout, you'll have more ground covered for that  
2 distance.

3 Let me -- let me give you one example here.

4 MS. GERARD: I think, Mike, you're saying if  
5 you have more ground covered, the radius is larger.

6 MR. ISRANI: Right, right.

7 MS. GERARD: That's what -- that's what he's  
8 asking.

9 MR. ISRANI: Yeah. The --

10 MS. GERARD: The radius is larger --

11 MR. LEMOFF: That's what I was --

12 MR. ISRANI: The footprint -- that's what I  
13 was saying. The footprint of your explosion would be  
14 larger than mathematically calculated.

15 I'd like to just -- if I could bring that  
16 slide here.

17 MR. LEMOFF: But if I may, but conversely,  
18 there might be some areas that are somewhat shaded by  
19 the hills and they would -- that would be a safety  
20 factor?

21 MR. ISRANI: That -- true. You know, there  
22 -- there are other factors also, yes.

23 There was a -- you brought this question up.  
24 I want to show you this illustration here.

25 (Slide)

1           MR. ISRANI: This was in Charleston -- near  
2 Charleston, West Virginia, last year. This was  
3 Columbia Pipeline. And here in this explosion, when  
4 they measured the distance from here, it was 700 feet.

5           Now, if you see the hilly terrain here, you  
6 know, it's slanting up. You're going up. It was 700  
7 feet on this side and it was less on this side.

8           So if you calculate from the point where the  
9 explosion took place, if you use C-FER equation, your  
10 calculation was only 580 or something. So this was  
11 just one example.

12           So, it could happen, depending on -- because  
13 there are so many factors. There are so many  
14 uncertainties in using a model that you want to add a  
15 safety margin. And that's very important to add  
16 because all these various research firms have different  
17 formulas they use. They arrive at some numbers and  
18 they have to make assumptions to arrive at some  
19 numbers. They cannot see all scenarios. So --

20           MS. GERARD: An additional point of  
21 clarification to be fully informing the Committee.

22           In discussions about this within OPS, the  
23 question of the value that we're trying to establish  
24 here, there's a lot of sentiment to be more  
25 conservative than strictly protecting against death and

1 burn. And I think that -- that's a major point to be  
2 made, that, you know, while the public might not be  
3 killed or burned, that we want to provide an additional  
4 margin of -- of distance that is protected, you know,  
5 just to deal with what we call the fear factor.

6           So, just -- you know, I think that we -- we  
7 should be perfectly clear here that in setting the  
8 value as the federal government for the level of  
9 improved protection we're trying to achieve here, we  
10 want to add distance to go beyond the protection  
11 against death alone or severe burns alone. We're  
12 saying we're looking for more protection than  
13 preventing just death.

14           MR. ISRANI: So, this is not only being used  
15 here for pipeline safety, but any kind of industry  
16 modeling that is done there are some safety factors  
17 added beyond the actual model calculation. It was done  
18 on LNG. In fact, on LNG they go twice the distance on  
19 this because of the -- the fire and because of the --  
20 some of the vapor dispersion, something that happens on  
21 that. You can have more impact.

22           So I'm saying -- any chemical fires or  
23 anything, you have to have some safety margins that go  
24 beyond the mathematical calculations. And we are  
25 asking -- we think 10, 15 percent -- 15 percent is good

1 enough for us because it lies within the range that we  
2 wanted to use flux factor. We wanted to use 4000 flux  
3 factor, which gives you almost like 10, 11 percent.  
4 This is for Richard, who wanted to know how we arrived  
5 at this 15 percent.

6           If you use the 4000 flux factor that we were  
7 proposing originally, you'll get about 10 to 12 percent  
8 higher than C-FER equation. And we -- we added some  
9 more to take care of some, you know, -- effect or some  
10 other layouts.

11           So, you have 15 percent we use as -- we think  
12 is adequate protection.

13           MR. FEIGEL: Thanks, Mike. That's been very  
14 helpful.

15           MS. GERARD: And there were also state  
16 agencies in the discussions who felt strongly that it  
17 was important to use the more conservative flux factor.

18           MME CHAIRMAN KELLY: Mr. Andrews?

19           MR. ANDREWS: Yes. Was there a time factor  
20 built into this extra impact of the burn from this  
21 Columbia Transmission accident?

22           MR. ISRANI: No. As far as I know, this was  
23 not a populated area. It was -- you know, I don't know  
24 how long it took them to put the fires out there.

25           But your time factor can be an issue, also.

1 For example, in Edison, New Jersey, the fire was for  
2 two hours or so, what I hear. It wasn't 20 minutes  
3 only. So longer you have fire, you know, you have more  
4 chance of people getting -- you know, the house -- can  
5 get burned.

6 MR. ANDREWS: You can have a campfire that  
7 can burn thousands of acres if you give it long enough  
8 and not put it out.

9 MR. ISRANI: Well, that's true. That's true.  
10 But you know, we -- considering 20 minutes or we  
11 consider a little larger, you know, we arrive at some  
12 number.

13 MR. ANDREWS: So, are you basing your rule on  
14 a time factor, on -- on -- you've said 20 minutes a  
15 couple times. Are you trying to base that rule on a  
16 20-minute impact?

17 MR. ISRANI: No, 20 minutes was what industry  
18 had proposed using C-FER equation. What we are saying  
19 is we should have a larger time than 20 minutes. We  
20 should have more time. And if we use our percentage  
21 factor, we're going to have more than two hours time  
22 factor.

23 MR. ANDREWS: So you're going from 20 minutes  
24 to two hours?

25 MR. ISRANI: That's -- if you -- yeah, if you

1 use the equation with our flux factor, you'll have a  
2 longer time frame, yes.

3 MR. ANDREWS: Longer being two hours as  
4 opposed to 20 minutes?

5 MR. ISRANI: That's what the -- these  
6 mathematical models have calculated based on that flux  
7 factor, yes.

8 MR. ANDREWS: And why -- what's the  
9 scientific basis of two hours versus one hour or three  
10 hours?

11 MR. ISRANI: Oh, that -- this was because  
12 they were trying to use different -- they used  
13 different flux factors in doing these mathematical  
14 models when doing the research. So they used -- like,  
15 they wanted to use 3000 or 4000, 5000, and see, you  
16 know, how -- how long the impact would be felt with  
17 that.

18 MR. ANDREWS: Okay. But what was the  
19 scientific reasoning to use two hours versus one or  
20 three?

21 MR. ISRANI: No, we -- we used -- as I  
22 mentioned, we used two hours because that was based on  
23 4000 btus. We use a similar factor in our LNG  
24 regulations also. NFPA also has the similar  
25 requirements. So does American Institute of Chemical

1 Engineers.

2 MR. ANDREWS: So you're basing it on 4000  
3 btus?

4 MR. ISRANI: Right.

5 MR. ANDREWS: So that would back the question  
6 up. Why did you choose 4000 versus 4500 btus?

7 MR. ISRANI: Again, I'm saying the research  
8 institute who developed these models, they used  
9 different factors. They used that factor as adequate.

10 MR. ANDREWS: I can understand and appreciate  
11 that. You can calculate it based on anything. But  
12 you're -- but you're basing the first assumption on  
13 something and that something needs to have some  
14 scientific backing and not just a number out of the  
15 air.

16 MR. ISRANI: Well, we --

17 MR. ANDREWS: It appears that you've just  
18 taken five -- 5000 versus 4500, two hours -- which  
19 results in two hours versus 20 minutes.

20 MR. ISRANI: Let me go back on this and tell  
21 you again.

22 C-FER equation is the only model industry has  
23 used. We are basing this on NFPA, American Institute  
24 of Chemical Engineers, our own experience on Part 193  
25 Regulations. All of those use 4000. That is one

1 factor. And I also explained other factors the safety  
2 margin would take care of, this terrain and other  
3 mathematical models. And 20 minutes time, also, we  
4 didn't think was adequate.

5 MME CHAIRMAN KELLY: Mr. Drake, you wanted to  
6 add to this discussion?

7 MR. DRAKE: I'm really getting worried. I  
8 think we have lost our way. I really do. We have lost  
9 our focus on what we're trying to accomplish here, in  
10 my opinion. We are -- we are so smashed up against the  
11 tree we cannot even possibly see the forest here.

12 I think it is important, one, to go on record  
13 that we are not accepting injuries or burns period.  
14 Period. This function of this whole process is just to  
15 gauge an area to start focusing an integrity management  
16 initiative effort. It is not the endpoint. It is just  
17 trying to gauge, are we reasonably starting in the  
18 right place.

19 Are there going to be some examples that fall  
20 out of there? Possibly, but we're trying to look for  
21 some confidence that we're looking at the right  
22 population of, you know, of consequences. that we -- we  
23 can at least begin with something that passes the red  
24 face test in an area of focus that's reasonably  
25 accurate of where people are and is responsible and to

1 focus as an industry to take action on a responsible  
2 level of the pipeline with something that reasonably  
3 reflects consequence.

4           The model that you refer to, certainly it's a  
5 model. It has some concessions, and we can deliberate  
6 at great length about the concessions. But I think one  
7 thing that has to be stated here is that the C-FER  
8 model was validated against failure data from this  
9 industry over the last 20 years and has a 95 percent  
10 accuracy projection on the fire pattern. That seems  
11 valid.

12           Now, we're not accepting fires and we're not  
13 accepting wanting to hurt people. We're just trying to  
14 say, is this reasonable -- is this model reasonable for  
15 a projection of the kind of consequences that are  
16 created from gas pipelines. But we don't want  
17 consequences. We're just saying, is this a reasonable  
18 and -- and -- and somewhat expeditious tool to search  
19 through the pipeline system and find places that look  
20 reasonably like somewhere we should focus.

21           And I think when you start engaging on two  
22 hours of burn and 20 minutes worth of burns, I think  
23 we've really lost our focus. And I think we need to  
24 back away for a few minutes and look at our overarching  
25 goal here. What are we trying to accomplish? We're

1 trying to accomplish, where do you start doing an  
2 integrity management rule and how much of the system do  
3 you want to bite off on, period.

4 MS. GERARD: Has industry made a calculation  
5 of what the difference is between the amount of mileage  
6 that would be picked up between the -- the Keefner  
7 model and the additional mileage of adding the 15  
8 percent safety margin?

9 MR. DRAKE: This thing is so frigging  
10 turbulent and so poorly worded, honest to God, I cannot  
11 figure out what parts of my system are in it right now.  
12 And I've read this thing more times than I can  
13 possibly tell you.

14 So I cannot -- I honest to God cannot tell  
15 you with -- with a GIS system, with a plus or minus  
16 three foot accuracy, what parts of my system are in  
17 this thing right now. I can't. I think we need to  
18 solve that, and I know that's one of the reasons we're  
19 here. So I can't tell you how much of it is in the  
20 wording that you have here.

21 We've talked about 10. Is 10 written down in  
22 any correspondence that we have seen to date publicly?

23 MR. ISRANI: No, but this is what --

24 MR. DRAKE: No?

25 MR. ISRANI: No, okay. And --

1 MR. DRAKE: It's not?

2 MR. ISRANI: No, because it wasn't -- it  
3 wasn't a question, even. We had -- we had 1000 foot  
4 impact circle and then we based 20 buildings. What we  
5 are saying -- now you're bringing a 20-building count  
6 for what we heard in the meetings and your previous  
7 presentation, you want to use fixed 20-building count  
8 for all kind of housing -- and that's where -- what I'm  
9 arguing on.

10 I'm not arguing on -- because we never  
11 proposed 20 buildings or 10 buildings.

12 MS. GERARD: Actually, we're not arguing.  
13 We're just discussing. We've extended -- we've  
14 extended the comment period a month. And you know,  
15 we're -- we're identifying that we're willing to  
16 entertain as an alternative concept to simplify the  
17 concepts here. I mean, we just heard this concept two  
18 weeks ago of the possibility of simplifying to give  
19 operators the option of either Class 3 and 4 or running  
20 the model, circle model, along the length of the  
21 pipeline.

22 My question is, within the next month, would  
23 it be possible to calculate what would be the  
24 difference between running the circle as it's -- as  
25 it's defined by Keefner and running the circle with the

1 15 percent added margin? Could you make a  
2 determination of how much added pipeline mileage the 15  
3 percent margin would pick up?

4 MR. DRAKE: I can talk about my system under  
5 a lot of different scenarios. I just need some  
6 specificity and some stability in order to run those  
7 numbers. But when you start saying, well, add 15  
8 percent to that and now the threshold number is 10, it  
9 -- those are a lot different, you know, models to run  
10 down the pipeline. And you know --

11 MS. GERARD: This is a discussion and --

12 MR. DRAKE: I can -- I can do that and I can  
13 give you some numbers on some of these things that  
14 you're kicking around right now. And I'm sure we'll  
15 have that opportunity. I appreciate the fact that you  
16 need to finish your presentation without being  
17 assaulted, but -- but I just want to help us try to  
18 solve this problem.

19 Back away for a few minutes and look at what  
20 the problem you're trying to solve is. We are so  
21 wrapped into the details on this thing, we are not even  
22 working on the problem anymore, I don't think. And  
23 that's what I'm getting kind of frustrated with. And I  
24 think that's sort of what has created this monster in  
25 the HCA definition. It's very convoluted and very

1 complex. It is trying to bring too much precision to  
2 this and it has lost its purpose. And I think that's -  
3 - that's really my take-away.

4 MME CHAIRMAN KELLY: All right. We'll  
5 continue with -- we'll let Mr. Israni finish his  
6 presentation. We'll take some additional comments from  
7 Committee members, and then I'd like to hear some  
8 comments from members of the public.

9 MR. ISRANI: Okay. And because of all this  
10 discussion which has been going on for two years now  
11 about which model is accurate, we used the threshold  
12 radius because we wanted to use a fixed so we don't  
13 fight on the issue of what flux factor to use. And it  
14 seems like industry has a problem with that, also.

15 Going to the next item, Number 4,  
16 extrapolation for building count. This was another  
17 point that industry brought in on how the building  
18 house count should be done. We're using the circle  
19 method. And what we think that -- you know, we -- we  
20 don't want to specify how you go about this. Industry  
21 can use extrapolation method if they want. But there  
22 are many scenarios where it may not exactly match the  
23 -- depending on how the houses are arranged.

24 But if industry has better ideas on  
25 extrapolating, we are not going to define how you go

1 about identifying these building house counts.

2 MS. GERARD: Point of clarification. What  
3 Mike is saying is, we're willing to consider instead of  
4 requiring the industry to go out and count houses that  
5 they haven't counted, the point was made about how  
6 difficult and how costly it would be to go out and do  
7 an exact house count, that the concept of extrapolation  
8 based on what is inside 660. We are considering that  
9 as meritorious.

10 MR. ISRANI: And the last two items are for  
11 the integrity rule, so I'll discuss those after we have  
12 the integrity presentation.

13 MME CHAIRMAN KELLY: Thank you.

14 Any other questions or comments by Committee  
15 members?

16 (No response)

17 MME CHAIRMAN KELLY: Questions or comments  
18 from the public?

19 (No response)

20 MME CHAIRMAN KELLY: No comments from the  
21 public?

22 (Laughter)

23 MME CHAIRMAN KELLY: You'll have the  
24 opportunity.

25 All right. I'll ask the panel to come

1 forward, then?

2 We have an industry-public panel.

3 MR. ISRANI: If we could have five minutes  
4 because we want to hook up the computer connection to  
5 that side.

6 Andy, you need a computer, right?

7 MME CHAIRMAN KELLY: All right. This is a  
8 good time for a break, then.

9 (Brief recess)

10 Industry/Public Panel (HCA)

11 MME CHAIRMAN KELLY: We will have some other  
12 very important information presented to us for  
13 discussion and consideration.

14 Daron Moore from El Paso and Richard  
15 Kuprewicz from Accufax.

16 We'll start with Mr. Kuprewicz.

17 MR. KUPREWICZ: I thought I'd just briefly  
18 start off with a couple observations as a result of the  
19 public meeting on the 14th. I was able to attend that,  
20 and I thought that was a very productive meeting. A  
21 lot of constructive comments.

22 I took those comments and observations back  
23 to the Washington State Citizens Committee on Pipeline  
24 Safety -- is that -- there we go. It helps if I talk  
25 into it.

1           MME CHAIRMAN KELLY: Could you repeat that --  
2 that sentence so they could hear where you're from?

3           MR. KUPREWICZ: I'm -- I'm from Washington  
4 state. I am a member of the Washington State Citizens  
5 Committee on Pipeline Safety, which is a 13-member  
6 board, nine of which are appointed by the governor,  
7 which are voting members. And then, four represent  
8 industry, which are non-voting members.

9           Anyway, I have a very brief presentation here  
10 that I think might help this process. These represent  
11 my personal observations as a result of the meeting we  
12 had several weeks ago here in Washington.

13           What I took back to the committee was  
14 observations -- fall into two major categories. No  
15 surprise here: the high consequence area definition  
16 needs work. And everybody, it doesn't matter what side  
17 of the fence you're standing on here, if I can  
18 characterize it that way, we all want high consequence  
19 area clarity, not complexity. As you can see here,  
20 it's real easy to get locked into details here that can  
21 get you distracted from the objective.

22           Interesting enough, and I presented this at  
23 the meeting last -- two weeks ago, what we call the  
24 "simple logic diagram test," whatever definition we end  
25 up with of high consequence area -- and interesting

1 enough, all the parties in their presentations two  
2 weeks ago all had the similar concept. We ought to be  
3 able to draw a simple logic diagram on what a high  
4 consequence area is. If we can't do that, the  
5 attorneys are going to make a lot of money, and that's  
6 not where you want to be spending your best efforts.  
7 That's a personal observation on my part.

8           And I -- and I think everybody wants, whether  
9 you're in government or industry or private citizens,  
10 we want to understand the regulation. We should be  
11 able to understand it.

12           The other point I took back to the committee  
13 was my observation that there, apparently, as a result  
14 of the new pipeline safety regulation, some concern  
15 about base assessment and reassessment periods for  
16 inspection, reinspection periods, and whatever. And as  
17 a result of the law enacted last December, a new animal  
18 has showed up and kind of surprised us called  
19 confirmatory direct assessment, in order to meet some  
20 requirements in the 2002 law.

21           From my personal perspective, I took back to  
22 the committee my observations regarding this whole  
23 process. Identified sites are the critical issue in  
24 this high consequence area. Historically, the gas  
25 industry has focused on buildings. I mean, your class

1 -- area classifications are driven by the building  
2 proximities with some deviation on Class 3 for some  
3 outside areas.

4           But the real issue here is from a public  
5 perspective. I'll put my public hat on. What's the  
6 survivability? It's easy for us to talk about  
7 buildings, but the real issue is, it's -- illustration  
8 would be the Carlsbad tragedy -- tragic situation.  
9 It's unsheltered versus sheltered, in my little way of  
10 looking at things. So I kind of explained to folks,  
11 look, folks, buildings buy you some time. I'm talking  
12 about gas transmission pipeline ruptures. Buildings  
13 buy you some time.

14           We can sit here and argue about whether it's  
15 seconds or minutes, whatever, but I'm going to pay a  
16 lot of attention to, you know, how are we addressing  
17 the clarity in the high consequence definitions. Are  
18 we capturing some reasonableness for unsheltered  
19 individuals, understanding that there's no absolute  
20 coverage. You just can't do it.

21           I took back to them the issue of PIC, the  
22 potential impact circles, threshold radiuses that were  
23 introduced versus the Class 3/Class 4 approach. And  
24 again, the semblance here is, is the historical way is  
25 to go through that as Class 3/Class 4 because that's

1 how the industry has been set up, versus this new  
2 potential impact circle.

3           The issue that I, I think, really took home  
4 was a better understanding and appreciation for the  
5 difference between how this regulation impacts the  
6 large pipeline transmission operators versus the small  
7 -- smaller operators. And I think it's important to  
8 note that, you know, the bigger guys can do things  
9 differently, faster, quicker sometimes, than the  
10 smaller guys, and vice versa.

11           So, we want to be sure that we're kind of  
12 addressing the issue and not trying to solve all the  
13 problems that occur. We don't want to be putting  
14 people out of business.

15           This issue of performance versus prescriptive  
16 integrity management approach. Bottom line, folks, is  
17 we're going to performance. I mean, that's -- that's a  
18 given. We might as well understand how we're going to  
19 do that. The question is, is how best to handle that.

20           When you talk about performance, the issue  
21 from a public perspective is, how do we handle risk  
22 management and now the new ASME B31-8S attempts to try  
23 to wrestle with some of this risk management approach.

24           But again, you know, it's -- it's a fairly new  
25 standards, far from complete in regard to risk

1 management approaches. So, those are the -- that's the  
2 key issues I took back to the committee.

3 MS. GERARD: Could you clarify, Rick? Are  
4 you saying that the discussion with the Washington  
5 Citizens Group reflected an understanding on their part  
6 of the need to provide flexibility for smaller  
7 operators so that there should be an option?

8 MR. KUPREWICZ: Yeah, that we needed -- one  
9 size doesn't fit all. And yes, to -- to answer your  
10 question, it was taking back this understanding that  
11 there is a -- there's different animals here within the  
12 industry. And we needed to be sensitive to that, that  
13 one size may not fit all.

14 MS. GERARD: So, will the -- will there be  
15 some sort of record of what the committee that you  
16 represent thinks -- aside from the fact that you're  
17 putting this presentation on the docket of this  
18 meeting, will there be any other communication?

19 MR. KUPREWICZ: Yeah. All -- all citizen  
20 committee activity is in the public record in  
21 Washington state disclosure laws. So that -- there is  
22 a minutes that come out of that.

23 My presentation, not -- these slides aren't  
24 exactly the presentation. They're very close -- are  
25 also a matter of public record under Washington, so.

1           MS. GERARD: Because I'm just concerned that,  
2 for the record, that your message is clear that there's  
3 -- you'd like to see emphasis on the question of  
4 protecting the -- those were unsheltered by a building  
5 and that you do think that the concept of an option of  
6 -- for the operators of either Class 3 or 4 or running  
7 -- is -- is -- was acceptable to the public group that  
8 you work with.

9           MR. KUPREWICZ: Yeah. But let me be real  
10 clear now. These are my personal observations that  
11 I've taken back to the committee. The committee  
12 itself, and I'll get into that further on here, is  
13 going to take certain actions, and I'll explain those  
14 in a second.

15           MS. GERARD: I'm sorry. I thought you were  
16 finished.

17           MR. KUPREWICZ: That's fine. No problem.  
18           The technical observations. Again, these  
19 represent my personal feedback to the players in the  
20 room, the committee, as a result of that meeting on the  
21 14th. The identified sites definition is workable.  
22 The question that's going to come up would be, and we  
23 might as well ask it, is this going to cover Carlsbad.  
24 And my comment would be, you can interpret it that it  
25 could, you could interpret it that it couldn't. But

1 you know, that was the feedback I gave the committee.

2 But to me, I think there was an honest  
3 attempt to try to address identified sites. That was a  
4 rational, reasonable compromise.

5 I personally favor, and this is my personal  
6 bias, if you wish, I favor the potential impact zone  
7 circle, if you wish, threshold radius -- and we can  
8 work about that issue later -- over the Class 3/Class 4  
9 sweep in that as you look at zones, you tend to better  
10 capture those unsheltered individuals who may be closer  
11 to a pipeline that have lower chances of survivability.

12 So I call it the "closeness risk." I just -- just  
13 feel that that's an appropriate approach.

14 But I also clearly understand that others  
15 would rather just use a Class 3/Class 4, and I see that  
16 as an acceptable way to go. So both options could be  
17 captured.

18 No surprise to many here in the room, but I  
19 want to be real clear here because it's going to show  
20 up in several FERC hearings already underway or  
21 possibly underway. The C-FER model for the potential  
22 impact circles, if you wish, is not a sighting  
23 modification tool.

24 For those who weren't in the meeting two  
25 weeks ago, we see it as an empirical tool that assists

1 management in deciding how they want to allocate  
2 resources to ensure the pipeline integrity. There are  
3 unique situations, a small subset of the potential  
4 impact circles or the -- or sighting issues or measure  
5 modifications where you want to do an appropriate  
6 engineering analysis if you're going to place a  
7 pipeline close to some very what I'll call hyper-  
8 sensitive infrastructure. So you want to be sure you  
9 -- you know, in those rare cases where you may be  
10 forced to have to put a pipeline where you really would  
11 not want to put one, you have to do an appropriate  
12 engineering risk analysis. That's -- that's -- don't  
13 fall back to C-FER. C-FER is the empirical tool for a  
14 certain function.

15 My message to the committee was, I felt  
16 personally that a proper performance integrity  
17 management approach is acceptable. The key word here  
18 is "proper," and that -- we'll be having more  
19 discussions about that in other meetings.

20 The message I took back there, direct  
21 assessment focuses on corrosion and is in the  
22 developmental stage. I know there's been a lot of  
23 discussions here, but you know, direct assessment is in  
24 the regulation and we understand that that's an  
25 appropriate technique for those particular risks.

1           My specific recommendation to the council  
2 attending on the -- and that was the 18th of March --  
3 was I support the high consequence area definition  
4 approach for clarity and more focus on the potential  
5 impact circles and, you know, the discussion that we're  
6 probably going to have about whether we should have  
7 threshold radiuses or safety margins, if you wish.

8           Whatever we agree on, we need to, I think,  
9 reach consensus. It needs to get that simple -- it  
10 needs to be simple. If it's getting too complicated,  
11 we need to step back and we need to stop the process.  
12 Otherwise, it's going to get out of hand.

13           The message I took back to the committee is,  
14 integrity management must mesh with the -- another  
15 issue that we're not going to get bogged down with  
16 today but is high on the agenda, in the public agenda,  
17 is with the community right-to-know. And I'll just  
18 leave that as a placeholder here.

19           I think at the last public meeting I  
20 mentioned that I kind of see it in two camps: those  
21 people who want to know everything about your pipeline  
22 and those companies who believe they don't have to  
23 share any information. Neither one of those extremes  
24 is appropriate. There's somewhere in the middle here  
25 that I think -- I think that can be worked out.

1           I -- after much thought about the  
2 interactions that went on at that meeting two weeks  
3 ago, my personal position that I shared with the  
4 committee is, regarding inspection intervals, I support  
5 the industry's position on inspection intervals. And  
6 as I saw that, I interpret that as the rule gave you  
7 the 10-year baseline approach and then you had the  
8 seven-year reinspection interval.

9           And there were two reasons that I presented  
10 to the committee of why that was my personal position.

11       One is, watch out for the myth of integrity  
12 management. Integrity management is just one of the  
13 tools in your repertoire of your executive team in  
14 managing the risk in operation of a pipeline to work  
15 towards prudently preventing pipeline rupture failures.

16       You don't want to get yourself so keyed into that  
17 integrity management is going to guarantee that you're  
18 not going to have ruptures.

19           And I've seen companies where they're  
20 spending so much resources on what is this integrity  
21 management stuff, it's distracting them from their  
22 major function to look at other factors of their  
23 operation. So I just caution that.

24           It's important to keep the management team  
25 focused on the prudent operation, of which integrity

1 management is a very important role. But be careful  
2 that you don't oversell its capabilities.

3 I think a message -- well, I'll get into it  
4 in a second.

5 Then, my last point was, is that we as a  
6 public agency -- again, my personal feeling presented  
7 to the committee was, we need to -- you know, OPS has a  
8 very important charter, and that is to also foster the  
9 development of other integrity management inspection  
10 technology. This is America, where innovation makes  
11 money. And you know, if we have a real need, someone's  
12 going to eventually figure out how to get there. And  
13 OPS, one of their roles is to continue to do that.

14 You know, in-line inspection for corrosion is  
15 a classic example of where that development over the  
16 last 20 years has taken quantum leaps on being able to  
17 detect certain types of corrosion risk, and that's  
18 become a very effective tool. It may or may not be  
19 appropriate in all situations.

20 With that all said, what I'd like to  
21 summarize here is, in my last slide, is what I'll call  
22 higher concepts. Rather than getting trapped into the  
23 details, this is my personal observation of the  
24 interaction of that committee based on this  
25 presentation that I gave them.

1           And again, this committee, I think, is a  
2 fairly good capture of the public's screen, if you  
3 wish. And I think it'd be representative just about of  
4 any state. And the feedback I'd give to the various  
5 players here is, don't overwork the technical screening  
6 issues. It just scares the hell out of people. And as  
7 non-engineers, it just gets them bogged in the details.

8           And I've heard a couple times this morning, we need  
9 the clarity, we need to understand what it is, but step  
10 back a little and just keep -- keep focused on what the  
11 objective is.

12           We're looking for an integrity management  
13 screening issue here, areas that need to be paid a  
14 little more attention. And the committee -- my  
15 observation would be that, really, they don't need to  
16 hear all the noise. They just need to hear where we're  
17 -- where are we going with this.

18           My observation would be that the committee  
19 really keyed on the need, and it's real important here,  
20 on inspection quality versus inspection frequency. And  
21 -- and they don't want to see -- my feeling is, they  
22 don't want to see more and more of something that isn't  
23 right. They'd rather have confidence. Are you using  
24 the right tools for the right risk of concern.

25           And if you do that right, you know, whether

1 it be seven years, 10 years, five years, you know,  
2 those are minimal. If your management decides that  
3 your risk for a particular issue requires more frequent  
4 of a certain type of inspection, that's a management  
5 call. But they -- I mean, my -- you know, feedback  
6 from the group was, boy, you could just see these guys  
7 saying, we don't want more -- a lot of these folks have  
8 come from business. They -- they want the quality.  
9 They want confidence that the system's being checked.

10           They're very sensitive to the efficiency.  
11 They understand that we could spin this regulation such  
12 to the point that we could be costing people billions  
13 of dollars with very little effectiveness, and that's  
14 not what I see the public really wanting. They want  
15 confidence in what we're doing is effective and that  
16 we're addressing the risk of concern.

17           Okay. Based on that, the Citizens Committee  
18 has voted. And we are drafting a letter of support for  
19 the activities here.

20           I can't tell you what's going to be in that  
21 letter. It's going through the round robin process.  
22 But I believe it'll probably at least touch some of  
23 these issues here.

24           MME CHAIRMAN KELLY: Thank you.

25           Any questions of Mr. Kuprewicz? Comments?

1 (No response)

2 MME CHAIRMAN KELLY: All right. Mr. Moore?

3 (Pause)

4 MS. GERARD: Thanks very much. We appreciate  
5 that.

6 (Pause)

7 MR. MOORE: Ready to go?

8 MME CHAIRMAN KELLY: Yes, please. And if  
9 you'd introduce yourself, please?

10 MR. MOORE: Thank you for the opportunity to  
11 speak. My name is Daron Moore with El Paso  
12 Corporation.

13 I've been involved in the development of an  
14 HCA definition for over three years now, leading the  
15 INGAA efforts, and most recently working closely with  
16 AGA to get an HCA definition that the industry thinks  
17 makes sense, is succinct, understandable, and one that  
18 can be fairly implemented to cover the majority of  
19 people who live along the pipelines.

20 Before I get started, I'd like to make a  
21 comment that it is not the industry's goal in any way,  
22 shape, or form to harm anybody that could be affected  
23 by the pipeline. We heard several discussions earlier  
24 today about people being burned and hurt, et cetera.  
25 That is not our goal. We want to focus our inspections

1 on areas that can impact pipeline safety.

2 We know that about five percent of our total  
3 transmission mileage is Class 3. If we just adopted  
4 Class 3, just Class 3, as our HCA definition, we would  
5 be inspecting about 70 percent of our pipeline. This  
6 is affecting and helping pipeline safety, and that's  
7 what we want to do, is do those things.

8 With that being said, we have a couple  
9 overarching goals that industry has had throughout the  
10 process. Number one, you want to use credible science  
11 as you go forward. You don't want to make safety  
12 factors up. We don't want to use something that does  
13 not make sense. We want to use credible science to the  
14 greatest degree possible.

15 Number two, overarching goal is that we must  
16 protect people and property. We're insisting up doing  
17 that, and that's what we think we're going to be able  
18 to do with the definition proposal we're going to make.

19 And number three, we want to address a  
20 significant part of our pipe.

21 These three key overarching goals must be  
22 incorporated in any HCA definition. And we believe  
23 that the definition that's going to be proposed here in  
24 a few minutes does that.

25 I'm going to start by describing the industry

1 work in defining HCAs and then we'll discuss the NPRM  
2 definition, briefly discuss the -- the HCA definition  
3 as described by Congress in the preamble in the NPRM,  
4 and finally, I'll go to the industry definition.

5           INGAA began work in 1999 on developing and  
6 determining what a valid technical basis is for  
7 defining HCAs. This was before we got started in this  
8 process. We recognized early on that energy inside the  
9 pipeline is key. We asked C-FER out of Canada, C-FER  
10 Technology out of Canada, to do a mathematical and  
11 scientific derivation of what a model should look like  
12 for determining where high consequence areas exist.  
13 And that led to a publication from GRI in 2000 which  
14 describes that, and that has been filed in the docket.

15           That is a pure technical approach. We  
16 validated that approach with real data, and I'll show  
17 you a slide that shows that very clearly. It led to  
18 our proposal for an HCA definition in 2000. And OPS  
19 adopted some parts of that in the NPRM on January 28th.  
20 And we think that's a very good thing.

21           I'll start my comments also by saying that  
22 the -- that the NPRM is a very good start toward  
23 defining how to handle integrity management. There is  
24 no doubt in my mind that's a true statement.

25           There are a few flaws in it. One major one

1 is the HCA definition, and we're seeing a lot of  
2 discussion because of that. There are a few other  
3 areas, but when you consider the complexity of this  
4 rule, there really are not too many areas that are  
5 causing problems but those comments made taint the  
6 remainder of this discussion.

