

# ORIGINAL

## U.S. NUCLEAR REGULATORY COMMISSION

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### DAVIS-BESSE REACTOR VESSEL HEAD DEGRADATION LESSONS LEARNED TASK FORCE

#### PUBLIC MEETING

Meeting held on Wednesday, November 20, 2002, at 7:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio, taken by me, Marlene S. Rogers-Lewis, Stenotype Reporter, and Notary Public, in and for the State of Ohio.

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#### PANEL MEMBERS PRESENT:

##### U.S. NRC LESSONS-LEARNED TASK FORCE

Arthur Howell, Team Leader, Region IV

Robert Haag, Region II

Russell Bywater, Region IV

Joelle Starefos, Region II

Edwin Hackett, Assistant Team Leader,  
Office of Research

Joseph Donoghue, Nuclear Reactor Regulation

Thomas Koshy, Nuclear Reactor Regulation

Ronald Lloyd, Research

MR. HOWELL:

Well, good evening.

My name is Arthur Howell. I'm with the United States Nuclear Regulatory Commission or NRC. For those folks in the audience who may not know what the NRC is, it's the Federal agency that regulates the various commercial institution on uses of nuclear energy, including nuclear power plants such as Davis-Besse. I'm from the NRC's Region IV office in Arlington, Texas.

For the past several months a number of NRC staff members and I have served on the NRC's Davis-Besse reactor vessel head degradation Lessons Learned Task Force. This task force was formed to review the full scope of regulatory activities related to the Davis-Besse reactor pressure vessel head damage that was identified this past February and March. The task force's activities are separate and distinct from the NRC's Oversight Panel of Davis-Besse, which some of you may be familiar with. This panel meets regularly here, typically about once a month. I believe their last meeting was last week, so this effort that we're here to talk about tonight is separate and distinct from the Oversight Panel.

One of -- there's two purposes that I wanted

1 to relate to you all concerning this meeting. The  
2 first one is that we would like to provide an  
3 overview of the objectives and scope and review  
4 results of recommendations of the NRC's Lessons  
5 Learned Task Force report. This report was made  
6 publicly available last month, and if you had an  
7 opportunity, out there we have a graphic that  
8 provides some information which you can find the  
9 report on our web site.

10 The second purpose is to provide an  
11 opportunity to members of the public to make comments  
12 or ask questions regarding the task force's review  
13 activities, so what we'd like to do is for the first  
14 hour or so of the meeting is to present an overview  
15 of the report, and then we'll take a short break and  
16 then the task force members and I will come down in  
17 front of the orchestra pit, and then we'll have a Q  
18 and A session.

19 Before going any further, the team and I  
20 would like to thank all the folks in the audience who  
21 can be here to participate in the meeting tonight.

22 Also, we wish to acknowledge the outstanding  
23 support of Mr. Bob Stucker of the Oak Harbor High  
24 School on making this meeting possible at this  
25 facility.

1 I'd also like to recognize Ms. Sonia Eischen.

2 Where are you, Sonia?

3 MS. EISCHEN: (Indicating).

4 MR. HOWELL: Back there. Sonia is  
5 from the State of Ohio. She's works for the State of  
6 Ohio Emergency Management Agency, and she  
7 participated on the task force as an observer.

8 I'd also like to recognize Mr. Jere Witt, the  
9 Ottawa County Administrator, who is also in  
10 attendance.

11 There are a number of informative handouts at  
12 the front of the auditorium including copies of the  
13 NRC public meeting feedback form. I encourage  
14 everyone to complete the feedback form and mail it to  
15 the NRC. It's self-addressed and no postage is  
16 necessary.

17 At this time, I'll ask the other members of  
18 the task force to introduce themselves starting on  
19 the left.

20 MS. STAREFOS: Joelle Starefos,  
21 Region II.

22 MR. BYWATER: Russell Bywater,  
23 Region IV.

24 MR. HAAG: Rob Haag, Region II.

25 MR. HACKETT: Ed Hackett, Office of

1 Research.

2 MR. DONOGHUE: Joe Donoghue, Nuclear  
3 Reactor Regulation.

4 MR. KOSHY: Thomas Koshy, Nuclear  
5 Reactor Regulation.

6 MR. LLOYD: Ron Lloyd, Research.

7 MR. HOWELL: Thanks. These are  
8 all the task force members with the exception of  
9 Patrick Castleman of the NRC's Office of Nuclear  
10 Material Safety and Safeguards and Elaine Raphael,  
11 our Administrative Assistant, who could not be with  
12 us tonight.

13 I'd also like to acknowledge that there are a  
14 number of other NRC managers and staff members who  
15 are present in the audience, including  
16 representatives from the Executive -- Office of the  
17 Executive Director for Operations and the Office of  
18 Nuclear Reactor Regulation.

19 In just a moment Dr. Hackett will provide an  
20 overview of the Lessons Learned report. This  
21 discussion will include a number of areas including  
22 some background information on past Lessons Learned  
23 review activities, the task force objectives and  
24 scope, task force team composition and attributes,  
25 and task force review methods. I mentioned the

1 report availability. We also had some coordination  
2 activities with other ongoing NRC reviews. The  
3 overall conclusions of the task force, including a  
4 summary of the detailed results, and then finally a  
5 summary of the task force recommendations.

6 Following Dr. Hackett's presentation, I will  
7 provide an overview of the NRC's approach to  
8 addressing the task force's recommendations.

9 After that, we would like to, again, as I  
10 mentioned, open up the meeting to comments and  
11 questions from members of the audience. Since there  
12 is quite a bit of material, I would request that  
13 folks hold their comments and questions until the end  
14 of the presentation. I mentioned that we'll take a  
15 short break, about five minutes, just long enough for  
16 us to reposition in front of the orchestra pit.

17 For the next part of the presentation, I  
18 wanted to mention that the NRC has changed its public  
19 meeting policy several months ago in order to enhance  
20 public participation in NRC meetings. I know many  
21 of you are aware of this change as a result of  
22 attending meetings held by the NRC's Davis-Besse  
23 Oversight Panel, the so-called 0350 Panel, as well as  
24 attending a meeting conducted by this task force in  
25 Oak Harbor this past June. This policy brings

1 consistency by introducing a system whereby the  
2 public can participate or can anticipate the level of  
3 participation that will be provided for during the  
4 upcoming meeting. The NRC has identified three  
5 categories of public meetings it convenes. This  
6 meeting has been designated as a Category 3 meeting,  
7 which is defined as a meeting that is held with  
8 representatives, non-Government organizations,  
9 private citizens, interested parties or various  
10 businesses or industries not covered by the other two  
11 categories. The purpose of a Category 3 meeting is  
12 to maximize discussions with the public to ensure  
13 that issues and concerns are understood and  
14 considered by the NRC.

15 I also wanted to mentioned that the NRC has  
16 established a strong track record of conducting  
17 critical assessments of its activities and processes  
18 as they relate to significant plant events and  
19 problems. Dr. Hackett will discuss this in further  
20 detail during his remarks.

21 I wanted to thank the members of the public  
22 who provided input to the task force review areas.  
23 We conducted two public meetings in June and did  
24 receive input from the public, and all of the input,  
25 I believe, was factored into our detailed review

1 plans.

2 Before turning the presentation over to Dr.  
3 Hackett, I just wanted to say that the results of our  
4 review revealed multiple missed opportunities on the  
5 part of the NRC to have identified the problem much  
6 sooner than it was ultimately identified by  
7 FirstEnergy.

8 I wanted to indicate that we have made more  
9 than 50 recommendations to address the findings and  
10 conclusions of our review, that the NRC has already  
11 taken action to move forward to address these  
12 recommendations.

13 Finally, in accordance with our normal  
14 practice, the information used from this meeting will  
15 be made publicly available.

16 At this time, if there are no further  
17 questions or any questions, I'll turn the  
18 presentation over to Dr. Hackett.

19 MR. HACKETT: Thanks, Art.  
20 Hopefully, everyone can hear me okay. Art did such a  
21 good job there, I don't think I need to dwell over  
22 much on the overview, so go to slide three.

23 Slide three, basically wanted to say the NRC  
24 has previously taken the initiative to conduct these  
25 types of reviews for significant issues. These have



1           been self-critical. Improvements have been made at  
2           the agency in response to them, so this is not  
3           something that's going to go away. It's something  
4           the NRC will continue to do as part of an overall  
5           self-improvement. Recent examples include the Indian  
6           Point steam generator tube failure, year 2000, and  
7           NRC inspections at the South Texas Project in 1995.

8                     Art already differentiated between our role  
9           and the 0350 Panel. Our role is really  
10          retrospective. It's to look -- take the event and  
11          look backwards and see why it wasn't prevented.

12                    Now, we'll go to slide four. It's important  
13          to emphasize that this was an independent evaluation.  
14          None of the members of the team that you see up here  
15          had any significant prior involvement in Davis-Besse  
16          and oversight of the Davis-Besse plant, particularly  
17          with regard to inspection activities, so the  
18          evaluation was an independent evaluation even though  
19          it was the NRC conducting the evaluation. The  
20          review had these five elements that you see on the  
21          slide. This was basically the elements of our  
22          charter. The reactor oversight process is primarily  
23          the process by which NRC oversees the regulated power  
24          plants and the inspection activity basically  
25          inspection assessment and enforcement of activities.

1 We're also chartered to look at regulatory processes,  
2 including things like our generic communications  
3 bulletins and processes associated with those. Most  
4 of the focus of the task force was on the top two  
5 elements, but we are also chartered to look at  
6 research activities both NRC and industry,  
7 International practices particularly those of you who  
8 followed this activity, the French program. There  
9 what were a lot of lessons learned associated with  
10 the French activity. The NRC Generic Issues program  
11 which is a process by which some, you know, longer  
12 term actions and verifications can be followed on by  
13 the NRC, and the idea, of course, is that we would  
14 identify and recommend improvements, and we have done  
15 that in our report.

16 I'll go to slide five. Art talked about the  
17 composition of the team. It is multi-disciplined,  
18 experienced team. I already mentioned no previous  
19 involvement in the oversight of Davis-Besse. Art  
20 introduced Sonia Eischen, and Sonia was an observer  
21 of the proceedings of the task force for the majority  
22 of the duration. We did have stakeholder input to  
23 the task force review activities. We had a meeting  
24 on June 12th here in Oak Harbor where we presented  
25 this to the public, and we had a follow up meeting at

1 NRC headquarters on June 19th in Rockville.

2 Go to Slide 6. In terms of our review  
3 methods, we have two groups. One was based at  
4 headquarters. It's largely enacted by Joe Donoghue,  
5 to my right, which focused on licensing review  
6 requirements and guidance -- industry guidance, the  
7 International activities and generic issues.

8 We had a second group that was primarily  
9 focused on the site, activities in Region III that  
10 was acted by Bob Haag that really looked at  
11 inspection, enforcement, operating experience,  
12 generic communications and safety performance.

13 MR. HOWELL: Excuse me. I just  
14 wanted to point out that we actually conducted review  
15 activities involving all four NRC regions. There are  
16 four NRC regions. One of them is near Dallas,  
17 Texas, the one I'm from Arlington Texas. Another is  
18 Atlanta. A third is near Philadelphia, and then the  
19 fourth is NRC Region III, which is in the Chicago  
20 suburbs.

21 MR. HACKETT: Thanks, Art. The  
22 information collection is largely through document  
23 reviews and interviews. There were upwards of 35  
24 plus interviews, I think, conducted with the  
25 licensee, over 80 with NRC personnel, as Art said,

1           you know, spread out over the headquarters operation  
2           and regions, a significant amount of fact-finding at  
3           the Davis-Besse site. There were also some elements  
4           that involved contacts with some of the foreign  
5           regulatory authorities and also with the U.S.  
6           industry.

7                     Move to slide seven. Some of you may have  
8           seen the poster out in the lobby. The report is  
9           available on an NRC electronic document management  
10          system called ADAMS. The accession number is listed  
11          there on the slide and is available out in the lobby.  
12          That can be obtained from NRC that way. There is  
13          also a public web site with the world wide web  
14          address listed there. This report issuance was  
15          coordinated with other NRC offices because of ongoing  
16          reviews in other areas. As the Lessons Learned Task  
17          Force progressed, and probably most importantly for  
18          us, the findings of the Lessons Learned Task Force  
19          were in issues that were plant-specific were provided  
20          on a regular basis to the 0350 Oversight Panel for  
21          any appropriate follow up.

22                    Go to slide eight. The overall conclusion  
23          that if you have seen -- you have copies of the  
24          executive summary available to you and also the  
25          report is that the NRC and industry recognized the

1 potential for this type of event at least 10 years  
2 ago, going back to the initial cracking problem of  
3 this type of issue and control rod drive penetrations  
4 at the Bugey plant in France. There were boric acid  
5 corrosion and degradation events that predated that  
6 back almost 30 years. There were industry  
7 submittals made to the NRC by the U.S. industry that  
8 not only recognized the potential for this, but  
9 analyzed the boric acid type of attack that was  
10 ultimately seen here at Davis-Besse in approximately  
11 the 1993 time frame. The NRC and the U.S.  
12 industry's initial conclusion was that the vessel  
13 head penetration cracking was not an immediate safety  
14 concern. This is due to the flaw tolerance of the  
15 Inconel 600 material from these penetrations. At  
16 the time it was axial cracking that was in concern,  
17 and what you get in a situation like that even if  
18 those cracks go through a wall, you get a situation  
19 called leak before break which means that you would  
20 have leakage that would be observed before there  
21 would be any catastrophic safety issues at the plant.  
22 The follow on to that was that the analysis from  
23 there became protracted and lead us to -- to not look  
24 at some of the -- some of the other connected items  
25 like boric acid corrosion.

1           The third element there is that the NRC and  
2           the licensee failed to learn key lessons from past  
3           boric acid events. As I mentioned there was one in  
4           particular that dated back 30 years. I think the  
5           date was 1969, 1970 at a foreign plant. The  
6           corrosion rates for boric acid attack were known to  
7           be potentially very rapid, although there was a mind  
8           set that developed that dry boric acid crystals on a  
9           reactor vessel head were not corrosive. The reactor  
10          vessel heads are hot during operation and that there  
11          would not be extensive corrosive attack due to that.  
12          Corrosion rates for this type of attack are often  
13          underestimated. There was also a -- I mentioned  
14          these industry submittals to the NRC. Their  
15          conclusion was that if there were corrosion that  
16          leakage -- there would be leakage that would be  
17          observable in NRC and licensee inspections and it  
18          would be found before it ever got to a situation like  
19          what happened at Davis-Besse. Obviously, that didn't  
20          happen.

21                 Two other events that I'll mention that  
22                 happened at Davis-Besse itself in 1993 and 1998 were  
23                 precursors. They had boric acid attack that was  
24                 reasonably extensive on their steam generator shell  
25                 in 1993 and again on some bolting and fastener

1 materials on a pressurizer spray valve in 1998. The  
2 lessons learned from those activities were very  
3 similar to what we've seen here for the reactor  
4 vessel head degradation.

5 Go ahead to slide nine. The bottom line for  
6 us was this was a preventable event. It was  
7 obviously not prevented. That goes to our three,  
8 what we call, contributing conclusions, which are the  
9 three sub-bullets you see there on the slide. It  
10 goes to Sections 3-1, 3-2 and 3-3 of our report.  
11 No. 1 really goes to how we did and how the industry  
12 and licensee did with regard to looking at operating  
13 experience. Obviously there is operating experience  
14 being accumulated all the time at the plants. We  
15 had some incumbent upon us and the industry and the  
16 licensees to access that operating experience and  
17 follow up on anything that's relevant. That  
18 obviously -- there were some inadequacies in that  
19 category here. It's a major contributing cause.  
20 The licensee, for their case, and I think FENOC has  
21 put out their own conclusions on this and a  
22 presentation I first saw in August, but that they  
23 failed to assure that their plant safety issues were  
24 receiving the appropriate attention. I think Mr.  
25 Myers looked at that as a production versus a safety

1 focus, I think is what's been said before. There was  
2 also issues uncovered previously by the Augmented  
3 Inspection Team sent out by the NRC and the follow up  
4 to that Augmented Inspection Team.

5 The third element goes to the NRC's  
6 performance and it's really in, I think, the team's  
7 estimation, it's the NRC's failure to integrate what  
8 was a lot of available information in these areas, in  
9 particular, boric acid corrosion attack and stress  
10 corrosion cracking and some of the inspection  
11 assessments that were available to us at the time.

12 Go to slide 10. We had some other  
13 contributing factors, looking at our other guidance  
14 and requirements at the NRC and the inspection and  
15 reactor oversight process area, some contradictions  
16 and differences in our enforcement policy for reactor  
17 coolant pressure boundary leakage. We had some  
18 difficulties with the ASME code. The American  
19 Society for Mechanical Engineers has a code that  
20 specifies inspection requirements for these plants.  
21 Those inspection requirements were entirely  
22 inadequate for this particular situation of the  
23 vessel head penetration cracking.

24 Staffing and resources were problems for the  
25 NRC. The Davis-Besse plant was viewed as a good



1 performer. Over the 1990's, which was early in the  
2 1990's, the Region III resources in a lot of cases  
3 were diverted to other plants that had been perceived  
4 at the time to have more problems. We had some  
5 regional inspector in region -- region based  
6 inspector vacancies and some problems with coverage  
7 during that time frame over which this degradation  
8 occurred.

9 MR. HOWELL: Resident inspector.

10 MR. HACKETT: I'm sorry, resident  
11 inspectors not the region based inspectors.

12 In terms of communications with the licensee,  
13 there were several items that the team found relative  
14 to if you follow this issue to bulletin 2001-01 which  
15 related to the circumferential cracking at Ocone and  
16 some inaccuracies in bulletin response, also related  
17 to the nature and extent of the boric acid deposits  
18 on top of the Davis-Besse head, particularly  
19 following their refuel outage No. 12 which was the  
20 year 2000 and questions about effectiveness of some  
21 previous inspections.

22 In the licensing process and implementation  
23 area, we, the team, noted a lack of documentation for  
24 a decision justifying operation of the plant for an  
25 additional six weeks in the year 2002. There were

1           also some issues with -- just to give you some  
2           examples with our project managers who were based at  
3           the headquarters operation and their oversight at the  
4           plant activities and visits to the plant and actions  
5           that they would take in the licensing arena.

6                       Go to slide 11.    This goes to the operating  
7           experience.   I think I already mentioned the  
8           operating experience involving boric acid leakage and  
9           corrosion.    The report conducted or the team  
10          conducted an independent review which is documented  
11          in Appendix E.   Ron Lloyd, to my far right, did most  
12          of that work.   It documents a long history of  
13          operating experience involving boric acid leakage and  
14          corrosion.   That was available there for everyone to  
15          assess, quite a number of events, and, in addition,  
16          technical assessments of that information that were  
17          available that were not -- that were not properly  
18          followed up on for this particular issue.

19                     Some issues with our generic communication  
20          program; in this case we had many generic  
21          communications both on the topic of stress corrosion  
22          cracking, in particular on those penetrations.

23                     MR. HOWELL:                     Excuse me, Ed.   Could  
24          you just take a moment and briefly describe what  
25          generic communications are to the folks?

1 MR. HACKETT: Good point. The NRC  
2 communicates with the licensees through a variety of  
3 mechanisms one of which is the Generic Communication  
4 program. The Generic Communication program, the  
5 mechanisms that you'll see in there are things like  
6 information notices, generic letters and bulletins.  
7 Most of you are probably familiar with the bulletins  
8 that have been issued in reaction to this particular  
9 issue, but typically these generic communications are  
10 in reaction to events, although they don't have to  
11 be, and they most typically request information from  
12 the licensees to enable the NRC to get a better  
13 picture of what needs to be done in a regulatory  
14 sense. They typically do not impose requirements,  
15 so it's good to lay that out. Thanks, Art.

16 I guess I was also at this point going to lay  
17 out -- what I'm going to try to do in these next few  
18 slide with you is just to give you some samples.  
19 The report itself can be more than a little bit  
20 intimidating, I think is probably fair, although I  
21 have been told we're not good objective judges of  
22 that, of course, we think it's excellent, but it is  
23 98 pages in length. There are over 50  
24 recommendations that are documented there, so what  
25 I'm going through here is just a series of highlights

1 and some examples for you in some of these areas.

2 With regard to our Generic Communications  
3 program, as I mentioned, there were many generic  
4 communications on this issue and the boric acid  
5 degradation. What we found in terms of some  
6 systematic weaknesses, we think in some the NRC's  
7 processes is one thing is that we have seen a lack of  
8 verification for licensee responses to these  
9 communications. It's not required by the process  
10 and in a lot of cases the NRC focus was not on these  
11 generic communications for the longer term, now,  
12 let's say many years after they had been issued.  
13 There was also --

14 MR. HOWELL: Just to clarify, in  
15 some cases, there is verification of the generic  
16 communications, but I think Ed is focusing primarily  
17 on the one's that deal with boric acid corrosion.  
18 There was some inspection guidance that was  
19 developed, for example, that was in effect optional,  
20 so in the case of Davis-Besse this procedure was  
21 never implemented over the years, for example.

22 MR. HACKETT: Yeah, Art's -- one of  
23 the examples Art's referring to there is our generic  
24 letter 8805, which was issued in 1988. There was  
25 some follow up on the part of the Office of Nuclear

1           Reactor Regulation and some follow up inspections to  
2           verify responses to that generic letter, but what  
3           didn't happen is many years since I think there was a  
4           lack of focus on that particular area so that one was  
5           of the weaknesses the team identified.

6                     I'll jump to the last bullet, looking at our  
7           operating experience review with the NRC, we had a  
8           significant amount of changes in the agency in the  
9           1990's that related to trying to, you know, achieve  
10          increased efficiencies within the budget constraints  
11          that we had and some reductions in the size of the  
12          NRC staff.   Some of that lead to a dissolution of an  
13          office at the NRC in 1999.   We had an office prior  
14          to 1999 that was an office for analysis and  
15          evaluation of operational data.   This office was  
16          originally established in reaction to the Three-Mile  
17          Island event and then served as a -- I guess I'll use  
18          the phrase, clearinghouse, for looking at operating  
19          experience, review and assessment of the NRC, so I  
20          think one of the weaknesses the team identified there  
21          was a diminished capacity at the NRC for dealing with  
22          this type of assessment.