7           The equation that C-FER developed after we  
8 did the scientific and mathematical side of it, we  
9 wanted to validate it. I think that's only right and  
10 proper if you're scientifically based.

11           We validated it against a number of NTSB  
12 investigations. And since C-FER's out of Canada, we  
13 decided to use three investigations done by the  
14 Canadian authorities.

15           (Slide)

16           MR. MOORE: As you can see on this slide,  
17 there were virtually no incidents where the model,  
18 shown in black, proposed HCA radius, did not adequately  
19 model where an affected zone is. And that is a key  
20 statement.

21           There's a variety of incidents where NTSB and  
22 other agencies went out and chained off where affected  
23 areas were. What we saw earlier was a picture, and I  
24 don't think that was an NTSB incident, but it's not  
25 clear to me based on the picture whether the affected

1 area could have been add-on fires, grass fires, or some  
2 other fire such as that. This is what the data is  
3 that's been published by the leading authorities of  
4 both countries.

5 If you look closely, you can tell that the  
6 model is validated by data in the field. If it wasn't,  
7 we would not have proposed it as a basis for HCA  
8 definitions.

9 I'm going to slide through some of this. I  
10 don't need to spend all this time. This is a  
11 presentation that I made 13 days ago at the integrity  
12 management public meeting, so I'm going to try to  
13 shorten this down so we can get through it today.

14 MS. GERARD: And these slides are on the  
15 docket now, I believe.

16 MR. MOORE: These slides are on the docket.  
17 Thank you.

18 (Slide)

19 MR. MOORE: This diagram here shows you what  
20 happens when you compare different pipelines operated  
21 at different sizes with different pipelines operating  
22 at different pressures and how it compares to the  
23 existing 660-foot corridor that we have inside the  
24 existing natural gas pipeline safety regulations.

25 Let's take the 30-inch line. That's the

1 third line from the top. It's kind of orange. And  
2 look at the 1000-pound PSIG down at the bottom and  
3 connect those two lines. You'll see they cross right  
4 where the red dashed line runs. The red dashed line --  
5 Stacey, I think I may be able to help you here. Right  
6 there. Thank you.

7 This is a 660-foot line that the regulations  
8 discuss, 1000 pounds, 30-inch line here. They cross at  
9 660 feet. Actually, it crosses at 659, to be exact.

10 It's interesting that this point is made  
11 because the regulations were formed back in 1970 based  
12 on B31-8, as Mr. Israni mentioned. And at that time,  
13 reasonably, the biggest pipelines in the nation were  
14 30-inch and 1000 pounds. He --

15 MME CHAIRMAN KELLY: Are we looking at 30 --  
16 excuse me -- or 10? Which were you pointing to on the  
17 chart, 30 or 10?

18 MR. MOORE: Thirty-inch pipeline. The orange  
19 line here is the 30-inch pipeline. And then, look over  
20 here, the 30 over there.

21 MME CHAIRMAN KELLY: Thank you.

22 MR. MOORE: Okay. Very good.

23 What the fellows did back in the '60s that  
24 developed the 31-8 was they said, okay, let's look at  
25 the worst case, reasonable worst case. And what they

1 came to was that 660 feet makes sense empirically,  
2 based on ground experiences. The model validates that  
3 or the ground experiences validate the model.

4 And that is key in this discussion. We've  
5 heard talks about threshold radiuses, add-on safety  
6 factors, et cetera. The model is accurate as working  
7 on the ground. I want to make that point very clear  
8 before we move on into some other issues.

9 (Slide)

10 MR. MOORE: Some of the problems with the --  
11 we're talking about the NPRM now. It's in many cases  
12 not technically based. It's extremely complex, which  
13 flies in the face of the public discussion we just  
14 heard, with many variables. I'll show you some  
15 examples of that in a minute. Many conflicting and  
16 inconsistent solutions. It will be extremely  
17 burdensome for some low-pressure systems. And there's  
18 a small impact of low-pressure, small-diameter systems  
19 which is not recognized inside the existing NPRM.

20 We have an enormous amount of data on houses  
21 inside the 660-foot corridor that's been collected for  
22 over 30 years. We don't have data outside 660 feet.  
23 We have not been required to collect it, and we have  
24 not been collecting it. We don't have it.  
25 Furthermore, we don't have data on small well-defined

1 outside areas or other identified sites outside 300  
2 feet.

3           However, we recognize that those are  
4 important sites that ought to be considered for  
5 additional safety factors, and we are committed to  
6 finding them all, cataloguing them all, and adding  
7 additional protection for each one of them.

8           (Slide)

9           MR. MOORE: Back to the NPRM. The language  
10 is inconsistent in several -- several instances with  
11 other language in 192, the natural gas pipeline safety  
12 regulations. The proposed HCA definition is  
13 inconsistent with the liquid rule where it regards 1000  
14 people per square mile. Impaired mobility is not  
15 sufficiently defined. And operator compliance will be  
16 extremely difficult. And in fact, in a few instances,  
17 industry does not believe that we will be able to  
18 demonstrate our compliance with the existing NPRM.  
19 It's confusing.

20           MME CHAIRMAN KELLY: Before you leave that,  
21 you mentioned that it's inconsistent with other parts  
22 of Section 192. Can you give an example?

23           MR. MOORE: It's inconsistent in the area of  
24 the inclusion of buildings in the identified site. The  
25 existing natural gas pipeline safety regulations say

1 there's two parts for Class 3. One is 46 or more  
2 houses, structures intended for human occupancy,  
3 buildings intended for human occupancy. And the second  
4 part of that equation is small, well-defined outside  
5 areas containing 20 or more people five days a week, 10  
6 weeks out of the year.

7           What we now have is language that says,  
8 identified sites which are occupied by 50 -- excuse me,  
9 are occupied by 20 or more people 50 days out of the  
10 year. That may seem pretty close to five days a week,  
11 10 weeks out of the year, but on the compliance side,  
12 it's extremely difficult to work with.

13           Number two, I mentioned that the other side  
14 of the Class 3 definition was small, well-defined  
15 outside areas. The NPRM includes buildings. That's  
16 inconsistent with the existing regulations.

17           We're not opposed necessarily to having that.

18           But it is important that it's inconsistent and does  
19 add significant cost to this rule that need to be  
20 considered before we go forward. Those particular  
21 costs of collecting data on certain identified sites  
22 and adding additional protections to those sites is a  
23 worthy cause, and industry supports that. But there  
24 are inconsistencies in the existing regulations.

25           MME CHAIRMAN KELLY: Thank you.

1           MR. MOORE: On the technically based issues,  
2 the 15 percent addition to the C-FER equation that you  
3 see on pipelines that are greater than 1000 feet in  
4 circle of radius is arbitrary and not based on science.

5           We had a question earlier from Mr. Feigel  
6 about what the 15 percent basis came from, and we need  
7 to address that. What is the scientific basis before  
8 we go forward with using it?

9           The threshold radius -- it was not discussed  
10 a whole lot earlier. I'll discuss it some here in a  
11 moment -- is arbitrary and not based on science. In  
12 this case, you have a circle that calculates out to 100  
13 feet in radius. You have a threshold radius that's  
14 required by the NPRM of 300 feet. So you've added 300  
15 percent to the area that you have to consider, and  
16 that's not based on science and not based on field  
17 validation or what industry has proposed.

18           The use of class locations. While it's a  
19 good tool and it served industry very well, it's not  
20 the best scientific solution available today. However,  
21 for some operators, it is about the only tool that's  
22 available. So we're going to propose that we continue  
23 to use class locations in our definition but also allow  
24 an approach that allows the best scientific solution to  
25 be used.

1           And the use of 20 or more buildings only for  
2 PICs greater than 1000 foot radius is not based on  
3 science. If you use 20 or more buildings for 1000  
4 feet, why wouldn't 20 or more buildings be good for all  
5 circles of all sizes based on the pipeline's particular  
6 characteristics.

7           To discuss the 20 or more buildings issue for  
8 a few moments, the NPRM states that for pipelines with  
9 a P-hour greater than 1000 feet, an operator is to  
10 examine the PIC for 20 houses. And that makes sense to  
11 industry to the extent of the 20-house part of it.  
12 Using it only for the 1000-foot radius does not.

13           The existing hazard liquid HCA definition  
14 utilizes 20 houses when you base it on the 1000 people  
15 per square mile. We've heard discussion earlier today  
16 about other areas, and we'll address those.

17           The 10-house versus 20-house issue  
18 historically over the last three years has been between  
19 20 and 25 houses, was a discussion that we had  
20 beginning in 2000, May 2000 I recall, at a meeting in  
21 California. We didn't -- industry did not see the use  
22 of 10 houses inside the circle until two weeks ago.

23           Ten houses, and we discussed a moment ago  
24 about how that equated to 20 people, is inconsistent  
25 with the OPS presentation at -- at that California

1 meeting where they said it ought to be 2.5 people per  
2 house.

3           A key point to this is that the 20 -- excuse  
4 me, the 10 houses is based on the lowest end of the  
5 buildings intended for human occupancy threshold in the  
6 Class 3 definition of 46. That is the lowest end  
7 possible. Many, many Class 3 areas have many, many  
8 more than 46 houses within it.

9           Further, the 46 houses as it relates to -- 46  
10 in the regulations and it relates to 10 houses in the  
11 discussion earlier today, makes a massive assumption  
12 that the 46 houses are evenly spaced along that Class 3  
13 area. And based on enormous amounts of real-world data  
14 that pipeline operators have, and I operate about  
15 48,000 miles of interstate pipeline, our houses are not  
16 even remotely evenly spaced along the pipeline. And  
17 that calls into question severely the use of 10 houses  
18 as being the threshold.

19           OPS has used 20 houses in the past. We saw  
20 it in the first bullet up here on the 1000-foot area.  
21 And where you talked about other areas in the -- in the  
22 hazardous liquid definition, industry is going to be  
23 proposing here in a few minutes a definition which does  
24 address other areas. And that is when you have  
25 buildings -- we're including buildings beyond what the

1 regulations have now. And we're also putting strict  
2 numbers on outside areas. Those will be collecting --  
3 in the definition of identified sites, that will be  
4 collecting beyond what buildings are intended strictly  
5 for human occupancy.

6 So with that being on the table, I think that  
7 we can continue on.

8 MS. GERARD: I'm -- I'm not sure I understood  
9 the last sentence. You're going to put more  
10 information on the table to respond to our concern that  
11 the density value we've used on liquid for other is  
12 different than the 1000 people per square mile?

13 MR. MOORE: The 1000 people per square mile  
14 lends itself at 2.5 people per house inside a 660  
15 circle to 20 houses at the threshold. But we've heard  
16 OPS say that the hazardous liquid rule also addresses  
17 other areas.

18 Industry is going to be proposing an HCA  
19 definition which addresses other areas in a sense of  
20 occupied -- other occupied buildings besides houses and  
21 outside areas. So we're catching "other" in that  
22 manner. We're addressing your concern about us not  
23 catching "other" or not being sufficiently rigorous  
24 with "other" inside that part of the definition.

25 Sorry about that. The NPRM definition today

1 has a variety of parts to it. It's very complex. It  
2 has Class 3 with 46 or more houses, Class 3 with a  
3 building or small well-defined outside area. It has  
4 Class 4. It has identified sites for 12-inch diameter  
5 and 1000 pounds and less, 1200 pounds and less. It has  
6 identified sites with pipes greater than 30 inches and  
7 1000 pound operating pressure, and identified sites  
8 that don't meet (c) or (d). And then it also has the  
9 20 or more buildings we discussed for areas of pipeline  
10 larger than 1000-foot circles.

11 (Slide)

12 MR. MOORE: What that does is create an  
13 operator looking for these facilities down on the  
14 ground, a situation something like this. You have the  
15 pipeline down at the bottom. This is the pipeline  
16 here, looking from an aerial view. And that operator  
17 out in the field having to look for all these various  
18 boxes for different types of sites out to 300 feet, out  
19 to 660 feet, out to 1000 feet, in some cases out to a  
20 radius plus 15 percent feet. That is extremely  
21 confusing for the guys trying to gather data. It will  
22 take an enormous amount of time and will deflect  
23 resources into data-gathering to define HCAs and away  
24 from inspections, which is where the money ought to be  
25 spent and the resources ought to be applied.

1           That's what this rule is about, protecting  
2 people and property, not gathering data and getting the  
3 HCA definition down to the nearest half foot.

4           This is the complexity side of the proposal  
5 we have on the dock right now in the January 28th NPRM  
6 HCA definition.

7           (Slide)

8           MR. MOORE: This is a flow chart that  
9 describes the definition of January 28th. We heard  
10 just a moment ago that it needs to be simple, it needs  
11 to be understandable. This flow chart took about eight  
12 or nine hours to develop, and this was developed by me.

13          And Andy mentioned three or four or five different  
14 times he had to read the rule. It took me probably  
15 five or six times reading just the HCA definition to  
16 figure out the three major concepts of it and then  
17 start trying to apply this.

18          This is very, very complex. It's distracting  
19 to the public, confusing to the public, and I would  
20 wager that the public -- the public will not have  
21 confidence in a rule that results in a flow chart of  
22 just defining HCAs that looks something like this.

23          (Slide)

24          MR. MOORE: There are a variety of examples  
25 that I've presented before that show inconsistencies

1 between the NPRM and what the industry is proposing.  
2 I'll be very brief with these.

3 But in this case, you'd have an office  
4 building with 50 people that would not be an HCA some  
5 distance from the pipeline. You have a licensed day  
6 care with three people inside it at 900 feet from the  
7 pipeline that would be covered. That seems  
8 inconsistent when you consider human life.

9 (Slide)

10 MR. MOORE: Another example, and I'll walk  
11 through these very quickly. This is a key slide.  
12 Under the existing NPRM, if you have a 30-inch pipeline  
13 with a 1000-pound MAOP -- these are real pipelines in  
14 the real world -- you would have a radius of 655 feet  
15 as calculated and validated by the C-FER model. That  
16 would result in the threshold radius PIC of 660 feet.  
17 So operators would be looking out to that area for  
18 houses and identified sites. That seems fairly  
19 reasonable, being as close as these numbers are.

20 However, when you have a 30-inch pipe and  
21 we'll say 1050 pounds, there is an operator with 13,000  
22 miles of pipe. Eight thousand miles of his 13,000  
23 miles of pipe are 30-inch at 1050 PSIG. That gives you  
24 a p-hour of about 673 or -4 feet, something like that,  
25 which throws it over the 660 foot threshold. By the

1 existing NPRM, that operator now has to look out to  
2 1000 feet even though we validated with science and  
3 field experience that that has no merit. That's a real  
4 pipeline with 8000 miles, and that's just one example.

5 Another inconsistency, if you have a 16-inch  
6 pipeline at 700 pounds with a calculated radius of 292  
7 feet, the threshold radius goes out to 300 feet. Okay.

8 So you have a 20-inch pipeline at 600 pounds, has a  
9 radius of -- calculated radius of 338 feet. All of a  
10 sudden, since it's over 300 feet, you have to jump out  
11 to 660 feet. That's a 95 percent increase between  
12 these two and it's not based on science.

13 That's disturbing not only to operators but  
14 should be disturbing to the public that resources are  
15 being spent and applied to places that perhaps could be  
16 better applied somewhere else based on better science.

17 (Slide)

18 MR. MOORE: Data issues. I mentioned the  
19 industry's collected house data since 1970 to 660 feet  
20 and collected outside area data since 1970 to 300 feet.

21 Collecting house data in a very short time frame to  
22 better focus the HCA to a very, very narrow cut-down is  
23 unrealistic and is a deflection of resources that  
24 should not be done. Collecting data beyond 192  
25 definitions and beyond what industry is already going

1 to be proposing will create an undue burden on  
2 operators and, again, will deflect resources from where  
3 they ought to be spent.

4 (Slide)

5 MR. MOORE: Identified site. Inclusion of  
6 buildings. We discussed that just a moment ago when I  
7 had a question from Ms. Kelly. And the 50 days per  
8 year instead of five days per week is another  
9 inconsistency that creates a compliance problem for  
10 operators that we don't -- that does not exist today.

11 Again, 20 persons is not consistent with the  
12 hazardous liquid HCA definition. I'll be addressing  
13 the issues surrounding that. And the evenly spaced  
14 issues of Class 3 is a very large issue that needs to  
15 be carefully considered where pipelines in the real  
16 world do not experience evenly spaced houses across an  
17 entire mile of the pipe. We all know subdivisions  
18 develop as subdivisions. You don't sell perfect one-  
19 acre lots across the country.

20 (Slide)

21 MR. MOORE: So, what's the goal? The law  
22 says to conduct an analysis and adopt and implement a  
23 written integrity management program. That's what the  
24 law that was passed on December 17th, 2002, says. The  
25 preamble in the January -- the preamble to the January

1 28th IM proposed rule says, establish a rule to require  
2 operators to develop integrity management programs  
3 could -- that could impact high consequence areas.

4           These are certainly worthy goals, and the  
5 proposal industry is making will address these two  
6 issues clearly.

7           The industry's goals under the broad  
8 requirements are and have always been since we started  
9 this process in 1999 that any determination of HCA or  
10 any inspection requirements should be technically  
11 based. New requirements should, to the degree  
12 practical, following existing practices and processes  
13 used by the industry. They have proven themselves to  
14 improve pipeline safety in the past. They should not  
15 be thrown out in favor of new, untested procedures  
16 except in -- where we're adding on to increase the  
17 effectiveness of the rule in those areas where  
18 identified sites could be affected. And we should  
19 maximize the use of existing house data that's been  
20 collected since 1970.

21           We recognize that the pure scientific  
22 approach based on the C-FER circle is not practical at  
23 this time. So we're going to propose something that  
24 bridges the gap of regulatory practicality with the  
25 science of identifying high consequence areas within

1 the confines of the law, the confines of existing  
2 regulations, and the historical applications of those  
3 regulations.

4 (Slide)

5 MR. MOORE: This is the flow chart of the  
6 industry-proposed HCA definition. It may not be the  
7 simplest thing you can possibly imagine, but it's much  
8 simpler than the one that I showed a few moments ago.  
9 Let me walk through it just for a moment.

10 You would start here, clearly. The first  
11 question, are you going to use a -- we're proposing a  
12 bifurcated approach where an operator has the choice to  
13 use either an HCA definition based on the class  
14 location methodology or can base it on pure -- the pure  
15 science methodology as proposed by C-FER and as  
16 validated by field experience. So the first thing the  
17 operator asks is, are you going to use class or are you  
18 going to use the circle?

19 If the operator chooses to use the class  
20 location methodology, he says, okay, let's look at the  
21 existing data that I have. Is it in a Class 3 or 4  
22 area? We're talking about a particular foot of pipe.  
23 If the answer is yes, he goes down here. If the answer  
24 is no, it's no HCA.

25 If it's yes, it goes to -- it is an HCA if

1 it's in Class 3 or 4. Then you develop a circle based  
2 on the science and you look for the identified sites  
3 inside that circle.

4 It does not matter how large that circle is  
5 as calculated. If it's 200 feet, it's 200 feet. If  
6 it's 2000 feet, it's 2000 feet. The operator should  
7 look at each site inside that circle regardless of  
8 size. And that site should be offered additional  
9 protections.

10 If there's a site inside the circle, it is an  
11 HCA. If there's not, there is no HCA.

12 Going back to the circle side, if the  
13 operator chose to choose a circle as his approach for  
14 defining HCAs, he first defines what the circle size is  
15 based on the equation. He looks inside the circle for  
16 either an identified site, which would be identical to  
17 this identified site definition here. And we'll  
18 discuss that in a moment.

19 If there's an identified site, again,  
20 regardless of the size of the circle, you have an HCA.

21 Or, if you have 20 or more buildings intended for  
22 human occupancy inside that given circle, that would be  
23 an HCA also.

24 It's based on science. It's based on real  
25 data in the field. It's understandable. It's simple

1 for non-pipeline safety experts to understand. And it  
2 makes scientific sense. And it equally applies to all  
3 people along every foot of the pipeline. And that is a  
4 big, large difference between what's being proposed  
5 today.

6 Stacey?

7 MS. GERARD: Just to be sure -- in other  
8 words, if the site is in the HCA regardless of size --  
9 is this regardless of size?

10 MR. MOORE: Regardless of the circle size, if  
11 it's a 200-foot radius, a 1000-foot radius. And I say  
12 1000 --

13 MS. GERARD: The size of the radius?

14 MR. MOORE: -- I say it very carefully. The  
15 radius of the circle. I say that very carefully  
16 because if you have an identified site inside the  
17 circle that could be affected, you need to consider  
18 offering additional protection to that particular  
19 identified site.

20 MS. GERARD: And is that an identified site  
21 as we've defined it?

22 MR. MOORE: Close, but not entirely. There  
23 are some differences.

24 (Slide)

25 MR. MOORE: These are some examples comparing

1 what I just proposed to the existing NPRM. The  
2 existing NPRM, you'd have an office building with 50  
3 persons. You may recall this from a moment ago. Now  
4 it would be an HCA by the industry proposal, and that's  
5 revised from the NPRM. And again, this a pipeline with  
6 a PIR of 671 feet. You can see the radius line of the  
7 pipeline-affected zone here. And this is the area that  
8 we historically have gathered data.

9           If this building were 665 feet, we would  
10 include it, Stacey, and that answers your question  
11 where no matter what the circle size, we're going to go  
12 out and collect the data for those identified sites.  
13 This would be an identified site. It would not be the  
14 20 or more houses criteria. It would be an identified  
15 site criteria to trigger this.

16           But you would not have a licensed day care  
17 900 feet from the pipeline outside the affected zone  
18 radius here. That would not be an HCA now under the  
19 industry proposal, and that is a revision from what the  
20 NPRM proposes.

21           You have a 30-inch pipeline at 1050 or 1000  
22 pounds over here. You can't see this, but that's 20  
23 houses within 1000 feet. That would not be an HCA now  
24 under the industry proposal. That's revised from the  
25 NPRM because you have a number of those houses outside

1 the radius of impact.

2 Here's the radius of impact over here, 35  
3 houses, and it would be an HCA. And that's revised  
4 from the NPRM.

5 What I'm displaying here -- excuse me.  
6 What'd I just do? There we go.

7 What I'm displaying here is a consistency of  
8 application between the industry proposal and the  
9 inconsistent application of the NPRM proposal. That is  
10 key for the public to understand buy into where  
11 additional protections are going to be offered. It  
12 absolutely has to be done, and it ties in with the  
13 overarching goals of what industry proposed three years  
14 ago.

15 (Slide)

16 MR. MOORE: Yet another example. I have one  
17 more after this.

18 A 30-inch pipeline at 1050 PSIG with a PIR of  
19 671 feet. You have 20 houses within 1000 feet. It  
20 looks very similar to the last one. Now that is not an  
21 HCA because many of the houses are outside the affected  
22 zone. If all these houses were inside this line, the  
23 affected zone, then it would be an HCA. But since  
24 they're outside and there are not 20 inside, it's not.

25 Over here you have a building of 50 or more

1 persons, an agreed-upon identified site. That would be  
2 an HCA, and that is a revision from the NPRM.

3 Stacey?

4 MS. GERARD: Just to be sure I understand  
5 this, and I'm mathematically challenged, you've got two  
6 options. If you have -- if you exercise the Class 3  
7 and 4 option, you use the circle approach to determine  
8 what you could affect within Class 3 and 4. And  
9 anything that you could affect by virtue of being  
10 within the impact zone you cover.

11 If you use the other option, you run the  
12 circle approach on the entire pipeline and anything  
13 inside that circle that you could affect on the entire  
14 pipeline you would cover, if it's an identified site as  
15 defined or housing. Is that right?

16 MR. MOORE: Not entirely.

17 MS. GERARD: Okay.

18 MR. MOORE: Let's talk about the Class 1  
19 first and see if I can be -- see if I can say this  
20 correctly.

21 If you have a Class 3 or 4 area -- this is  
22 usually if the operator chose to use the class location  
23 methodology. If you have a Class 3 or 4 area, that's  
24 an HCA. Done.

25 Additional to that, you create a circle and

1 you run that down the pipeline, all the footage of the  
2 pipeline. Not just the Class 3 or 4 areas but all the  
3 footage. And you're looking for identified sites. If  
4 you have an identified site inside that circle, that's  
5 an HCA.

6 MS. GERARD: This is if you use the new  
7 approach?

8 MR. MOORE: That is actually extremely close  
9 to what OPS has -- has in the final rule of August 6th.

10 MS. GERARD: Right. What you -- what you  
11 described last is the circle methodology. Could you  
12 just say it one more time?

13 MR. MOORE: Okay. I'm -- I'm only going to  
14 talk right now about the class location methodology.

15 If you choose -- if the operator chooses --  
16 you have a question at the start. Are you going to  
17 choose the class location methodology or the pure  
18 circle methodology. If you choose the class  
19 methodology, the first thing you ask is, is it a Class  
20 3 or 4 area for any reason? If it's based on the 46 or  
21 more buildings -- or if it's based on the small well-  
22 defined outside areas. If it's a Class 3 or 4 area,  
23 period, it's an HCA. Then, you apply the circle and  
24 you look for an identified site inside that circle.

25 MR. JOHNSON: (Off mike).

1           MR. MOORE: Yeah. I thought that when I  
2 first looked at it.

3           This "no" here, as was pointed out by Mr.  
4 Johnson of Enron, that the "no" should be a "yes" and  
5 that the "yes" should be a "no."

6           MR. JOHNSON: And that should be --

7           MR. MOORE: And that should be --

8           MR. JOHNSON: -- HCA.

9           MR. MOORE: -- HCA, not no HCA.

10          (Laughter)

11          MS. GERARD: I don't feel so bad.

12          MR. MOORE: I -- well, I tried --

13          (Laughter)

14          MR. MOORE: This is going to sound bizarre,  
15 but I saw that when it first came up a while ago and I  
16 talked my way through it instead of using the chart.  
17 And -- and now we need to talk about the chart.

18          So let's in our minds change -- delete that  
19 word "no", change that word "no" to "yes" and change  
20 that word "yes" to "no", okay?

21          So, do you have a Class 3 or 4 area? If the  
22 answer is yes, you have an HCA, period. If the answer  
23 is, no, that particular foot of pipe is not in a Class  
24 3 or 4 area, you define your circle. If there is a  
25 site inside that circle, it's an HCA. If there is not

1 a site inside that circle, it's no HCA. And that's  
2 pretty close to what the OPS passed as the final rule  
3 on August 6th for the definition of HCA.

4 Does that answer your question on that one?

5 MS. GERARD: It answers my question. I have  
6 to get my mind wrapped around it. But, yes.

7 MR. MOORE: We will make corrections to this  
8 flow chart and submit that into the public record as  
9 well clearly. Sorry about that.

10 MS. GERARD: That's okay. I'm really  
11 mathematically challenged, really. I mean, I really  
12 am.

13 MR. MOORE: I guess industry's flow chart-  
14 challenged because we had a problem with this one.

15 (Laughter)

16 Committee Q & A

17 on HCAs for Gas Transmission Pipelines

18 MR. NIKOLAKAKOS: Can you explain the  
19 difference between the left and the right side? Once  
20 you go from defined PIC, why it's different on the  
21 right and different on the left?

22 MR. MOORE: Steve, are you asking between  
23 this one and this one?

24 MR. NIKOLAKAKOS: Right. You go down below  
25 that. On the right side you have site with 20 SIHOS.

1 On the left side, you say side in PIC.

2 MR. MOORE: Okay. On this side you've  
3 already established that if it's a Class 3 or 4 area,  
4 which addresses buildings intended for human occupancy  
5 up here. So there's no need to readdress them down  
6 here. So we're only looking for identified sites here.

7 On this side, over here you have a circle.  
8 And inside the circle you're looking for either 20 or  
9 more buildings intended for human occupancy inside the  
10 circle -- that would be the 20 SIHOs -- structures  
11 intended for human occupancy is what that acronym  
12 stands for -- or you look for an identified site.

13 So what you're doing is taking the identified  
14 site here and putting it there. And you're taking the  
15 Class 3 or 4 here and putting it here.

16 What you wind up with by going down this path  
17 is a very good look at what your pipeline has around it  
18 and what it can affect. Class 3 or 4 has served the  
19 industry well for years, in fact decades. But it's a  
20 coarse look at what's along the pipeline as far as data  
21 is concerned. This is a much finer toothed comb  
22 looking at where the impacts can actually affect X-  
23 number of people. That's what we're trying to  
24 accomplish, is to consistently look at X-numbers of  
25 people and make sure we offer additional protections to

1 them.

2 MS. GERARD: This is a new slide from March  
3 14th, right?

4 MR. MOORE: It's a summation slide from March  
5 14th, yes, it is.

6 MS. GERARD: But on March 14th you hadn't  
7 answered the question yet about the identified site.  
8 We were still waiting for your answer, and now you've  
9 answered?

10 MR. MOORE: That's correct.

11 MS. GERARD: Okay. I think that's a very  
12 important distinction.

13 MR. MOORE: Thank you, Stacey.

14 MR. THOMAS: Daron, on your lower diamond,  
15 the lower right, would it be more clear if you said  
16 "site or 20 SIHOs"?

17 MR. MOORE: Yes.

18 MR. THOMAS: Okay.

19 MR. MOORE: Properly worded, I would word it  
20 "identified site or 20 or more SIHOs."

21 MS. GERARD: I apologize for being really  
22 dense. I just want to make sure this is clear to  
23 everybody.

24 The difference between the two approaches is  
25 that the approach on the right brings the added

1 protection of anything within the impact zone along the  
2 entire pipeline, compared to the approach on the left.

3 You're picking up anything within Class 3 and 4 now.  
4 You -- you don't get to what might be in a Class 1 or  
5 2?

6 MR. MOORE: I have to figure these  
7 microphones out.

8 Not -- not entirely. On the right-hand side  
9 you're looking at every foot of pipe for concentrations  
10 of people around the pipe, period. That's what we're  
11 trying to do.

12 On the left side, you're actually doing that  
13 with the structures intended for human occupancy  
14 through the existing Class 3 or 4 methodology today.  
15 We're looking at every feet of pipe -- every foot of  
16 pipe now to determine whether or not it's Class 3 or 4.

17 We're required by the existing regulations to do that.

18 So we are looking across the entire pipeline  
19 for those areas that have concentrations of people  
20 around it. Additionally to that, we're also going to  
21 be looking for identified sites inside the circles  
22 along every foot of pipe on this side of the -- this  
23 side of the flow chart as well.

24 MME CHAIRMAN KELLY: Yes?

25 MR. NIKOLAKAKOS: If we took the two

1 approaches, the more conservative approach, have you  
2 looked into that at all? I mean, if that's the case,  
3 if one is better than the other or more expensive, less  
4 expensive, obviously you have a choice in there. So,  
5 have you looked into which approach is more  
6 conservative?

7 MR. MOORE: I made a phone call during the  
8 break just a moment ago. I asked a couple days ago for  
9 my data people at El Paso to run the numbers on this  
10 stuff over here, 10 versus 20, actually. We have not  
11 run numbers -- at least El Paso has not -- for a direct  
12 comparison between the two.

13 The differences between the two approaches  
14 is, on the right side you are looking for those areas  
15 that actually have the people around the pipeline. The  
16 way the regulations are written, you're going to wind  
17 up with some areas that won't have protections afforded  
18 that would be over on the right-hand side by using  
19 Class 3 and 4 and, under some circumstances, vice  
20 versa. This side over here is more consistently  
21 applied, but there are many operators out there who  
22 don't have the technical wherewithal or the resources  
23 available to go down this path. So we're needing to  
24 offer this path to them so that we can at least  
25 consistently apply the -- apply the HCA definition

1 across all pipelines.

2           It becomes a problem if different types of  
3 pipelines, different types of sizes with different  
4 amounts of resources. It's a data-gathering issue and  
5 direction of where you want to -- where you want the  
6 resources to go. Do you want it to go to HCA  
7 definition data-gathering, or do you want the resources  
8 to go to pipe inspection. That's the clear difference  
9 here.

10           MME CHAIRMAN KELLY: Dr. Willke?

11           DR. WILLKE: Can I have a follow-up?

12           MME CHAIRMAN KELLY: Yes.

13           DR. WILLKE: The question becomes, will that  
14 help you with the situation with the large operators  
15 versus small operators.

16           MR. MOORE: Small operators have taken a good  
17 hard look at this proposed definition, and they are  
18 comfortable with this concept.

19           What we think it does -- and someone jump in  
20 if you like or make a comment from the public later --  
21 what we think it does is that it allows a small  
22 operator to identify where additional protection should  
23 be applied without having to direct a lot of resources  
24 to, again, data-gathering instead of actual pipe  
25 inspections themselves. It gives different operators

1 with different levels of data technology usage -- I'm  
2 being vague here, but I don't want to say different --  
3 it allows everyone to properly address high consequence  
4 areas as opposed to being forced into having a slick  
5 computer program or something over here and directing  
6 resources toward that. They can use what they've been  
7 gathering for years over here.

8 Dr. Willke?

9 DR. WILLKE: Daron, if I -- I want to try to  
10 understand this as well. If I hear this correctly,  
11 we're not necessarily identifying less areas that are  
12 HCAs, we're just spending a lot less effort at that  
13 definition, at that identification. In other words,  
14 instead of having all those aerial blocks that you have  
15 to look at, it simplifies that process.

16 MR. MOORE: Yes. The intent is to simplify  
17 the process using science to the maximum amount  
18 possible, while consistently applying across the entire  
19 pipeline system in both cases the best science that we  
20 have.