23                    In fairness to the Davis-Besse situation, the  
24          degradation that we're talking about here tonight was  
25          most likely in progress well before that time frame.

1 This wasn't something that was operating in a  
2 positive direction.

3 In terms of slide 12, I won't dwell on that,  
4 I think the licensee has covered this in previous  
5 presentations of their own, but we have the items  
6 that you see listed there, and I think some of these  
7 tend to get repeated. There were numerous symptoms  
8 and indications of reactor coolant system leakage  
9 that were not properly addressed. I think the  
10 bottom line there was that the licensee was  
11 addressing the symptoms and not the causes for the  
12 leakage. Some examples that the report goes into  
13 are fouling of the containment air coolers with  
14 corrosion products and boric acid deposits and also  
15 fouling of the radiation filter element monitors.  
16 There was a history of leakage from CRDM flanges and  
17 valves and other components and repairs were often  
18 deferred.

19 With regard to the boric acid corrosion  
20 control program at Davis-Besse, the team found that  
21 it was never properly established or effectively  
22 implemented in reaction to our generic letter 8805.  
23 Boric acid removal from the head was looked at, I  
24 think, as more of a -- or what the team thinks is  
25 more of a decontamination issue rather than safety

1 issue. The cleaning of the head, we found, was  
2 limited in a number of instances by pressure brought  
3 there from the outages themselves. In terms of  
4 owners group and industry guidance, the B&W owners  
5 group, as an example, had served a structure  
6 modifications that would have enabled better access  
7 for inspection cleaning of the head at Davis-Besse  
8 that were not implemented at Davis-Besse in the early  
9 to mid 1990's. In terms of industry guidance there  
10 was an electric power research institute corrosion  
11 control handbook for boric acid corrosion that had  
12 some -- there are some things in there the team would  
13 have differences in or with, but there are some  
14 elements that provided some very good guidance on  
15 what to do about this issue and what some of the  
16 symptoms would be that didn't appear to be  
17 internalized by the licensee.

18 I have mentioned before that there was a lack  
19 of awareness both internal and external operating  
20 experience, particularly in the area of boric acid  
21 corrosion and boric acid corrosion control. In  
22 terms of safety related activities just to give a few  
23 examples, I think the licensee had during this time  
24 frame strained engineering resources, again, they  
25 were operating and addressing the symptoms of this

1 RCS leakage and not the causes. I think we saw a  
2 lack of questioning attitude on the part of their  
3 inspectors and their inspections and a lack of  
4 engineering rigor in a lot of the analysis that were  
5 performed over that time frame just as some examples.

6 Go to slide 13. This slide tries to  
7 summarize the NRC's performance. I think I have  
8 covered some of these. With regard to reactor  
9 coolant leakage assessment, the NRC was aware of  
10 these symptoms as the licensee was. There was a  
11 lack of questioning attitude, a questioning of some  
12 assumptions that the licensee was making at the time,  
13 a lack of questioning attitude on the part of our  
14 inspection activity. Probably most importantly, the  
15 inspections over that time frame and that time frame  
16 being probably 1996 and on, inspections related to  
17 reactor coolant system leakage were not properly  
18 integrated into the NRC overall safety assessment.  
19 The inspection program implementation, particularly  
20 with regard to refueling outage 12, there wasn't an  
21 awareness of boric acid deposits on the part of the  
22 resident inspection team. There was a lack of  
23 follow up in terms of the NRC on enforcement action  
24 that related to the boric acid attack event on the  
25 pressurized spray valve in 1998, and there were some



1 deficiencies with regard to implementation of  
2 corrective actions.

3 In terms of integration and assessment of  
4 performance data, I think again, it points back to  
5 the numerous opportunities and missed opportunities  
6 on the part of the resident inspector staff in some  
7 of the region based inspection assessments,  
8 particularly in the area of reactor coolant system  
9 leakage to not be integrated over a range of  
10 activities and also a certain time period.

11 With regard to guidance and requirements, it  
12 goes both to the NRC inspection guidance not being as  
13 clear as it could be in certain cases, some conflicts  
14 or differences in our enforcement policy over exactly  
15 what to do about reactor coolant pressure boundary  
16 leakage, also goes to the ASME code that I mentioned  
17 previously and some inadequacies in their inspection,  
18 inspection requirements. Staffing and resources --

19 MR. HOWELL: Excuse me, Ed. Before  
20 we go to staffing and resources, I just -- in terms  
21 of the first three bullets what we're trying to  
22 convey is that the NRC knew a whole lot about the  
23 symptoms and indications of the leakage that in this  
24 case that resulted ultimately in the degradation of  
25 the vessel head.

1                   Now, at the time, of course, they didn't know  
2                   that the source was the nozzle, but we conducted a  
3                   number of inspections over the years, primarily in  
4                   the 1999, 2000 time frame, 2001, in which the NRC was  
5                   cognizant of some of the operational problems that  
6                   were being evidenced by the symptoms of this problem,  
7                   but we never pieced all that information together to  
8                   ultimately identify the source, and so that's  
9                   essentially what we're trying to convey is that we  
10                  did know a lot, we followed up on some of these  
11                  indications, but, ultimately, we never pieced all the  
12                  information together.

13                   MR. HACKETT:                   In terms of the  
14                  recommendations now on slide 14, the report has an  
15                  Appendix A, which documents the detailed  
16                  recommendations that the team came up with. I  
17                  believe there are about 51 of them. What we tried  
18                  to do here is just stay at a fairly high level and  
19                  give you these eight categories in which the majority  
20                  of those recommendations fall. First on the list is  
21                  inspection guidance. One of the things that we're  
22                  looking at hard there or one of the recommendations  
23                  went to revising inspection guidance with regard to  
24                  RCS leakage and differentiation of RCS leakage and  
25                  RCPV, RCPV leakage and RCPV degradation. I think

1           it's fair to say the team found that some of the  
2           guidance in that regard is not as clear as it could  
3           be and there are some improvements that we could make  
4           in that area.   In terms of the operating  
5           experience --

6                       MR. HOWELL:                       Excuse me, Ed.   Also  
7           obviously we made some recommendations to address  
8           future inspections of boric acid corrosion control  
9           programs.   I mentioned earlier, the NRC had an  
10          inspection procedure to conduct essentially  
11          programmatic reviews of licensee boric acid corrosion  
12          control programs.   This procedure was optional.   It  
13          was rarely implemented not only at Davis-Besse -- it  
14          was never implemented, but nationwide it was rarely  
15          implemented over the 10 plus years that it was in  
16          force, and so one of the recommendations is to go  
17          back and revisit the decision to cancel that  
18          procedure, and, in addition to that, we made a number  
19          of other recommendations.   I believe fully a third of  
20          our recommendations are in the inspection guidance  
21          area.   We made some recommendations pertaining to  
22          how we go about conducting assessments of corrective  
23          action programs, employee concerns programs, safety  
24          conscious work environment, as well as a number of  
25          other areas including nozzle inspections, too.

1                               MR. HACKETT:                               That's one of our  
2                               longer recommendations went to the operating  
3                               experience category and operating experience  
4                               assessment, particularly with regard to looking at  
5                               the longer term -- the longer term performance, and  
6                               I'll just read to you from some of that actually, but  
7                               we're looking at some directed recommendations in the  
8                               area of looking at the agency's capability to retain  
9                               operating experience indignation and perform longer  
10                              term operating experience reviews, also to evaluate  
11                              thresholds and criterion guidance for -- we talked  
12                              about these generic communications earlier for  
13                              issuing and following up on these generic  
14                              communications.   We're looking at evaluating the  
15                              effectiveness of our generic issues program.   We  
16                              didn't talk a whole lot about that tonight, but  
17                              that's an element of the longer term aspect of this,  
18                              and also evaluating our effectiveness internally with  
19                              the dissemination of operating experience to the  
20                              ultimate end users within the NRC.   We didn't talk a  
21                              whole lot about the foreign experience, but there was  
22                              a wealth of experience that was available to the NRC,  
23                              particularly from the French program that was not --  
24                              I use the word again, internalized, as well as it  
25                              could have been or not may be disseminated as well as

1                   it could have been.   With regard to the --

2                   MR. HOWELL:                   If I could just add  
3                   one other example of --

4                   MR. HACKETT:                  Sure.

5                   MR. HOWELL:                  Sorry.   We also made a  
6                   recommendation -- as you could imagine over the  
7                   years, the NRC has issued many, many generic letters  
8                   and bulletins on a variety of safety issues,  
9                   different technical areas, and so one of our  
10                  recommendations is to go back and revisit on a  
11                  sampling basis some of those generic letters and  
12                  bulletins that were issued in the past to verify  
13                  whether or not the actions that were indicated to be  
14                  done actually addressed the problem, so we think  
15                  that's one of our more important recommendations in  
16                  this area.

17                  MR. HACKETT:                  I mentioned the ASME  
18                  code earlier.   The American Society of Mechanical  
19                  Engineers has a code of requirements for inspections  
20                  for nuclear power plants.   It's called Section 11 of  
21                  the ASME code.   The NRC endorses Section 11 of the  
22                  ASME code through our regulations.   10CFR50-55A.  
23                  One of the things we found early on with these types  
24                  of inspections is all that was relied upon for  
25                  evaluation and leakage from nozzles or potential

1 cracks in vessel head penetration nozzles were visual  
2 examinations. These visual examinations could be  
3 done from quite a distance, these were examinations  
4 they refer to as VT-2 examinations. In certain  
5 cases, the nozzles themselves could be obscured by  
6 the insulation. In other cases they could be  
7 obscured by boric acid deposits which again when you  
8 go back to the mind set that caused part of this  
9 problem, that was something that wasn't really viewed  
10 as a problem, so it goes to the inadequacy of the  
11 ASME code inspection requirements, and the ASME code  
12 is currently working on revising those requirements.  
13 Some of the NRC staff are working closely with them  
14 on that with the hope that somewhere within probably  
15 the next year we'll have some revisions there that  
16 hopefully will act in a positive direction, improving  
17 the overall inspection requirements.

18 We had a fairly long recommendation that went  
19 to NRC's programs and general capabilities, including  
20 training and experience, but also went to questioning  
21 attitude or lack of questioning attitude on the part  
22 of our inspection activities, an inspection follow  
23 up, and also, in particular, the issue of reactor  
24 coolant system leakage and reactor coolant pressure  
25 boundary leakage. Also going towards communicating

1 to the staff, expectations regarding inspection  
2 follow up and maintaining the appropriate awareness  
3 and surroundings when conducting inspections.

4 Leakage monitoring and requirements,  
5 monitoring requirements and methods was an area that  
6 the team had an awful lot of discussion on. The way  
7 this -- the way this particular degradation is  
8 inspected for, as I mentioned, is visual. One of the  
9 problems that is incumbent in that situation is the  
10 fact that you cannot make a connection between how  
11 seriously cracked or degraded these nozzles are and  
12 how much leakage is evident there. There is not a  
13 one-to-one correlation, so inspecting visually just  
14 for leakage can become very problematic. That's not  
15 to say it's not helpful, but in terms of going from  
16 there to the situation with how serious a potential  
17 degradation I have is very problematic, so we have  
18 several recommendations that go towards re-examining  
19 the NRC requirements in this area. Our technical  
20 specifications basically prohibit reactor coolant  
21 pressure boundary leakage, but differentiating  
22 between reactor coolant pressure boundary leakage and  
23 unidentified leakage from the reactor coolant system  
24 say that might be from flanges or other bolted and  
25 flanges connections is very problematic. Basically

1           our recommendations in this area are going towards  
2           trying to provide better assurance of no reactor  
3           coolant pressure boundary leakage.

4                     In terms of technical information and  
5           guidance, I think Art mentioned that several times.  
6           There is a wealth of information available on stress  
7           corrosion cracking in this particular case and boric  
8           acid degradation. One of the issues there is  
9           appropriate training of the NRC staff to be focused  
10          on these issues and looking. In this case the  
11          recommendation goes not just to the situation, but  
12          well beyond. There are many penetrations of the  
13          reactor coolant pressure boundary in a nuclear power  
14          plant. A lot of them are Inconel 600 or stainless  
15          steel. These materials are susceptible to these  
16          degradation phenomena. One of the recommendations  
17          goes towards making sure the NRC staff, and  
18          particularly the inspection activity has the  
19          appropriate awareness in that category.

20                    NRC license processes I discussed before, but  
21          there were some areas I maybe didn't mention in the  
22          case of some contributing factors that, you know, we  
23          need to do better on in terms of our project  
24          management effort at the NRC headquarters. We have  
25          project managers that oversee the activities at the



1 plants, at all the plants, at headquarters, and a  
2 couple of cases here at least --

3 MR. HOWELL: Ed, I just want to  
4 add, from a licensing prospective --

5 MR. HACKETT: From a licensing  
6 prospective, not an inspection prospective. In that  
7 case, in the case of Davis-Besse there was a  
8 significant amount of turnover in this project  
9 management staff during the 1990's, more than we  
10 would have liked to have seen. There were less  
11 frequent site visits by the project manager and staff  
12 during that time frame also which goes contrary to  
13 some of what we like to see in terms of the NRC  
14 guidance. There is also an issues with review of  
15 topical reports. These topical reports I mentioned  
16 earlier were actually, you know, quite descriptive in  
17 terms of analyzing the potential for the type of  
18 degradation that was seen at Davis-Besse ultimately,  
19 and they were reviewed by the NRC staff, but I don't  
20 think connections -- appropriate connections were  
21 made particularly between the boric acid degradation  
22 and the stress corrosion cracking issue.

23 The last piece here and then I'll turn the  
24 presentation back over to Art regarded previous  
25 lessons learned reviews. We have an Appendix F in

1 the report that did a -- I think what we call a  
2 cursory look at previous lessons learned, of the  
3 lessons learned reviews that the NRC has conducted to  
4 look for some common themes. As you'd expect in any  
5 kind of structural or human failure situation, there  
6 are some common themes, so one of the recommendations  
7 that the team made was for the NRC to conduct an  
8 effectiveness review of these lessons learned  
9 activities to make sure we're learning the lessons  
10 from the lessons learned and that these things aren't  
11 just going to sit on the shelf, and with that, I  
12 think we'll turn it back to Art and talk about some  
13 future plant activities with the -- for the  
14 following.

15 MR. HOWELL: Thanks, Ed. The next  
16 slide, as I mentioned, the report was issued last  
17 month and so many of you may be wondering, well, what  
18 will become of these recommendations, and the NRC's  
19 approach to understanding the issues from a  
20 regulatory perspective at Davis-Besse is really a two  
21 step approach, and the first step is what we're  
22 talking about here tonight, and that is to conduct a  
23 lessons learned review by senior staff members who  
24 are familiar with the subject matter who are  
25 independent in the sense that they've had no

1 significant oversight at Davis-Besse activities and  
2 to identify issues and make recommendations, and  
3 we've done that. The next step is already underway  
4 and that is the agency has formed a -- a team of  
5 senior executives, very high level team to not only  
6 assess our recommendations and review them, but also  
7 really to go through the whole entire report to see  
8 if there are other issues that may need to be  
9 addressed that we didn't make recommendations to  
10 address, and so that effort is underway, has been  
11 underway for a number of weeks, and it's expected  
12 that -- that the senior management review team will  
13 complete its activities in the near future, in the  
14 next few weeks or certainly before the end of the  
15 year.

16 I just wanted to point out that even though  
17 we have made 51 recommendations, many of them -- not  
18 many, but some -- some of the more important ones are  
19 already being addressed. For example, the NRC has  
20 already issued another bulletin which would suggest  
21 that more stringent nozzle -- vessel head nozzle  
22 inspections may be needed, and, in fact, a number of  
23 plants throughout the country are in refueling  
24 outages right now and many are conducting more  
25 stringent inspections as recommended in the bulletin

1 and additional cracking has been found.

2 Now, the degradation to the extent that  
3 occurred at Davis-Besse has not been found at other  
4 plants, but the nozzles that leaked at Davis-Besse,  
5 similar nozzles have been found if not to be leaking  
6 to at least have been found cracked and at some point  
7 may have resulted in leakage had they not been  
8 detected through these more stringent inspections.

9 Also the NRC is well underway in plans to  
10 obtain additional information from other reactor  
11 plants, nuclear plants throughout the country in  
12 terms of their boric acid corrosion control programs  
13 and once that information is obtained, then  
14 additional future actions will be identified as  
15 appropriate, and then, finally, we mentioned that  
16 we've made a number of recommendations pertaining to  
17 inspection guidance and some of that guidance is  
18 already in the process of being revised. The  
19 inspection procedure may not be issued yet, but the  
20 individual procedures are being reviewed and revised  
21 in a number of instances already, so, in other words,  
22 action is being taken even though the senior  
23 management review team is reviewing all of the  
24 recommendations in the report and will make its  
25 findings available to the public before the end of

1 the year.

2 So, with that, we are at the end of our  
3 prepared remarks and what we'd like to do now is move  
4 onto the question and answer phase, and the team --  
5 we're going to come down to the front of orchestra  
6 pit, we have a microphone down there to give  
7 everybody an opportunity to ask questions, make  
8 comments, and then we'll adjourn the meeting after  
9 folks have had an opportunity to do that. I think  
10 the schedule has us going until about 9 p.m. We'd  
11 like to try to keep to the schedule.

12 There's really two methods in which one can  
13 ask a question or make a comment. One is to come to  
14 the podium here, identify yourself, and then ask your  
15 question, make your comment. Another is, we have  
16 some cards, is that right, some folks, if you would  
17 prefer, you can write your question on a card, you  
18 can pass it up, and then we'll read the question.

19 We're going to give priority to questions  
20 that are within the scope of the task force. If  
21 there are other questions that are outside of the  
22 scope of the task force, if we're not in a position  
23 to answer them, then we'll try to obtain the contact  
24 information so we can get back to you at a later  
25 date, and, finally, since we are scheduled to go

1           about another hour and 10 minutes, there's a number  
2           of folks in the audience, you want to just be mindful  
3           of giving everybody an opportunity to ask questions,  
4           and, in particular, I'd like to extend an invitation  
5           to the folks that live near the community to ask  
6           their questions first, so we can take a very short  
7           break, five minutes, gives us an opportunity  
8           basically just to walk down in front of the orchestra  
9           pit, and then we'll resume the meeting.   Thank you.

10           THEREUPON, a brief recess was taken.

11           MR. HOWELL:                   Okay, we'll go ahead  
12           and resume the meeting.   At this point we do want to  
13           go into a question/answer phase, so I invite members  
14           of the audience to come up to the podium or pass  
15           their cards forward.

16           MR. WHITCOMB:                Good evening to the  
17           members of the panel.   My name is Howard Whitcomb.

18           MR. HOWELL:                   Good evening, Howard.

19           MR. WHITCOMB:                And I am a resident of  
20           Oak Harbor.   I have had an opportunity to read your  
21           report and make some comments.   It is a -- I mean,  
22           it's a monumental effort in terms of number of pages,  
23           and I don't intend to get into the nitty-gritty  
24           details.   I'm going to give you a couple of prepared  
25           comments that I've made in terms of some things that

1 I think, perhaps are missing from your report.

2 The contents of the NRC's Lessons Learned  
3 Task Force report clearly indicates the NRC is given  
4 greater weight to the technical issues surrounding  
5 the degraded reactor vessel head than it has to the  
6 problematic NRC oversight issues regarding the  
7 Davis-Besse Nuclear Plant. The findings of the task  
8 force even attempt to provide a rationale that the  
9 NRC's actions over the last decade rise to the level  
10 of "excusable neglect." It appears that the Lessons  
11 Learned Task Force has chosen to ignore the realities  
12 of the relationship which has existed between the NRC  
13 and FirstEnergy managements over the last 17 years.  
14 The problems at the Davis-Besse Nuclear Plant  
15 resulted from a lack of technical and management  
16 integrity. While the findings in the report attempt  
17 to address the technical issues with some vigor, it  
18 fails to forthrightly address the apparent loss of  
19 management integrity regarding both the FirstEnergy  
20 and NRC staffs.

21 On June 12th, Mr. Howell, as team leader of  
22 the NRC's Lessons Learned Task Force, you stated that  
23 as part of your review, the team would review the  
24 allegation history pertaining to the Davis-Besse  
25 facility and determine if the NRC had appropriately

1           dispositioned those allegations.   Nowhere in the  
2           report is there any discussion about a review of the  
3           allegation history of the Davis-Besse Nuclear Power  
4           Plant.   Had an appropriate review of the allegation  
5           history been performed, the team would have found at  
6           least nine separate allegations regarding the  
7           occurrence of specific reported improprieties at the  
8           Davis-Besse Nuclear Plant during the period of time  
9           from January 1993 to present.   The team would also  
10          have discovered that the regional NRC office  
11          improperly dispositioned a certain alleged material  
12          false statement made by Toledo Edison management  
13          personnel to the NRC in September of 1988.   It is  
14          inconceivable that a thorough review of the  
15          allegation history at Davis-Besse could possibly  
16          overlook the significant dispositional error on the  
17          part of NRC management.

18                 The Lessons Learned Task Force did not  
19                 include the allegation history at Davis-Besse in its  
20                 final report because either:

21                         1.   The Lessons Learned Task Force did not  
22                         conduct a review of the allegation history at  
23                         Davis-Besse as was promised on June 12th or

24                         2.   The Lessons Learned Task Force members  
25                         were not qualified or adequately competent to



1 determine whether the disposition of the past  
2 allegations at the Davis-Besse facility had been  
3 performed in accordance with Federal law, or

4 3. The Lessons Learned Task Force  
5 deliberately ignored the allegation history and the  
6 NRC's prior dispositions at the Davis-Besse Nuclear  
7 Plant.

8 Any one of the three choices is problematic.  
9 First, the failure to perform a review of all -- a  
10 review at all is contrary to the expectations of the  
11 public, particularly since the public's expectation  
12 is based on specific assertions made by you, Mr.  
13 Howell, on June 12th.

14 Secondly, the use of unqualified or  
15 incompetent inspectors is unlikely in light of the  
16 number of personnel employed by the NRC.