21 DR. WILLKE: Ignoring all of that earlier  
22 debate on 10 versus 20 and 4000 versus 5000, just  
23 completely taking that off the table and looking at  
24 this, are there any areas of -- where there would be  
25 significant differences between the definition of HCA

1 under this alternative versus the previous one? That's  
2 what I'm not able to see.

3 MR. MOORE: I'm having trouble with the  
4 technology again. It's not unusual for me. I  
5 apologize.

6 The biggest difference is going to be right  
7 here, I think, Dr. Willke, where under the existing  
8 proposal you're going to wind up -- an operator will  
9 wind up having to offer additional protections out to  
10 660 feet -- or looking out to 660 feet when the actual  
11 impact circle is much different from that.

12 And this is not technically based and is an  
13 inefficient use of resources, and the public should not  
14 tolerate that.

15 DR. WILLKE: I probably didn't ask the  
16 question the right way. I think I understand this  
17 concept. Are there any cases in which your alternative  
18 would drop out HCAs? Excuse me. We're looking for  
19 case -- you want to make sure that the public's  
20 protected. So you want to pick up the appropriate  
21 areas where the public might be affected. Are there  
22 any cases where you might not pick up an area which  
23 should properly be an HCA?

24 Now, that's -- yeah. Now, I understand  
25 you're excluding areas where you've got in effect --

1 what you're declaring as being an arbitrary application  
2 of a rule that extends your distances. I understand  
3 that.

4 MS. GERARD: Why I'm confused is because this  
5 -- this depiction is different than the one two weeks  
6 ago. I had the other one in my mind and I'm now having  
7 trouble getting it out.

8 It seems to me that the differences between  
9 the two have been blurred. They're more alike than  
10 they were two weeks ago. They both are based on the  
11 principle of finding out what you could affect. That's  
12 very clear in my mind, is that both approaches are  
13 looking for what you could affect. And they lose the  
14 -- you know, what the industry says is the  
15 arbitrariness of the artificial thresholds that we  
16 created that were more gross than the actual could  
17 affect. I got -- I got that part.

18 And I understand that we, you know, are  
19 trying to avoid spending time going out and identifying  
20 areas -- doing -- what I don't see in here is what --  
21 where is the extrapolation happening out to 1000 feet?

22 MME CHAIRMAN KELLY: Mr. Moore, I believe  
23 your colleague wanted to make a comment.

24 Identify yourself for the record, please?

25 MR. JOHNSON: Dave Johnson with Enron. To --

1 to address -- I hope to address Dr. Willke's question.

2 I think your question gets to what -- what are the  
3 differences in areas that -- that might be covered  
4 under the definitions. That -- that is the flow chart  
5 that's on the board now, as -- as amended, and the --  
6 the definition that's published in the notice of  
7 proposed rulemaking. Is that your question?

8 Okay. I think, to try to answer that, what  
9 we have tried to do in this one is, particularly in the  
10 right-hand branch, is treat the entire pipeline system  
11 consistently. Analyze the entire pipeline system  
12 consistently.

13 So, as -- as an example of a difference --  
14 and I think if you work through all of the examples  
15 that -- that were -- went by very quickly in -- in the  
16 presentation -- if you look, for instance, in a Class 2  
17 area where you have a relatively small subdivision or a  
18 mobile home park or something like that where you would  
19 have -- and for talking purposes, let's say 20 -- 20 or  
20 more residences within the circle on the pipeline,  
21 under this scenario, that would be defined as a high  
22 consequence area. And that portion of the pipeline  
23 would fall under the provisions of this rule because it  
24 meets that threshold.

25 Under the NPRM, that's a Class 2 area. It

1 does not have an identified site in it. So it would  
2 not be a high consequence area.

3 Does that address your question?

4 MS. GERARD: But on the left --

5 MR. JOHNSON: He nodded.

6 MS. GERARD: Yeah.

7 MME CHAIRMAN KELLY: Wait. There's a follow-  
8 up question.

9 MS. GERARD: On the left side of the chart,  
10 Daron, when you come down and you say, define the PIC,  
11 the -- the houses -- the 20 houses that might be in the  
12 impact zone wouldn't be covered, but the hard-to-  
13 evacuate buildings, prisons, would be covered on the  
14 left. The difference between the right and the left is  
15 you -- you would pick up more population out -- you'd  
16 pick up more regular population that wasn't identified  
17 sites in the right-hand chart.

18 The identified sites would be the same. The  
19 -- the -- you know, what we previously identified as  
20 hard to evacuate. They would be the same on both sides  
21 of the line. But the difference is that the right --  
22 the right side of the chart, you'd pick up more normal  
23 housing that we wouldn't have picked up in the proposal  
24 we had.

25 MR. MOORE: Yes.

1 MS. GERARD: You pick up more houses that  
2 could be affected on the entire pipeline than we  
3 originally proposed in the -- in the right-hand chart.  
4 And you lose houses that we would have picked up with  
5 our thresholds but wouldn't have been able to have been  
6 affected actually?

7 MR. MOORE: That is a very insightful way of  
8 looking at it.

9 MME CHAIRMAN KELLY: We've got a follow-up.  
10 Just a minute. Mr. Feigel had a question  
11 first, and then Mr. Israni.

12 MR. FEIGEL: I think --

13 MME CHAIRMAN KELLY: You're satisfied?  
14 Great.

15 Mr. Israni?

16 MR. ISRANI: Okay. This -- this proposal  
17 showing the flow diagram having option is what we are  
18 so -- one of our ideas that we are considering right  
19 now. The operator should have a choice of using class  
20 location or the circle method.

21 But I want to point out that what Stacey  
22 said, right now we are going to pick up more areas of  
23 HCA, that all depends on what is here, 20 buildings or  
24 not. If you use 20 buildings, you may not pick up  
25 necessarily more housing. You may arrive at the same

1 number. We don't know yet.

2 But this is very important. This will  
3 determine what is more conservative, and that's an  
4 important issue.

5 MS. GERARD: I think we're just getting our  
6 grip on the logic diagram and then we have to come back  
7 to the discussion about the values.

8 I think there are certain things that even  
9 though we've each made our separate presentations,  
10 we've sort of already identified that we were accepting  
11 certain principles about extrapolation, the idea of  
12 choice. There are several things on which there's  
13 obviously a high degree of agreement between the --  
14 what the government is considering and what the  
15 industry has proposed. There's a few areas which are  
16 much more contested, you know, which deal with the  
17 issue of the -- whether or not the 15 percent is -- is  
18 defensible than the number for population density.

19 And I really think we're sort of zeroing in  
20 on a couple of things, as I'm getting it.

21 MME CHAIRMAN KELLY: Mr. Lemoff, you had a  
22 question?

23 MR. LEMOFF: Yes. Ted Lemoff. The --  
24 whenever you have a choice, the question is, who  
25 chooses? And I would hope your proposal is clear in

1 that how -- if it is the pipeline, then -- then how  
2 that is communicated and in what increments can they  
3 choose. Does it have to be a whole line? What is the  
4 minimum of increment? You know, can a pipeline go for  
5 a couple miles with one and then switch to another?

6 So -- and I'm not -- all I'm saying is, I  
7 would like to see before this all ends some clear  
8 definition of the rules because pipelines and  
9 inspectors sometimes see things a little differently,  
10 and clarity helps.

11 MME CHAIRMAN KELLY: Mr. Feigel?

12 MR. FEIGEL: If I can address that just for a  
13 moment? Jean, can I have the floor just for a second?

14 We are working on precise language to propose  
15 to OPS which will address your concerns. I think that  
16 if you decided to use the class methodology for this  
17 line inside a given system and you decide to use the  
18 circle on this line in the same given system, you'd --  
19 the operator had better strongly consider what his  
20 logic is for using one and the other. And the  
21 inspection cycle should ask very clearly, why are you  
22 using one or the other.

23 That's a very good question, and it ought to  
24 be at least discussed at some point inside the  
25 inspection/enforcement cycle if an operator is

1     apparently inconsistent in his application.

2                   But the choice of class versus circle would  
3     be proposed as the operator choice, depending on how he  
4     wanted to look at his system, what kind of data he had,  
5     how he could use that data to best define where the  
6     HCAs truly are.

7                   MS. GERARD:  Interrupt, Jean, for one more  
8     second.  This question did come up at the public  
9     meeting two weeks ago.  And this goes to the question  
10    at -- why we put poor Sam Hall through that torturous  
11    mapping discussion.  Because we used the map as the  
12    basis for our plan of oversight.  And I really don't  
13    think we care what choice as we -- as long as we know  
14    what the choice is as the basis for the plan.  Because  
15    it's -- once it's put down as the basis for the plan,  
16    then we have a -- an understanding and an expectation  
17    of what the operator's trying to do.  And I think  
18    that's our main concern, is the -- we understand what  
19    approach the operator has chosen.  And then we can  
20    engage with the operator and review it.

21                   So I don't really think we care whether they  
22    go from Plan A on the right to Plan B on the left as  
23    long as they put that in the plan and make it clear.

24                   MR. MOORE:  And the plan is auditable and  
25    enforceable, just like an O & M plan would be today.

1 Dr. Feigel?

2 MR. FEIGEL: Yeah. I'd like to just support  
3 what -- what Stacey concluded, and for some technical  
4 reasons.

5 I -- I think trying to make a simplistic  
6 deterministic comparison of these two alternatives is  
7 fairly fruitless. I mean, if we were going to try to  
8 compare these two, it would take some very  
9 sophisticated optimization analysis to really see where  
10 we were.

11 I don't think that's the fundamental issue.  
12 I think Stacey's really hit on it. I think that we --  
13 we need to -- encapsulating all of the issues here --  
14 that we need to provide some viable alternatives. I  
15 think some version of this plan is -- is striking.  
16 That's more important than to say are the two perfectly  
17 equivalent or which is more conservative than the  
18 other. That's -- that's not an unimportant question,  
19 but it's -- it's, frankly, very secondary, in my  
20 estimation, unless we want to do a lot of very, very  
21 sophisticated analysis to compare the two.

22 MS. GERARD: But as far as the Committee  
23 goes, remember, the reason why we're spending all this  
24 time on this today and why Roger Houston is taking  
25 notes on what we're saying so he can send this to you

1 is because, as Committee members, what you need to be  
2 preparing for is the meeting in exactly two months  
3 where when you vote you need to have circulated amongst  
4 yourselves your own framing of what you recommend to us  
5 that we do. Because you're voting on the NPRM that was  
6 published, plus whatever words you choose to add.

7           When you vote, we have to record your  
8 supporting the NPRM with the following changes. That's  
9 why capturing what the intent here is of these concepts  
10 is so important. It's a very unusual meeting that  
11 we're having here, to spend a lot of time preparing to  
12 capture the concepts that are important.

13           You know, for example, I think that, you  
14 know, you could say that you recommend support of the  
15 NPRM with the modification that we allow the operator  
16 to use the option of basing their determination of an  
17 HCA on Class 3 or 4 but including a methodology that  
18 they would determine what previously identified sites  
19 fall inside the radius of the impact zone.

20           The words are very important because the  
21 radius of the impact zone is, I think, what you're  
22 recommending.

23           And that you also allow the operator the  
24 choice to use another methodology which would determine  
25 areas that could be affected along the entire pipeline

1 by using the radius methodology. That's what we've  
2 been talking about so far.

3 What we haven't settled on is the issue of  
4 what is the radius, whether it's the radius of the C-  
5 FER model or the C-FER model plus the 15 percent that  
6 Mike proposed. And we haven't settled on the value of  
7 the population density. And so I believe -- correct me  
8 if I'm wrong, Mike -- that those are two areas of  
9 dispute right now between OPS and the industry  
10 proposal. We're sort of zoning in on work to be done.

11 MR. MOORE: Stacey, on those two issues, it's  
12 my belief and it's industry's belief, I pretty much  
13 think, that the model is validated where it is now in  
14 real-world experiences measured on the ground, number  
15 one. And number two, in certain operators' comments to  
16 the docket by April 30th, I guess, there will be a  
17 discussion of 20 versus 10 and how it -- how it --  
18 using 10 greatly expands the number of HCA miles on the  
19 pipeline to the point that we're no longer correctly  
20 focusing on high consequence areas, we're no longer  
21 focusing on inspections that are truly in high  
22 consequence areas, and we won't be applying our  
23 resources to -- toward pipeline safety. It'll instead  
24 become a look-everywhere-for-everything-and-not-focus-  
25 on-anything rule.

1           What's going to wind up happening is, if you  
2 go down below 20 houses, you're going to wind up  
3 catching large, large percentages of Class 2 pipe. And  
4 you're going to wind up catching quite a bit of Class 1  
5 pipe. You're going to go from looking at -- at 70  
6 percent of your pipe to about 95 percent of your pipe.  
7 And the resource expenditures are going to go sky-  
8 high, and you're going to wind up with a completely  
9 unfocused rule.

10           MS. GERARD: Just so you all understand, that  
11 is not our intention.

12           MR. MOORE: I know it's not.

13           MS. GERARD: And our -- our reason for  
14 putting forward the 10 buildings is because what we're  
15 trying to do is capture the population density of Class  
16 3. You know, so it's our thought that if we were  
17 capturing the population density of Class 3, it  
18 wouldn't add that much. And -- and I guess what I'm  
19 concerned about is answering that question is essential  
20 to being able to complete the cost benefit analysis.  
21 And I'm wondering if it's even possible to be able to  
22 do this calculation in a month.

23           MME CHAIRMAN KELLY: Mr. Feigel?

24           MR. FEIGEL: Daron, that chart you showed  
25 early on in your presentation, the bases of the C-FER -

1 - well, I'm not sure we need to see it for the point  
2 I'm trying to make.

3 But -- there we go.

4 (Slide)

5 MR. FEIGEL: I mean, there -- there are --  
6 for whatever reason, there are -- there appears to be  
7 some level of conservatism in their projections or  
8 their predictions, their model predictions, compared to  
9 the underlying empirical basis for the model that they  
10 developed. That seems to be fairly consistent.

11 Could -- could you speak to that? I mean, is  
12 -- is that a function of the way the model is  
13 constructed in some consistent way? I mean, what I'm  
14 trying to get, obviously, is there -- without using  
15 that term, is there a safety margin of some sort fairly  
16 consistently embedded here, or -- or what? I guess it  
17 would be helpful if you'd speak to that.

18 I mean, I see that here.

19 MR. MOORE: Clearly, by the chart you would  
20 make the assumption -- I think you did, Dr. Feigel --  
21 that -- that the model has conservatisms built into it.

22 The biggest conservatism that there is is that the  
23 model uses a heat flux value that goes into a  
24 coefficient in the equation. And there are two  
25 variables. One, pressure, and two, diameter of the

1 pipe. Those two variables model the energy that's  
2 inside that pipeline.

3           The pressure, as determined on the -- on the  
4 screen now with the chart, is assumed to be the maximum  
5 allowable operating pressure as defined by the existing  
6 pipeline safety regulations.

7           We know that in many, many cases, the  
8 pipeline, one, may not ever operate at MAOP. And even  
9 if at a station discharge, let's say, it were operating  
10 at MAOPs, the minute it leaves that fence and the  
11 minute it goes 10 miles down, the minute it goes 50  
12 miles downstream, that pressure is dropping.

13           Frequently, on systems I'm familiar with,  
14 you'll have an MAOP of 1000. You may be operating at  
15 1000 pounds at that station, but a few miles downstream  
16 it's actually 800 pounds. Guess what that does? Your  
17 circle is held constant because your MAOP is still  
18 1000. But the actual affected zone is much, much  
19 smaller because the pipeline is not operating at that  
20 particular pressure and never does. It's physically  
21 impossible.

22           That's a big conservatism there. There are a  
23 variety of other conservatisms built in. Dr. Leivis,  
24 you were involved in the study. If you'd like to make  
25 some comments?

1           Andy?

2           MR. DRAKE: I think there's a lot  
3 conservatism based in the model, and those things have  
4 to be considered when you look at this and consider a  
5 full -- full guillotine failure of the pipe. A double  
6 guillotine failure of the pipe. That is a worst case  
7 scenario failure event. That is a full volume gas pipe  
8 release, unopposed, double-ended failure. That is the  
9 worst case scenario.

10           The model tries to reflect that conservatism.

11           MR. MOORE: Another issue that was discussed  
12 -- go ahead, Andy. I'm sorry.

13           MR. DRAKE: But I think you raised a really  
14 good question, and that -- this chart, I think,  
15 reflects it very, very well. You did a good job  
16 bringing -- boiling it down to the two issues that  
17 really drive this. And that is the issue of the 15  
18 percent -- you know, the model, versus the threshold  
19 for housing.

20           When you look at this, just back away and  
21 look at it. The black line is a model. The blue and  
22 greens are reality. You want that line to try to  
23 reflect reality with some proximity, and it does. It's  
24 -- and it's conservative, just statistically, just  
25 looking at it.

1           Now, if you add 15 percent to that, in  
2   essence some of these numbers, when you consider that  
3   15 percent, pi-r-squared -- the number is actually  
4   squared. So it's 115 percent squared, which is  
5   actually 30 percent more area. That black line now  
6   shoots off this page. It does not reflect what's  
7   really happening. And you are not really looking in  
8   the areas.

9           Yes, there may be one scenario -- if I had  
10   the little highlighter I could show you. There's one  
11   area down here where the blue line exceeds the black  
12   line by a little bit. Does that mean we should shoot  
13   -- there's a couple, yes, thank you. Precise.  
14   Precision is important here.

15           But the point is, does the model reasonably  
16   parallel the reality of the situation? And what's our  
17   goal? Is our goal to make sure that the model is  
18   wildly conservative? Heck, we can make that black line  
19   jump completely off this page so that it never, ever,  
20   ever misses that.

21           But the point is to get that last one? The  
22   other 99 now are twice as big as they really are. Is  
23   that what we're trying to do?

24           MR. MOORE: Subsequently, we're focusing  
25   inspections everywhere instead of where they truly have

1 an HCA.

2 MR. DRAKE: Now you're looking in a lot of  
3 places. You're looking for the one. Well, to do that,  
4 you're looking at 99 places that it isn't even anywhere  
5 near that big. Is that what we're trying to do?

6 I think you just want to back away and look  
7 at that. Does it reasonably parallel what's really  
8 happening? Not is it perfect, does it reasonably  
9 parallel what's really happening?

10 MS. GERARD: I think, Andy, you know, you --  
11 you know, we all get excited here. It's a very  
12 emotional issue. We're talking about really big stakes  
13 here. We all understand that. And I think we all  
14 should keep in mind we're having a really good  
15 discussion. And we've been having some really good  
16 discussions for a while, and I think everybody should  
17 feel good. We're not done yet, we're still working on  
18 it.

19 I want to bring up a point you raised earlier  
20 about prioritization. First of all, we're only talking  
21 about the assessment portion of this rule, just where  
22 the assessment is going on. And the -- the rule  
23 provides a lot more forms of protection than simply  
24 assessment. And we're focusing a lot of time on just  
25 the question of where the assessment is required to

1 occur. There's other forms of protections in the form  
2 of protect -- prevention and mitigation measures. Our  
3 concept of MCAs was designed to find a way to give some  
4 alternate forms of protection, not necessarily  
5 assessment but alternate forms of protection in areas  
6 outside the estimated impact zone.

7           No matter what we do, the impact zone is an  
8 estimate. And so I would just sort of throw on the  
9 table, we have discussion to occur later this afternoon  
10 going beyond the definition of HCA to the protection  
11 and other -- other -- the protections and that maybe we  
12 -- we should consider making adjustments in the rest of  
13 the protection package so that if we're less accurate  
14 or put less conservatism in the assessment area that we  
15 could make an adjustment in the prevention and  
16 mitigation package later.

17           One more thought. And that -- and the other  
18 thought is to keep in mind that when we did our  
19 analysis of if we used the approach that we used in  
20 liquid, that if you -- you know, when we take your  
21 pipelines that you've submitted for the mapping system  
22 and we put them on the high population and other  
23 population areas, that the amount of mileage that we  
24 pick up with the 61 percent of the data you've  
25 submitted, if we had used that method, we come up with

1 11 percent as the number that would be your high  
2 consequence area.

3           And I -- I think that, you know, we have to  
4 have some sense of governor, not to be resource-driven.

5       But 11 percent would have been the amount of mileage  
6 that we would have picked up as the prioritization area  
7 had we used the census track. And so you have to  
8 understand, we don't believe in coming up with an  
9 approach that is going to pick up vast amounts of  
10 mileage as the -- as the HCA because we know you have  
11 to test, you know, from, you know, not where the HCA is  
12 but where launches and receivers can go and all that  
13 sort of thing.

14           So we -- we believe in the concept of  
15 prioritization. You know, so, as the government, it's  
16 our job to make the best judgment about how  
17 conservative we should be, how much added protection  
18 we're giving here. And so, there's a lot of variables  
19 in this total package to consider here. It may not be  
20 that we should put all our eggs in the basket of adding  
21 all the conservatism into the assessment areas. And to  
22 add some of our conservatism, maybe we should consider  
23 later in the afternoon adding some of our added  
24 protection in the prevention and mitigation areas,  
25 which are not necessarily the same areas where you do

1 the assessment. That's why we introduced the concept  
2 of MCA.

3 MR. DRAKE: I think you raised a good point  
4 -- what's our overarching goals here? You have a  
5 very different solution here than that that was applied  
6 on the liquid side. Fundamentally, I think Daron  
7 brought the point, you have a lot of class information  
8 here within the 660 corridor, very dense -- dense data,  
9 very highly resolute data, and we want to try to take  
10 advantage of that.

11 Back in 1999 when this first started, we  
12 said, hey, we don't need to use census data. We  
13 already have a bunch of data on who lives next to a  
14 pipe. We don't need to assume globular census data.  
15 We actually know who lives next to pipe. Let's use  
16 that.

17 Another fundamental difference. We move one  
18 product, and that product has a very consistent and  
19 very modelable consequence, fire pattern. Liquid can't  
20 do that. They move a lot of different kind of  
21 products. They're heavier than air. They fire very  
22 differently than one another, and it's very different  
23 -- very difficult to model that consequence pattern.  
24 So you need to look a little more globular, a little  
25 bit more granular, kind of a big, more macro level.

1 You're not looking like that here. You're looking  
2 very, very, very small.

3 So, what's going to happen is, you're going  
4 to get a lot of little HCAs spread across the whole  
5 pipe. That's not what happened on the liquid side.  
6 You got big blobs, okay, that are very focused in long  
7 sections of pipe.

8 Right now, the best guesstimate I have is I  
9 have conservatively 17- to 1800 HCAs on my pipeline  
10 system. That's a 13,000-mile pipeline system, 1700  
11 HCAs. Different, unique ones.

12 MS. GERARD: Using which approach?

13 MR. DRAKE: Just Class 3 and a reasonable  
14 outside gathering areas kind of definition. Forget  
15 about this thing that happened in the integrity rule.  
16 We can't figure that out.

17 But just looking at that, when I look at my  
18 system -- and I think this is fundamentally what you're  
19 trying to get at, is how much more are you going to do?

20 I think the more is the collateral inspections that  
21 happen because you're going to have these tons of  
22 little places which ramps up the amount of effort you  
23 have to do on risk assessment. Now I have 1700 sites  
24 to do risk assessments on and keep track of. I don't  
25 think there are any liquid companies that have 1700

1 HCAs.

2 MS. GERARD: No, but they are doing about 85  
3 percent of their line.

4 MR. DRAKE: And I think that's important.  
5 Now, when you look at the pipes, their -- their HCAs  
6 are typically long and contiguous. These are very  
7 short and broken and spread across long distance -- I  
8 mean, systematic amounts of mileage.

9 Mileage-wise, when I just look at this  
10 conservative definition, Class 3 and the -- and the  
11 outside gathering areas, I'm looking at 12 percent of  
12 my mileage by physical -- physical mileage, I'm looking  
13 at 55 percent of my valve sections, and 80 percent of  
14 my compressors dischargers.

15 Now, I'm mostly --

16 MS. GERARD: Why is that? Why are you  
17 looking at 80 percent of your compressors?

18 MR. DRAKE: Because they're sprinkled all  
19 over the system. They're not big globular areas like  
20 in the liquid rule. They're little tiny places. Many  
21 of them are less than half a mile long. They're just  
22 spread all over the place.

23 But to get those, if I pig -- and we can go  
24 back to the industry statistics because I know we're  
25 not a credible group in the -- you know, so we need to

1 go back and show the data. When you look at that --  
2 where's Terry? What's the spread on the pigging data?  
3 It's like 20 percent of the pipes had already been  
4 pigged, 25 percent could be made piggable with some  
5 effort, 20-some percent could be made piggable with a  
6 lot of effort, and 25 -- was it 20 or 25 percent cannot  
7 be made piggable.

8           So, if you can pig, you're going to pig  
9 because DA is -- is a very encumbering and expensive  
10 process that has to be repeated with a capital  
11 expenditure of excavation over and over again.

12           So, for the majority of people, you're going  
13 to be getting 50 to 70 percent of the people who are  
14 going to be trying to pig because that's the easiest  
15 solution financially to this -- this deal. The 25  
16 percent, they're just never going to get there. It's  
17 not going to happen.

18           Now, that 75 percent is going to pig between  
19 discharges. You don't pig little tiny pieces. You pig  
20 long sections. That offers collateral value more than  
21 just the inspection in the HCA because you're going to  
22 get the data between the pig traps. You're not getting  
23 the data only on the little half mile that you pigged.  
24 You're pigging between two compressor stations,  
25 typically. That's 60 miles. You got 60 miles of data

1 now. That's where the 80 comes in.

2           And I think that's the guiding light. Back  
3 away from the tree a little bit here. We want a  
4 credible filter that focuses us reasonably in right  
5 areas, and we want ultimately to make sure we have a  
6 reasonable percentage of the pipe in the -- in the --  
7 not here, but I think some of these filters that we're  
8 seeing jump those numbers up, double them. I mean,  
9 from 1700 HCAs to 3500 HCAs.

10           Okay. Now, I'm spending a lot of energy  
11 keeping track of HCAs. Now I move from 12 percent of  
12 my mileage. In some of these cases where you talk  
13 about 10, we're concerned that we're not talking out  
14 right 25 to 35 percent of mileage in the system and 100  
15 percent of my discharges. Well, this is not a focus  
16 anymore. I mean, this is doing it. We're doing it  
17 everywhere. We can cancel the HCA rule because we're  
18 just -- you're just doing it.

19           MME CHAIRMAN KELLY: Mr. Kuprewicz?

20           MR. KUPREWICZ: Yes. I just had a  
21 perspective that might help here, and a personal  
22 perspective and an observation of some of the  
23 interactions I've seen in our Committee members.

24           My personal perspective is this: if the  
25 discussion to add additional safety margin over the C-

1 FER equation is creating a lot of complexity and  
2 confusion, I've gone on record a year or so ago saying  
3 C-FER is an empirical correlation. It's a screening  
4 process for an integrity management process. So, if  
5 we're trying to create -- it may be an honest attempt  
6 to add some safety margin, but it's creating a real  
7 morass in understanding, measuring, auditing, whatever,  
8 inspecting. My advice to the players would be, go with  
9 C-FER. Again, this is my personal. Go with C-FER and  
10 let's stay away from adding a safety margin because C-  
11 FER may or may not have the safety margin.

12 I think the comment that went on public  
13 record a couple weeks ago, C-FER has an empirical  
14 screening tool. This is one very important variable  
15 which is very difficult to capture in empirical, and  
16 that's time to ignition. And so when we go back to  
17 sighting, we look at, you know, where you're putting  
18 something critical. We have to look at that as a more  
19 prudent engineering analysis. You just can't capture  
20 that from -- from the kind of thing you're trying to do  
21 here. So you made an honest attempt to try to say, we  
22 know we can't capture 100 percent, but let's get  
23 realistic here.

24 And then, when we have discussions about, you  
25 know, what C-FER captures -- with the -- with the

1 public in our meetings, they're very uncomfortable with  
2 this. They're looking to the engineers and the  
3 industry to say, we'd like to be comfortable with what  
4 you're dealing with here.

5           So when we start adding safety margins on top  
6 of what we're doing, we get lost. So that's one  
7 perspective I think that needs to be -- needs to be  
8 thought about here.

9           So my advice would be, if it's getting too  
10 complex, back off.

11           On the building structure issues, kind of  
12 jumping off what I said earlier, the industry tends to  
13 think in terms of buildings. My focus is I'm looking  
14 at a gas transmission pipeline rupture scenario. And  
15 anybody that's in the close proximity is going -- you  
16 know, doesn't have many seconds.

17           Buildings have additional time. We tend to  
18 look here. And I went on public record a couple weeks  
19 ago. We're looking at whether it'd be 10 or 20 or 25.

20           From my perspective, my personal feeling is, you want  
21 to cut it off at 20, it's fine. It's somewhat  
22 arbitrary. You're just playing with how many miles are  
23 going to be inspected. And I know it's a concept that  
24 the public has a hard time understanding, but it's back  
25 to this survivability and reaction time. When you have

1 the worst case scenario, is the gas -- low probability  
2 gas pipeline rupture.

3           And so, you know, I was very comfortable with  
4 the 20 number. I think, looking at this tree here on  
5 the left -- excuse me, on the right -- your comment  
6 about, are we addressing identified site issues, that  
7 was kind of my real hot button, regardless of what side  
8 of the fence you're on. And then the question is, you  
9 know, what's the differences from then on. And what  
10 I'm hearing is, is if you're not into real  
11 infrastructure, gathering all the data, you're going to  
12 probably go with the right tree. And if you're a small  
13 guy that doesn't have that infrastructure in place,  
14 you're just going to say, look, I already call it Class  
15 3 and Class 4 anyway, and I'm going to head this way.

16           So, we're -- we're very -- I'm very  
17 comfortable with what's being presented here, once it's  
18 corrected and whatever. Sorry.

19           (Laughter)

20           MR. KUPREWICZ: Had to make that the official  
21 record. Been there myself.

22           And then, let's see, I had one other point.  
23 I just lost track of it here. It'll come to me later.

24           MME CHAIRMAN KELLY: All right. Any other  
25 comments from Committee members?

1           MR. MOORE: I'd like to add a comment to what  
2 Andy said about numbers. Andy was essentially saying  
3 that you have Class 3 and 4 and those are the numbers  
4 he was using, going down the left side of this flow  
5 chart here.

6           When you get down to the site in PIC down  
7 here, the definition of identified site, whether it's  
8 what industry is proposing or whether it's what is  
9 currently in the NPRM, is vastly wider net than what  
10 the existing Class 3 definition is.

11           And so, if you take Andy's numbers -- and by  
12 the way, excuse me, you know, pass those numbers  
13 particularly on the Tennessee Gas System, are very  
14 similar to what Andy's numbers he mentioned a while ago  
15 and the studies I've done on our system. You're only  
16 going to add more mileage and more HCA units. You're  
17 not going to subtract. The identified site definition  
18 is only bigger than the Class 3 definition. And how  
19 much bigger it gets is open to final rule. But it's  
20 not getting smaller than the numbers Andy just said and  
21 the numbers I'm correlating on our system. It's only  
22 getting bigger with the definition of identified site.

23           MS. GERARD: For the sake or morale, I just,  
24 you know, wanted to sort of summarize some of the  
25 progress that's been made in the last couple weeks here

1 in terms of understanding.

2           Number one, you know, the government clearly  
3 has an appreciation for the benefits of the more  
4 scientifically based approach to be able to protect  
5 what you can affect, represented by the line on the  
6 right. We also appreciate the waste of resources of  
7 spending an awful lot of time trying to do the  
8 identification process. You know, so we've -- you  
9 know, we've signified that we're strongly considering  
10 not only the option but the lack of granularity that  
11 comes with extrapolation out to 1000 feet, something we  
12 haven't talked a lot about in the last few minutes.

13           But clearly, in terms of our move to  
14 conservation, when we accept the concept of  
15 extrapolation of six of -- you know, the concept of  
16 extrapolation means that you have the assumption that  
17 whatever is inside 660 is repeated outside to 1000  
18 feet. That is a -- that is a gross concept. But we've  
19 indicated that, you know, it isn't a perfect process  
20 and we -- you know, we don't want to put a lot of  
21 resources into that.

22           You know, but that is a guess. So there's a  
23 lot here that's guessing. And I guess what I would  
24 propose is that, you know, all of this boils down to  
25 the operators defining a baseline assessment plan and

1 10 years from now reassessment plans and that, you  
2 know, we should have some sort of a -- you know, maybe  
3 we should consider the concept of some sort of a  
4 governor, a not-to-exceed concept.

5           You know, whether we, you know, end up with  
6 the 10 or the 20, you know, basically it should be our  
7 intention to create a prioritization scheme that  
8 doesn't -- that limits the amount that goes in the  
9 testing plan to not more than the concept of 11 percent  
10 or 12 percent of -- of the pipeline affecting populated  
11 areas.

12           We are looking for some concept of parity  
13 here. And you know, I'm just sort of throwing that out  
14 as some sort of a concept because I don't -- I don't  
15 know how it's humanly possible to do the analysis  
16 that's necessary to make the -- come up with the  
17 calculation of the 10 houses or the 20 houses with --  
18 as the density factor within a month.

19           You know, so should we -- we should, you  
20 know, maybe introduce something that's an equivalent  
21 concept to the census.

22           MR. MOORE: Stacey --

23           MME CHAIRMAN KELLY: Dr. Willke -- you can  
24 respond, and then Dr. Willke, and then --

25           MR. MOORE: Stacey, with that being said, the

1 number of mileage, again, I commented to Andy just a  
2 moment ago, is only going to get bigger once we define  
3 the HCA because then we'll start gathering data on  
4 identified sites. We don't look past 300 feet because  
5 regulations don't require us for small well-defined  
6 outside areas or 7-11s.

7 MS. GERARD: So, what you're saying is, one  
8 of the gains here is that the industry has come to the  
9 conclusion that it is important to add protections to  
10 identified sites out from the current value of 330 out  
11 to whatever the impact zone is?

12 MR. MOORE: Yes. Or only out to whatever the  
13 impact circle says. It may be less than 300 feet. It  
14 may be 1000 feet. It's whatever it says, is what we  
15 want to offer additional protections to.

16 What I was trying to say, though, is, when  
17 you get numbers from industry within this next month,  
18 they're only going to be reflective of the existing  
19 Class 3 and 4 definitions as they apply to buildings  
20 intended for human occupancy, one, and as they apply,  
21 too to small well-defined outside areas and those  
22 buildings within 300 feet that are occupied by 20 or  
23 more people five days a week, 10 weeks a year.

24 The definition of identified site is going to  
25 be much larger than that in types of structures we're

1 going to be looking at, number one. And number two,  
2 for pipes with larger than 300-foot radii as  
3 calculated. we're going to be looking further out.

4 So, the numbers that you're going to get  
5 within the next month, without a final HCA definition,  
6 are going to expand greatly, and you need to be aware  
7 of that. As you work toward that 11 or 12 percent or  
8 whatever that number may wind up being.

9 MS. GERARD: And I -- and I just want to put  
10 on the record that one of the reasons for the changes  
11 from the five days a week to the 50 days a year concept  
12 was that we were going for the concept of the places  
13 where people congregate and thinking about congregation  
14 patterns. You know, what people do on weekends is not  
15 a five-day-a-week type of activity.

16 So, you know, I would say we're really -- you  
17 know, we really want to think about how to capture, you  
18 know, the best method to protect the unsheltered.

19 DR. WILLKE: Ted Willke. It's so easy to get  
20 lost in the details here and just get thoroughly  
21 confused. At least it is for me. So I keep trying to  
22 gain a little altitude and a little perspective here  
23 and be responsive to Stacey's charge that we should be  
24 able to give good advice in a couple of months when the  
25 rule finally comes up. So I'm trying to take that

1 perspective.

2           This alternative would appear to simplify the  
3 application of the rule. I don't know if calculating  
4 all these PICs is really more simplified or not. But  
5 it does appear that it drops out some of the anomalies  
6 that -- that Daron pointed out that get picked up  
7 currently. That seems to be a major advantage.

8           The other advantage appears to be less  
9 difficulty in identifying areas which are candidates  
10 for HCAs.

11           For me as a member of the Committee, I would  
12 want to know, by mail and if we meet again, if there  
13 are any other anomalies created by the application of  
14 your alternative. In other words, without getting into  
15 a lot of detail, you've pointed out a number of  
16 anomalies. Do we pick up any other kind of anomalies?

17           Do we only pick up highly populated areas that we  
18 would like to pick up? So that would be something I  
19 would like to know.

20           MS. GERARD: Clearly, we have the anomaly  
21 with extrapolation that you could have a lot of houses  
22 that exist between 660 and 1000 feet that by not  
23 counting we overlook. It's a major anomaly, but, you  
24 know, we have to give somewhere.

25           MR. MOORE: Stacey, that would be -- they

1 would be -- people would be inside the structures and  
2 -- the inclusion of identified sites regardless of  
3 the circle size. It would include those areas and  
4 offer additional protections where people did not have  
5 protection of a structure around them to protect them  
6 from a heat source.

7 MS. GERARD: What you're saying is the  
8 unsheltered out to 1000 feet you would be counting?

9 MR. MOORE: That's right. There is no  
10 extrapolation of identified sites.

11 MS. GERARD: But there could be. To answer  
12 the question of the anomaly, there could be a lot of  
13 houses that are between -- or whatever that are between  
14 660 and 1000 feet. It's just possible that it could  
15 happen. You know, I would suggest that for some sort  
16 of cover for that that, you know, the reason why we are  
17 considering losing that is because of -- we don't want  
18 to spend all our time in the counting and that we maybe  
19 consider allowing some sort of period of time. Say,  
20 you know, so many years for that to be reevaluated, you  
21 know, so that the industry over a period of several  
22 years, you know, would revisit that question to check  
23 to see if there's some sort of aerial photography or  
24 patrolling method, whether in fact there is an enormous  
25 amount of development of homes between 660 and 1000

1 feet where a pipeline is of a sufficient size and  
2 pressure that it could affect that. Because right now  
3 we're considering blowing off all those houses.

4 MR. MOORE: Stacey, you're --

5 MS. GERARD: I apologize for my language.

6 MR. MOORE: It's notable, I think, that when  
7 the pipeline safety regulations were written in 1970,  
8 there was a five-year period for operators to gather  
9 the data on houses along their entire systems, much  
10 like what you're discussing. So that does not go  
11 without precedent.

12 MME CHAIRMAN KELLY: Mr. Thomas?

13 MR. THOMAS: May I just follow up on  
14 something Stacey said?

15 I think as we talk about these details, call  
16 them inputs, that we keep the, really, the big picture  
17 in mind of what this whole thing is about. I think  
18 most of us have been in science and engineering and  
19 have seen models where you -- you make assumptions  
20 about all the inputs and put a lot effort on that. And  
21 then, once you put them together, you tend to get  
22 multiplicative kinds of results and the output doesn't  
23 make any sense anymore and you have to go back.

24 I sense a little bit of that going on here.  
25 So as we -- as we talk about these inputs, I would just

1 caution that let's keep the focus on where we're trying  
2 to get to, which is to improve safety, to reduce the  
3 probability of failures.

4 But I think we can get too focused on  
5 individual endpoints and then perhaps end up with a  
6 result when you put it all together that is not what  
7 was thought of in the first place. So I'm just really  
8 following up on your point.

9 MME CHAIRMAN KELLY: Dr. Willke?

10 DR. WILLKE: I was just going to make a quick  
11 second point. I'm very uncomfortable in this setting  
12 making decisions that may have very large impacts on  
13 questions of 4000 btus or 5000 btus or 10 buildings or  
14 20 buildings.

15 My suggestion would be that if you could give  
16 us criteria by which we should make those choices based  
17 upon impact as opposed to the inputs. For example, are  
18 we looking to avoid the worst possible scenario? Are  
19 we looking to -- to avoid average experience? Some  
20 kind of criterion that we could use to evaluate that  
21 because I don't think this is the appropriate place to  
22 be debating that kind of arcane information. I can't  
23 evaluate it here.

24 MS. GERARD: I keep coming back to, you know,  
25 the concept of prioritization. I really appreciate the

1 fact that, you know, we know that these are added  
2 protections that are going to cost a lot of money to be  
3 added and that we, you know, want them to go to the  
4 most important places but that, you know, from a policy  
5 standpoint, you know, when we're looking at how many  
6 people we're protecting as the government -- you know,  
7 we made the decision. How many people get added  
8 protection.

9           We made the decision in the liquid regulation  
10 that we were -- that we were protecting a percent of  
11 the population. We knew that the census covered a  
12 certain percent. And you know, I -- I come back to the  
13 -- the concept of prioritization, that, you know,  
14 perhaps there should be -- you know, because of the  
15 effect of multiple models laying on top of each other,  
16 there -- there should be some sort of principle that,  
17 you know, the plan is intended to protect a certain  
18 percent and that, you know, if as a result of gathering  
19 data which cannot be predicted prior to the time that  
20 the planning is completed and you have a period of  
21 time, you know, if the endpoint results in a -- an  
22 outcome that's greater than X-amount of the pipeline  
23 that it would defeat the purpose of prioritization.  
24 You know, that we could create some sort of a not-  
25 greater-than concept in here to compare with the

1 concept of the census.

2 MME CHAIRMAN KELLY: Mr. Wunderlin?

3 MR. WUNDERLIN: Yes. I just wanted to make  
4 the comment based on a smaller operator compared to the  
5 larger transmission companies.

6 I think what Daron has presented, from an  
7 industry point of view, seems like it's reasonable,  
8 it's technically based, and it's certainly a lot  
9 simpler than what has been proposed. And to the  
10 smaller operators, that's extremely important because  
11 we don't have the resources that the larger companies  
12 do in many cases. The engineering staff. Like Mike  
13 Comstock would say, he's one person. He does the  
14 training, he does everything, and it's probably going  
15 to be laid on him to analyze this.

16 The other thing is, many of us, unlike the  
17 larger transmission companies, are going to have to  
18 rely on direct assessment, whatever that turns out to  
19 be. And so we don't have the choice of pigging and  
20 hydrotesting. We're -- we're right down near the  
21 customer. We cannot take those pipelines out of  
22 service. And they're not able, even technically if we  
23 could convert them, pressure-wise to be able to pig  
24 those lines as much. That might be a last cost  
25 alternative.

1           The other thing is, you ask about the data.  
2   And I know trying to collect data in the next 30 to 60  
3   days, we -- we know how many miles of pipeline we have  
4   in Class 3 and 4. We don't have the data as small  
5   operators within that 660 corridor that the large  
6   companies do. So we're not going to be able to play  
7   the what-ifs. What if it was 15 percent more, what if  
8   it was this? We just don't have the time. We haven't  
9   developed all that base data yet to be able to answer  
10  those questions in a short time.

11           MS. GERARD: I know that we're concerned  
12  about achieving the goals of accelerating the rate of  
13  testing, improving the quality of integrity management  
14  plans, improving our ability to oversee and providing  
15  increased public assurance. And I know that we -- you  
16  know, we're -- we're hotly contesting the value of  
17  population density here between the -- the 10-building  
18  count and the 20-building count.

19           You know, and perhaps -- you know, perhaps we  
20  should be satisfied with a range that we leave open  
21  with a not-greater-than or with a not-more-than, you  
22  know, variable added to the end of that sentence. I  
23  mean, these are some of the types of things we're  
24  trying to solve here.

25           And you know, if we leave that flexibility

1 with the idea that we're trying to assure that all of  
2 the pipelines perform a greater amount of testing than  
3 has been done in the past, because, you know, the  
4 technology is available and we -- you know, we want to  
5 see that the highest, you know, priorities are  
6 protected. You know, what we're -- what we're trying  
7 to avoid is the situation where added protections  
8 aren't brought.

9           And so, you know, maybe we can sort of think  
10 about if there's some way to make this correction so  
11 that, you know, the population density is something  
12 that is left as a variable between 10 and 20 based on  
13 the situation that the pipeline faces. Because, you  
14 know, one pipeline's 10 may be another pipeline's 20.

15           You know, it's the question of Carlsbad. And  
16 I agree with what Rick's answer is. You know, in the  
17 scheme of a prioritized approach, if that pipeline  
18 didn't have a lot of other housing and it was trying to  
19 prioritize and test the most important places, then  
20 it's possible that the site of Carlsbad, where there  
21 were unsheltered people who were known to hang out in a  
22 particular place and not a lot of other housing or  
23 other areas, that could become the most important  
24 place. And I think we have to get at the concept of  
25 prioritization in here somehow.

1 MME CHAIRMAN KELLY: Now, before lunch --  
2 maybe people will keep their comments brief.

3 Are there any other comments or questions  
4 from Committee members? Yes, Mr. Comstock?

5 MR. COMSTOCK: This is a follow-up to Dr.  
6 Willke's comments. When I go to explain this, visual  
7 graphics help me immensely. The slide that you had,  
8 Daron, with the -- the reference to what -- what does  
9 the rule mean now and as I apply each sub-part of the  
10 rule to this. It had the box with A and B. It was  
11 very helpful. I actually saw that for the first time  
12 and said, oh, that's what that means.

13 If we could apply some of the information  
14 that you're doing into graphics like that or into  
15 charts like that, that would be something that I could  
16 put my arms around. I can give to my constituents and  
17 say, here's what this means, how do you feel about  
18 this. It helps me come back in May with that -- with  
19 that vote that says, I know this is what they want. So  
20 that would be applicable.

21 And I agree with Dr. Willke. It helps me get  
22 -- get that idea.

23 MME CHAIRMAN KELLY: Thank you. Any other  
24 Committee comments?

25 (No response)

1 MME CHAIRMAN KELLY: Are there any comments  
2 from the public? And that includes industry. Anyone  
3 who's not on the Committee? Yes, Ms. Traeweek?

4 MS. TRAEWEEK: Laurie Traeweek with the  
5 American Gas Association. And I wanted to just address  
6 the 20 buildings and this concept of population  
7 density.

8 We've discussed a lot this morning and, I  
9 guess, into this afternoon about the desire to have a  
10 very technically based approach to this. And if we  
11 agree that that's what we want to do, is take a  
12 technically based approach and we want to focus on  
13 impact and that we are able to determine impact using  
14 the models, then we ask ourselves whether or not we are  
15 looking at what we are trying to protect or who we are  
16 trying to protect versus density.

17 And it seems like if you're using a technical  
18 approach, then consistency of what you're trying to  
19 protect makes more sense conceptually than the density  
20 being consistent.

21 And given that, okay, you would say, if  
22 you're trying to protect 20 buildings in a 1000-foot  
23 radius, then why would you not also want -- if that is  
24 what you are saying is the criteria for protection,  
25 then why would you not say you want to protect 20

1 buildings no matter what the radius is? If that's your  
2 criteria and you're using an engineering basis to  
3 determine impact, then your consistency should be what  
4 you're trying to protect and your consistency should  
5 not be density.

6 Does that make sense?

7 MS. GERARD: Does that mean that you're  
8 saying, Laurie, that that means every time you could  
9 affect 20 buildings, you protect them?

10 MS. TRAEWEEK: Exactly.

11 MS. GERARD: That's what you're saying?

12 MS. TRAEWEEK: Yes.

13 MS. GERARD: So, how does that equate to a  
14 pipeline that is a smaller pipeline with a 100-foot  
15 impact zone where there is no 20 billion -- there's no  
16 20-building scenario? So that means a pipeline that is  
17 of a 100-foot impact zone doesn't add any protections  
18 to anyone.

19 MS. TRAEWEEK: If -- if you're going to agree  
20 that it is the circle that you're using to try and  
21 determine, you know, what the impact is, and that  
22 circle is going to be smaller if you're a lower  
23 pressure -- operating at a lower pressure, smaller  
24 diameter pipe, that circle will be smaller. Then,  
25 conceptually, again, you need to use as your basis what

1 are you trying to protect. And if you're trying to  
2 protect 20, you know, in that 1000-foot circle, then  
3 why would you suggest that you should be trying to  
4 protect less than that in a smaller circle?

5 MS. GERARD: The problem I have with that is  
6 the image of a smaller pipeline in a densely populated  
7 area where there aren't technically 20 buildings that  
8 could fit inside the impact zone but a whole bunch of  
9 other buildings within visual eyesight and range. And  
10 that if citizens who lived in that area said, are there  
11 additional protections being brought to our  
12 neighborhood, we would say, well, no, because  
13 technically there -- there aren't 20 buildings within  
14 the range of the pipeline and so no additional  
15 protections would be brought as a result of this added  
16 protection for this regulation.

17 That's why I'm having trouble.

18 MS. TRAEWEEK: I understand that. But you  
19 know, recognizing that already being in that highly  
20 densely populated, as in being in that Class 3 or 4  
21 location, you have added protection for the very reason  
22 that you just said. Because there are a lot more  
23 people around, the regulations require you to have  
24 added protection in Class 3 and 4 than if you're in a  
25 less densely populated area.

1           But just to turn that around, conceptually,  
2 if I am that one building or one house that's within  
3 the 1000-foot area that is in that impact zone that  
4 would be affected if there is an incident, you're  
5 telling me that I'm not going to be protected, as  
6 opposed to the one person who's fortunate enough to  
7 live close enough to that low-pressure pipeline that  
8 has an incident. But I'm protected because, according  
9 to your -- your density calculation, one house next to  
10 a small pipeline gets protected but one house in a  
11 circle that is impacted as well in a large radius  
12 doesn't get protected.

13           So, you know, that equally --

14           MS. GERARD: It's a thorny problem.

15           MS. TRAEWEEK: -- a problem, yes.

16           MME CHAIRMAN KELLY: Mr. Moore, you wanted to  
17 comment?

18           MR. MOORE: Yes. We've heard Mr. Kuprewicz  
19 say on two separate occasions at two separate public  
20 meetings that the public wants credible science. If  
21 they can -- the public can understand science.

22           In this case, they can understand, I believe,  
23 the 100-foot circle versus the 1000-foot circle and why  
24 you draw a line somewhere.

25           I agree with Laurie. It does not make sense

1 to say that a small circle with one house, that one  
2 house is more valuable than a 1000-foot circle with one  
3 house that you would not apply protections to.

4 The beauty of the industry proposal is  
5 consistency across the system, offering identical  
6 protections to all people. And that's a key point in  
7 the industry proposal. It's not reflected in the NPRM.

8 Point two is that on a small circle, such as  
9 a 100-foot circle, the one we used just a moment ago,  
10 there is another way that's perhaps even more valuable  
11 than 20 structures to call that particular piece of  
12 pipe to be an HCA. And that is the identified sites.

13 If you have an outside area of a ball field,  
14 and easily a ball field, you can have pipelines running  
15 along the back side of a soccer field or whatever you  
16 want to call it. They would get those protections.  
17 And that is key to this discussion.

18 MS. GERARD: We're definitely making  
19 protections -- I mean, we're definitely making progress  
20 in the identified sites area. I mean, we -- you know,  
21 we're definitely -- we appreciate the fact that that  
22 value seems to be widely held no matter who sits at  
23 this table.

24 MME CHAIRMAN KELLY: Are there any other  
25 comments or questions? Yes, Ms. Epstein?

1           And, sir, you'll be next.

2           MS. EPSTEIN: Lois Epstein with Cook Inlet  
3 Keeper in Alaska. And I wanted to comment on the  
4 approach and presentation that we heard today. And I'd  
5 like to say that conceptually it does make some sense  
6 to me. I appreciate the industry's work in coming up  
7 with a simpler, clearer, seemingly somewhat equal  
8 protection approach because I do think the public would  
9 appreciate that.

10           And I recognize the caveats that Stacey  
11 raised in terms of the radius and the -- the number of  
12 buildings still being under discussion. I'm not in any  
13 sense endorsing that at this point.

14           If you could put up the bar chart one more  
15 time, please?

16           The question of what size the radius should  
17 be, I think that's still something worth further  
18 consideration because when I look at that chart, I see  
19 12 examples. Two of them, the -- the proposed HCA  
20 radius is -- is not enough.

21           I see one example on the top where it's very,  
22 very close.

23           And I understand from someone else in the  
24 audience that there are a number of other examples that  
25 were used. These were the ones that NTSB and TSB

1 looked at.

2           And I just don't see a convincing analysis  
3 here that that radius that we have right now is going  
4 to work in every case. And I really do think that if  
5 it can be done in a simple way that some sort of safety  
6 factor or addition probably would make the public  
7 certainly much more comfortable, and many engineers,  
8 too. Because I don't think there we have enough  
9 evidence that -- and I know I'm disagreeing with some  
10 -- your earlier comments, Rick, but I just don't see  
11 it there. I think it's worth ongoing discussion.

12           And then, Stacey, I wanted to respond to your  
13 thought about the percentage maximum. You were talking  
14 about 11 percent, 12 percent. And that's just -- for  
15 me, that's too precise a number. I think there may be  
16 some sort of range. We don't know what that number is  
17 now, but I -- I'd be uncomfortable saying, okay, 11  
18 percent's the top, 12 percent's the top.

19           But --

20           MS. GERARD: Do you support the idea of some  
21 sort of a cap or of a governor to account for what  
22 might be great variation when -- when all the analysis  
23 is said and done to suggest the idea that it is  
24 intended to be a pinnacle or a -- or a percentage?

25           MS. EPSTEIN: Well, I understand --

1 MS. GERARD: The top of the pyramid.

2 MS. EPSTEIN: Your problem seems to be that  
3 you need to do a cost analysis in a very short time.  
4 And -- and for that reason you might have to come up  
5 with something like that.

6 On the other hand, you know, given all the  
7 discussion today about what a high percentage of the  
8 pipelines are going to be looked at anyway, I'm not  
9 sure that that -- you know, that exact number is that  
10 important because, you know, we're still going to be  
11 looking at a lot of pipeline.

12 MME CHAIRMAN KELLY: Thank you, Ms. Epstein.

13 The gentleman in the back?

14 While he's approaching, Mr. Lemoff?

15 MR. LEMOFF: Yes, briefly. We're talking  
16 about the -- we'll get you. This is brief.

17 I look at this data, and the way I look at  
18 it, I'm not looking at the black versus whatever. I  
19 want to be specific and I want to look at fatalities.  
20 Those are clearly the most important. And there  
21 appears to be quite a good safety margin for the red  
22 bars on fatalities.

23 I want to look at injuries to people. And  
24 we've still got quite a good safety margin.

25 I'm not sure exactly what the green and the

1 blue mean, and I'd like that defined. But there's  
2 different ways of looking at data, and we should look  
3 at it very carefully. Thank you.

4 MME CHAIRMAN KELLY: I'll let you define  
5 those after this gentleman speaks.

6 MR. BOSS: This is Terry Boss with INGAA. I  
7 do have some information, and granted it's a model like  
8 this is a model, but where we have gone through some  
9 cost information and looked at the different  
10 alternatives. So that might help clear up the size  
11 impacts of what we're talking about on some of these  
12 alternatives later this afternoon.

13 MME CHAIRMAN KELLY: Thank you.

14 And you wanted to follow up with that, Mr.  
15 Moore? Mr. Kuprewicz?

16 MR. KUPREWICZ: Yeah, just a real  
17 clarification here. The C-FER correlation is just an  
18 empirical. And this does not represent all failure  
19 cases. I mean, that's -- Carlsbad would be an example.  
20 All those folks, terrible tragedy, unfortunate event.  
21 That other variable I mentioned earlier, time to  
22 ignition, showed its head. A rare situation.

23 So we don't want to create the illusion that  
24 we're -- we're capturing every scenario here. And I  
25 think the public will understand that. They're looking

1 for, okay, what's the most likely situations and where  
2 we're going to spend our efforts.

3           So, my perspective was that C-FER is an  
4 empirical start. It appears to be an appropriate  
5 screening process. My earlier comments, I, you know,  
6 said I don't really need to see a lot of discussion on  
7 safety margin if it's confusing the definition.

8           But reinforcing what I said earlier, I've run  
9 into a couple situations in the last six or eight  
10 months where pipeline companies have tried to use C-FER  
11 to cite critically sensitive infrastructure in a highly  
12 -- what I'll call a hypersensitive area. Wrong tool,  
13 wrong analysis. Step back. You're getting yourself in  
14 trouble here.

15           So, there's a difference between empirical  
16 and trying to get through a screening process and doing  
17 detailed engineering analyses that I don't think  
18 anybody's asking this Committee to do by any chance,  
19 but the record speaks for itself.

20           MME CHAIRMAN KELLY: Any other comments by  
21 Committee members or members of the public?

22           (No response)

23           MME CHAIRMAN KELLY: Well, this has been a  
24 very interesting discussion. I think we anticipated --  
25 Stacey Gerard and staff had anticipated a great deal of

1 discussion on these matters. By the agenda, not quite  
2 as much as we had, but it's very important to  
3 thoroughly vent these issues.

4 We will take a one-hour break for lunch.  
5 Before doing that and so that I don't lose my thoughts  
6 before the end of the day, a number of comments were  
7 made from Committee members on information that would  
8 be useful to us in coming to a decision at the May  
9 meeting. And so I'd just like to sort of reemphasize  
10 those.

11 We would like to receive in advance impact  
12 information on using 4000 versus 5000 btus in the  
13 analysis. We would like for staff to identify any  
14 other anomalies that may exist by the alternative  
15 processes that have been discussed, any special areas  
16 of concern that OPS identifies based upon public  
17 comment received or based upon the discussions that  
18 we've had here today. And certainly, we'd like to  
19 receive this information far enough in advance of the  
20 meeting to digest it ourselves and to share it with our  
21 constituents so that we will have a good basis on which  
22 to proceed with a good discussion and our votes at the  
23 next meeting.

24 I would also like to encourage members of the  
25 Committee to the extent that you feel it appropriate to

1 make any public comment under the notice that was  
2 published in the "Federal Register." That way that  
3 information will be on the public record and the  
4 Committee members and others in the public would have  
5 access to that and recognize that it would become a  
6 part of our determination.

7 Oh, yes. And the graphs. To the extent that  
8 you can provide those for us, Mr. Moore?

9 MR. MOORE: I'd understood that most of the  
10 requests you just mentioned, Ms. Kelly, was -- was from  
11 OPS --

12 MME CHAIRMAN KELLY: That's right.

13 MR. MOORE: -- the one from industry would be  
14 the examples of the proposal that industry has on the  
15 table for use by the public and other members.

16 MME CHAIRMAN KELLY: That's right.

17 MR. MOORE: Very good.

18 MME CHAIRMAN KELLY: Is there anything else  
19 that Committee members would like to have to address  
20 this issue for our next meeting?

21 (No response)

22 MME CHAIRMAN KELLY: Okay. Well, let's take  
23 a one-hour break for lunch. We'll see you at 2:00.

24 (Whereupon, at 1:00 p.m., the proceedings  
25 were adjourned for lunch, to reconvene at 2:00 p.m.,

1 the same day.)

2

3 A F T E R N O O N S E S S I O N

4

2:15 p.m.

5

MME CHAIRMAN KELLY: Pipeline integrity  
6 management for gas transmission pipelines and HCAs, and  
7 Mike Israni will begin with a briefing.

8

Briefing: Pipeline Integrity Management for  
9 Gas Transmission Pipelines in High Consequence Areas

10

(NPRM)

11

MR. ISRANI: Okay. Now, in this afternoon  
12 session, we are -- we are going to talk about the  
13 integrity management requirements in the high  
14 consequence areas.

15

(Slide)

16

MR. ISRANI: This is what we proposed in the  
17 January 28th proposed rule. The scope of this -- gas -  
18 - is all gas transmission pipelines. That includes all  
19 these: petroleum gas, hydrogen, and other gases. No  
20 gathering lines, no distribution lines.

21

(Slide)

22

MR. ISRANI: Gas integrity management program  
23 has several elements, and here I've listed all the  
24 elements. We don't have time to go through each and  
25 every element, but key areas that I'm going to mention

1 is that identifying high consequence areas, developing  
2 framework, and developing plans. They all are due  
3 within 12 months after we propose after we have a final  
4 rule out.

5 And some of the elements that you see here on  
6 the bottom were as a result of the Pipeline Safety Act  
7 2000.

8 And all of these elements are discussed in  
9 detail in our proposed rule.

10 (Slide)

11 MR. ISRANI: In the gas -- we are allowing  
12 operators to choose between smart pig, pressure  
13 testing, direct assessment, and other equivalent  
14 technology. And direct assessment, as we -- with the  
15 current knowledge we have, we can only use it for  
16 external corrosion, internal corrosion, and stress  
17 corrosion cracking.

18 Direct assessment we have made conditional,  
19 and these are the four conditions that I've  
20 highlighted: when the other assessment methods cannot  
21 be applied, when substantial impact on the consumers,  
22 and pipeline operators which are operating below 30 --  
23 and when operators excavate their entire segment.

24 These conditions we put because we are -- at  
25 this stage we are not fully confident to make direct

1 assessment as equivalent technology to smart pig or  
2 pressure testing. But there is a joint effort with  
3 industry where we are trying to validate direct  
4 assessment. And as we gain more knowledge, it would be  
5 made available.

6 But important point to note here is the  
7 substantial impact on the consumers, the second item  
8 here. And this -- this will happen with a lot of  
9 operators who have supply limitations and they -- they  
10 don't have any loop lines or any kind of cross  
11 connections due to the demand. So they will have this  
12 feature which will allow them to use direct assessment.

13 Operators with a low-stress pipeline, which  
14 would be mostly the last end of the pipeline, they --  
15 they're allowed to use direct assessment.

16 And the last one we meant was if there are  
17 cross connections or some portion of -- portions of the  
18 pipeline which are very short, operators may decide to  
19 go with direct assessment, and we're happy with that.

20 PARTICIPANT: Are these "ands" or "ors"?

21 MR. ISRANI: Let me go back. Any of these  
22 conditions. Yeah, all. Yeah, yeah. Any one of these  
23 conditions you meet, you can use direct assessment.

24 ECDA regions that are defined in the book.  
25 This is external corrosion/direct assessment. This

1 just gives you a method of how you decide on a pipeline  
2 when you use the direct assessment, how you group them  
3 together using these physical characteristics, and  
4 operating and corrosion history, et cetera. Once you  
5 group them into the segments, then you could decide on  
6 what kind of tools can be used.

7           And in the proposed rule we have charts and  
8 tables that we -- we took from the draft May standard  
9 which was being developed at that time. So we used all  
10 those tables as the -- which we intend to -- we're  
11 considering adopting this standard where we use the  
12 charts and everything from there. We borrowed quite a  
13 lot of information from the standard.

14           This particular chart or graph shows you  
15 after you group these pipeline segments and how,  
16 depending on the conditions of the -- indications from  
17 your devices that you use on the direct assessment, how  
18 you determine which of the -- where there are severe  
19 indications, moderate indications, and minor  
20 indications.

21           All of this information would be determined  
22 by the people who are owning this device and expert in  
23 that field, which operators would use. Some of the  
24 operators may have their own experts in-house who can  
25 determine these conditions. This is just for

1 illustration purposes only. And we had for those  
2 severe indications immediate action, and for moderate  
3 indications, scheduled action. All of these things are  
4 also in the May standard.

5 (Slide)

6 MR. ISRANI: This particular chart just  
7 illustrates that we have a validation process going on  
8 with the -- jointly with industry where we are  
9 comparing the results of the smart pig with the direct  
10 assessment method. And this is a close-and-double  
11 survey.

12 And you could see from this chart that all of  
13 these methods are giving you good results. You know,  
14 here, this is with a smart pig. You see the corrosion  
15 rating. And there's indications on the surface also  
16 that show you this method to use.

17 (Slide)

18 MR. ISRANI: Confirmatory direct assessment.  
19 Now, this term we use only after the Pipeline Safety  
20 Act 2002 got passed, which was in December of 2002.  
21 And in that act, seven-year test -- retest interval or  
22 -- what do you call it? -- reassessment interval was  
23 put in place. And we had -- when we put the proposed  
24 rule -- when we drafted the proposed rule we had 10  
25 year baseline and 10 year reassessment interval

1 following the ASME guidelines.

2 But because the conditional bill asked for a  
3 seven-year reassessment, we came up with this  
4 confirmatory direct assessment in the interim period  
5 that we would say that we meet the law. At the same  
6 time, we'll have some confirmation of what went on from  
7 the last assessment.

8 MS. GERARD: What do you mean by "interim  
9 period," Mike?

10 MR. ISRANI: Interim period meaning, like,  
11 when you have determined baseline assessment, 10 years,  
12 and your next assessment is due in 10 years or 15  
13 years, based on how we have determined from -- just  
14 like, you know, ASME standard has.

15 So, your regular scheduled reassessment is on  
16 the 15-year or 10-year period after the baseline. But  
17 because this law says that the seventh year you have  
18 it, so we consider that in 10-year and 10-year, a  
19 seven-year period in between. The seventh year for  
20 reassessment that one could use confirmatory direct  
21 assessment.

22 MS. GERARD: I just want to correct a  
23 potential misimpression that occurred early in the  
24 morning that Zack pointed out to me. And that is that  
25 I made some hypothetical statement that at the

1 completion of your 10-year baseline, blah blah blah, we  
2 still believe that the law requires us to require the  
3 reassessment beginning seven years after the first  
4 segment was tested. If the segment was initially  
5 tested, it must be retested. We still believe that.  
6 That's one of the differences between us and industry,  
7 is that we interpret the law that way.

8 I wouldn't want anybody to read the  
9 transcript earlier and think that by the comment I made  
10 that we think that you could take 10 years to complete  
11 your baseline and then perform the reassessment.

12 Somebody saw a smile on someone's face. We  
13 want to make sure that smile is not because of that.

14 (Laughter)

15 MR. ISRANI: As I mentioned earlier, your 10-  
16 year baseline period and then reassessment period in 10  
17 years, with that we would not have had all that issue,  
18 even if you had started in the very first year. But  
19 because of this issue, confirmatory direct assessment  
20 we thought would be the best solution. And also, it  
21 will serve the purpose of monitoring in between the  
22 condition of our pipeline to see if any other  
23 development or any other anomalies have been created in  
24 the pipeline.

25 And the confirmatory direct assessment we say

1 is a -- is a streamlined version, meaning it has some  
2 other requirements which are less stringent than  
3 regular direct assessment. And those I've listed here,  
4 and they are in our proposed rule as well.

5 (Slide)

6 MR. ISRANI: Our -- as an access, on December  
7 17, 2002, that's your start date. The clock starts  
8 from there in terms of assessment, and that was our  
9 concern because that's how the Pipeline Safety Act came  
10 about. So, by the time our final rule comes out,  
11 you've already lost one year there.

12 We have a 10-year baseline period, and 50  
13 percent of the pipeline --

14 MS. GERARD: That's assuming we make the  
15 deadline of December 17th.

16 MR. ISRANI: Fifty percent of the pipeline  
17 should be covered in the first five years.

18 (Slide)

19 MR. ISRANI: I had this moderate risk area,  
20 but I don't want to go into that detail. When we have  
21 moderate risk areas, we had offered flexibility there,  
22 having the -- this assessment much longer in that  
23 period.

24 MS. GERARD: We're possibly -- we're leaving  
25 that requirement altogether.

1           MR. ISRANI: Right, yeah. If we go with the  
2 option, we may not have these -- some of these moderate  
3 risk areas and other threshold radius.