17 Finally, the most likely possibility is that  
18 the NRC has reviewed the allegation history at  
19 Davis-Besse and has chosen to sidestep making a  
20 critical assessment of the NRC's mis-handling of past  
21 allegations at the Davis-Besse Nuclear Plant. Such a  
22 decision violates the public's trust and confidence  
23 in the NRC's ability to fulfill its responsibility  
24 regarding the protection of the health, safety and  
25 welfare of the public.

1                   The executive summary of the report further  
2                   claims that the managers and staff members of the  
3                   NRC's regional office responsible for the Davis-Besse  
4                   Nuclear Plant oversight were more focused on other  
5                   plants that were the subject of increased regulatory  
6                   oversight.   The report further claims that the  
7                   distracted management attention contributed to  
8                   staffing and resource challenges impacting the  
9                   regulatory oversight of the Davis-Besse Nuclear  
10                  Plant.   The NRC is fully aware of the problematic  
11                  history at Davis-Besse over the last 17 years.   It  
12                  cannot now feign ignorance of the problems or blame  
13                  events at other facilities as the basis for why  
14                  aggressive action was not focused at the Davis-Besse  
15                  Nuclear Plant.   The warning signs of waning problems  
16                  were either apparent or presented to the NRC staff  
17                  through the established program for processing and  
18                  investigation -- investigating allegations submitted  
19                  to the NRC.   What the Lessons Learned Task Force  
20                  failed to identify in its report is that the  
21                  established program for processing allegations was  
22                  inadequate to intervene and prevent the current  
23                  inability of the typical Davis-Besse worker to raise  
24                  genuine concerns and safety issues without fear of  
25                  reprisal.   What has again been demonstrated is that

1 when the process fails, reactor safety is  
2 compromised.

3 The lack of management integrity at both the  
4 Davis-Besse Nuclear Plant and the NRC is the root  
5 cause of the current problems at Davis-Besse. The  
6 reactor vessel head degradation is only a symptom of  
7 that problem. Over the last several months,  
8 FirstEnergy's management has continued to violate  
9 quality assurance requirements and generally accepted  
10 maintenance practices. FirstEnergy's management  
11 continues to mislead and deceive the public about  
12 matters of significant general interest regarding the  
13 Davis-Besse Nuclear Plant. The lack of any  
14 recommendations in the final report, Section 3.3.6  
15 titled "Davis-Besse Nuclear Power Station  
16 Communications" clearly shows that the NRC either  
17 does not consider the lack of management integrity as  
18 being a foundational building block in assuring  
19 reactor safety or it refuses to consider it at all.  
20 Either way, reactor safety is compromised.

21 It is time for the NRC to discontinue the  
22 practice of affording FirstEnergy management  
23 disparate and preferential treatment in comparison to  
24 the rest of the industry. FirstEnergy's deleterious  
25 actions over the last 17 years clearly deserve more, -

1 not less, critical treatment, particularly since  
2 FirstEnergy's management has conceded that at times  
3 they have placed production demands over reactor  
4 safety. It is time for an independent review of the  
5 NRC and Davis-Besse management issues as requested by  
6 the 2-206 petition submitted earlier this year.  
7 This review should focus on an independent and  
8 critical assessment of the integrity of both the NRC  
9 and FirstEnergy managements. Additionally, it is  
10 time that the legislative branch of the Federal  
11 Government investigate the continued and sustained  
12 ability of the NRC to fulfill and execute its  
13 responsibility in an independent and unbiased manner,  
14 and without alternative motive other than ensuring  
15 the health, safety and welfare of the public. Thank  
16 you.

17 MR. HOWELL: Thank you, sir. Mr.  
18 Whitcomb, you raised a number of issues over the last  
19 few minutes, and, forgive me, but we'll try to  
20 respond to them. One of the things that I would  
21 suggest if you're willing is that perhaps if you have  
22 some time that we can get together so we can more  
23 fully understand your issues. We can either do that  
24 after the meeting or the next day or by phone, but in  
25 the short term, what we'd like to do is try to

1 address some of the points you just raised.

2 MR. WHITCOMB: I will make myself  
3 available, and I will talk to you after the meetings,  
4 so that we can set up some kind of a meeting.

5 MR. HOWELL: Thank you. First, I  
6 just wanted to, as a matter of process, we didn't  
7 really go too much into our methodology during the  
8 presentation, but the fundamental question that we  
9 try to answer as part of our review, bearing in mind  
10 that our focus was primarily -- introspective, was  
11 why the event was not prevented, and once we settled  
12 on that as a focus, that drives you to consider  
13 certain information and to answer that question and  
14 that's what we set out to do. Now, as part of that,  
15 we did conduct fact-finding at the site as the folks  
16 here know as we discussed during the meeting.  
17 Section 3.2 of the report does go into some detail  
18 about some of the management issues in terms of not  
19 handling safety issues appropriately as we identified  
20 them through the course of our review.

21 Now, I'm not sure that -- based on your  
22 comments, Mr. Whitcomb, I get the impression that you  
23 don't feel that those are fully satisfactory in terms  
24 of the discussion there, but clearly Section 3.2.5  
25 was intended to articulate our concerns with some of

1 the management lapses that we identified by reviewing  
2 material that dated back some 10, 12 years prior to  
3 the event.

4 Secondly, I would point out that we did  
5 conduct a review of the allegation history, not only  
6 for Davis-Besse, but the other FirstEnergy plants,  
7 and Mr. Haag is going to address the scope of that  
8 review. Bob?

9 MR. HAAG: Our intent was never  
10 to look at every allegation at -- through FirstEnergy  
11 sites and try to verify that they were handled  
12 properly. What we were doing is we were looking for  
13 similarities and allegations related to our mission  
14 and by submittal to the task force. As far as boric  
15 acid corrosion with problems with the way the  
16 utilities were handling boric acid corrosion program,  
17 allegations dealing with nozzles, and that was our  
18 scope of looking at the allegations, not to look at  
19 every one in detail and verify that they were handled  
20 properly, so I'm not sure where you got that  
21 impression that we were looking at all of them, you  
22 know, in that level of detail. That was part of our  
23 inspection charter. We had a very detailed charter,  
24 you know, where we looked at a number of areas. The  
25 reason we didn't have anything in the report is

1 because our review did not identify any problems  
2 related to previous allegations that would have  
3 brought light on the issue at hand.

4 THEREUPON, Mr. Haag conferred with Mr.  
5 Howell.

6 MR. HAAG: The one allegation you  
7 mentioned, the 1998 allegation, we did some review of  
8 that, some of the letters and correspondence that  
9 were going back and forth between the alleged  
10 providing the basis for that. We reviewed that,  
11 and, you know, that did not relate again to what we  
12 were doing, but we did look at that because there was  
13 a request from our management to review it, and there  
14 was nothing we saw in that correspondence and the  
15 issues that were brought up that, you know, that  
16 would give us reason to look at it in more depth and  
17 try to provide some view of whether it was handled  
18 properly, but, again, we did look at that in more  
19 detail than the other ones. The other ones were  
20 basically just a review of the issues. We had the  
21 region that the sites were located provide us a  
22 historical listing of all the allegations and provide  
23 us enough description where we could understand what  
24 the issue was, and I think we went back 10 years.

25 MR. HOWELL: At least.

1 MR. HAAG: As far as looking at  
2 what allegations had been provided at the three  
3 sites.  
4 MR. HOWELL: And, again, after the  
5 meeting we'll get with you, Mr. Whitcomb.  
6 MR. WHITCOMB: (Nod indicating yes).  
7 MR. HOWELL: Any other questions?  
8 MS. SPAULDING: My name is Helen  
9 Spaulding, I live in Port Clinton.  
10 MR. HOWELL: Good evening.  
11 MS. SPAULDING: And I have several  
12 questions. I know that you have a dual function --  
13 oh, if you lean on this it moves. I know that you  
14 have a dual function at the NRC to both regulate and  
15 encourage the use of nuclear power, and the building  
16 of nuclear reactors.  
17 MR. HOWELL: Actually, that second  
18 statement is not part of our role, we do not  
19 encourage the use of --  
20 MS. SPAULDING: Oh, when did they take  
21 that out?  
22 MR. HOWELL: When the agency was  
23 split apart from the atomic energy agency and  
24 their --  
25 MS. SPAULDING: The atomic energy



1           commission was, is the NRC, so I would submit that  
2           you still probably are charred with both at least  
3           according to the regulations that I have been  
4           reading. Perhaps, there have been updates more  
5           recent than 2002.

6                   MR. HOWELL:                   Right, it's not part  
7           of our charter.

8                   MS. SPAULDING:                It wasn't in the copy  
9           I read; however, shortly after the shut down and  
10          permitting Davis-Besse to continue operating despite  
11          the findings in March until it was time for their  
12          scheduled shut down, you gave Davis-Besse your Golden  
13          award after the inspection. Why the hell did you do  
14          that?

15                  MR. HOWELL:                   Can you help me out in  
16          terms of Golden award? Are you referring to the --

17                  MS. SPAULDING:                I am referring to the  
18          award that you all gave Davis-Besse right after the  
19          inspection for their efficiency and operation of the  
20          plant. It was referred to as the Golden award. It  
21          kind of goes along with their little sign that has  
22          been saying six million hours with no lost time  
23          accidents. It now says seven million hours with no  
24          lost time unless, of course, the media is around then  
25          they turn the little sign off. Even here on the

1 first page of the update that we picked up today in  
2 the first paragraph, Containment Extent of Condition  
3 Inspection, Part 2, found that plant personnel were  
4 properly trained and qualified to identify components  
5 and systems inside the building that could be  
6 affected by boric acid deposits and corrosion. They  
7 used adequate tools and followed adequate quality  
8 standards and guidance, so how come they had a hole?

9 Paragraph 3, same page, plant personnel  
10 performing these inspections weren't properly trained  
11 and certified. Excuse me, but that seems to be in  
12 contradiction. Would you explained that, please?

13 MR. HOWELL: I can't, because I  
14 don't know what document you're referring to, ma'am.

15 MS. SPAULDING: This one, right there.  
16 I've underlined the parts. Help yourself.

17 MR. HOWELL: Roland, Jan, I think  
18 she's referring to the NRC Update. Perhaps you can  
19 provide some clarity.

20 MR. LICKUS: Yeah, what you're  
21 referring to is a recent inspection that was just  
22 completed that looked at the individuals that were  
23 doing work by the Utility to identify components and  
24 systems within containment.

25 MS. SPAULDING: Were those the

1 qualified or the unqualified ones?

2 MR. LICKUS: These are the ones  
3 that you identified as being qualified.

4 MS. SPAULDING: No, you identified  
5 them. I didn't write the report.

6 MR. LICKUS: I'm sorry. You're  
7 right. This is the ones that we said were qualified  
8 based upon our recent inspection. This is after --

9 MS. SPAULDING: Okay, so how --

10 MR. LICKUS: Ma'am, can I finish,  
11 please? This was after --

12 MS. SPAULDING: As soon as you start.

13 MR. LICKUS: Ma'am, this was after  
14 the degradation was found, so this is looking at the  
15 people who were doing work inside the containment  
16 after the degradation was found to determine if other  
17 systems or components were affected by the  
18 degradation, so we were looking at the qualifications  
19 of those individuals.