4           (Slide)

5           MR. ISRANI: Direct assessment, we  
6 established the baseline at a shorter interval. We did  
7 not go with a 10-year, we went with a seven-year and 50  
8 percent of the pipeline in the first four years. And  
9 this is because we were still -- we're still trying to  
10 gain more confidence in the direct assessment area  
11 where a lot of comparison and studies are going on.  
12 And we thought a seven-year baseline currently is  
13 appropriate.

14          (Slide)

15          MR. ISRANI: Prior assessment. Prior  
16 assessments are allowed by the rule, going back five  
17 years. So we are accepting all the testing done by 12  
18 December '97, to be used as a baseline. And your  
19 reassessment time period starts from that period.

20          (Slide)

21          MR. ISRANI: Actions to address integrity  
22 issues after operators have determined what kind of  
23 threats their pipelines have, what -- then we have  
24 certain time frames when they can address those issues.  
25 And we have certain conditions which require special

1 consideration, and those conditions are immediate, 180  
2 days or longer than 180 days. And all of these are  
3 also -- we have some additional conditions there, but  
4 most of it is picked up from the ASME B31-8S.

5 Preventive and mitigative measures. Every  
6 integrity program management has to mention. mitigative  
7 measures as one of the elements. And operators would  
8 consider these additional actions specific to their  
9 systems. And ASME B31-8S which -- which we have  
10 referenced has a list of all the preventive mitigative  
11 measures. They have a very comprehensive list which  
12 operators could utilize. So we have referenced that.

13 Reassessment period. As I said, that -- by  
14 the law, we are required to have seven years. And that  
15 we are saying that confirmatory direct assessment is an  
16 acceptable means.

17 (Slide)

18 MR. ISRANI: And this was our actual  
19 assessment-reassessment period. If you -- if your  
20 stress levels are above 50 percent, then you have 10  
21 years for reassessment. If it is less than 50 percent,  
22 it's 15 years. And if you're using direct assessment,  
23 we had five years -- we have five years for -- if  
24 there's only sample defects that are excavated and  
25 you're 10 years if you excavate all the defects that

1 you find on the direct assessment tool. And this --  
2 these figures are also from the ASME standard.

3 (Slide)

4 MR. ISRANI: Your integrity program is  
5 complete only when you have really measured the  
6 performance of your requirements. And we have  
7 referenced the ASME standard for the performance, but  
8 there are four oral performance measures that we --  
9 yesterday we covered part of it. They are required of  
10 all the operators, and these oral performance measures  
11 are miles assessed versus program requirements.  
12 Program requirements, we mean here your total HCA  
13 mileage, number of immediate repairs, number of  
14 scheduled repairs, and number of leaks, failures, and  
15 incidents.

16 These oral performance measures we want what  
17 we call real-time, meaning electronically to be  
18 accessible to OPS and the states so we can monitor the  
19 performance of these. We want to also see if -- if our  
20 program is succeeding. We can prioritize our  
21 inspections based on this. And these oral performance  
22 measures also are in the ASME standard.

23 MR. THOMAS: How do you get the information?

24 MR. ISRANI: First of all, all of these would  
25 be -- let me think.

1 MS. GERARD: Electronically posted.

2 MR. ISRANI: Yeah. So, like, you know, so as  
3 soon as you are posting those on your -- as the  
4 operator you are putting that information, we would  
5 have access to it as you are recording that data.  
6 Like, you know, if you have done certain miles and you  
7 are recording that data, we will have access to that to  
8 monitor it.

9 MR. THOMAS: I mean, nothing is real-time.  
10 It's only real-time when it's posted. I guess I'd  
11 suggest there be some procedure set up that gives  
12 guidance for how to do that.

13 MS. GERARD: Monthly. Real-time is an  
14 exaggeration.

15 MR. THOMAS: Okay.

16 MS. GERARD: Compared to what we have now,  
17 it's warp speed. Compared to what we have now.

18 MR. ISRANI: Some of these things we are  
19 trying for the first time. And -- and, you know, we --  
20 after the proposed rule is out, we'll draw up some  
21 other protocols and charts on how we go about  
22 collecting information. We are not there yet.

23 We also in the proposed rule put special  
24 emphasis on some of the areas where we wanted public  
25 comments on. For example, we mentioned earlier when we

1 were discussing high consequence areas, Stacey  
2 mentioned that rural buildings, like rural churches, et  
3 cetera, whether they should be moderate risk areas,  
4 which would require less frequent assessment, or just  
5 preventive and mitigative measures. We wanted comments  
6 from the public and everybody so we can make a decision  
7 on that.

8           Should we allow a maximum of 20-year  
9 reassessment intervals for pipelines which are below 30  
10 percent -- Because there were a lot of issues raised  
11 during our past meetings and discussions that we -- we  
12 are not following the ASME standard which allows 20-  
13 year time frames for the reassessment for pipelines  
14 below 30 -- So, based on the comments we receive and if  
15 we do decided, that's exactly what the ASME standard  
16 has, 10-year, 15-year, and 20-year periods for  
17 different stress levels.

18           And we also have an every seven-year  
19 confirmatory direct assessment method, whether we  
20 should allow seven-year confirmatory direct assessment  
21 for all pipelines operating below 20 percent -- These  
22 are all the questions we have listed here that we are  
23 emphasizing here because we want the public to give  
24 comments on this so we can decide on our final rule.  
25 And it will impact industry quite a lot.

1 (Slide)

2 MR. ISRANI: And finally, these are our  
3 milestones. We want to finish the final rule by  
4 December 17th. Our target date is December 17th.  
5 We'll do our best to meet that date.

6 MS. GERARD: Obviously, we're not going to  
7 meet the milestone of a mapping and pre-run this spring  
8 since we're talking about having a public meeting for  
9 conceptual discussion at the end of May.

10 MME CHAIRMAN KELLY: Any comment from the  
11 Committee or questions?

12 (No response)

13 MME CHAIRMAN KELLY: Any comments or  
14 questions from members of the public?

15 (No response)

16 MME CHAIRMAN KELLY: Thank you, Mike.

17 MR. ISRANI: Okay. Just one -- one small  
18 thing I want to add in the end is that if you see in  
19 this items where we -- where we say we have some ideas  
20 that we are placing on the table for discussion, one of  
21 the things is that plastic transmission pipelines, by  
22 definition currently they also fall under this  
23 integrity management rule. And we know of assessment  
24 methods that we have -- they're either magnetic field  
25 or electric field type. They would not be able to use

1 any of those.

2 So, we would like this as a topic for  
3 discussion, whether we should even include plastic  
4 transmission pipeline in the integrity management rule.

5 You know, we are inviting comments on that.

6 MME CHAIRMAN KELLY: Any further comments?

7 MR. THOMAS: I have a question on your Slide  
8 28. I was probably just looking at something else.

9 But you've got -- it says, maximum -- maximum  
10 interval of 10 years for stress. How does that relate  
11 to the seven years?

12 MR. ISRANI: Okay. That -- this one is what  
13 we calculated based on the -- our actual assessment of  
14 your past results, your risk factors, et cetera. And  
15 we -- from there, we derived that your interval should  
16 be 10 years or 15 years, based on the stress levels.

17 But because the Pipeline Safety Act requires  
18 reassessment intervals by law to be seven years, so  
19 that -- that's why we have to check it in between.  
20 Where we came up with this confirmatory direct  
21 assessment, which could be just like closed interval  
22 survey or something like that in the interim period to  
23 meet the law.

24 So, this is what actually we're doing for  
25 your time frames. And one could adjust in between when

1 you want to have confirmatory direct assessment. It  
2 could be five years or seven years. The decision is  
3 the operator's, depending on all the risk factors they  
4 see. If you see that there was some construction  
5 activity or some -- some kind of, you know, chance of  
6 some third party damage here, perhaps you'd want to  
7 have a -- this confirmatory direct assessment done  
8 earlier.

9 But your schedule -- confirmatory -- your  
10 scheduled assessment using technology that you used  
11 before is 10 years or 15 years, depending on your  
12 stress levels.

13 MME CHAIRMAN KELLY: Any further comments?  
14 Mr. Comstock?

15 MR. COMSTOCK: Maybe we could talk just for a  
16 minute why we're even considering plastic in this at  
17 all? Maybe just for my benefit. That would help.

18 MR. ISRANI: Sure. We -- we just found out  
19 lately that there were some operators who had plastic  
20 lines, and we are not sure how many of them would fall  
21 in high consequence areas. But if they are, we'd like  
22 to bring up that issue, or we invite them to comment on  
23 it.

24 MR. COMSTOCK: So we're including it because  
25 of its -- its location, not because of the pressures

1 that they're operating at, is that --

2 MR. ISRANI: We are locating because in the  
3 scope of the rule we said all the transmission  
4 pipelines which fall under Part 192. And the scope  
5 covers plastic pipelines as well.

6 Yeah, regardless of pressure or diameter.  
7 Regardless --

8 MR. COMSTOCK: I guess I'll wait to see the  
9 comments come in.

10 MR. ISRANI: Right, right.

11 MS. GERARD: I wanted to put on the -- on the  
12 public record that I received a call from Mr. Linney  
13 from Air Products, who some of you may have known --  
14 know, who participated in some of our meetings. And  
15 he's been in the hospital and is not able to put his  
16 comments on the docket, being hospitalized.

17 But he -- he pointed out that there were some  
18 provisions in the law that specifically raise the  
19 question of consideration of product characteristics  
20 and the use of valves as factors that should be  
21 considered. And his reading of the -- he represents a  
22 company that carries hydrogen. And he felt that our  
23 NPRM did not sufficiently address the provisions in the  
24 law. So I just wanted to make that available since he  
25 is unable to actually put those comments in writing on

1 the docket.

2 MR. LEMOFF: With regard to plastic, I -- I  
3 have a request of the -- of the Office. Could -- if  
4 plastic is to be included, could we get some indication  
5 of incidents that have occurred that would be other  
6 than caused by third party damage with plastic pipe of  
7 this type so we have some kind of benchmark?

8 MS. GERARD: Were we even aware that there  
9 were plastic transmission lines?

10 MR. ISRANI: Not when we were drafting the  
11 rule. We knew by law it covered it, but we didn't know  
12 if they would fall under transmission pipelines. And  
13 then I had some -- somebody from industry -- in fact,  
14 John Erickson mentioned that he had some plastic  
15 transmission pipelines. So I thought this would be  
16 good to bring into this topic.

17 MS. GERARD: Right. So we'll certainly look  
18 but we don't think we're going to find any plastic  
19 transmission lines that have been damaged by other than  
20 outside forces.

21 MME CHAIRMAN KELLY: Any other questions or  
22 comments?

23 (No response)

24 MME CHAIRMAN KELLY: All right. We're ready  
25 for the panel.

1 Thank you, Mr. Israni.

2

3 Industry/Public Panel

4 and Committee Q & A on NPRM

5 MR. HERETH: My name is Mark Hereth, and I'm  
6 from Hartford Steam Boiler. I've been asked to make a  
7 brief presentation on safety performance because that  
8 provides the basis to address some of the questions  
9 that were raised by members of the Committee yesterday  
10 afternoon. And I'll get into specifics on that.

11 The first is, how does safety performance  
12 come into play here. And going back to comments made  
13 at the last public meeting, the goal is to achieve  
14 zero. And that's been stated by executives throughout  
15 the industry.

16 Did you have a comment?

17 Zero incidents, zero injuries, which would  
18 lead to achieving zero fatalities, zero injuries,  
19 ultimately zero property damage.

20 The key is that to understand how to improve,  
21 you have to understand historical performance. We're  
22 going to share a little bit on that today. And also,  
23 to measure or to know how you're improving and in fact  
24 are you improving, you have to be able to measure  
25 change. And this gets to one of the questions you

1 asked very correctly yesterday afternoon, Dr. Willke.

2           And that leads you to be able to derive  
3 integrity management work to improve in the right  
4 places by building on your existing practices and  
5 adding to above and beyond, as Mike talked about  
6 earlier today, which, in the simplest terms --  
7 actually, as Rick Kuprewicz said this morning -- is  
8 using the right tool for the right combination of  
9 threats.

10           (Slide)

11           MR. HERETH: What I'm going to briefly  
12 summarize are some highlights out of a safety  
13 performance report that we do cooperatively with  
14 Allegro, which is done in each of the industry  
15 segments.

16           And this is a chart you've probably seen in  
17 other places on other occasions. It simply summarizes  
18 by cause the leading causes of -- of incidents to, in  
19 this case, onshore line pipe, since that's really what  
20 the focus of this rule is, although we do show non-pipe  
21 as well as the line pipe there as well, the line pipe  
22 being in red.

23           And as you can see, third party damage is the  
24 leading cause, followed by external corrosion, internal  
25 corrosion, and they go down from there. And you're

1 going to see this slide a couple more times this  
2 afternoon.

3           The key is -- and I wanted this to  
4 transition. I apologize for that. The afternoon quiz  
5 is, how many incidents do you have for transmission --  
6 natural gas transmission on an annual basis -- on a  
7 line pipe onshore transmission. It's about 50. And  
8 it's important to understand that because on an annual  
9 basis we're looking at trying to make decisions about  
10 performance and improvements in performance on a number  
11 that starts at about 50.

12           Then, when you look at any one cause other  
13 than third party damage, which runs just over 10 on an  
14 annual basis -- 10 or 11 incidents per year -- we're  
15 down in single digits. So that means for external  
16 corrosion it happens that we're looking at about six  
17 incidents per year over the entire transmission system  
18 in this country.

19           The key to that is it's -- it's going to be  
20 more and more difficult as there are improvements made  
21 to recognize change. And hence, to address your  
22 question yesterday afternoon, Dr. Willke, that's why  
23 Mike -- and we commend the OPS for doing this -- I do  
24 this as an individual -- for embracing the measures  
25 that were in B31-8S because you're not looking at just

1 outcomes, incidents, fatalities, injuries, property  
2 damage, you're looking at the process measures which  
3 provide the pre-measure, the precursors, to see are we  
4 making progress.

5 (Slide)

6 MR. HERETH: Now, just to highlight one  
7 particular area, we looked at -- and we're going to  
8 expand upon this in materials that I believe will be  
9 submitted as a part of the comments.

10 If we look at the past 10 years for  
11 construction and materials and the -- and the -- and  
12 construction and material defects as the cause, we have  
13 66 incidents. So that's about six -- a little bit over  
14 six a year. And the question we ask is, where are they  
15 occurring. Another way to look at it is, how many are  
16 occurring in Class 3 and Class 4.

17 Well, it turns out none of them occurred in  
18 Class 4. So of those 66, none occurred in Class 4.  
19 And four occurred in Class 3. And then the question  
20 is, why is it that this occurs this way.

21 Well, we believe it's because there is a  
22 lower stress level when you're in these -- when you  
23 operate in these areas. And that has an impact on the  
24 way that the incidents occur.

25 We're looking more deeply into each of these

1 four. It turns out two of them were pre-70 ERW pipe  
2 from the mills that are known to have produced the low-  
3 frequency welded ERW which is -- which is a particular  
4 issue. The key point here is there is a vintage pipe  
5 report that's being developed led by Battelle which  
6 will address construction and material issues.

7           The key point here is that there are 66  
8 issues -- incidents over a 10-year period. However,  
9 four of them occurred in Class 3 and 4, the areas we're  
10 going to focus on with this rule. The key point -- and  
11 Andy Theodos will talk about this later -- is, it  
12 doesn't mean the construction and material issues are  
13 an issue everywhere across the system where we have  
14 HCAs. We need to focus on what are the issues that  
15 drive construction and material defects. And the  
16 vintage pipe report work and other work will help us  
17 focus on where those issues are and why those incidents  
18 happen.

19           So, it's an example to show you drive your  
20 integrity work based on understanding what the  
21 underlying causes are.

22           (Slide)

23           MR. HERETH: Now, as we progress towards  
24 zero, and we talked about this at the public meeting,  
25 we need to be able to figure out are we making the kind

1 of progress and do we have measures that show us that  
2 we are making significant progress. And one such way  
3 to do this is to apply a six sigma methodology, which  
4 in the simplest terms is to say we're trying to reduce  
5 defects or errors or, in this case, incidents to a  
6 level below one in a million. This is a process  
7 developed in GE and other places that was applied to  
8 manufacturing processes when the manufacturing  
9 processes got to a level, a plateau in performance,  
10 where they said, how can we get better. We've made  
11 improvements, we've reduced cost, we've done -- how can  
12 we make that next incremental improvement. This is one  
13 way of going at that.

14           So, what we're going to do is look and say,  
15 where are we today relative to that as a measure of the  
16 performance today. Well, if we take and say there are  
17 310,000 miles of transmission pipeline in this country  
18 -- and that's INGAA members, AGA members, APGA, and  
19 then member -- and then companies that don't belong to  
20 those organizations, it comes out to about 310,000.

21           If we then go back to our vigorous discussion  
22 this morning and think through the circle concept, as  
23 you recall, when Mike presented an example on the board  
24 up here, there were -- it happened there were four  
25 circles for a typical pipeline system lying in that

1 model. If we say those are units, those four circles  
2 in a mile are units that you're trying to manage when  
3 you're managing integrity, that says you have about  
4 310,000 times four, which is about a million and a  
5 quarter units that you're trying to manage in the  
6 transmission system in the -- in the United States.

7           So then, if we take internal corrosion as an  
8 example -- it wasn't the leading cause but it was down  
9 there in one of those single-digit examples -- and we  
10 say there are about three internal corrosion incidents  
11 per year on line pipe, that would be -- and we say --  
12 go back and say we've got that about a million and two  
13 or a million two-four units that we're trying to manage  
14 on a yearly basis, what does that tell us in a six  
15 sigma context. If we converted that to a number of  
16 defects or number of incidents per million, we're  
17 looking at a little bit over two. It's actually about  
18 two and a half per million on an annual basis.

19           So what that -- and the reason this is  
20 important is if you start with that 50, we don't have a  
21 lot of incidents. They, unfortunately, have manifested  
22 themselves as -- as great tragedies on certain  
23 circumstances. And we shouldn't take our eye off that  
24 ball, but the important thing to remember is we're  
25 looking at small numbers here where we're trying to

1 realize incremental improvement.

2           And as we begin to approach zero, it's going  
3 to be more and more different. It underscores the need  
4 to use the process measures, things like number of  
5 scheduleds, number of immediates, and the progress that  
6 you're making towards the total mileage.

7           Thank you.

8           MME CHAIRMAN KELLY: Thank you. Are there  
9 any questions or comments by the Committee?

10           (No response)

11           MME CHAIRMAN KELLY: All right. We'll have  
12 our next panelist.

13           MR. BOSS: My name is Terry Boss with the  
14 Interstate Natural Gas Association of America.

15           (Slide)

16           MR. BOSS: I wanted to run over a few things  
17 on cost benefit in some of these options. And I think  
18 what it might help do is put into context some of the  
19 things that have been talked about this morning and  
20 will be talked about a little bit later on this  
21 afternoon.

22           The focus of INGAA -- INGAA is the Interstate  
23 Natural Gas Association of America. We operate the  
24 large diameter, high-pressure pipelines that bring the  
25 gas from the producing feeds -- fields to the local

1 distribution companies, to give you some context.

2           We're focusing on reducing the costs and the  
3 environmental impact of this proposed rule while  
4 satisfying the goals of Congress as it came out of  
5 there. And assessing these options, as folks are going  
6 through each one of these options, we're looking at the  
7 legal aspects or what the law said, the safety impact,  
8 technical things -- a lot of technical discussions  
9 earlier this morning on the HCA -- the practicality of  
10 using some of these things, the cost that is involved  
11 in putting them there, the customer impact that these  
12 are going to have, and of course, the environmental  
13 impact. And then also, to provide an accurate as much  
14 as we can cost benefit information to OPS.

15           (Slide)

16           MR. BOSS: This will give you an example, and  
17 I do apologize for the -- I think we've got a mismatch  
18 on the resolution. So it's getting cut off on the  
19 thing.

20           But basically, these are 10 different options  
21 that we've got laid out there. And we tried to put  
22 these together so that we could block up through there  
23 and see what's happening.

24           But basically, as we went into this  
25 discussion, on the bottom it says ASME B31-8,

1 Congressional mandate, INGAA, AGA, HCA. That's kind of  
2 our concept of what we thought the rule was going to  
3 be, based on what we thought the HCA definition was  
4 going to be, what's in B31-8, and what Congress had  
5 mandated on that.

6           And so in that particular thing, if you go  
7 down the columns, if you look at the definition we have  
8 what's in the OPS integrity program right here. This  
9 is the number of miles that we predicted would be in  
10 the integrity program based on the INGAA mileage that  
11 was in the survey of 167,000 miles. So if you could  
12 ratio that out, there's probably around 210,000, maybe  
13 220,000 miles that look like INGAA miles. And there's  
14 another, say, 70,000 miles that look like AGA miles.  
15 So the numbers will be different for local distribution  
16 companies than long-line companies.

17           PARTICIPANT: -- how many miles?

18           MR. BOSS: Okay. In this survey, we have  
19 167,000 miles of pipe. We have approximately 180,000  
20 miles in the INGAA members.

21           MS. GERARD: A hundred and eighty?

22           MR. BOSS: A hundred and eighty. Throw in  
23 another 20,000 that are non-members but are interested  
24 pipelines. APGA and AGA has about 50,000 miles. And  
25 then the rest are owned by private companies or in

1 intrastates.

2 MS. GERARD: You're saying for the survey --  
3 two-thirds of the INGAA miles --

4 MR. BOSS: About two-thirds of the existing  
5 miles. And what I'm saying is that the --  
6 approximately 220,000 miles should look about the same  
7 as us. I'm not -- same level of activity, but the  
8 overall configuration would be about the same.

9 So, this is our original vision of what we  
10 thought this rule was going to look like. And based on  
11 that, this is what we thought probably the amount of  
12 mileage would actually be covered under the integrity  
13 program.

14 But as Andy had mentioned before, in order to  
15 accomplish this program on the long-line transmission  
16 lines, most likely we were going to use pigging  
17 technology. So actually, we were going to be probably  
18 pigging around this amount of mileage right here, okay.

19 So you're getting roughly about half of the amount of  
20 mileage of the system that's going -- is going to be  
21 pigged.

22 For example, on your present cost benefit  
23 analysis, you're assuming about this number plus 25  
24 percent. So, it's more up in the 11,000 mile category.

25 MS. GERARD: How is 52 half of 167?

1           MR. BOSS: Well, I'm doing this in my head as  
2 I'm just standing here.

3           (Laughter)

4           MR. BOSS: The point is, is that these areas  
5 are scattered. And we -- we did estimates on several  
6 pipelines to figure out how the scattering did. And  
7 then this is approximately the number that would be --  
8 would be pigged, okay?

9           What I then --

10          MS. GERARD: It was based on that information  
11 that you put information on the docket previously?

12          MR. BOSS: Yes. This is based on the cost  
13 benefit, the CBO cost benefit analysis, that we did  
14 before with the hard-to-pig, easy-to-pig. It's all  
15 based off that. What we tried to do was update it with  
16 some of the changes that appeared in there. So what I  
17 did do was I took the -- and this says "proposed rule"  
18 up here in yellow. This is what we think right now the  
19 proposed rule looks like on there that we think the  
20 mileage is going to be covered under those pipelines.  
21 And this is what we think is going to be pigged.

22          This other one in yellow is the alternative  
23 that you guys have suggested under the CDA. It's the  
24 same mileage. That's where you can do CDA as an  
25 alternative if you're using pigging. That doesn't

1 change the number. You're inspecting the same miles.

2 This basically reflects the benefits, okay,  
3 because as you look at this, you say this is the  
4 mileage that's going to be examined on -- under this  
5 program. There isn't much difference in the benefits,  
6 you might say.

7 The only big difference here is the one down  
8 in red. This was kind of being alluded to this morning  
9 about increasing the number of -- down to 10 houses in  
10 a circle. So we then said it's going to include more  
11 mileage -- buildings. And then, of course, it would  
12 jump up significantly on here.

13 We're still waiting for a lot of data on this  
14 to see what the analysis. And Daron said he had some,  
15 so.

16 This gives us some concept that the benefits  
17 are not all that much different between the options on  
18 this.

19 (Slide)

20 MR. BOSS: Next, I'm going to be talking  
21 about the additional cost of proposed actions to the  
22 pipeline companies. Again, I made changes on the  
23 spreadsheet that was submitted to CBO with these  
24 different alternatives on there.

25 The proposed -- what I built up -- this is a

1 little bit different. What I built up is -- assuming  
2 this is zero, which we know it is not, but we're trying  
3 to show that the only difference between what we  
4 thought was going to happen versus what these different  
5 options do.

6 So, as you go up to the base -- go up from  
7 what we thought was going to happen here up to the  
8 proposed rule as it is right now, over a 20-year period  
9 on this 166,000, it's roughly 6.6 billion on additional  
10 cost. If you look at Daron's HCA alternative he's  
11 talking about there with no other changes, it's about  
12 3.99. With your CDA alternative that Mike had  
13 proposed, you get a good reduction. And that's a good  
14 thing. So that one worked out pretty good.

15 MS. GERARD: Mike's proposal is within our  
16 proposal.

17 MR. BOSS: -- alternative.

18 MS. GERARD: That's the one that Daron  
19 proposed earlier.

20 MR. BOSS: Right.

21 MS. GERARD: Today?

22 MR. BOSS: Today, yes. Okay.

23 Andrew Theodos will be talking about -- right  
24 now there is -- looks to be a requirement to do a lot  
25 of pressure testing that we were not planning on doing.

1 So if we didn't have to do that pressure testing and  
2 we'd be doing pigging or DA, that would reduce the cost  
3 somewhat on that.

4 There is inspection overlap that was talked  
5 about. A little bit of savings on that. The primary  
6 savings are going to be the consumer impacts. I'll  
7 show that slide later on. These are just our direct  
8 costs that we pass on to the consumers.

9 (Slide)

10 MR. BOSS: This one is --

11 MS. GERARD: Excuse me. These are actual  
12 costs to the operator or --

13 MR. BOSS: Yes.

14 MS. GERARD: -- just increases in the cost of  
15 gas? Which?

16 MR. BOSS: No, this is actual cost to the  
17 operators.

18 MS. GERARD: So you're saying Daron's  
19 proposal would cut the proposed cost to the operators  
20 almost in half of what proposed?

21 MR. BOSS: Yes. Until they get finer numbers  
22 on what Daron's --

23 PARTICIPANT: That's not right.

24 MR. BOSS: -- proposal is and -- it depends.

25 PARTICIPANT: As I understand it, this is

1 Delta's.

2 MR. BOSS: Yes.

3 PARTICIPANT: So it's not in half.

4 MR. BOSS: It's -- it's half of --

5 PARTICIPANT: These are increases above some  
6 benchmark, some -- the bottom number isn't there. It's  
7 just assumed. We already are on record in the cost  
8 benefit study previously that had a lot of assumptions  
9 in it. And that -- that base cost is -- is discounted.  
10 These are just the costs above that number.

11 Does that make sense?

12 PARTICIPANT: (Off mike).

13 PARTICIPANT: It's like, what, \$3 and a half  
14 billion.

15 PARTICIPANT: (Off mike).

16 PARTICIPANT: So, the bottom number that's  
17 not there is like \$3 and a half billion.

18 MS. GERARD: So, you're saying on top of what  
19 you previously thought it cost -- and I thought we  
20 reported that it was in the billion dollar range. No,  
21 Mike, was it about a billion we put down?

22 MR. ISRANI: (Off mike).

23 MR. BOSS: Back to the original comment about  
24 the cost benefit study, I think it was fraught with a  
25 lot of issues.

1 MS. GERARD: Yeah.

2 MR. BOSS: Our -- our submittal was based on  
3 the numbers in the \$3 and a half billion range.

4 MS. GERARD: All right. So, to clarify, what  
5 we're talking about is, our proposed rule would be  
6 about 6.6 billion more than what you had previously  
7 estimated, and Daron's cost -- Daron's proposal would  
8 cut the increase in half?

9 MR. BOSS: Yes, by itself. So, these are  
10 individual -- okay. This is the inspection overlap,  
11 and this is our direct cost. This is the tests on  
12 eight, nine, and 10 years, eight, nine, and 10.

13 This one allows you to use the baselines, and  
14 I don't know if you want to consider this included in  
15 it, but it allows you to use the tests previously in  
16 the baseline assumption. And then you use CDA during  
17 the baseline period for those pipelines that have  
18 already been pretested.

19 This one is the dent determination criteria.  
20 Mark had mentioned about the number of construction  
21 and material failures. This -- this tries to  
22 differentiate between dents that we think are  
23 construction on the bottom of the pipe versus something  
24 that's on the top of the pipe from third party damage.  
25 That makes a significant difference.

1           This one is where you're trying to use  
2 caliper technology in a lot of different places to try  
3 to find delayed third party damage, which we think is  
4 very inefficient, doing something like that.

5           And then, for our pipelines, this is the cost  
6 on if DA was considered equivalent. We do not use DA  
7 as much as some of the AGA companies would be using it.

8           Okay.

9           MS. GERARD: Theoretically, aren't these all  
10 individual options which you would think that as a menu  
11 we could choose more than one of?

12           MR. BOSS: The bottom one here is everything  
13 rolled up together. Except for this red one. This is  
14 the one if you went from 20 houses to 10 houses it  
15 increases it by.

16           MS. GERARD: Buildings.

17           MR. BOSS: Yeah, buildings. Excuse me.

18           MS. GERARD: But you can't in fact make this  
19 a menu of options, because if you added them all up it  
20 would cost less than nothing, right?

21           MR. BOSS: No, no, no. This is the -- okay.  
22 If you consider -- if you consider this to be zero, if  
23 we took everything in the rule as it is now, it would  
24 be about 6.6 billion more. If we took away the -- if  
25 we just gave -- if you guys just gave us the HCA

1 alternative, it would be 3.98. But if -- if you took  
2 all these --

3 MS. GERARD: 3.98 more than our original  
4 proposal?

5 MR. BOSS: More than what we thought the  
6 original proposal is. If you took B31-8, add the seven  
7 years in that they've mandated, okay, and then what we  
8 thought was a reasonable HCA definition at the time.

9 So, the rule has grown from what we thought  
10 was going to happen when we said, hey, it's going to be  
11 okay.

12 Okay. Let me -- let me move on here a little  
13 bit.

14 (Slide)

15 MR. BOSS: Okay. So, this is based on the  
16 option or the problems to consumers. And we had kicked  
17 out a couple -- kicked out a report on consumer  
18 effects. And what I tried to do is extrapolate that  
19 report to see what the consumer effects were. And this  
20 is from the lack of capacity because we're trying to do  
21 all this testing all at the same time in an extreme  
22 expedited schedule. And then I tried to -- to make an  
23 assessment of what was going to happen on the capacity.

24 So, these are the additional costs of what we  
25 thought was going to happen because of these different

1 options as you're moving through there. And again, you  
2 can see there's a significant impact if you do go with  
3 10 buildings on that. But again, the idea is, if you  
4 could take the rule and accept these technically based  
5 arguments that we're putting in for all these other  
6 arguments on this that we think are -- are allowed  
7 under the law, we can get significant savings to both  
8 the consumers and then to our own costs that we're  
9 going to pass on to the consumers to get it down to a  
10 better level.

11 It's not going to be zero, like I said. It's  
12 still a significant amount of money, and it's going to  
13 be a big impact on consumers. But it's the same --  
14 same option list that we had before.

15 (Slide)

16 MR. BOSS: Okay. As far as the additional  
17 environmental impact of what we're talking about, doing  
18 the same options on that. What's happening is as you  
19 increase the amount of area that you have on there and  
20 the different kinds of inspections, basically the  
21 number of excavations goes up. And this tries to  
22 depict the difference in the number of excavations on  
23 there.

24 So, as the present rule in there as what we  
25 thought was going to happen, we're probably going to

1 have another 320,000 excavations over a 20-year period  
2 above and beyond what we thought it was.

3 MS. GERARD: Is this -- this environmental  
4 impact coming from you is new to me. Is this because  
5 of the mandate for the environmental planning mandate  
6 to be as environmentally beneficial as possible?

7 MR. BOSS: Yes. And we are going to get a  
8 lot of upset people. It's -- it's going to be an  
9 environmental impact. We're going to have to dig an  
10 awful lot of holes.

11 One thing I don't want to talk about too  
12 much, although we are trying to emphasize heavily with  
13 you, is having qualified excavators out there. This is  
14 an awful lot of holes and it's significant more holes  
15 than we've had in the past. And we want to be sure  
16 that we're doing those things right.

17 The other thing in this other column I want  
18 to point out is because they're having to go in there  
19 and modify the facilities, do verification holes, I'm  
20 trying to use as many clock springs as I can in here.  
21 But basically, we're -- we're blowing down a lot more  
22 gas to the atmosphere under these different options.

23 So again, this is a delta-type look. If you  
24 assume this is zero down here, these are the deltas by  
25 having this, so. You don't want to know how much gas

1 that's going to be. That's four times as much gas. We  
2 are going to be losing a lot of gas because we cannot  
3 -- what we have to do is we can only reduce the  
4 pressure of the pipeline down so far. And then we  
5 eventually just have to blow it to the atmosphere. Any  
6 time that we go in to replace a piece of pipe or put in  
7 another section or something like that.

8           So again, these are just deltas. We're  
9 trying to show on an overall basis as you -- as you're  
10 looking through some of these options that we'll be  
11 bringing up on how they do affect the overall cost  
12 impact of the rule. Like I said, we don't think  
13 technically there's any -- really any safety  
14 differences on here.

15           The only big difference I saw up here, and if  
16 you focus in on that and that was a good discussion we  
17 had today, yes, there is less mileage in this section  
18 right here as compares with what's in the proposed  
19 rule. But that's a more accurate indication of where  
20 the people are.

21           And by the way, we aren't inspecting that  
22 much mileage over here using the pigging technology  
23 versus that. So it isn't like we're -- we're, you  
24 know, getting less than your 11 percent or something  
25 like that. We're still up at a significant percentage

1 of the pipe that's actually being inspected.

2 PARTICIPANT: Would you go back to the last  
3 slide?

4 MR. BOSS: Okay. Which one?

5 PARTICIPANT: (Off mike).

6 MR. BOSS: The one with the digs?

7 PARTICIPANT: (Off mike).

8 MR. BOSS: That's the one where you're saying  
9 you've got 10 houses or 10, excuse me, buildings. So  
10 what we're saying is we're increasing the mileage that  
11 we have to examine under this program. The more  
12 mileage you have, the more holes you're going to be  
13 digging along this.

14 PARTICIPANT: (Off mike).

15 MR. BOSS: Some of them --

16 MS. GERARD: I mean, how do you know, having  
17 not counted, how much is there?

18 MR. BOSS: These are estimates based off of  
19 -- and the lines that we're looking at, roughly 40  
20 miles facing on the pig launchers. We've got harder to  
21 pig sections, so you've got more to be placed in those.  
22 You've got easier to pig. So you don't have as many  
23 bends to replace. You've got verification digs. Of  
24 course, the DA has a significant amount of digs as  
25 compared to -- to pigging. So this is all sensitive to

1 what kind of technology you've got there. And there is  
2 an estimate on the -- on the number of anomalies that  
3 you're going to be looking at for the different things.

4 MS. GERARD: So, you're assuming that in a --  
5 let's see -- in the 10-building count that you're going  
6 to be relying on DA a whole lot more, doing a whole lot  
7 more excavations?

8 MR. BOSS: You're going to be doing a lot  
9 more pigging. I mean, Andy's get -- you know, as you  
10 get to that place, you're going to be going close to --  
11 to 100 percent. I mean --

12 MS. GERARD: So, why is the excavations dug?  
13 Because you're digging for repairs?

14 MR. BOSS: You're digging for repairs, you're  
15 digging for pig verifications, you're digging for  
16 installing facilities. If you have to run a caliper  
17 pig through in addition to an MFL pig. You've got  
18 verification holes on that. If you're looking at dents  
19 at the bottom of the pipe, you've got a lot more to  
20 look at than just dents at the top of the pipe.

21 I do -- I did ratio these. As you went in  
22 and examined lines like -- our evidence is showing  
23 we've got significant reduction in -- in anomalies if  
24 you run the pig the second or third time. So, as you  
25 go through there, this -- this thing does reduce

1 throughout the years as you go through on multiple runs  
2 and stuff like that. And that's incorporated into it.

3 But it does get to be significant numbers.

4 MS. GERARD: How many years does this cover?

5 MR. BOSS: Twenty years. Just like the CBO  
6 estimates. But this is for just the, like I said, the  
7 annual pipelines, 167,000 miles.

8 (Slide)

9 MR. BOSS: Okay. And this is on the cost  
10 estimate that you've got now. I think Marvin did a  
11 real good job on doing some changes, but I just noted  
12 some other things that were still in there.

13 The consumer impacts right now, he still  
14 doesn't have an estimate in there. And the way these  
15 definitions are flying around, it is hard to estimate  
16 this sometimes because we keep moving around.

17 The amount of piping that you've got in  
18 there, I think you're assuming 25 percent of the piping  
19 is going to be overtested on that.

20 (Pause)

21 MR. BOSS: The benefits are overestimated, I  
22 think. We had about -- and by the way, on these costs,  
23 I took the time-dependent failures that we had on the  
24 system and included preventing all of those, the  
25 reportables, in the company cost. So not only did I

1 include what our costs were but our savings from not  
2 having the failures. So I included the numbers from  
3 the predicted number of failures that we've got plus --  
4 and that was based on the actual amount on the reports.

5 And then I took the non-reportable failures, which are  
6 less than \$50,000, and I put in \$25,000 for each one of  
7 those incidents and tracked those. I assumed all those  
8 incidents went to zero, although those are not  
9 necessarily corrosion leaks or something like that.  
10 They could be just a relief valve leaking or something  
11 like that.

12 But anyway, the benefits that we had in there  
13 were around 17 million. I think you guys still have 40  
14 million, although we're a smaller amount of the mileage  
15 but a significantly size part of the piping. So this  
16 may not be too far off on that sort of thing.

17 There was mention about the consequential  
18 impact of natural gas pipeline accidents. It alludes  
19 to there's a lot more cost involved because the  
20 pipeline system doesn't get up to operation right away.

21 And I think we need to make a distinction between that  
22 and policy decisions on how long you're going to keep  
23 the system out of service until you're happy with the  
24 safety record. That's more of a policy decision than  
25 it is a physical decision on getting the pipeline back

1 into shape.

2           And then there was an allusion that the  
3 consequential impact of these accidents are -- are  
4 likely to increase, but we don't really have any data  
5 to support that right now.

6           So, I think the -- the cost benefit thing is  
7 definitely getting better on what you've done.

8           (Slide)

9           MR. BOSS: So, in the end, we support the  
10 concept of the pipeline integrity rule. Like I said,  
11 we're just trying to do deltas here to try to lower the  
12 costs, lower the environmental impact, while still  
13 obtaining the same safety benefits on that and using  
14 these things. And there are some minor revisions that  
15 need to be done on the cost benefit to take into that  
16 and definitely look at the recommendations on there.

17           But the details on each one of these options,  
18 the technical viability and all those things, are some  
19 of the presentations we've done previously at the  
20 public presentations. And we've got some today, if  
21 we've got enough time to go over those things.

22           MS. GERARD: Could you provide a hard copy of  
23 all those materials to the Committee members as soon as  
24 possible?

25           MR. BOSS: Yes.

1 MME CHAIRMAN KELLY: Mr. Feigel?

2 MR. FEIGEL: Don't take this the wrong way.  
3 I'm going to make the same comment directed towards the  
4 cost benefit study you've done and the one that OPS has  
5 done over several generations.

6 I'm -- I'm not as concerned about the  
7 categories and the mean average dollars that you've  
8 assigned to them or whatever. They are what they are.

9 There is so much uncertainty about this, I  
10 think the only way that anyone -- the regulator or the  
11 industry or Congress if they have any interest at some  
12 point -- can make any informed decisions on this is --  
13 is to model this with simulations that give us -- so we  
14 can look at the sensitivities, look at the  
15 uncertainties around this. Because what -- if we don't  
16 do that, what you're going to wind up doing is, you  
17 know, you've got a mean number, OPS has got a mean  
18 number, and then we kind of sit there and say, your  
19 number is this, my number is that, and then try to  
20 negotiate back down how those numbers were derived.

21 I mean, I think everyone -- and no doubt some  
22 place or you would admit to it -- clearly, the OPS  
23 study in many places -- look, there are tremendous  
24 uncertainties about this but we don't take them into  
25 account. Not -- not in any rigorous analytical way.

1           And this isn't just academic. I mean, if  
2 we're going to do professional cost benefit analysis, I  
3 think we've got to ramp this up a generation.

4           MR. BOSS: I agree with you on that. I mean,  
5 we're trying to provide the best data that we've got  
6 right now. But like I said, when some of these things  
7 are changing and we do have minor information to try to  
8 --

9           MR. FEIGEL: No, Terry, you're making my  
10 point. I'm not taking issue with your data. I'm  
11 taking issue with the way you've modeled it. You're  
12 doing the best -- your data is whatever it is at some  
13 point in time. All I'm saying is, give -- given that  
14 there are uncertainties, legitimate uncertainties,  
15 about that, I don't think anyone in their right mind  
16 would expect you to say, this is the number for this  
17 category.

18           Given that, what I'm suggesting is the model  
19 that we do to integrate all this stuff, take --  
20 directly take those uncertainties into account in terms  
21 of the inputs. And then we can do sensitivity analysis  
22 and -- and uncertainty around that on the output and --  
23 and we've got -- got a much better picture of what  
24 reality is.

25           It's not your data I'm taking issue with. It

1 is what it is, and that's the best you can do on any  
2 given day. I freely admit that. Therein lies the  
3 modeling problem.

4 MR. DRAKE: I have to concur with Jean. You  
5 know, I watched the modeling be put together, and it  
6 makes your head hurt. It's very complex, very -- you  
7 know. It's very, very, very intricate.

8 But to me, I think back away again and look  
9 at this. I think -- and that's sort of the delta  
10 approach. You're trying to say, first of all -- and I  
11 think we would all agree that this is the most  
12 significant, most expensive rulemaking that's ever been  
13 passed on the natural gas pipeline industry since the  
14 regulations were put in place, period. It is a hugely  
15 expensive event.

16 Industry is already on record with Mineta  
17 that we will support this event, and we stand on that.  
18 We -- we are committed to do this and have committed  
19 for the last four years to try to develop technical  
20 documents to help frame it and shore it up and provide  
21 that it's done consistently and based on some  
22 technology.

23 But as good as it gets, it is hugely  
24 expensive and very -- and the cost benefit is very  
25 tenuous. But as you start adding additional

1 requirements and expanding the scope, the costs -- and  
2 that's, I think, my take-away on this. It's like  
3 weather vanes. When you do this, it goes up a lot. If  
4 you do this, it comes down a little bit. If you do  
5 this, it goes down a lot. You know, and I think you  
6 need that -- some sort of sensitivity analysis to try  
7 to gauge how things are reacting to the deltas that  
8 were -- that are changes off the original premises that  
9 were used when industry said, we support doing this  
10 effort.

11 Well, we had in our mind some assumptions of  
12 what that effort meant. They did not include circles  
13 with 10 houses in it. I -- I can guarantee you that.  
14 We just heard 10 houses for the first time.

15 MS. GERARD: Buildings.

16 (Laughter)

17 MR. DRAKE: Buildings. How about structures  
18 intended --

19 MS. GERARD: Factor of two.

20 MR. DRAKE: Structures intended for human  
21 occupancy. I'll do you one better. Use the  
22 regulations. It's funny. You know, there actually is  
23 a definition in there.

24 But I think it's important to know what the  
25 original premises were of what reasonable was. And

1 this is all about -- in my interpretation, this has a  
2 lot to do with reasonableness and diligence. And the  
3 more we vary from some sort of technical base or  
4 clarity, we can -- we can double this or quadruple that  
5 or add safety factors. It just makes it bigger and  
6 bigger and bigger and bigger. And the cost benefit  
7 gets harder and harder and harder and harder.

8           And that's really the weather vane, I think,  
9 of what that tries to show, is as you do some of these  
10 things, the costs explode. Those are just the costs to  
11 us. Everybody here is familiar with what happened in  
12 California. Everybody here is familiar with what  
13 happened in New York this winter. There was no  
14 integrity rule in front of providing storage to New  
15 England that yielded \$10 in MCS spot gas. There  
16 wasn't. Imagine taking 20 percent of the system out of  
17 service during the year prior to that winter. That's  
18 what those numbers are trying to show you.

19           MME CHAIRMAN KELLY: Any other comments?

20           (No response)

21           MME CHAIRMAN KELLY: Any comments on this --  
22 any comments on this presentation from the public?  
23 Yes?

24           MS. EPSTEIN: This is Lois Epstein. I have a  
25 question for Terry. And I have a similar question for

1 Marvin, so maybe he can discuss it when he does his  
2 presentation.

3           In terms of your benefit calculations, did  
4 you include anything about -- related to the high price  
5 in California that was just mentioned and, you know,  
6 what happens when you have a rupture? Some part of the  
7 downstream system is not going to have natural gas and  
8 the prices will go up. And given that there are some  
9 numbers related to El Paso -- and it's hard -- you have  
10 to figure out how much came from what cause. But you  
11 know, that's one big -- very big number in terms of the  
12 benefits. And I just want to know whether that was  
13 included in your analysis of benefits.

14           MR. BOSS: That's Item Number 4 on the  
15 consequential impact. The amount of time that it takes  
16 the pipeline system to get back up into operation and  
17 running versus the policy decision of 80 percent  
18 reduction in pressure and how long that gets set down  
19 on those levels are policy decisions that are being  
20 made.

21           And those -- I'm trying to differentiate  
22 those. That we could go through an integrity program  
23 here and somebody -- there could be a failure and  
24 somebody could make a policy decision on that. And it  
25 doesn't -- that -- that's more of a policy decision on

1 if the system gets back up in operation.

2 MS. EPSTEIN: Just to be clear, I'm not only  
3 talking about your costs. I'm talking about the costs  
4 to consumers downstream if there is a decrease in  
5 supply and when you do get spikes.

6 MR. BOSS: Yes.

7 MS. EPSTEIN: You were including that sort of  
8 number in your analysis?

9 MR. BOSS: Well, the way the system is  
10 designed, it's designed to take up transient problems.  
11 So, when transient problems go on for a long period of  
12 time. In the California instance, I think BGNA, a lot  
13 of the companies, utilized their storage to make up the  
14 difference. But the time went on and on and on, and  
15 then there was other circumstances involved. And the  
16 system was not brought up even though it was physically  
17 able to be brought up, okay?

18 So, we can take transient conditions for a  
19 while and make minor impacts on the system, okay. So  
20 it's a question of how long the system stays down. And  
21 like I said, that's more of a policy decision. And in  
22 California's case, it was done for a significant amount  
23 of time.

24 MS. EPSTEIN: So, it's a real cost, though?

25 MR. BOSS: It's a real cost, but it is a cost

1 that isn't necessarily part of the pipeline system that  
2 is doing that. If somebody says, I want that thing  
3 turned on tomorrow, it could be turned on tomorrow. If  
4 I don't want it turned on tomorrow, it won't be turned  
5 on tomorrow.

6 MS. EPSTEIN: Okay. So, I guess my main  
7 point is, that could be a big number right there, and  
8 it depends on how you add it in or don't add it in.

9 MR. BOSS: Right.

10 MS. EPSTEIN: Yeah.

11 MR. BOSS: It could be a very big number.  
12 And just as -- you know, when we have the reductions on  
13 here, what we're not including in our estimates is --  
14 we're just including the cost -- the additional cost of  
15 the gas to the consumer. We're not saying what the  
16 impact is on his product if he doesn't have the product  
17 bill. So we haven't added in those costs on the other  
18 side.

19 MS. EPSTEIN: Which could also be a really  
20 big number.

21 MR. BOSS: Could be a really big number.

22 MS. EPSTEIN: Right.

23 MS. GERARD: As part of the panel, was Mr.  
24 Kuprewicz making a presentation as well on this subject  
25 matter? No? All right. Fine.

1 MME CHAIRMAN KELLY: Were there any other  
2 questions or comments on this presentation?

3 (No response)

4 MME CHAIRMAN KELLY: Thank you very -- yes?

5 MR. MOSINSKIS: I'm George Mosinskis with the  
6 American Gas Association. And I just wanted to point  
7 out that in addition to the numbers that Terry had  
8 developed in connection with his INGAA member  
9 companies, we have our numbers that we're developing  
10 and they add up to quite a bit. We have about 31,000  
11 miles estimated to be tested in connection with this  
12 rule.

13 MS. GERARD: How much?

14 MR. MOSINSKIS: Thirty-one thousand miles.  
15 Out of the 55,000 miles, we estimate about 21,000 miles  
16 in HCAs. So you can see that the number is  
17 proportionately bigger because our member companies are  
18 typically more in urban and high density, populated  
19 areas. Thank you.

20 MS. GERARD: George, you are going to be  
21 submitting that on the docket?

22 MR. MOSINSKIS: (Off mike).

23 MME CHAIRMAN KELLY: We're going to -- we  
24 will come back to discussion on the cost benefit  
25 analysis and complete the pipeline integrity management

1 discussion after the item that needs to come up now,  
2 which is an item that requires our action. And that is  
3 the NPRM further regulatory review gas pipeline safety.  
4 Buck Furrow, if you would come up, please, and briefly  
5 take us through the key elements of this particular  
6 change?

7 (Pause)

8 MS. GERARD: While he gets set up, I thought  
9 I'd like to introduce -- we have a couple of  
10 representatives here from the NTSB. If you guys could  
11 stand and introduce yourselves just so people can see  
12 that you're here? Cliff and -- Cliff and Rick? Are  
13 you --

14 (Introductions)

15 MS. GERARD: And I think there are some  
16 OPS'ers in the room who were not introduced yesterday.  
17 Zack Barrett? I see --

18 (Pause)

19 Briefing: NPRM - Further Regulatory Review:

20 Gas Pipeline Safety

21 MR. FURROW: -- comments closed, I believe,  
22 about 60 days later in January. And this NPRM deals  
23 with the recommendations that the National Association  
24 of Pipeline Safety representatives made to us as long  
25 ago as 1992. The recommendations were published in the

1 "Federal Register" as part of a separate rulemaking.  
2 We got comments on those. And basically, the effort  
3 kind of languished for a number of years until we asked  
4 for comments again in, I think, 1999 as part of a  
5 general effort to review our corrosion control  
6 requirements.

7 (Slide)

8 MR. FURROW: Yeah. This slide indicates what  
9 the purpose of the NAPSR review was. It was basically  
10 to see what was wrong with the existing regulations,  
11 where there were some problems we could correct such as  
12 were they unclear, were they hard to enforce, did they  
13 need to be changed in some way to make them more  
14 effective.

15 (Slide)

16 MR. FURROW: After that publication I  
17 mentioned back in 1992, we got a lot of adverse  
18 comment, particularly from the -- the industry. The  
19 comments from the states who participated in the NAPSR  
20 review were all favorable, as you might expect, but the  
21 industry comments were not. And that could have led to  
22 the project sort of withering for a while.

23 But in -- in 1999 -- or I'm sorry. I may  
24 have my times wrong on that. But at some point along  
25 the way, anyway, the NAPSR people and the industry

1 people got together and they formed what's called there  
2 a SIRRC, which was a State Industry Regulatory Review  
3 Committee. I think it was members of AGA and members  
4 of NAPSRS who got together.

5 And they took a look again at NAPSRS's  
6 recommendations for changing Part 192. And they  
7 decided on ones they could agree on. Not all of them  
8 did they agree on, but a number of them they agreed on.  
9 Some of them they agreed after making some changes in  
10 them.

11 And what this effort did was, as I indicated  
12 there, at least it moved the project off dead center  
13 and caused us to start looking at it again.

14 (Slide)

15 MR. FURROW: What we did by that time that we  
16 began to look at it again -- this -- this is a summary  
17 of what had happened up until that point and including  
18 what we did with the most recent notice of proposed  
19 rulemaking. We had realized that we had adopted eight  
20 of the recommendations previously, and that was part of  
21 an earlier 1992 rulemaking. Some of them we proposed  
22 as recently as 2000 as a part of another rulemaking.

23 We -- in this latest effort, as you can see,  
24 we've decided to not adopt 10 of them. We are  
25 proposing 14 or we're proposing alternatives to some of

1 those 14. And three others we've partially declined or  
2 have proposed in part.

3 So, for a total of an additional 17  
4 recommendations, we are suggesting rule changes in this  
5 -- in this rulemaking proceeding.

6 (Slide)

7 MR. FURROW: This is just kind of a highlight  
8 page of the various faces that the NPRM touches. It  
9 goes all the way from definitions to edits. And I  
10 don't really want to go into all the edits, but you can  
11 just take a quick look at what's covered here, such  
12 things as tracer wire was an issue. Vehicular damage  
13 was another big issue. I'm speaking from the comment  
14 standpoint.

15 The rest of this presentation really goes  
16 into each of the items that are in the NPRM. And I  
17 thought since I've been hearing that we're running  
18 short on time I would limit my discussion to those  
19 items that I've highlighted in red at the top because  
20 those are the ones that drew the comments. Those that  
21 didn't draw any comments don't have a red highlight.

22 So, the -- the first change we proposed was  
23 changes in the definitions of "service line" and a  
24 relocation of the definition of "customer meter," which  
25 is now a part of the definition of "service line." And

1 to add a new definition of "service regulator."

2           The comments on that -- let me say that the  
3 reason for the new definition of "service line" was to  
4 pick up what the industry has been using in the form of  
5 a branch service, meaning that the service line coming  
6 from, say, a main would go to more than one house or  
7 more than one customer, could form a Y. Under our  
8 present definition of "service line," the leg of that Y  
9 would become an extension of the main and only the --  
10 the arms of the Y would be called a service line.

11           So, this was an effort to call the entire  
12 thing from that initial point of supply to the line up  
13 to the customer a service line.

14           And in addition to the branches, we also are  
15 picking up as part of the definition what we call there  
16 "residential and small -- small commercial customers"  
17 that would be supplied gas through a manifold or a  
18 meter header. If you can envision a single line going  
19 up to a manifold, several meters at that point. That  
20 could happen in an apartment building. It could also  
21 happen at a shopping center.

22           (Slide)

23           MR. FURROW: Now, comments. There were a lot  
24 of comments on this. "Customer meter." "Customer  
25 meter" -- or "master meter" operator after "consumer."

1           I've asked for these comments to make sense.  
2       Those of you who have copies of the proposed rules --  
3       since it's not here, what I've given you is a synopsis  
4       there under proposed. You'd have to take a look at the  
5       actual words of the -- of the proposal, which if you  
6       have the NPRM, it's on page 6 -- 25 under  
7       "definitions."

8           Another comment, use one term, "meter  
9       manifold" or "meter header or manifold."

10          Another comment, exclude interior piping from  
11       the definition of service line.

12          MS. GERARD: But do you -- do you consider  
13       these the most major issues?

14          MR. FURROW: On this particular rulemaking?

15          MS. GERARD: Yeah. I mean, I think in the  
16       interest of time we need to restrict your commentary --

17          MR. FURROW: I don't --

18          MS. GERARD: -- to the most --

19          MR. FURROW: -- I don't have any  
20       consideration of them at all.

21          MS. GERARD: I --

22          MR. FURROW: I'm just reading the comments.

23               (Laughter)

24          MS. GERARD: No, what I -- I think you need  
25       to do in the interest of time is to select from the

1 comments the ones that were truly controversial.

2 MME CHAIRMAN KELLY: Let me help you a little  
3 bit. We did receive -- all the Committee members did  
4 receive in advance the proposed rulemaking. So, to the  
5 extent that there are -- I think there are, what, 40-  
6 odd items here that were changed. To the extent that  
7 they were controversial items or those that you feel  
8 you should highlight for our attention, that would be  
9 very helpful to us.

10 MR. FURROW: Well, I thought I was doing that  
11 by focusing the discussion on those proposals that drew  
12 comments. I -- by my definition anyway, if they drew a  
13 comment it must be controversial.

14 MME CHAIRMAN KELLY: You may proceed.

15 MR. FURROW: If you don't want -- maybe --  
16 maybe what you'd rather do is just ask the Committee to  
17 discuss the ones that they would like to discuss. I'd  
18 be happy to participate in that.

19 MME CHAIRMAN KELLY: All right.

20 MR. FURROW: In other words, if -- if  
21 everybody here is pleased with the proposed  
22 definitions, we could go on to something you're not  
23 pleased with.

24 MME CHAIRMAN KELLY: Are there any comments  
25 or questions on the proposal?

1           MR. WUNDERLIN: Yes. Jim Wunderlin from  
2 Southwest Gas. First of all, I wanted to compliment  
3 the SIRRC committee that worked very hard for a long  
4 time to come to a resolution on a number of tough  
5 issues. Compliment the SIRRC 1, the SIRRC 2, and I  
6 hear there may be a SIRRC 3. I think the process works  
7 very well and there -- we -- we do get to a lot of  
8 important items identified as clearing up the cove.

9           I just have one comment on one section of  
10 this proposed change. And that's under "customer  
11 meters and regulators." It's 192.353. I think it's  
12 one of the -- the items that Buck may have mentioned.  
13 It deals with vehicles and meters.

14           And I believe that there was not a consensus  
15 between industry and the regulators on this one item.  
16 And I can read it very simply. It's a short paragraph.

17           The way it reads is, "Each meter and service  
18 regulator, whether inside or outside of a building,"  
19 and that's important, inside or outside, "must be  
20 installed in a readily accessible location and be  
21 protected from corrosion, vehicular, and other damage."

22           So, the way it's written, it would almost  
23 imply that inside meters need to be protected from  
24 vehicles. Well, we know that sometimes vehicles do get  
25 inside buildings, but that's not, I don't think, what

1 the intent is.

2 I think the intent of the regulators -- that  
3 they wanted to emphasize that vehicle damage to meters  
4 was important. I understand that. But the way it's  
5 written we have some trouble with.

6 I think the other part of it is, there are  
7 quite a few incidents where vehicles do damage meters.

8 And to put the industry in a position where they are  
9 going to be responsible from a penalty point of view  
10 every time a vehicle strikes a meter puts us in a  
11 difficult situation where that is spelled out or we  
12 could be penalized.

13 We believe that that is covered -- vehicles  
14 are now covered under "other damage." So, if just the  
15 word "vehicle" or "vehicular" was taken out, we would  
16 be comfortable with that. That's my comment.

17 MS. GERARD: -- particular section that you  
18 would like to share with the Committee?

19 MR. FURROW: The only other -- that was one  
20 of the major comments that industry would be faced  
21 with, was some -- having to provide protection in some  
22 remote eventuality such as meters located inside  
23 buildings or the like or very far away from a road  
24 where a car could possibly strike.

25 But besides that, the other major comment was

1 that emphasizing vehicular damage the way the proposed  
2 rule does would lead to increased disagreements with  
3 enforcement personnel over the level of protection and  
4 should protection be provided.

5           The reason it's in there is that the NAPS  
6 inspectors come across, I guess, a large number of  
7 situations where meters were either threatened or had  
8 been damaged. And to just leave the rule the way it is  
9 where you have to read vehicular damage between the  
10 lines they thought was not satisfactory, and we agreed  
11 with them.

12           But at the same time, we also indicated in  
13 the NPRM we're only looking for reasonable protection  
14 for reasonable circumstances.

15           So, if you could suggest some way that the  
16 rule might be modified as opposed to just taking the  
17 term out, which would put us back to square one so to  
18 speak, that would be helpful.

19           MS. GERARD: Could it be restructured "each  
20 meter and service regulator, if inside a building, must  
21 be installed in a readily accessible location and  
22 protected from corrosion and other damage, and if  
23 outside a building, protected from vehicular damage"?  
24 Something along those lines to segregate out just those  
25 meters which are located outside or at risk from

1 vehicular intrusions? Something like that?

2 MR. WUNDERLIN: That would help clear up the  
3 language as it exists from the inside meters. I agree.

4 There is still the concern that if we have a  
5 very ambitious local regulator agency that wants us to  
6 go and look at one and a half million meters in our  
7 system and -- and hold us to protecting all those  
8 meters from the potential of a vehicle hitting those  
9 and if one does, we would be penalized. That is --  
10 that is a concern. That could be a very expensive  
11 process for us to -- to go through that.

12 And I know we do have those accidents. I  
13 don't see that, you know, they happen that often.

14 MS. GERARD: So, your concern is not whether  
15 it's inside the building or outside of the building,  
16 you simply would like to have any reference to  
17 potential -- potential vehicular damage taken out?

18 MR. WUNDERLIN: I would think that the  
19 emphasis on it is our concern, is that some regulator  
20 would take that emphasis to mean something else. If it  
21 was reasonably applied, I don't have a problem with  
22 that. But it could be applied differently, depending  
23 on who is looking at the rule. It could conceivably  
24 mean every driveway we would have to have protection by  
25 every meter. And it doesn't define how close and --

1 and, you know, if it's 30 feet away or 10 feet away or  
2 around the corner. Somebody could back into it coming  
3 out of a garage or -- or do we design for, you know, a  
4 little bump in a backup situation or a car coming off  
5 the street at 20 miles an hour.

6           There's a lot of variables that go into, you  
7 know, concerns about those. Most of the accidents that  
8 happen that I -- is the car out of control, you know,  
9 by somebody that's intoxicated or some other way or  
10 unconscious or something that causes a catastrophic  
11 type failure to these things. And that -- we can't,  
12 you know, reasonably design for that situation.

13           MME CHAIRMAN KELLY: Are there any other  
14 comments?

15           MR. ERICKSON: John Erickson, pipeline safety  
16 consultant. In some cases that I've been involved with  
17 as an expert witness, this whole issue has come up. We  
18 did some research on the general industry policies as  
19 far as when they put protection in front of meters and  
20 when they don't. The typical is, if it's in like an  
21 alley where you've got vehicles moving in a very tight  
22 area, garbage trucks, parking garages where somebody  
23 pulling in could back -- bump into it. If it's in a --  
24 next to a house in a driveway, it's pretty common to do  
25 that.

1           But I do share the -- the concern that -- one  
2 of the other cases was, as you say, a drunk driver  
3 going 40, 50 miles an hour that went off the road and  
4 sheared a meter off.

5           So, I do think you need to put something in  
6 this that -- that vehicular -- the way it reads right  
7 now, it implies that all 61 million gas meters need to  
8 have posts in front of them.

9           You know, two things to clarify. One, that  
10 it's really only locations where there's an obvious  
11 risk of vehicles hitting the meter. And it's really  
12 only intended to stop something from inadvertently  
13 bumping into it. You really can't -- you could design  
14 something that would stop a 100-mile-an-hour semi, but  
15 you really probably don't want to write that in the  
16 rules or imply that that's what's intended.

17           MS. GERARD: Jim, could you recommend some  
18 language, that you could accept the rule with the  
19 modification that this section be reworded to limit the  
20 emphasis to those traffic areas where there's a high  
21 likelihood of vehicular traffic at high speeds or  
22 something like that?

23           MR. WUNDERLIN: Yes. I would like to do  
24 that.

25           MME CHAIRMAN KELLY: All right. Do you have

1 a suggestion at this point?

2 MR. WUNDERLIN: No, I don't.

3 MME CHAIRMAN KELLY: All right. We'll come  
4 back to you, then.

5 MR. WUNDERLIN: It's either that, or the  
6 other alternative would be to send it back to the next  
7 SIRRC. But if we can come up with some language --

8 MS. GERARD: We would much prefer to have you  
9 make a recommendation that could be included with the  
10 vote.

11 MME CHAIRMAN KELLY: All right. While you're  
12 considering that, let's talk about any other elements  
13 of concern. Are there any other items on the -- in  
14 this proposed reg that present any concerns? No?

15 (No response)

16 MME CHAIRMAN KELLY: Is there anything else  
17 in particular that you wanted to highlight, Mr. Furrow?

18 MR. FURROW: The answer is no.

19 MME CHAIRMAN KELLY: Thank you.

20 Do you want to -- who's talking about the  
21 cost benefit analysis? All right. Why don't we move  
22 on to that, then?

23 Thank you, Mr. Furrow.

24 Briefing: Cost Benefit Analysis -  
25 Gas Safety Standards

1           MR. FELL: Marvin Fell, economist with  
2 Pipeline Safety.

3           I have included the cost benefit in  
4 everybody's package. Like Mr. Furrow, I could go over  
5 all 19 items if you'd like. It won't take that long.  
6 Or I could ask if you have any questions. Whatever  
7 you'd like.

8           What I summarize is that most of these are  
9 clarifications or deletions, unnecessary words --  
10 wording that's obsolete or recognizing already industry  
11 practice. So there should be nothing in here that  
12 would cost the industry more than a minimal amount.  
13 And the benefits of the rule should be also relatively  
14 small. But still, it should be an improvement as it  
15 clarifies and institutes practices that are already  
16 well accepted by the industry.

17           MS. GERARD: You said it was an insignificant  
18 amount of both costs and benefits except for  
19 clarification purposes?

20           MR. FELL: That's correct.

21           MME CHAIRMAN KELLY: Thank you. Any comments  
22 or questions on the cost benefit analysis associated  
23 with this proposed rule? Do we have any proposed  
24 language?

25           MR. FELL: It will be coming shortly, if we

1 can just hold off. They're working on some form right  
2 now.

3 MME CHAIRMAN KELLY: Yes, Mr. Thomas?

4 MR. THOMAS: Yeah, if I might go back to  
5 Buck's.

6 I can't find it now, but as I read through it  
7 there was a provision for welding inspectors. You  
8 added something about the training and qualification of  
9 a visual welding inspector. Remember that provision?

10 MR. FURROW: I remember that on the --

11 MR. THOMAS: I know it's in here. I just  
12 read it. I can't find it now.

13 My question would be, I did not see any --  
14 any procedure or requirement for documentation of that.

15 It's simply a requirement that the welding inspector  
16 be qualified. I just want to make sure that's all --  
17 all you have said at this point, is that -- if that's  
18 all that's said, then that would leave it up to the  
19 operator to have whatever procedure is needed to  
20 qualify. Is that correct?

21 MR. COMSTOCK: Eric, that's 688 -- 68817 in  
22 the "Federal Register." It's Number 9.

23 MR. THOMAS: In other words, I'm thinking  
24 about enforcement here as you come out and look at the  
25 jobs.

1           MR. FURROW: We didn't propose anything on  
2 Item 9.

3           MR. THOMAS: Oh, you didn't? Okay.

4           MR. FURROW: Item 9 was the response. That's  
5 one that's already being proposed through a separate  
6 rulemaking.

7           MR. THOMAS: Okay. My issue is certainly not  
8 that they be qualified. We agree with that. The  
9 question is whether we would use our own qualification  
10 methods and as to how we would be inspected as opposed  
11 to any that you would impose.

12           MR. FURROW: I really can't contribute  
13 anything to that because I didn't participate in that  
14 other rulemaking. I just noted that it's being covered  
15 in the update -- periodic update rulemaking that we  
16 published in, I think, March of 2000.