20 MS. SPAULDING: Oh. So who are the  
21 unqualified ones then?

22 MR. LICKUS: That was a result of  
23 an earlier inspection that was done, I believe, in  
24 the July time frame.

25 MS. SPAULDING: That was --

1 MR. LICKUS: We looked at  
2 individuals who were doing work at that time.

3 MS. SPAULDING: Those were the ones  
4 that you gave the award to.

5 MR. LICKUS: No.

6 MS. SPAULDING: Pick one.

7 MR. LICKUS: First of all, NRC  
8 doesn't give awards, so I don't know where you're  
9 getting that information from, but we've never given  
10 an award to a licensee that I'm aware of.

11 MS. SPAULDING: Gee, I wish I would  
12 have brought the copy of The News Herald that was  
13 right afterwards where you all were pictured handing  
14 out the award to the management team, but  
15 unfortunately I didn't.

16 MR. LICKUS: When you talk about  
17 hours of work that have been performed for -- without  
18 injury, that may have to do with an area that we're  
19 not involved in. That may have to do with  
20 industrial safety issues, not nuclear safety issues,  
21 so --

22 MS. SPAULDING: Since the little board  
23 doesn't specify, it simply says, no lost time. That  
24 same message was up the entire time the plant was  
25 shut down. That's pretty lost time.

1                   Why was there no independent review? Why  
2                   should there be not duplication?

3                   MR. HOWELL:                   I'm sorry, ma'am?

4                   MS. SPAULDING:                You said that you  
5                   denied the petition for independent review because it  
6                   would duplicate your efforts. I think that a review  
7                   of the reviewers, given the record over the years  
8                   that Davis-Besse has been in operation, would  
9                   certainly be appropriate, so the fact that somebody  
10                  else might look where you look, was it denied because  
11                  you were afraid they might find something that you  
12                  didn't report?

13                  MR. HOWELL:                   Again, we're here to  
14                  address the efforts of the Lessons Learned Task  
15                  Force. Now, in this particular case, I believe  
16                  you're referring to the petition that requested an  
17                  independent review that was answered.

18                  MS. SPAULDING:                Yes, 2.206.

19                  MR. HOWELL:                   Yes, and as noted in  
20                  the response, the agency indicated that the review  
21                  efforts of the Region III Augmented Inspection Team  
22                  and the follow up inspection, as well as the  
23                  intensely focused efforts of the 0350 Panel review  
24                  activities which brings to bear the entire resources  
25                  of the agency as well as our efforts have -- in our

1 estimation have been sufficient to identify the range  
2 of issues as they relate to Davis-Besse. Now,  
3 having said that, if new issues are brought forward  
4 during this process which has already been in place  
5 for a number of months, the agency is open to  
6 revisiting that decision.

7 MS. SPAULDING: That's nice of them.

8 Could you please -- I would like --

9 MR. BORCHARDT: Excuse me, ma'am. Can  
10 I try to answer the issue about oversight of NRC? My  
11 name is Bill Borchardt. I'm with the Office of  
12 Nuclear Reactor Regulation in headquarters. There  
13 is really three activities that are either ongoing or  
14 possible that will provide additional oversight of  
15 NRC activities and our performance.

16 The first one which is ongoing is the  
17 Inspector General of the NRC which is a group  
18 separate from the NRC staff, although they do report  
19 to the five commissioners that has -- has a review  
20 underway.

21 The second is the GAO, which is a Government  
22 agency completely separate --

23 MS. SPAULDING: I'm aware of what it  
24 is.

25 MR. BORCHARDT: -- from the NRC, and

1 then the third --

2 MS. SPAULDING: The accounting office.

3 MR. BORCHARDT: -- is always the  
4 possibility of a congressional hearing, which there  
5 has been discussion of, but I'm not aware at this  
6 time of whether or not there is any planned.

7 MS. SPAULDING: The election is just  
8 over. They're not going to have hearings now. I  
9 seriously doubt that.

10 Why, given the admitted inadequacy, even  
11 though you've had another management group inside the  
12 NRC to review you, what is the process that's going  
13 to occur before Davis-Besse is restarted that will  
14 assure us that we won't have more or perhaps worse  
15 happenings?

16 MR. HOWELL: I'm sorry, I didn't  
17 fully appreciate that question.

18 MS. SPAULDING: I'm sure you didn't.  
19 What is the process that will happen before this  
20 plant is restarted to be sure that there will be no  
21 further happenings considering the past record?

22 MR. HOWELL: Again, our efforts  
23 were focused at what happened at Davis-Besse relative  
24 to that reactor vessel degradation.

25 As I indicated there is an 0350 Panel process

1           that meets regularly that is governed by a high level  
2           guidance documents that brings to bear the entire  
3           resources of the agency. That membership is  
4           comprised of folks from the regional office and  
5           headquarters, and the activities that govern that  
6           panel are described in detail in publicly available  
7           documents, and as part of that process, detailed  
8           review lists are developed. Inspections are  
9           conducted. They are assessed by the panel, and then  
10          decisions are made about the adequacy of the  
11          licensee's effort, that's all part of the process,  
12          and it's ongoing and has been ongoing.

13                       MS. SPAULDING:               Hasn't worked real  
14          well so far, has it?

15                       MR. HOWELL:                 In what respect,  
16          ma'am?

17                       MS. SPAULDING:               Would you have this  
18          hole?

19                       MR. HOWELL:                 Yes, but, again, the  
20          purpose of the 0350 Panel is to bring to bear the  
21          resources of the agency in an efficient and effective  
22          manner to communicate with the public and to make  
23          sure that the issues, both technical, programmatic  
24          management, other issues that are identified that  
25          bear on the resolution of that problem are addressed



1 before the plant restarts. That effort has been  
2 ongoing and will continue to be implemented through  
3 and until such time that the decision is made in the  
4 NRC's view that the problems have been addressed.

5 MS. SPAULDING: So that's your PR arm?

6 MR. HOWELL: Again, that is how the  
7 process works.

8 MS. SPAULDING: That's what I said, it  
9 hasn't worked too well so far. Thank you.

10 MR. HOWELL: Thank you, ma'am.

11 Any other folks that have questions or  
12 comments?

13 MS. (PAM) STEELE: My husband works in  
14 the petroleum industry. He's a metallurgical  
15 engineer, and my question as a resident of Oak Harbor  
16 is, they knew about the possibility of corrosion with  
17 the nozzle beforehand, and it wasn't followed through  
18 or inspected significantly before the problem  
19 occurred. My husband, as a metallurgical engineer,  
20 is held to specific standards in the petroleum  
21 industry and the safety of the community.

22 My question is, being that they did not  
23 follow through with this problem beforehand, how as a  
24 resident here, do you plan to increase our trust  
25 towards the NRC as well as FirstEnergy to believe

1           that you have the protection of not only your behinds  
2           and FirstEnergy's financial revenue, but the aspect  
3           that there is young children and others in the area?  
4           How are you working if you say one of the problems in  
5           the report was the instability of the changeover in  
6           the management as -- as often has there has been  
7           changeover, there has been new changeovers in  
8           management, and how do you ensure with the new  
9           personnel that there will be a stability because  
10          knowing industry, people in the industry, and how do  
11          you keep that stability?

12                   The other question I would like to have  
13           addressed is being that the metal in the nozzle head  
14           corrosion, what differences have you made in new  
15           nozzles, or how are you going to address this problem  
16           so that it doesn't happen again for the future of our  
17           children in the area?

18                   And I think the last question I have is if  
19           this was known beforehand, how are we supposed to  
20           trust that there is not other problems that have not  
21           been addressed as individual as stated, I mean, my  
22           husband and I just have moved into the area at the  
23           time that the thing shut down, how do we know that  
24           the things have been addressed correctly if this  
25           particular issue hasn't been addressed correctly, and

1           how are you looking at assuring that the thing will  
2           be addressed in a more -- with more integrity than it  
3           has been in the past?

4                       MR. HOWELL:                       Before I answer the  
5           questions, could you provide some clarification on  
6           the first question? Were you referring to the  
7           changeover in the plant's management or the NRC --

8                       MS. STEELE:                       Both. I know that  
9           there has been changeovers in different management  
10          teams. I know specifically for Davis-Besse there's  
11          been changeover and being that they're the first ones  
12          in contact with this stuff, I want to know how are  
13          you guys planning on giving some stability here being  
14          that part of the supposedly findings was that part of  
15          the changeover in staff and management teams have  
16          been part of the problem, plus, if the training was  
17          supposed to be there for them, how are you guys  
18          updating the training for the personnel working in  
19          the systems so that they deal more specifically with  
20          some of these issues?

21                      MR. HOWELL:                      Yeah, just in a  
22          general sense, a number of the issues that you raise  
23          are all issues that -- are issues that are being  
24          addressed by the Oversight Panel for Davis-Besse.  
25          With regard to our report, in two respects we touched

1 on staffing. On one hand, the licensee staffing and  
2 on the other hand our own staffing, and primarily  
3 that was focused on the effects of turnover amongst  
4 the engineers, for example, with the licensee who  
5 were doing the work and not so much management  
6 because at the time period in question that we looked  
7 at, there really wasn't much management turnover.  
8 There was a fair amount of turnover amongst some of  
9 the engineers involved with the inspection of the  
10 reactor vessel, and in our estimation that was a  
11 contributing factor in the lack or timing of the  
12 identification of the problem. Issues such as that  
13 have also been reviewed by the licensee as part of  
14 their own in-depth evaluation, and they have made a  
15 number of changes in management, and I really can't  
16 speak to what changes they have in terms of staffing  
17 levels.

18 Now, folks from Region III may need to help  
19 me out because I'm not fully aware of the -- every  
20 detail of all the -- of all the review activities of  
21 the 0350 Panel, but certainly to the extent that  
22 there are issues involved with staffing, that would  
23 be reviewed as part of -- if not in a short-term the  
24 longer term effects.

25 Now, having said that, we also looked at the

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1 effect of NRC vacancies relative to the NRC staffing  
2 at Davis-Besse, and there were some vacancies, and  
3 the reason for those vacancies are the same reasons  
4 that occur in any large organization. Folks decide  
5 they want to go to another more -- have a better  
6 opportunity in another part of the agency or they  
7 want to leave. We're always going to be faced with  
8 that. In recent years, we -- and it's been a  
9 challenge and a struggle, and in recent years, the  
10 agency as a whole has taken to heart a recognition  
11 that we needed to do a lot more to recruit and retain  
12 folks and we've placed a lot of emphasis on that as  
13 an agency and I may be a little bit off on the  
14 numbers, but we hired a lot of new folks over the  
15 last -- just in the last year, I believe, on the  
16 order of a hundred, which is three or four percent of  
17 the entire agency. In terms of the specific  
18 vacancies that were in question at the time that the  
19 problem manifested itself, those vacancies have been  
20 filled and they have been filled for quite some time.  
21 The task force did make a number of recommendations  
22 to understand the impact of those vacancies and make  
23 them more visible such that in the case of  
24 Davis-Besse that critical positions are not gapped  
25 for long periods of time, so we did make a

1 recommendation to do that.