17           MR. THOMAS: Right. But again, if we were  
18 inspected, I would hope that --

19           MR. FURROW: The Committee met on that and  
20 discussed it --

21           MR. THOMAS: -- challenged we could  
22 demonstrate through whatever methods we have that that  
23 is a qualified inspector.

24           MME CHAIRMAN KELLY: As we're working -- I'm  
25 sorry. Did you have a response? All right. Go ahead.

1           MS. GERARD: Just while we're waiting for the  
2 -- for the drafting, it -- it occurred to me as I was  
3 thinking about Mark Hereth's presentation earlier, on  
4 his slide he had the word "onshore" and said something  
5 about the gas integrity management rule applying to  
6 onshore only. And I -- I just -- as I was thinking  
7 about that, I began to think about all the platform  
8 work and particularly the extensive amount of work that  
9 the FERC has told us is likely to be certificated for a  
10 large number of LNG facilities in deep water port  
11 coming up.

12           And I just -- thought that there's certainly  
13 the potential that there may be enough personnel who  
14 are working unsheltered on a platform if not now, in  
15 the future, that the HCA definition for this could  
16 conceivably apply to people working on the platform.  
17 And I didn't think that we should leave for the record  
18 closing out that there might be offshore potential HCAs  
19 at some point in the future here.

20           Does anybody disagree with that or think that  
21 that's --

22           (Pause)

23           MR. THOMAS: I'll try to respond quickly.

24           MR. ISRANI: Mike Israni.

25           MR. THOMAS: Platforms are Class 3 areas --

1 are designed under Class 3 anyway. So you already have  
2 a high design criteria. And pigging is extremely  
3 difficult, sometimes impossible offshore.

4 So, I'd say in the generalities, thinking  
5 about the big picture of HCA, I -- I -- initially, I'd  
6 recommend not to consider that offshore as HCA areas.

7 In addition, platform operators have -- have  
8 high safety standards for what they're doing there.  
9 This is kind of shooting from the hip here, but --

10 MS. GERARD: I guess I'm just saying that  
11 based on the discussion we just heard about a priority  
12 for protecting the unsheltered and looking at the --  
13 the -- the criteria that Mike has for the number of  
14 days that there could be people congregating at a place  
15 that you could see that you might have that number of  
16 people 50 days a year. I'm just raising the  
17 possibility that it might meet the definition.

18 MR. THOMAS: I think, no question, some  
19 platforms would. Absolutely. But I'm suggesting you  
20 already have measures in place.

21 MR. DRAKE: I think the frequency of that  
22 would be extraordinarily low. And to the degree that  
23 you had one of those, we can engage in that discussion.  
24 I don't think anybody's looking for any special  
25 dispensations here, but I don't think we need to get

1 wrapped around the axle on the one or two of those that  
2 might exist.

3 MS. GERARD: Yeah. I just -- I just was  
4 thinking about the possibility of the future, the  
5 amount of construction that we're hearing may occur in  
6 the near future with the applications, the FERC scene,  
7 and that I just didn't want the record to reflect that  
8 this could never apply.

9 MR. DRAKE: I agree. And just for the  
10 record, I think that there is already a record back  
11 when George Tenley was the administrator that offshore  
12 facilities are -- are not piggable. Fundamentally,  
13 they are not piggable and we just need to engage in  
14 that. I just offer that right away before we get all  
15 wrapped around the axle about this is no big deal. The  
16 one or two, it's just one or two. But the solution  
17 there will be very unique.

18 MME CHAIRMAN KELLY: Mr. Israni, yes?

19 MR. ISRANI: Mike Israni. I just wanted to  
20 clarify something, that under the proposed rule we --  
21 when we issued the HCA final rule, we had Class 3 and 4  
22 location. And offshore platforms fall in Class 1  
23 location. I'm echoing what Eric said.

24 And whether -- whether the platforms where 20  
25 or more people gather, whether we can consider it as

1 places where people congregate or where there's a  
2 working office because people are working there, that'd  
3 be quite debatable. So I don't know whether we're  
4 going to get into that, David, now.

5 MME CHAIRMAN KELLY: Thank you.

6 Mr. Wunderlin?

7 MR. WUNDERLIN: Yes. I think we have some  
8 language that satisfies the concern about the -- the  
9 inside problem with meter protection and is also --  
10 adds some language to protect from vehicles. So I'll  
11 -- I'll read this and then I'll submit this to the --  
12 for the record.

13 "Each meter and service regulator installed  
14 inside a building must be installed in a readily  
15 accessible location and be protected from corrosion and  
16 other damage. Meters installed outside of buildings  
17 must also be protected from vehicular damage where they  
18 are clearly vulnerable to minor impact." That's the  
19 end.

20 MME CHAIRMAN KELLY: So, for those outside  
21 the building, you have not included the required  
22 protection from corrosion and other damage?

23 (Laughter)

24 MR. WUNDERLIN: I think we can add that.

25 (Laughter)

1                   MR. MOSINSKIS:  If I can -- if I can  
2 supplement that, I think the word -- there is a word  
3 "also" in there that implies --

4                   MR. WUNDERLIN:  Okay.  That's true.  All  
5 right.

6                   "Meters installed outside of buildings must  
7 also," so that takes care of that concern and covers  
8 what happens to inside meters plus the vehicle impact.  
9 Thank you, George.  Does that satisfy?

10                  MME CHAIRMAN KELLY:  Counsel?

11                  MS. BETSOCK:  We always appreciate the  
12 attempts to draft in the Committee, but we recognize  
13 that it's not always the -- the best place to do the  
14 drafting.  But the language is very helpful because it  
15 does give us a guidance as to -- to, if the Committee  
16 adopts it, what we -- we should be looking at.  But we  
17 can fix the language as long as we get clear what your  
18 purpose is.

19                  MME CHAIRMAN KELLY:  All right.  Yes, Mr.  
20 Lemoff?

21                  MR. LEMOFF:  The language does sound good.  
22 However, there seems to be an omission.  And if I may,  
23 what if you have a meter in a garage, inside?  That is,  
24 in the area where vehicles can be parked.  Should that  
25 be added also?

1 MS. GERARD: Doesn't that get back to the  
2 problem you were trying to avoid? I -- I thought what  
3 you were trying to get at was occasions where there was  
4 a high likelihood of a problem based on unfamiliarity  
5 with the position of the meter and the vehicle.

6 MME CHAIRMAN KELLY: Yes, Mr. Leiss?

7 MR. LEISS: John Leiss. That seems to me  
8 that that could perhaps be solved, the issue that Mr.  
9 Lemoff mentioned, by saying something to the effect of  
10 going partly back to the original wording that Buck's  
11 got up here. Basically, saying inside or outside,  
12 protected from corrosion, and adding something to the  
13 vehicular part of that that dealt with the -- the minor  
14 impact, subject to potentially minor impact.

15 MME CHAIRMAN KELLY: All right. To proceed  
16 then, we need to -- and I'm assuming that there -- I'm  
17 sorry. Mr. Andrews, did you have a question?

18 MR. ANDREWS: Yeah. I was at -- I was on the  
19 SIRRC that voted on this thing originally. And the  
20 reason that it wasn't passed was because of 192.703,  
21 which says each segment of pipeline that becomes unsafe  
22 must be replaced, repaired, or removed from service.

23 And the thought was that this was already  
24 covered. If this thing was sitting out as a vehicular  
25 target, it had to be repaired or replaced.

1           So, really, I think we should just drop the  
2 "vehicular" word altogether and just not accept this  
3 thing -- not accept this section change.

4           MME CHAIRMAN KELLY: You are --

5           MR. ANDREWS: That's the only section --

6           MME CHAIRMAN KELLY: -- you are proposing --

7           MR. ANDREWS: -- that's the only section  
8 change -- that's the only change to this section as far  
9 as I know, is adding the word "vehicular." Is that  
10 correct?

11          MME CHAIRMAN KELLY: Buck, was that the only  
12 change?

13          MR. FURROW: Yes. And we don't consider that  
14 a significant change, or at least we didn't. Because  
15 of the fact that the rule has always been applied to  
16 vehicular damage.

17          MR. ANDREWS: And that was acknowledged --

18          MR. FURROW: In its present state.

19          MR. ANDREWS: Yes. And that was acknowledged  
20 by NAPSIR at the -- at the SIRRC meeting, that it had  
21 always been done that way and they were asking for it  
22 for emphasis. But --

23          MR. FURROW: The intent here was just for  
24 emphasis, to have more operators pay attention to the  
25 need to protect meters against possible vehicular

1 damage.

2 MR. ANDREWS: And I'd point out that there  
3 was not a consensus at the SIRRC on this. And I think  
4 you, honestly, defeat the purpose of SIRRC if you're  
5 going to take a non-consensus and submit it for change.

6 MME CHAIRMAN KELLY: All right.

7 MR. FURROW: Well, we didn't adhere to SIRRC  
8 in every case. We also weighed quite heavily the  
9 original NAPSIR recommendation.

10 MME CHAIRMAN KELLY: We have a recommendation  
11 -- we have Mr. Wunderlin's recommendation on the floor.  
12 I'll accept that as a motion for a change. Is there a  
13 second to that motion?

14 MR. DRAKE: Second.

15 MME CHAIRMAN KELLY: It has been seconded by  
16 Mr. Drake. Is there any further discussion? Yes?

17 MR. FEIGEL: Would you have the final motion  
18 reread, please?

19 MME CHAIRMAN KELLY: Mr. Wunderlin?

20 MR. WUNDERLIN: I'll read the language again.

21 "Each meter and service regulator installed  
22 inside a building must be installed in a readily  
23 accessible location and be protected from corrosion and  
24 other damage. Meters installed outside of buildings  
25 must also be protected from vehicular damage where they

1 are clearly vulnerable to minor impact."

2 MME CHAIRMAN KELLY: Is there any further  
3 discussion on that?

4 MR. WUNDERLIN: I would think that your  
5 concern about inside meters and garages could be  
6 covered from "other damage" because that does apply to  
7 inside.

8 MME CHAIRMAN KELLY: All in favor of that  
9 being the position of the Committee, please raise your  
10 hand?

11 (Show of hands)

12 MME CHAIRMAN KELLY: Opposed?

13 (Show of hands)

14 MME CHAIRMAN KELLY: One. Any abstentions?

15 (Show of hands)

16 MME CHAIRMAN KELLY: All right. That's been  
17 adopted as a position of the Committee on Section  
18 192.353.

19 Now we have the balance of the proposal  
20 before us. Is there a motion to accept that? And I'll  
21 read -- we have various options because our -- our task  
22 is to determine that the proposal is technically  
23 feasible, reasonable, cost effective, and practicable  
24 or not. So we can use that or there is another which  
25 has the same language in it if the following changes

1 are made. And those changes would be those that we  
2 have just agreed upon. And then, of course, the last  
3 provision is that it is not -- the rule does not meet  
4 those requirements.

5 I have passed this around. Everyone has it  
6 before you. Do I hear a motion? Yes, Mr. Lemoff?

7 MR. LEMOFF: Yeah, I'll move to accept the  
8 Item 2, that the proposed rule, et cetera, is  
9 technically feasible, et cetera, providing the change  
10 previously discussed is made -- previously approved was  
11 made.

12 MME CHAIRMAN KELLY: Is there a second?

13 MR. JOINER: Second.

14 MME CHAIRMAN KELLY: Any further discussion?

15 (No response)

16 MME CHAIRMAN KELLY: All in favor?

17 (Show of hands)

18 MME CHAIRMAN KELLY: Any opposed?

19 (Show of hands)

20 MME CHAIRMAN KELLY: Any abstentions?

21 (Show of hands)

22 MME CHAIRMAN KELLY: Thank you. The motion  
23 carries.

24 Committee Vote: Cost Benefit

25 MME CHAIRMAN KELLY: Now, we need to also

1 address the cost effective aspect of this, the  
2 regulatory evaluation. And the motion on that --  
3 first, is there any discussion? You've heard the  
4 presentation by Mr. Fell. Do I hear a motion?

5 And on that one, what we would need to do is  
6 determine that the regulatory evaluation reasonably  
7 supports the proposed rule as published in the "Federal  
8 Register."

9 Do I hear a motion?

10 MR. THOMAS: I'll make a motion.

11 MME CHAIRMAN KELLY: Is there a second?

12 PARTICIPANT: Second.

13 MME CHAIRMAN KELLY: Thank you. I'll read  
14 the motion again for the record.

15 "The draft regulatory evaluation reasonably  
16 supports the proposed rule as published in the 'Federal  
17 Register.'"

18 Is there any further discussion?

19 PARTICIPANT: Just to make sure, we're  
20 talking about the -- for the regulatory review now?

21 MME CHAIRMAN KELLY: That's correct.

22 PARTICIPANT: Okay.

23 MS. GERARD: You are not voting on the end  
24 cost benefit.

25 (Laughter)

1 MME CHAIRMAN KELLY: No, this is all based on  
2 the presentation by Mr. Fell and on the further  
3 regulatory review.

4 Any further discussion?

5 (No response)

6 MME CHAIRMAN KELLY: All in favor?

7 (Show of hands)

8 MME CHAIRMAN KELLY: Any opposed?

9 (Show of hands)

10 MME CHAIRMAN KELLY: Any abstentions?

11 (Show of hands)

12 MME CHAIRMAN KELLY: The motion carries.

13 Thank you very much. Thank you, Mr. Fell.

14 MS. GERARD: And if we could all repeat that  
15 procedure in two months, we'll all be very happy.

16 (Laughter)

17 MME CHAIRMAN KELLY: And thank you, Mr.

18 Furrow.

19 Now, we'll get back to our discussions on the  
20 integrity management. We have -- did the industry and  
21 public have a panel on the integrity management rule,  
22 the presentation that Mike Israni gave just before the  
23 last panel?

24 All right. I think we need to hear from you  
25 at this point.

1 MS. GERARD: So we're now dealing with the  
2 subject of the protection part of the rule?

3 MME CHAIRMAN KELLY: Correct.

4 MR. DRAKE: There seem to be -- document that  
5 you routed around to the table up here. Is that  
6 document intended for the docket?

7 MME CHAIRMAN KELLY: Is this already in the  
8 record?

9 MR. DRAKE: That is already in the docket.

10 MME CHAIRMAN KELLY: You may proceed.

11 Industry Panel and Committee Q & A  
12 on Cost Benefit

13 MR. DRAKE: Okay. I think we have a few  
14 presentations here. As was pointed out by Daron, I  
15 think, and others throughout this -- in this discussion  
16 of the integrity rule, it is -- it's a very -- it's a  
17 very comprehensive rule. It's intended to be very  
18 comprehensive. We've been working on the developing of  
19 a technical basis for this rule for many, many years  
20 now. Several years anyway.

21 And for the most part and to the degree that  
22 the rule references technical -- some sort of  
23 technology science standards, we think that the -- that  
24 the -- the document is a very, very good document. And  
25 our cost benefit was based on those premises.

1           But where the document or the requirement  
2 varies from those standards or our assumptions,  
3 fundamentally, we think that the cost benefit  
4 experiences growth significant beyond our original --  
5 our original considerations and diverts our attentions  
6 and breaks down the value of this rule very  
7 significantly and very quickly.

8           And we want to try to focus on those very few  
9 places. We talked a great length this morning about  
10 the HCA definition. Certainly, that is the most  
11 significant because it governs the very scope. And  
12 certainly, the costs, obviously, rise with that very  
13 quickly.

14           (Slide)

15           MR. DRAKE: Here we're going to try to cover  
16 a few of the technical issues and mechanical issues, if  
17 you will, inside the rule. The first issue is the  
18 baseline and reassessment interval. And certainly,  
19 this was an issue of great debate in the House in the  
20 congressional development of the law. And we provided  
21 -- in the last cost benefit review in July, we provided  
22 an EEA report on the cost benefit study of -- that the  
23 cost impact of this rule to consumers and the industry.

24           And we have met at length with the  
25 legislative folks in their development of the law and

1 reviewed that fundamentally. And we think that they  
2 fundamentally recognized an important concept of this  
3 rulemaking. And that is that in the baseline period  
4 the most significant facility modifications will occur,  
5 the most significant load will be placed on the in-line  
6 inspection and support industry as they ramp up from  
7 their current coverage capability to the coverage  
8 capabilities required by this law -- this rule. And we  
9 will experience the most significant repairs and  
10 remediations, which we acknowledge need to be done.  
11 Obviously, once you inspect and you find things, you  
12 are -- you are accountable to repair them.

13           But we find very -- several of us in the  
14 industry have -- have been very active in in-line  
15 inspection, and we are on our third generation  
16 inspections on many facilities. And what we find is  
17 that first-generation inspection findings typically are  
18 orders of magnitude higher than subsequent levels of  
19 inspection findings.

20           (Slide)

21           MR. DRAKE: So, we think that the load on  
22 outage is going to be very high in the baseline period  
23 for those three primary reasons. But that was  
24 fundamentally recognized in the fact that the baseline  
25 period is longer than the reassessment period. It's 10

1 years. It also is the same for liquids. Longer period  
2 than the reinspection period to allow for that ramp-up,  
3 to allow for facility modifications, to allow for the  
4 magnitude and recognize and appreciate the magnitude of  
5 work that will occur in that baseline period.

6 We think that fundamentally the language that  
7 is in the law -- and this is where it comes down. I  
8 think this is an interpretation issue and not a  
9 technical issue. The rule currently requires that the  
10 reassessments will begin segment-specific so that for  
11 facilities that are baseline inspected in the first  
12 year, this year for example, they will be reinspected  
13 seven years from today.

14 (Slide)

15 MR. DRAKE: That -- that basically creates  
16 what you see on the slide, is an overlap of the  
17 baseline inspection work with the reinspection work.  
18 If you distribute the baseline work evenly across 10  
19 years -- which will not happen because the law went  
20 into effect December 17th, 2002, and the 10-year period  
21 ends 10 years from that date, not 10 years from when  
22 this -- this rule comes out -- in effect, we will have  
23 nine years or maybe even less. Hopefully nine as we're  
24 all committed to try to get this out before the end of  
25 this year.

1           But you have nine years. So, you're going to  
2 divide, basically, rather than by 10, by nine.

3           You get 10 percent of your -- 10 percent of  
4 your HCA facilities must be inspected per year, or  
5 somewhat higher than that based on nine years. You  
6 evenly distribute that. If you load, then, the  
7 reinspection period in years eight, nine, and 10, you  
8 now have baseline inspections going on at 10 percent  
9 per year, added to that a reinspection of, you know,  
10 100 percent of your facility or 100 percent of your  
11 HCAs, divided by seven is 14 percent per year. Add  
12 those together.

13           Now you have to do a baseline inspection of  
14 10 percent per year plus 14 percent per year in  
15 reinspection. That could yield anywhere from 20 to 24  
16 percent of our facilities could be affected. Service  
17 could be affected in those facilities every year in  
18 years seven, eight, and -- or, eight, nine, and 10.

19           That creates -- when you put it on the graph  
20 -- and I know that this is a very -- you know, 50,000-  
21 foot look at this. When you look at actually how it  
22 loads out, the numbers spike a lot different because of  
23 the first year -- first five years, you have to do 50  
24 percent. And how it loads out is actually a little  
25 more turbulent than that, even. But this is a very

1 reasonable, you know, thumbnail of what would happen.

2 (Slide)

3 MR. DRAKE: When you look at that, first of  
4 all, the impact -- the infrastructure -- the service  
5 infrastructure is not geared to handle a spike from 10  
6 to 24 to 14. They -- they don't build facilities --  
7 they don't have a staff that they're going to staff up  
8 to handle that kind of a slug either in equipment or  
9 manpower.

10 Two, I think we have to understand that the  
11 impact on pricing in the -- of the commodity is non-  
12 linear. As capacity is -- as the system effect is  
13 doubled, price volatility is not doubled. It is non-  
14 linear. And we -- we know that when you watch the  
15 markets. The supply and demand curve is a non-linear  
16 curve on -- on gas pricing volatility.

17 In those areas, we're basically looking at  
18 something that's totally unprecedented. We have no  
19 idea what kind of price volatility we could experience  
20 with that kind of -- that kind of load outages in years  
21 eight, nine, and 10. And I think more than anything we  
22 want to go on record that if we cannot change this, we  
23 want it on record that that needs to be addressed with  
24 the DOE and others -- and FERC because it is a huge,  
25 huge issue and impact to consumers by the stroke of a

1 pen.

2 (Slide)

3 MR. DRAKE: We think that the interpretation  
4 by OPS is extraordinarily conservative. In our  
5 discussions with the legislature, the issue was about  
6 it comes down to the interpretation of a word. The  
7 word is "facility."

8 Our interpretations and discussions with them  
9 were that the facility was the pipeline system, that  
10 the baseline would be completed on the pipeline system,  
11 the facility as a unit. I think OPS interpretation is  
12 that facility means the segment, and therein lies the  
13 difference.

14 We know that this is not a technical issue.  
15 I think Mike's slide even clearly illustrated.  
16 Everything we've seen shows that technically the  
17 intervals are much longer than seven. The law says  
18 seven for reinspection, and we're not arguing that.  
19 We're arguing how it is applied, and that is whether it  
20 starts at the point on the specific -- specific segment  
21 or the facility itself, the whole pipe.

22 You lost a slide there, Keith.

23 (Slide)

24 MR. DRAKE: What we are proposing is that the  
25 intent -- and I think this was very clearly displayed

1 when -- with several members of the legislative team  
2 that wrote this rule. And Grant Hill was in Houston at  
3 the Workshop Number 2 -- the integrity management  
4 workshop number 2 here a month ago. This very question  
5 was posed to him. And the notes on the docket for --  
6 OPS's notes from that meeting reflect that it was not  
7 intended to be applied on a segment basis. It was  
8 intended to be applied on a system-wide basis to  
9 recognize that kind of system capacity interruption  
10 concerns, that the legislator was aware of it and they  
11 specifically tried to address it in their language.

12 We feel that OPS is taking a very  
13 extraordinarily conservative interpretation of this  
14 rule -- of this law.

15 MS. GERARD: OPS does not make legal calls.  
16 We -- it is not a call that we have made. That is  
17 advice that we have gotten from our counsel, which is  
18 outside of OPS. I want the record to reflect OPS has  
19 not made that call. We are very sympathetic to the  
20 arguments. If our counsel gives us advice that we have  
21 an option, we would exercise that option.

22 MR. DRAKE: Okay. And I think that our  
23 recommendation is that we pursue some sort of  
24 clarification from the legislature, if at all possible,  
25 to show that that was not their intent much more

1 definitively than the current law even reads. The  
2 current law uses the word "facility," not "segment."

3 (Slide)

4 MR. DRAKE: I think that we talk here about  
5 the impact of the overlap. We look at significant  
6 spikes in inspections which equals outages in years  
7 eight, nine, and 10; the issues about service industry  
8 and the infrastructure is not designed to deal with  
9 those kinds of spikes. This is an unprecedented system  
10 capacity outage for which we need a great deal of  
11 discussion and a great deal of planning because I do  
12 not think fundamentally the system was designed to  
13 consider that kind of outages.

14 The additional costs due to that single  
15 stroke of the pen is in excess of \$1 billion, and it  
16 has no definitive technical value by everybody around  
17 this table's conclusion.

18 (Slide)

19 MR. DRAKE: That is an extraordinarily  
20 conservative interpretation and not the congressional  
21 intent. And with that, I close this -- oh, there's the  
22 other slide.

23 (Slide)

24 MR. DRAKE: This is more in line with what  
25 we're proposing, is that the baseline is completed in

1 the year 2012 and the reinspection starts at the  
2 completion of the baseline inspection period, that 10-  
3 year period.

4           And importantly as anything, the use of  
5 previous inspection data needs to be encouraged here.  
6 I think it is DOT -- OPS's intent to try to do that but  
7 the language inside the rule is very clear about -- I  
8 mean, very unclear about how to do that, how far back  
9 you can go. And I think what we would recommend is  
10 that more clear language on the incorporation of  
11 previous inspection data, not that it should count as  
12 the inspection during the baseline period, but that it  
13 should be used to gauge when reinspections should occur  
14 during the baseline period.

15           I think that's very fundamentally important  
16 when you consider how the inspections stack together to  
17 get into issues about performance venue and the gauging  
18 of appropriate reinspection intervals and the use of  
19 CDA. Those things are all very relevant to lightening  
20 the impact during this baseline period.

21           And we need to use technology, particularly  
22 the Battelle report and the ASME work and the repair  
23 criteria that was used on those previous inspection  
24 efforts integrated together to determine technically  
25 what the appropriate reinspection period is during the

1 baseline period.

2           But I think we want to encourage that, is our  
3 point. I think the DOT is not opposed to it, it's just  
4 not clear how it will be executed. And we think that  
5 there should be more clarity to how to execute that so  
6 that we all have some kind of common ground on how to  
7 bring this data forward and use it constructively in  
8 this venue.

9           MS. GERARD: You ought to be preparing for  
10 the next meeting with some -- prior to the meeting,  
11 coming up with some language to circulate for how you  
12 would clarify that.

13           MR. DRAKE: Okay.

14           MME CHAIRMAN KELLY: Other comments from  
15 Committee members, questions?

16           (No response)

17           MME CHAIRMAN KELLY: From the public?

18           PARTICIPANT: Just to add to what Andy was  
19 talking about in terms of the overlap effect, with our  
20 company's placing every emphasis on direct assessment  
21 and the shorter schedule of direct assessment, the  
22 impact that Andy described of 24 percent over three  
23 years is going to be roughly 37 percent over two years  
24 for us. So, chances are that the distribution systems  
25 will also suffer outages because of this effect. And

1 the pressure reduction will be the cause.

2 MS. GERARD: Why is the number different for  
3 you?

4 PARTICIPANT: Because of the shorter time  
5 intervals for direct assessment than for smart pigging.

6 MME CHAIRMAN KELLY: Thank you.

7 Ms. Epstein?

8 MS. EPSTEIN: I'm a little confused. Isn't  
9 it true that assessments done prior to -- the five  
10 years prior to December 17, 2002, would be part of the  
11 baseline assessment?

12 MS. GERARD: Could be.

13 MS. EPSTEIN: They could be. So, if that in  
14 fact is the case, that would mean that less than 10  
15 percent a year is being performed from year zero to  
16 year 10.

17 MS. GERARD: If the operator chose to treat  
18 that previous assessment as the beginning of when -- as  
19 his baseline assessment or her baseline assessment.

20 MS. EPSTEIN: Which, presumably, an operator  
21 would want to do that because --

22 MS. GERARD: Oh, I didn't -- I don't think  
23 you can make that assumption.

24 MS. EPSTEIN: And why not? Because I just  
25 thought from a cost perspective, if you've already done

1 something, you would want to count that.

2 MR. DRAKE: There are some very strange  
3 mechanics in the way the current rule works that  
4 actually an operator could be penalized for considering  
5 previous inspection data because it could actually pull  
6 their inspection date forward. Do you understand?

7 MS. EPSTEIN: Okay.

8 MR. DRAKE: If you have to reinspect after  
9 seven years, what's the point? Why bother? If I  
10 inspected in 1997, that means I have to reinspect in  
11 2002. I don't want to do that. I'm just going to say,  
12 forget about the old inspection data, I'm going to  
13 reinspect it in 2012, see you later.

14 MS. EPSTEIN: Okay. So --

15 MR. DRAKE: I get penalized.

16 MS. GERARD: And he will.

17 MR. DRAKE: I get penalized. I get penalized  
18 for using old inspection data, which is ludicrous. I  
19 mean, that doesn't make any sense at all. And that's  
20 what we're trying to say here.

21 MS. EPSTEIN: Okay. Right. And it sounds  
22 like OPS, and I am as well, a little sympathetic to  
23 that particular point if the data are there, maybe.

24 My point is, should you have, you know, year  
25 negative five to zero on there and you're going to get

1 less than 10 percent a year. Your previous graph  
2 becomes a little bit misleading because you're not  
3 going to have so much of a spike then.

4 MR. DRAKE: To the degree that the -- that  
5 whatever that percentage is that's been previously  
6 inspected. And we have the data --

7 MS. EPSTEIN: Right.

8 MR. DRAKE: -- but we haven't extrapolated  
9 that data to how much of that is HCAs. We've got the  
10 HCA definition still very much in flux, but we know  
11 it's no more than 20 percent of the system.

12 MS. EPSTEIN: Right.

13 MR. DRAKE: So, if you just assume --

14 MS. EPSTEIN: But it is going to be spread  
15 over a broader number of years.

16 I'm less worried having --

17 MR. DRAKE: But what's been previously  
18 inspected. I don't mean --

19 MS. EPSTEIN: Go ahead.

20 MR. DRAKE: -- I just want to make sure you  
21 get our qualifications right. What's been previously  
22 inspected -- and this is our point -- goes back many  
23 years, not just five years. And the industry  
24 recognizes that you have to contain how that is applied  
25 into --

1 MS. EPSTEIN: How far back?

2 MR. DRAKE: -- the baseline -- yes. And  
3 that's why you only use Battelle and ASME and those  
4 kind of things.

5 But we're not saying that those should count  
6 for the baseline period inspection. We're playing a  
7 little bit of a word game here because you've got  
8 baseline inspections and baseline period. But if a  
9 company did an original inspection in 1990, that should  
10 count as a baseline inspection. It was done. As long  
11 as it's done in accordance with some reasonable  
12 semblance of inspection technology and repair criteria.

13 But how you bring that forward and apply it  
14 into a reinspection needs to be digested through very  
15 important things that are recognized in ASME and  
16 Battelle, and that is, what was the repair criteria,  
17 what were the findings, how long ago was it, what's the  
18 operating pressure, stress level, coding conditions,  
19 those kind of things. You need to bring that forward  
20 and schedule an inspection -- a reinspection during the  
21 baseline period.

22 Do you see what I mean? We're not saying  
23 that you go back and count it as your baseline  
24 inspection so that you don't have to do an inspection  
25 during baseline. Do you get the difference? I mean,

1 it's kind of a -- maybe a semantics issue, but --

2 MS. EPSTEIN: So, something that was done 13  
3 years ago would not be considered your baseline  
4 inspection but you would be using the data?

5 MR. DRAKE: I think we have a semantics  
6 problem here. It's not really that confusing. It's  
7 just logic.

8 If you've done an inspection already and  
9 you've remediated the pipe, you have a baseline  
10 inspection, period. I mean, just logic prevails. You  
11 have some sort of baseline insight on the condition of  
12 that pipe. Does that make sense?

13 MS. EPSTEIN: Sure.

14 MR. DRAKE: Now, there's this issue about  
15 this baseline period. You already know the baseline  
16 condition of the pipe. Law has required us to do some  
17 sort of -- some sort of inspection during this baseline  
18 period. But what inspection you're doing in that  
19 period is not a baseline inspection, it is a  
20 reinspection. Does that -- does that make sense? I  
21 mean, it's kind of a semantical thing, but --

22 MS. EPSTEIN: But I think some of the  
23 attempts --

24 MME CHAIRMAN KELLY: And after this -- after  
25 this I think you two might want to continue this after

1 so that we can --

2 MS. EPSTEIN: I have another comment that's  
3 related, but --

4 MME CHAIRMAN KELLY: All right. Let's move  
5 to the next comment, then.

6 MS. EPSTEIN: Well, no, can I say one thing  
7 just in response, which is there's a reason -- I spent  
8 a lot of time talking to legislatures -- legislators,  
9 too. And there's reasons they wanted the baseline --  
10 what they were calling a baseline which you're not  
11 calling a baseline -- to be done in a recent period so  
12 that there would be some level of comparison with other  
13 operators, not your own system.

14 So, if you want to call something earlier  
15 baseline, that's fine, but that's not -- 13 years ago  
16 isn't necessarily going to give you the results to  
17 compare your system to another system. So I think  
18 that's why we need a recent baseline.

19 In terms of -- my second comment is, again,  
20 having spent a lot of time with legislators, I think  
21 there was a huge concern that there would be a long  
22 time period before these reinspections were done. No  
23 one wanted big numbers. And I guess I -- I have a  
24 different perspective. We probably were talking  
25 somewhat to different people about what the intent was

1 in terms of the legislators. And I do believe that a  
2 lot of folks on the Hill agreed with OPS's  
3 interpretation. That was my understanding of it, too,  
4 was that there would be -- it was by segment because  
5 that's the best way to look at a pipeline, not  
6 necessarily just the whole system --

7 MME CHAIRMAN KELLY: Thank you.

8 MS. EPSTEIN: -- assessment is different.

9 MME CHAIRMAN KELLY: Do we have another  
10 presenter? Yes, Mr. Kuprewicz?

11 MR. KUPREWICZ: (Off mike).

12 MME CHAIRMAN KELLY: Okay. I had you listed  
13 as a presenter.

14 I'll take more comments after we finish the  
15 presentations. Who's next?

16 MR. LEIVIS: My name is Keith Leivis. I'm  
17 with the Gas Technology Institute. I'm filling in for  
18 Alan Eastman. We put together four of the slides that  
19 were used on the 14th as a summary.

20 This is for direct assessment. I was  
21 disappointed to hear from some of the people today that  
22 direct assessment is not an equivalent. We worked  
23 really hard in order to put the standard together.

24 So, there is a standard from ASME which -- or  
25 from -- which has gone through the ASME process as

1 well. And it's -- it could be that we're in a  
2 communications gap still and we need to show some  
3 validation. And we've had a program with OPS already.  
4 We have another one going on now. There is a variety  
5 of work going on with New York Gas Association, which  
6 is now Northeastern Gas Association. We -- I am a  
7 primary investigation on the AGAP GTI one. And I'm  
8 managing a PRCI program for direct assessment as well,  
9 which is the one that OPS is cosponsoring in there,  
10 too.