2 We also made a recommendation to provide  
3 guidance to primarily the folks in -- and not just  
4 Region III, all four NRC regions that when a region  
5 is faced with the resource impact of a plant that's  
6 in an similar situation, not necessarily for the same  
7 technical problem, but in an extended shut down in  
8 which there is an oversight, increased agency  
9 oversight, that the agency provide guidance on how to  
10 better manage that so the proper resources are  
11 brought to bear.

12 In terms of your second issue about what's  
13 being done technically to improve the material that  
14 was involved and in this case it's a nickel based  
15 alloy, Dr. Hackett, do you want to come and address  
16 that part?

17 MR. HACKETT: Thanks, Art. I'm  
18 also a metallurgist, so I share the same concerns.  
19 The new heads that are being fabricated are being  
20 fabricated differently and with different materials  
21 that are more resistant to these degradation  
22 mechanisms, or, in particular, I should restrict the  
23 comments to the stress corrosion mechanism. There's  
24 a new alloy, different alloy, called Inconel 690,  
25 which is a lot less susceptible to the stress

1 corrosion phenomenon that occurred here and that has  
2 occurred at other plants with regard to the cracking.  
3 With regard to the head, the head is fabricated from  
4 the same materials, so it will continue to be  
5 susceptible to -- it is carbon steel. It will  
6 continue to be susceptible to boric acid attack is  
7 conditions such as these found at Davis-Besse were to  
8 happen again. The hope in this case is that would  
9 not -- the conditions that existed there would not be  
10 duplicated again particularly with regard to  
11 minimizing the potential of this cracking -- this  
12 cracking through the wall. I guess one thing to  
13 annotate these comments, the head at Davis-Besse is  
14 not the -- the replacement head at Davis-Besse now is  
15 not one of these new heads. It is, as most of you  
16 know, it came from the Midland plant so it was  
17 fabricated in a very similar manner to the head that  
18 was there, so its susceptibility will be in the same  
19 category. The good news about that is that these  
20 phenomena are aging related phenomena and that they  
21 have an incubation period. It takes quite a while to  
22 develop that kind of degradation and during that time  
23 frame, I don't know this for a fact, but I believe  
24 the licensee has a long-term plan to replace that  
25 head with the new head that will have this new

1 material in it. I see Mr. Myers shaking his head,  
2 so I believe that's the case.

3 MS. STEELE: Well, I guess my other  
4 question here then is not -- I think it was 60  
5 Minutes had a thing on, I think about Midland or one  
6 of the newer power plants that has never been started  
7 up because they, as they were building it, it never  
8 came to NRC's standards so the power plant never went  
9 into production and right now they're trying to  
10 figure out what to do with that power plant.

11 If that's the case that there's that problem  
12 with the corrosion and they did not link the  
13 corrosion from the boric acid to it, you know, what's  
14 to protect the citizens in this area? I mean, are  
15 you going to be doing more regularly follow through  
16 checks and -- follow through here, I mean, because  
17 here is another power plant that was a brand new one  
18 that was not even up and running because by the time  
19 it was built, it wasn't up to standard and, you know,  
20 I don't know if that's where this head came from, you  
21 know, but I also, like I said, I have children, and,  
22 yeah, there may be a long period of time, but I have  
23 my children and grandchildren and hopefully one day  
24 great grandchildren to consider and being that we're  
25 in this area -- but for the inspection of the



1 materials, have you done long-term studies on this  
2 material, and what tests have been performed on this  
3 material for the nozzles that you are talking about  
4 for the head?

5 MR. HACKETT: These is are very good  
6 questions. There have been long-term tests  
7 performed on a lot of these materials; Inconel 600,  
8 also the newer alloy, Inconel 690 is now being used  
9 in steam generator tubes. In the NRC and the  
10 industries experience, its performance in steam  
11 generators has been similar to Inconel 600, so there  
12 have been studies that have indicated there are  
13 improvements here, but that's not the end of the  
14 story either. I'm not going to stand here as a  
15 metallurgist and tell you there's a stress corrosion  
16 immune material. There probably isn't. Given  
17 enough time and the right conditions you can crack  
18 these things environmentally, and so hence the  
19 importance of the inspection activities, both the  
20 licensees primary line of defense and then the NRC's  
21 sampling or check functions as Art has been talking  
22 about. In that regard we do have recommendations in  
23 the report that go towards focusing training and  
24 inspection guidance in this area, in particular the  
25 stress corrosion cracking area and boric acid attack,

1 and we have previously been through this type of  
2 thing with regard to steam generator degradation  
3 where the tubes are smaller, but the degradations are  
4 very similar.

5 MR. HOWELL: And then a follow up  
6 here to your third question, that's also a very good  
7 question. It's a question that is at the forefront  
8 of our every day, day in and day out duties, and that  
9 is if you find a problem in one area, are you going  
10 to find problems in other areas, and first and  
11 foremost the primary responsibility obviously is with  
12 the plant itself. It's their plant. They have an  
13 obligation to comply with our regulations and to  
14 address safety issues when they're identified. Now,  
15 obviously, there were some break downs here. The  
16 question is, to what extent did those break downs  
17 occur? Are there break downs in other areas, and  
18 their reviews are focused on trying to figure that  
19 out, and they have taken a number of actions. In  
20 parallel with that, although it's outside of the  
21 scope of our effort, the NRC oversight panel that I  
22 did mention earlier, also has that as one of their  
23 primary areas of focus, is to understand the extent  
24 and condition so that other issues that may be  
25 related or even not terribly technically related are

1           understood so that at least some of the common causal  
2           factors are addressed, and then, finally, as Ed  
3           indicated, we did make a number of recommendations  
4           relative to our review about performing some other  
5           assessments in other technical areas to understand  
6           whether or not problems that we thought had been  
7           solved by us and the industry a number of years ago  
8           have, in fact, been addressed.

9                       MS. STEELE:                       Thank you.

10                      MR. HOWELL:                     Other questions,  
11           comments?

12                      MS. (DONNA) LUEKE:            Hi.

13                      MR. HOWELL:                     Good evening.

14                      MS. LUEKE:                     I just have a couple  
15           of specific questions which may or may not be in your  
16           area of purview. One is, is your work down now? I  
17           mean, are you all finished as a group?

18                      MR. HOWELL:                     Yes, and no. We have  
19           issued our report, and we have a number of other  
20           meetings that we plan to hold. Many of those or most  
21           of those other meetings are internal. One of the  
22           high priority items actually is to share the results  
23           of our review with the entire NRC so that the folks  
24           that work in the NRC understand what it is that we  
25           found, what it is that we recommended to address the

1 problems and then ultimately, once the  
2 recommendations have been reviewed and assessed, what  
3 it is that the agency is going to do to address those  
4 issues, so that's the next phase, and then we also  
5 have another meeting, Dr. Hackett mentioned, the  
6 Advisory Committee on Reactor Safeguards a standing  
7 committee of independent nuclear safety experts and  
8 we'll be conducting a briefing for them on December  
9 5th, so those are the near future activities, and  
10 after that, I expect that we'll have other  
11 opportunities to share with various forums what we  
12 found.

13 MS. LUEKE: How do you follow up  
14 whether your recommendations have been taken?

15 MR. HOWELL: Again, it's a two step  
16 process. Our effort was to make the  
17 recommendations, if you will, and then there's a  
18 senior executive review team. These are managers,  
19 the highest level of the agency, then they are going  
20 to address the recommendations, and then depending on  
21 the review effort that they conduct, I would  
22 anticipate that action plans would be developed and  
23 that these action plans would be translated into what  
24 we in the NRC call operating plans. These operating  
25 plans have resource impacts. They have metrics to

1 track implementation effectiveness, completion  
2 schedules and that will all be part of the process,  
3 and that's consistent with what we have done for  
4 other past lessons learned review?

5 MS. LUEKE: It would nice if you  
6 never had to do it again.

7 MR. HOWELL: Well, actually, I  
8 understand your point, if the point is -- obviously,  
9 we don't want to have this problem again. This  
10 is -- it's unsatisfactory, it's completely  
11 unacceptable and we need to do whatever it takes to  
12 prevent this from happening, not only us, but the  
13 industry as a whole and Davis-Besse obviously, but in  
14 terms of conducting self-critical assessments, that's  
15 how one gets better, you learn from mistakes and  
16 problems, and, obviously, as I stated, we don't want  
17 to have this same problem, but that's not to say  
18 that, you know, we're all human, and there's going to  
19 be other issues, hopefully not as significant, but we  
20 want to learn from that, so, you know, we will likely  
21 conduct future lessons learned reviews for other  
22 issues in the future and hopefully address those --  
23 address those problems.

24 MS. LUEKE: That's always a good  
25 thing to learn, lessons, but, of course, the margin

1 for error in your industry isn't as wide as it is in  
2 some, and that is what concerns those of us that live  
3 around here, of course.

4 MR. HOWELL: Yes.

5 MS. LUEKE: We're grateful for the  
6 lessons learned from the NRC and from FirstEnergy,  
7 but we just are a little weary of being in the  
8 classroom right now for those lessons.

9 MR. HOWELL: Right, and I  
10 understand your concern, and the agency takes it very  
11 seriously, and that's why there is a considerable  
12 amount of agency resources that are being focused on  
13 addressing this. This problems has gotten worldwide  
14 attention not just nationwide attention, and there is  
15 a lot of eyes focused on it, and the agency plans to  
16 do what it takes to -- from its contribution to the  
17 process, ensure that these types of issues that were  
18 identified don't result in future similar problems.

19 MS. LUEKE: All right. Have the  
20 five commissioners decided if they are going to -- I  
21 forget what the term is -- convene an official  
22 fact-finding? That was pending the last I had heard.

23 MR. HOWELL: I'm not entirely  
24 certain to what you're referring to, but what I can  
25 tell you is the commission -- a meeting by the full

1 commission, a public meeting is under consideration  
2 for -- not just our effort, but other ongoing NRC  
3 reviews related to the Davis-Besse plant.

4 MS. LUEKE: Obviously, we feel  
5 like the woman stated before, the more eyes the  
6 better on this and any of those -- it was good to  
7 hear that you had somebody from outside the agency,  
8 you know, at your meetings also, but we feel that --  
9 I think a lot of people I've talked to, feel that the  
10 more of that happens, because we all develop tunnel  
11 vision with our own lives and our own jobs, and  
12 perhaps some of those lessons and some of that  
13 objectivity could be expanded by inviting others.

14 MR. HOWELL: Yes, and depending on  
15 the circumstances, in general, I agree with that  
16 notion. Independence, fresh eyes are always a good  
17 thing.

18 MS. LUEKE: Although the technical  
19 aspects are really hard to follow for those of us --

20 MR. HOWELL: Yes, they can be, yes.

21 MS. LUEKE: In fact, one of the  
22 technical aspects that you refer to is talking about  
23 Davis-Besse already scheduling a second replacement  
24 head, a new head to replace this. I guess, my  
25 understanding and its -- I don't have the specifics

1 was that there was an end point to the licensing of  
2 any nuclear power plant, and I thought it was not too  
3 far from now.

4 When is the current date for Davis-Besse to  
5 be decommissioned or shut down? That is written  
6 somewhere, but I haven't been able to find it.

7 MR. HACKETT: I have a couple things  
8 I could say. The first answer is I don't know that  
9 day -- is this microphone on?