11 We're trying to answer some of the, I guess,  
12 the questions that were in the MOPR as well. But we've  
13 talked several times and the suggestion was to use the  
14 wording in the new standard that's come out. And we  
15 can read up there that the rule should, to a degree, be  
16 a practical reference.

17 The standard -- the standard is also part of  
18 the B31-8S standard. In the back of the standard there  
19 are appendices which address the major threats, the  
20 ones that you have to all address. Each one has to be  
21 addressed. And external corrosion is one of those.  
22 And in the back, in the other appendix is also words  
23 for broaching direct assessment for not only external  
24 but internal and stress corrosion cracking. And there  
25 are steps for that as well.

1           The intent here, AMB31-8S, is now that  
2 there's a new standard is to take that appendix out and  
3 refer to the standard. And that's underway right now  
4 in the B31-8S. And we expect to have that ready for  
5 the fall. So, that's where we are with the external  
6 corrosion direct assessment.

7           Internal corrosion direct assessment. There  
8 is a draft standard which is out now. It came out of  
9 NEIS last week. It's in the process of being validated  
10 for dry gas. The research for both wet gas and the  
11 validation is also cosponsored by DOT this year. And  
12 we expect to have some language for that by the end of  
13 the year, for both dry and wet as well as some level of  
14 comfort for people that are not corrosion experts and  
15 don't necessarily understand what's going on. These  
16 are all being done under an ANSI process.

17           The stress corrosion cracking is also being  
18 worked on by a committee at NEIS. This one might take  
19 a little longer. It's not as well understood as the  
20 other two corrosion.

21           If you look in B31-8S, in the back, stress  
22 corrosion cracking is one of the ones you have to look  
23 at. There are three approaches that we always went  
24 through: pressure testing, ILI, and direct assessment.  
25 ILI is a research program as well, and we have co-

1 chaired research going on.

2 In liquid it's much easier to find cracks  
3 than in gas. The techniques are more difficult. It  
4 seems you have to run a liquid slug with it, which is  
5 an operational problem for most people.

6 So that leaves direct assessment as one of  
7 the methods. That part will be -- when it's ready will  
8 be put into B31-8S. But this one might take a little  
9 while longer.

10 The concentration has been on Class 3 and 4.  
11 SEC has never been found in those classes. It's  
12 predominantly in Class 1.

13 Confirmatory DA is supported by the natural  
14 gas industry. It's -- as Mike pointed out, it follows  
15 the same steps as the DA process. The DA process, like  
16 the B31-8S, is a management process. In the older  
17 days, people thought, well, you just run an above-  
18 ground inspection and you're done. Well, no way.  
19 That's not enough. You need to do your pre-assessment  
20 in order to figure out if you can actually do it. Then  
21 you need to do above-ground inspections with regular  
22 external corrosion direct assessment. You need to do  
23 at least two complementary ones. In confirmatory DA,  
24 you need to do one.

25 That then measures the total protection

1 performance. You need to go to the next step in order  
2 to do your direct examination where you actually look  
3 at the pipe and you can measure wall thickness. And  
4 then, post-assessment you have to put all three steps  
5 together in order to figure out what shape the pipe is  
6 in, what your corrosion rates are, and when to come  
7 back.

8           And if you look through B31-8S, if you do it  
9 on a sampling basis, you're allowed five years. If you  
10 do it on a full basis, you're allowed 10 years. So,  
11 the seven-year reinspection then comes into play in  
12 that case.

13           Okay. We -- we have some comments about FCC  
14 and some other threats for DA. We're not happy that we  
15 can find them all yet to the liability we'd like. But  
16 it is consistent.

17           And so I think the main comment was that the  
18 -- we talked about this several times. The baseline  
19 should line up as we've done technically in the  
20 technical standards. So it should be equivalent. You  
21 should do it according to the standard. The  
22 remediation should be consistent with the general  
23 methods as well.

24           So, for example, if you have wall thickness  
25 and it fails B31-G, which is the characteristic one,

1 then you have to do something, as you normally do now.

2 And the terminology should be consistent as well.

3 I think Mike and I talked about it, and he  
4 had the earlier version. So he didn't have the benefit  
5 to use the last one, and I suspect we're coming  
6 together on that.

7 And standard development is underway to  
8 institutionalize these -- the research and the practice  
9 as well. So we're working together for that part.

10 So that was the summary that I wanted to  
11 cover for all the direct assessment process.

12 MME CHAIRMAN KELLY: Thank you.

13 Committee members, any questions or comments?

14 MR. WUNDERLIN: I'll make a comment. Jim  
15 Wunderlin.

16 I appreciate the presentation. I think you  
17 make some very good points regarding direct assessment.

18 The reason I'm talking direct assessment is because  
19 that impacts the distribution companies and the small  
20 operators the most. In effect, it appears the way the  
21 proposed regulation is -- is written at this point is  
22 that we are being penalized because OPS does not have a  
23 comfort level with direct assessment as they do with  
24 internal inspection and -- and pressure testing.

25 And I guess my question to OPS would be,

1 Keith has said that his comfort -- your comfort level  
2 is apparently there on direct assessment being equal to  
3 the other two methods right now. Is -- do we feel that  
4 OPS's comfort level will change between now and when  
5 the regulation comes out, or is -- what will it take to  
6 get OPS's comfort level to that point?

7 MS. GERARD: As you mentioned, we have two  
8 new research projects which were funded recently. In  
9 order to make the deadline of December 17th, we really  
10 need to have our rulemaking in clearance for review by  
11 the Department and OMB four months earlier than that.

12 If we can produce results from that research  
13 sufficient to help Mike, you know, incorporate  
14 revisions in the draft by then, sufficient  
15 documentation to make that -- you know, OMB has asked  
16 us about that and OMB would like to work with us to see  
17 how to make the rule most cost efficient. But you  
18 know, we -- we need a little something more to go on.

19 So, I think if we could all work together,  
20 it's possible. But you know, I guess we're really  
21 talking about August.

22 August, Mike?

23 MR. LEIVIS: Thank you.

24 MME CHAIRMAN KELLY: All right. The next  
25 panelist, please?

1           MR. JOHNSON: Good afternoon. I'm Dave  
2 Johnson from Enron, now -- now known as Pipeco.

3           I'm going to be talking for the next couple  
4 of minutes about dents and third party damage. This --  
5 this presentation is a bit of a paradox because  
6 particularly third party damage represents the -- the  
7 largest single threat to the pipelines but yet this  
8 should be the easiest presentation of the afternoon, so  
9 go figure.

10           (Slide)

11           MR. JOHNSON: You saw this slide a little bit  
12 earlier, and this is an important -- important bit of  
13 data to keep in mind, the causes of the incidents.  
14 This tells us very clearly that not all of the  
15 different threats to a pipeline and to its integrity  
16 are equal. Not all of them have the same impact on the  
17 integrity of pipelines. And correspondingly, this kind  
18 of gives us some guidance as to where we can focus some  
19 resources to have the biggest safety impacts. And  
20 that's -- that's very important when -- when everybody  
21 is resource-constrained to some extent, you want to  
22 maximize the benefit you get for the resources  
23 expended.

24           (Slide)

25           MR. JOHNSON: I'm going to talk about dents a

1 little bit first. And as we -- and we do want to focus  
2 on the threats and what we can do about them.

3           We believe that plain pipe body dents are --  
4 are generally not a very big risk. There have been  
5 numerous studies over the years through PRCI that --  
6 that show that plain pipe body dents, especially if  
7 they are constrained and stable, such as bottom half  
8 dents, are likely to be construction-related and  
9 unlikely to be a threat to the integrity of the pipe.

10           Top half dents are, by just their location,  
11 going to be less constrained. They're certainly more  
12 of an integrity issue if they're accompanied by some  
13 mechanical damage. And if -- if there is an indication  
14 of mechanical damage, they certainly do need prompt  
15 investigation and remediation.

16           And then, dents on welds are also talked  
17 about in the regulation. They may be more susceptible  
18 to fatigue. The fatigue properties of a pipe are --  
19 are being determined. There is a fatigue study  
20 underway now that -- that we believe will be able to  
21 provide more precise guidance on those limits, looking  
22 at operating conditions on the pipeline to -- to assess  
23 the dents on welds and help us make good decisions  
24 about those.

25           (Slide)

1           MR. JOHNSON: Detecting them is -- you know,  
2 you can't -- can't fix them and remediate them unless  
3 you can find them. And -- and you don't want to be  
4 digging up every dent that you find because we -- as we  
5 said earlier, a lot of them are pretty innocuous and  
6 you don't want to expend a lot of resources chasing  
7 things that are not -- not particularly threats.

8           Generally, we look at -- at pigs. Geometry  
9 pigs can certainly find dents. They are unlikely to  
10 see the seam welds, so they're not very good at picking  
11 up dents on welds. And they can't really tell which  
12 dents were produced by mechanical damage. They detect  
13 a deformation; they don't tell you what the cause of  
14 the deformation was.

15           The MFL pigs also are unlikely to see the  
16 seam welds. They -- they can't really see all the  
17 dents. They certainly can't size the dents. And there  
18 is some loss of resolution in the data from those pigs  
19 due to sensor lift-off as they -- they pass over the  
20 dent. So the wall loss and gouges are -- are not well  
21 characterized by these pigs.

22           The other assessment methods that I don't  
23 have listed on here, but pressure testing and direct  
24 assessment. If -- if a pipe is pressure tested, that  
25 provides a high level -- I mean, that's a strength

1 test. That's a high level of assurance of integrity of  
2 the pipe and provides a good margin. So any kind of  
3 subsequent defect growth in a dent -- first of all, the  
4 dent is going to be rounded out to the maximum extent  
5 it's going to be. And second, the -- any flaw that  
6 might exist in the dent is stressed well beyond where  
7 it is in operation. So it kind of reduces the  
8 potential for future pressure reversals. So that's --  
9 that's a pretty good level of assurance.

10 Direct assessment. Again, probably the --  
11 the most deleterious dents are those on the top half  
12 that were caused by mechanical damage, which we'll get  
13 to in a second on its own. But direct assessment, if  
14 there has been mechanical damage, likely that has  
15 produced some coating damage, which many of the DA  
16 methods will pick up. And a certain number of those  
17 will be investigated to -- and I think provide the  
18 operator a good indication of how far he needs to go  
19 with that.

20 So -- so, we think that that's -- you know,  
21 we have a pretty good handle on -- on dents and  
22 controlling them. They are -- again, unless they're  
23 accompanied by mechanical damage, are not a big risk  
24 factor.

25 (Slide)

1           MR. JOHNSON: So, what -- what the industry  
2 is recommending is, on this slide we use the current  
3 studies to determine appropriate criteria and R & D  
4 needs. This is one of the areas that can benefit by  
5 some additional R & D, some of which is underway.

6           We should focus on the real potential  
7 threats, which are unconstrained or upper half dents,  
8 dents that may be subject to fatigue mechanisms, and  
9 dents with likely mechanical damage. And while we --  
10 we don't believe that -- that we ought to necessarily  
11 be running in-line inspections specifically to look for  
12 dents unless other data indicates that that's a problem  
13 on a particular line, when we do in-line inspection, we  
14 will certainly use the results from that in-line  
15 inspection plus data integration, you know, other --  
16 you know, foreign line crossings, other utility work,  
17 other construction in the area. One-call tickets, all  
18 that kind of information to correlate the pig results,  
19 the other data we have, and where it looks like a pig  
20 indication could be due to mechanical damage, then  
21 those need to be investigated, certainly.

22           So that's -- that's our proposal on dents.

23           (Slide)

24           MR. JOHNSON: Third party damage is a place  
25 where -- where we have a lot of potential to make some

1 improvements in pipeline safety. The -- I'm not sure  
2 about the actual numbers. I think what Mark said were  
3 a couple -- a few lower than this. But in terms of  
4 percentages, I think these are about right, that third  
5 party damage accounts for about 32 percent of our pipe  
6 incidents.

7           And the data from that -- from that chart  
8 you've seen a couple of times today now indicate that  
9 about 88 percent of the failures are at the time of the  
10 damage, which means that only about 12 percent, which  
11 is an -- you know, is an absolute number in the one to  
12 two per year range, are delayed third party damage  
13 incidents. You need to keep those numbers in mind.

14           (Slide)

15           MR. JOHNSON: Again, some kind of detection  
16 issues on third party damage that we had with -- with  
17 dents because frequently they -- they go together. The  
18 deformation geometry tools do not effectively and  
19 reliably find third party damage. So, if -- if we  
20 chase a lot of false indications, again, there is a  
21 significant expenditure of resources without a  
22 commensurate safety benefit, which -- which is not --  
23 not what we need to be doing.

24           The MFL tools have been the focus of some  
25 DOT-sponsored R & D as well as some PRCI and GTI-

1 sponsored R & D. They do not yet have the accuracy and  
2 precision necessary to really characterize this threat  
3 on the pipeline.

4 (Slide)

5 MR. JOHNSON: Prevention. We think  
6 prevention is the way to -- to really focus some effort  
7 on this. And we've really heard a lot about that in --  
8 in the last couple of days. Bob Kipp's talk yesterday  
9 was focused on this. A lot of Jack's talk yesterday  
10 bore on this. And -- and I was -- I was very pleased  
11 with both of those presentations and the amount of  
12 effort that is going into this area because we think  
13 this is an area that's really ripe and we can really  
14 make a lot of headway here.

15 In the notice of proposed rulemaking, there  
16 are several what we believe to be effective measures  
17 that are noted in there and are available. You know,  
18 we'd like to point out also that prevention addresses  
19 the whole 32 percent, not just the delayed ones, the  
20 four percent. But the things that are listed there:  
21 public ed, markers, you know, assessing the  
22 effectiveness of the programs to make them better is  
23 the way to go on this.

24 We would -- we would advise or urge the OPS  
25 and this Committee to not mandate ILI inspections

1 specifically targeting third party damage. And again,  
2 as I noted with the dents, we -- you know, we're going  
3 to be doing a lot of smart pigging, folks. I mean, we  
4 really are. It's -- it's the most cost effective way  
5 to do some of these assessments on -- on the long  
6 transmission lines. The -- the short transmission  
7 lines that -- that Jim Wunderlin has been talking about  
8 have -- have some different issues and constraints, but  
9 on the long transmission lines, you know, we're going  
10 to be doing a lot of this. We are now.

11 And as part of this, again, we will review  
12 those results, integrate the data with -- with the one-  
13 call tickets, the locates, all that, investigate,  
14 remediate, continue to pursue R & D solutions.

15 (Slide)

16 MR. JOHNSON: These numbers -- well, let's  
17 see. I guess I can probably talk about these numbers  
18 because Dr. Feigel has left.

19 (Laughter)

20 MR. JOHNSON: These -- these numbers are  
21 still in a state of flux, and they will be amended.  
22 They correspond to Terry's presentation that you heard  
23 earlier this afternoon.

24 But we believe that something about 10,000  
25 miles of pipe are impacted by the rule. But by the

1 time we inspect that 10,000 miles of pipe, we will be  
2 inspecting some place between 58- and 77,000 miles  
3 combined. So that's -- that's a lot more inspection  
4 than -- than just the high consequence areas.

5 We think the -- the safety delta between some  
6 of the things that the rule apparently calls for now or  
7 the proposed rule calls for now in inspecting  
8 specifically for these and the proposal we have, we  
9 think there is no -- no measurable safety delta between  
10 those. And the -- the consumer costs and the  
11 inspection costs are -- we think is shown. And again,  
12 those numbers are subject to additional refinement and  
13 revision, but, you know, we think right now that it's  
14 somewhere -- 100 million consumer costs and somewhere  
15 in the neighborhood of 5 billion in company costs for  
16 the inspection. Thank you.

17 MME CHAIRMAN KELLY: Thank you.

18 Any questions or comments by Committee  
19 members on this presentation? Yes, Mr. Willke -- Dr.  
20 Willke?

21 DR. WILLKE: I assume that third party damage  
22 doesn't always result in a dent per se. So if you  
23 focus on the -- on the delayed failures, what is the --  
24 what is the character of damage that occurs, or are you  
25 able to say? In other words, is it coating damage

1 leading to corrosion or is it gouges or is it dents, do  
2 you know?

3 MR. JOHNSON: I think you have probably hit  
4 the two that are most common, accelerated corrosion due  
5 to some coating damage and possibly some shielding that  
6 goes on. And the -- the mechanical and metallurgical  
7 damage that -- that produces stress concentrators in  
8 the steel that -- that grows by, you know, one of two  
9 or three potential mechanisms until a failure can  
10 occur.

11 One -- and one of the issues in trying to  
12 chase those with pigs is there is -- is no set or  
13 definable time between if -- if the failure does not  
14 occur instantaneously, it's virtually impossible to  
15 tell at what point failure will occur, if at all. You  
16 know, could be a week, a month, a year, 10 years, 20  
17 years.

18 So, we don't think that pigging, you know,  
19 inspection, even on a seven-year interval, is really  
20 the most effective way to address those.

21 MME CHAIRMAN KELLY: Thank you.

22 We have three other presenters. Mr. Gustilo,  
23 Laurie -- all right. Laurie Traeweek.

24 MS. TRAEWEEK: My name is Laurie Traeweek,  
25 and I'm with the American Gas Association. I'm going

1 to be talking to you this afternoon about low stress  
2 pipelines.

3 And just to put in perspective in terms of  
4 mileage, let me just -- just give you a few statistics,  
5 again, as rough as all others have been in terms of us  
6 trying to estimate how many miles we're looking at that  
7 would fall into this category, mostly operated by the  
8 LDC community.

9 You heard George Mosinskis earlier mention  
10 that we were looking at somewhere in the neighborhood  
11 of 31,000 miles that we believe the LDCs operate that  
12 would fall under the HCA or this integrity management  
13 rule. We estimate that about 45 percent of those  
14 operate below 30 percent, which is what we would  
15 consider to be low stress. So we're looking at  
16 somewhere in the neighborhood of 14,000 miles, 12- to  
17 14,000 miles that we think would fit into this  
18 category.

19 Did I do that math right, Stacey? Too late  
20 in the day.

21 Okay. There we go.

22 Just in general then, again, what we're  
23 looking at with low stress is below 30 -- at or below  
24 30 percent. And I think it is important to stress that  
25 from an integrity management standpoint there is a

1 process for all transmission pipelines, whether or not  
2 it's above or below. The difference that we're trying  
3 to determine here is what the assessment tech needs are  
4 and the schedules based, again, on the fact that they  
5 do operate at a lower stress. And we were very pleased  
6 to see that the Office of Pipeline Safety recognized  
7 that the low stress pipelines fail differently, the  
8 leak versus rupture study which was referenced in the  
9 proposed rule, and that we think that -- that this does  
10 justify, as you have offered, a specific assessment or  
11 preventive and mitigative techniques that correspond to  
12 that risk level. So, we certainly support that -- that  
13 concept.

14           We do think it's important for us to have the  
15 ability to utilize the PIC calculation in determining  
16 the HCAs appropriate for low stress. As we've  
17 mentioned, there may be LDC operators who may  
18 alternatively decide to treat all of the pipeline in  
19 the Class 3 and 4 as that -- as HCA pipeline or subject  
20 to the requirements for pipeline in HCAs.

21           Based on the risk analysis, you know, we've  
22 been talking a lot about how the -- the LDCs and low  
23 stress pipelines will need DA. But there will be some  
24 that will be utilizing ILI and pressure testing. So I  
25 just want to make sure you understand that -- that DA

1 will not necessarily be the only solution. You'll see  
2 a mix. But there's no question that the LDC operators  
3 need that flexibility to be able to choose other  
4 effective methodologies and to make sure that those  
5 resources are being allocated appropriately to make  
6 sure that service continuity is maintained.

7           Let me just go through an action plan here in  
8 terms of how we're trying to move forward on this.

9           Clearly, the definition of HCA, as we have  
10 discussed this morning, has a very significant impact  
11 on -- on -- on covered low stress pipelines. If we  
12 move towards the definition that the industry has  
13 proposed, we will be looking for the low stress side at  
14 smaller circles, which will help to reduce the number  
15 of pipeline segments that -- that are subject to the  
16 rule.

17           So, the definition of HCA is -- is critical  
18 to this. But once you have those segments that are in  
19 the HCA or defined as being subject to the integrity  
20 management rule, we are now looking at -- at the  
21 confirmatory direct assessment process. We're looking  
22 at it from a low stress pipeline perspective. We'll  
23 propose appropriate language and along with that  
24 develop specific preventive and mitigative measures by  
25 threat applicable to low stress.

1           And one of the things we are trying to  
2 evaluate too at this point is whether or not there  
3 should be a further breakdown. We talk about low  
4 stress as below 30 percent. We recognize that there is  
5 some transmission that's operated that's below 20  
6 percent. And there may be grounds there also to be  
7 able to treat that pipeline differently than the below-  
8 30. So we're looking at those options right now and  
9 we're trying to develop specific preventive and  
10 mitigative measures that of course would be put forth  
11 in our comments and in the docket.

12           I can tell you just, you know, in terms of an  
13 example of what we're thinking about, increased  
14 patrolling for third party damage, for example, would  
15 be -- would be a preventive and mitigative measure.  
16 Possibly increased survey or monitoring of the cathodic  
17 protection for those segments that are in the HCA  
18 areas. That -- those kinds of measures are what we're  
19 looking at right now to be able to develop for that  
20 pipe.

21           So, just -- just to reaffirm, this is what  
22 was in the proposed rule. The Department of  
23 Transportation, Office of Pipeline Safety has suggested  
24 that we might want to consider something for below 30.  
25 We would definitely concur that there needs to be at

1 least one more column added there that would be below  
2 30 percent and, as I mentioned, possibly another column  
3 that would address below 20 percent.

4           And I just wanted to emphasize and there's  
5 been some discussion about the research. Keith's done  
6 a nice job of outlining where -- where we are right  
7 now. But just to give you a scope of the involvement  
8 in terms of this research, this GTI AGA direct  
9 assessment research that is currently underway, you can  
10 see there all of the states where there are utilities  
11 that are actively involved in this -- in this direct  
12 assessment program so that we ultimately can provide  
13 the results that you need to be able to treat direct  
14 assessment as an equal.

15           MS. GERARD: I just want to point out for you  
16 folks who are very interested in trying to beat the  
17 deadline on the research for influencing Mike's  
18 writing, Fred Joiner is in the room. And Fred is going  
19 to take over the role of being the OPS director of  
20 those two research projects we just funded. And I  
21 would suggest that you all start thinking about how  
22 quickly you could expedite getting whatever  
23 demonstration sites together to collect additional data  
24 to be able to put on the record to have Mike be able to  
25 use it.

1           So, Fred, if you could just raise your hand?  
2 I wanted the folks here to be able to come and meet you  
3 and be in contact with you, you know, shortly.

4           MS. TRAEWEEK: We will definitely do that.

5           MME CHAIRMAN KELLY: Do Committee members  
6 have any questions or comments?

7           (No response)

8           MME CHAIRMAN KELLY: Thank you.

9           Andrew Theodos?

10          MR. THEODOS: Good afternoon. My name is  
11 Andrew Theodos. I work with Columbia Gas Transmission  
12 Corporation. I'd like to talk for just a few minutes  
13 on pressure testing pipe in the HCA, that portion of  
14 the NPRM.

15          (Slide)

16          MR. THEODOS: Industry has a few issues with  
17 pressure testing pipe in the HCAs as presented in the  
18 NPRM. The first bullet, the standard -- the expected  
19 inspection standard is to perform a pressure test at  
20 least once in the life of a segment unless the operator  
21 can demonstrate why a pressure test is not necessary to  
22 address this threat.

23          Throughout the NPRM, the Pipeline Safety Act,  
24 our discussions today, and the other days we've had  
25 these public meetings, there runs a common theme of

1 prioritizing to address the highest risk segments for  
2 the various threats. This makes sense because not all  
3 threats are the same. Not all pipe segments are the  
4 same. Not all population densities along our pipeline  
5 systems are the same.

6           With pressure testing, however, the NPRM  
7 deviates from this logical track and sets a standard  
8 that all pipe will be tested regardless of whether it  
9 actually has any manufacturing or construction defect  
10 issues.

11           Second, limited or no -- possibly no  
12 technical justification to have to pressure test low  
13 stress pipe due to material manufacturing defects other  
14 than those with historical operating problems.

15           Our third issue is relating to the  
16 significant safety and service reliability issues due  
17 to difficulties in dewatering pipe after it's been  
18 hydrostatically tested, a potential resulting in  
19 wintertime freeze-offs and introducing corrosion-  
20 causing bacteria.

21           The production and transmission industry has  
22 spent hundreds of millions if not billions of dollars  
23 on dehydration, slug catchers, drips, et cetera,  
24 equipment to get the water out of the gas that's  
25 produced and gas that's withdrawn from natural gas

1 storage fields and to keep this water out of the  
2 transmission and distribution systems.

3           The reason has been clear. Even small  
4 amounts of water can cause excessive problems in  
5 meeting service reliabilities to our customers. This  
6 rule would have us put thousands of barrels into the  
7 pipeline system quite often at spots closest to the gas  
8 consumers.

9           Fourth, the gas transportation capacity  
10 outages would be beyond the EEA analysis, particularly  
11 on the intrastate and LDC levels. It was never  
12 anticipated by industry that all the pipe that has not  
13 already been pressure tested would have to be pressure  
14 tested regardless of the actual risk. Testing all  
15 pipelines and HCAs would have a bigger impact on the  
16 transportation capacity outage issue and the resulting  
17 impact to gas prices in the marketplace. This would be  
18 particularly true for customers that are served by sole  
19 source, lateral lines, or distribution lines.

20           And finally, the last item, higher  
21 environmental impact. Obviously, there would be  
22 impacts from additional digging involved, but there  
23 would also be a significant impact of water disposal  
24 issues. Bacteria sites are quite often used in the  
25 water used for hydrotesting. You just can't dump this

1 in a creek, you the pipeline system.

2 Some portions of the country, specifically  
3 out west in the desert environment, may have issues in  
4 even acquiring the water -- fresh water to do  
5 hydrostatic testing.

6 (Slide)

7 MR. THEODOS: To get around these issues,  
8 industry has a proposal, a proposed alternative.  
9 First, it's to utilize the standards as developed by  
10 ASME in B31-8S. Incorporating ongoing research would  
11 aid or would add technical basis so as to make informed  
12 decisions on how to maximize our efforts to address  
13 this real threat.

14 This technical analysis includes a Battelle  
15 report that's been mentioned previously by Mark Hereth  
16 on vintage pipe, Keefner study on cyclic pressure  
17 effect on pipe, and the upcoming HSB summary dash  
18 practical guide, if you will, for operators, on how to  
19 use the Battelle report.

20 The above two items leads to the conclusion  
21 that an operator should pressure test only lines that  
22 pose a real threat based on risk assessment. We should  
23 not be required to pressure test all pipelines  
24 regardless of the facts.

25 (Slide)

1           MR. THEODOS: In comparing the potential  
2 impact on costs here in my last slide, on the item of  
3 amount of pipe to be pressure tested, the NPRM  
4 discusses, as I mentioned, all HCA mileage that hasn't  
5 already been tested regardless of actual manufacturing  
6 and material defect. We've estimated that would be 20  
7 percent of the pipeline system in the HCAs.

8           On the industry alternative, we're  
9 anticipating that this would only be done for pipe  
10 segments that had a real risk. That would be  
11 approximately five percent of the mileage in the HCAs.

12           With respect to safety, seeing how the two  
13 would compare, both would have safety improvements  
14 along the right-of-way. This ROW is right-of-way,  
15 folks who live along the right-of-way.

16           However, the NPRM would include a decrease --  
17 potential decrease in safety for gas consumers due to  
18 the water problems getting into the distribution of the  
19 lateral systems.

20           A potential customer outage issue. The NPRM,  
21 we believe, is likely to have numerous outages,  
22 especially on lateral, intrastate, and LDC systems.  
23 This was also brought up -- I believe it was -- on  
24 March the 14th when the spokesman for NAPSR was in the  
25 public meeting. This was a particular issue for their

1 system down in North Carolina, the intrastate system.

2 The industry alternative would have outages.

3 I mean, clearly, that would happen. There is pipe  
4 that does need to be tested and addressed. But we  
5 think it would be more in the form of a spotty outage,  
6 occasional outages, possibly for even a slightly  
7 shorter duration.

8 As far as the cost difference goes, there  
9 would be a base level cost in the industry alternative,  
10 and the NPRM is estimated to be an additional \$60  
11 million. When you factor in the consumer outage,  
12 safety, and commodity price issues, this is really much  
13 bigger than a \$60 million issue. In fact, some of the  
14 numbers Terry was talking about, 60 million is probably  
15 the lowest number you've seen.

16 PARTICIPANT: It's chump change.

17 MR. THEODOS: Yeah, it's chump change. The  
18 lowest number you've seen all day.

19 It's the other items, really, that are the  
20 key issues here. It's not -- not the cost itself as  
21 far as doing the inspection work. Every operator I've  
22 ever talked with -- and I know this has been a very  
23 important thing for my company, Columbia Gas  
24 Transmission, customer service and customer  
25 reliability. And we've been rated very high over the

1 years by our LDC customers. This third issue and the  
2 second issue we view as really very important here.

3 Finally, I'd like to close by saying I would  
4 urge this Committee to recommend in the final rule that  
5 operators only be required to pressure test pipe that  
6 has a real risk. Thank you.

7 MME CHAIRMAN KELLY: Any Committee questions  
8 or comments? Yes, Mr. Thomas?

9 MR. THOMAS: Yeah, I'd like to add -- this is  
10 a bit of a niche comment, but as an operator of about  
11 200 miles of coupled pipe, I'd like to just take note  
12 that the introduction of the water, removal of the  
13 water, and the drying could -- could substantially  
14 degrade a pipeline that is currently operating reliably  
15 and safely and turn it into one that would not be. So,  
16 just please consider coupled pipe as a special issue.

17 MME CHAIRMAN KELLY: Thank you.

18 Any other comments or questions by the  
19 Committee?

20 (No response)

21 MME CHAIRMAN KELLY: Thank you for that  
22 presentation, Mr. Theodos.

23 Mr, Kuprewicz? Yes, do you have a  
24 presentation?

25 MR. KUPREWICZ: (Off mike).

1 MME CHAIRMAN KELLY: Oh, thank you. All  
2 right. Thank you. Thank you. We appreciate that.

3 Are there any questions from the public on  
4 any of the presentations that we've had here?  
5 Questions or comments? Approach the mike, please.

6 MR. KUPREWICZ: Back to the inspection issue  
7 and intervals and all that, I just reiterate what I  
8 said this morning. My personal opinions were given  
9 very clearly this morning. My general reading from  
10 various input sources in the public and that is, don't  
11 lose sight of the message quality of inspection is very  
12 important. You know, what are you inspecting and what  
13 are you going after versus the frequency. I understand  
14 the regulations have to be various things and there'll  
15 be a lot of discussions about this, but my general  
16 reading of the public is we've seen several situations  
17 now where we've had inspections but they weren't the  
18 quality that resulted in failure.

19 So, the perception of the public is, they're  
20 going to be asking, what type of inspection are you  
21 running and does it fit for your particular risk of  
22 concern.

23 The last thing you want to be doing -- you  
24 know, if corrosion isn't a risk -- you've heard me say  
25 this at other public meetings. If corrosion isn't a

1 real risk of concern in your pipeline, why are you  
2 running a high res mag flux pig? I mean, that's a  
3 question. Could be an example. Thank you.

4 MME CHAIRMAN KELLY: Thank you.

5 Any further comments?

6 MR. WUNDERLIN: I'd like to make just one  
7 comment. I'd like to thank OPS and Stacey for giving  
8 the industry an opportunity and the public an  
9 opportunity to prevent -- to present panel discussions.  
10 And she altered the agenda to accomplish that. I  
11 think that was good for me as a member of the  
12 Committee. And the speaking -- I can't speak for all  
13 the Committee, but I think we appreciated that  
14 opportunity to hear that -- more information about the  
15 subject.

16 So, thank you, Stacey.

17 MS. GERARD: There is a quid pro quo. You've  
18 got a lot of work to do in two months, and I am  
19 counting on you --

20 MR. WUNDERLIN: Thank you.

21 MS. GERARD: -- to do the homework and to  
22 exchange ideas as a committee on concepts for your  
23 proposals for recommendations. I don't think in 30  
24 years there will be as much asked of a committee as  
25 this Committee.

1 MME CHAIRMAN KELLY: And I can see a lot of  
2 heads nodding, so from the chair, I'd certainly like to  
3 acknowledge also how beneficial this presentation --  
4 all the presentations have been today to the members of  
5 the Committee.

6 So, thank you, Stacey, for arranging it this  
7 way. And thank you, members of the industry and those  
8 representing the public interest as well, for  
9 participating in today's agenda. It's been very, very  
10 helpful.

11 Is there any new business or old business?  
12 Any final comments, Stacey?

13 MS. GERARD: We have a lot of work to do, and  
14 we have discussed the possibility of having yet another  
15 public meeting before the comment period ends. There  
16 are issues that are on the table that are still being  
17 resolved. And among the -- among the topics that I  
18 think have not been as fully treated as they might be  
19 is some of the tradeoffs in prevention and mitigation  
20 measures that I think could be more fully developed for  
21 some of the areas that we might be considering in  
22 eliminating some of the testing requirements.

23 So, I guess I'd like to hear from folks --  
24 and I don't -- I think Laurie Traeweek may not be in  
25 the room right now -- whether or not we should have

1 another public meeting before the end of the comment  
2 period.

3 MME CHAIRMAN KELLY: There being no other  
4 business, we are adjourned.

5 (Whereupon, at 5:15 p.m., the proceedings  
6 were concluded.)

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