10 MR. HOWELL: Yeah, there it goes.

11 MR. HACKETT: It is?

12 MR. HOWELL: Yes, it's working.

13 MR. HACKETT: Okay, there are  
14 license periods, the plants are licensed to operate  
15 over a specific 40 year life, and you may have seen  
16 that the NRC has embarked upon relicensing of the  
17 plants or license renewal for a 20 year additional  
18 period, so your comments do go to -- to that issue.  
19 I can't speak for FENOC on -- and I don't know the  
20 status of what would be the case for Davis-Besse  
21 either in terms of the expiration date, I'm sure Mr.  
22 Myers knows and with regard to the seeking license  
23 renewal. Obviously, if you're going to make this  
24 kind of investment in the plant, I'd be thinking that  
25 you would be looking at applying for a license



1 renewal in that case.

2 MS. LUEKE: Is that happening? I  
3 mean, you all being involved in that.

4 MR. HOWELL: We don't know that  
5 status, it's really outside our -- we can get back to  
6 you. Get the right person in touch with you.

7 MS. LUEKE: Yeah, I think we would  
8 like to know that because when Davis-Besse was first  
9 opened from those I know that were around here and  
10 living here at the time, it was scheduled for a shut  
11 down and not too far from now, and that was sort of,  
12 I don't know, I think it was like the Turnpike  
13 analysis, like, the fees were supposed to come off of  
14 the Turnpike at a fixed time, and we want to know if  
15 this is going to be another Turnpike situation.

16 MR. HOWELL: Right, right.

17 MS. LUEKE: The fees never go.  
18 Does Davis-Besse never go away?

19 MR. HOWELL: We're not the right  
20 folks, and if we can get the contact information,  
21 we'll put you in touch with the right folks.

22 MS. LUEKE: Yeah, okay. Thank  
23 you. And the other question may also be outside of  
24 your area of expertise.

25 Are there any results yet from the test on

1 the old reactor that they are doing and are gone, I  
2 believe, for corrosion growth and at Oak Ridge for  
3 the stainless steel liner? In other words, the parts  
4 of this old reactor have gone to these places to be  
5 tested, and I haven't known if any of those are back  
6 yet?

7 MR. HACKETT: I think the way I  
8 would answer that is a lot of that work is ongoing.  
9 Some of the work is supported by the NRC research  
10 office, particularly with regard to the -- as you  
11 mentioned, the testing and analyses on the stainless  
12 steel liner, mostly going towards feeding material  
13 models to get to the significance determination  
14 that's one of the reasons that that risk  
15 determination process takes so long in a case like  
16 this. I believe there are other activities, and,  
17 again, as Art said, we're the wrong group to be  
18 asking at this point.

19 MS. LUEKE: Okay.

20 MR. HACKETT: I'm just transitioning  
21 back to my normal job, and I'll become more aware of  
22 these things hopefully over time here. What I can  
23 say is the NRC research office has spent a lot of  
24 money analyzing the structural integrity of the as  
25 found situation at Davis-Besse and a lot of that

1 relates to the integrity of the stainless steel  
2 liner. A lot of that is by some world class experts  
3 at the Oak Ridge laboratory that do, what they call  
4 fine element analysis, and basically mathematical  
5 modeling of the head, so it's not exactly testing of  
6 the materials, but I believe some of that is planned  
7 and some of it may even be joint with the industry  
8 and sponsored also by the Electric Power Research  
9 Institute and some others, so there is work underway  
10 in that area.

11 MS. LUEKE: I guess just one more  
12 comment, and that is with investigations still  
13 pending and with tests still pending on the old  
14 problem because it doesn't seem like all that work is  
15 done yet, and we're hearing start-up dates about  
16 February, and the NRC passed on the comments on the  
17 time table at the last meeting that we had last week,  
18 and they continually say, it will only restart if we  
19 say it's all okay, and that's of some comfort, but to  
20 not even have any comment on that, I think is an  
21 example of the information gap that we feel a lot of  
22 times, and we understand caution, certainly that's  
23 important in this business that you're in, but in  
24 lack of information is where a lot of misinformation  
25 comes and, I don't know, so I guess that's one point.

1 Okay?

2 MR. HOWELL: Right, and I  
3 appreciate that concern, and, again, if there is some  
4 specific questions about the desire to know, you  
5 know, about the schedules and that, we can put you in  
6 touch with Jack Grobe. I don't know if you have met  
7 Jack.

8 MS. LUEKE: And they passed on  
9 that, so that's what we learned is that no comment on  
10 the time line, and so that's why I'm addressing it to  
11 you, because if this is a lesson to be learned, then  
12 so what we read is that February we're going to  
13 restart Davis-Besse. Meantime, all the  
14 investigations aren't in, all the data isn't there.  
15 A new information document came out from INPO, are  
16 you familiar with that document that just came out?

17 MR. HOWELL: No, I'm not, but --

18 MS. LUEKE: Yeah, it slipped out,  
19 I heard.

20 MR. HOWELL: -- I'm aware of The  
21 New York Times article today.

22 MS. LUEKE: Yes, that's the one  
23 I'm talking about.

24 MR. HOWELL: Right, and, you know,  
25 I know it's not fully satisfactory or not

1           satisfactory at all, but we can't comment on the new  
2           line investigation that you're referring to, but I  
3           think I misunderstood your question. I thought you  
4           had some questions about the schedule, whether the  
5           schedule was -- you know, what's going to be made  
6           available by the time the plant restarts, and, again,  
7           not satisfactory, not satisfying to you, but we're  
8           not in a position to address schedule issues, we're  
9           just not.

10                   MS. LUEKE:                   Yeah, I understand  
11           that. My comment was this is how it comes to us and  
12           this is a part of the lessons learned, we feel, that  
13           this information needs to have some, I mean, we don't  
14           know anything about penalties yet, we don't know  
15           anything about any hand-slapping that's going to be  
16           happening, you know, more investigations is all  
17           that's coming to us, and we're saying, okay, when is  
18           somebody going to get their hand slapped for being  
19           bad, and that's part of what you did within your own  
20           agency, and it seems a little slower coming in  
21           FirstEnergy, so -- I don't know, that's what I'm  
22           asking.

23                   MR. BORCHARDT:                I think I can  
24           contribute a few things. First of all, I think the  
25           reason we're hesitant to comment on the schedule is

1           because we're not driven by the schedule.   Our only  
2           concern is that if and when this plant starts up,  
3           that it's done safely, so we're not driven to make  
4           sure that the plant is ready to start up in February.  
5           If the plant is ready, we will have done the  
6           inspections and provided the oversight through this  
7           0350 Panel to verify that we're confident that that  
8           plant can operate safely, so that's why we -- we  
9           don't have a schedule.   I think is the short answer.  
10          I would ask FirstEnergy to provide to the public, I  
11          think would be in their best interest and in yours to  
12          provide a meaningful schedule to let you know what  
13          their plans are, but that's why I don't think you'll  
14          ever get a schedule from the NRC.

15                   MS. LUEKE:                   Yeah, the pieces are  
16                   just not coming together.   The NRC is investigating  
17                   this.   Somebody else is looking at the head and the  
18                   liner and doing their studies on that.   INPO is doing  
19                   whatever they do, and we can't even keep the initials  
20                   straight most of us, so it's just a matter of, okay,  
21                   is there one place we can go and say -- and I felt it  
22                   was the NRC, and is it the 0350 Panel that is  
23                   ultimately the one that is responsible for answering  
24                   all our questions, I guess is my question?

25                   MR. BORCHARDT:               Yes, the 0350

1 Panel is the group that makes the recommendation and  
2 the decision to allow start up, okay? As far as --  
3 you had raised the subject of enforcement -- that is  
4 still in process, but the one thing you need to keep  
5 in mind is one of the reasons that the new reactor  
6 oversight process has the assessments that it does  
7 and goes through the enforcement process is to decide  
8 what additional inspections need to be performed.  
9 We're all ready with this plant at the highest level  
10 of inspection oversight we can get to. The 0350  
11 Panel is high a level of inspection that you can get,  
12 so we have supplemented with all the inspection that  
13 we believe is appropriate and necessary for this  
14 plant. Ultimately, enforcement decisions will be  
15 made, and, I mean, those things are in process, but  
16 it's not that it's -- the fact that it hasn't been  
17 made yet is not delaying inspection that's necessary.  
18 We've already decided that we're going to allocate  
19 all the resources we need to provide adequate  
20 oversight, okay.

21 MS. LUEKE: Thank you.

22 MR. BORCHARDT: Sure.

23 MR. STRASMA: I'm Jan Strasma. I'm  
24 the Public Affairs officer from the region and just  
25 to follow up, the place where all this comes

1 together, where the pieces comes together that we're  
2 talking about is the NRC Oversight Panel which meets  
3 here monthly. The next meeting will be December  
4 10th. It will be -- I think, Roland, is it going to  
5 be at Camp Perry next time?

6 MR. LICKUS: Yes, Camp Perry.

7 MR. STRASMA: Yeah, December 10th,  
8 the meeting will be at Camp Perry. There's an  
9 afternoon at 2:00 between the NRC and the Utility and  
10 then a 7:00 meeting with the public much like this  
11 and that's the place where you not only follow what  
12 the various steps are, but the people who are making  
13 those types of decisions will be here, so unlike this  
14 panel that's been looking historically at how we got  
15 to this position, it's the Oversight Panel that is  
16 coordinating the NRC's efforts going forward, so come  
17 join us on December 10th, and you'll probably get  
18 some answers, not all answers because, you're right,  
19 there's a lot of pieces that's going on at the same  
20 time, and they won't come together until they come  
21 together, and it's at that point where a decision can  
22 be made, not earlier.

23 MS. LUEKE: We would just like to  
24 say that we hope all these pieces come together  
25 before the plant opens for the comfort of the public



1 here.

2 MR. STRASMA: I understand that.  
3 They will.

4 MR. HOWELL: Thank you. Just  
5 checking, in terms of the schedule, we have about  
6 eight minutes remaining. Are there other questions?  
7 Yes, sir?

8 UNIDENTIFIED: Just a local resident,  
9 and I have been coming to these meetings since they  
10 started and it's amazing with the amount of words and  
11 letters that are spoken without saying anything.  
12 You know, I guess I'm ignorant, I don't know. The  
13 thing I don't understand, I asked at the last  
14 meeting, what happened to the management of  
15 FirstEnergy that supposedly was fired or moved or put  
16 into other jobs. They said they would get back to  
17 us on that answer. There's been many, many, many,  
18 many questions asked and there's no answers.  
19 Everyone points their finger in another direction.  
20 Ask this committee, ask that committee, look for so  
21 and so, there's no answers, and I really think it's  
22 disgusting that people are interested and want to  
23 know the answers and you guys sit up there and wish  
24 wash around. There's no answers.

25 MR. HOWELL: I understand your

1 frustration, sir, but, again, we're looking  
2 historically at what happened relative to this event  
3 and the actions that FirstEnergy took regarding  
4 personnel actions involving individuals was not  
5 central to our review, so we're not in a position to  
6 provide any detail on that question.

7 UNIDENTIFIED: I understand that, who  
8 is? I see -- I guess the thing I don't understand,  
9 there is a whole lot of questions that people want to  
10 ask FirstEnergy, and I think the people here feel  
11 that you people are a buffer in between the two. I  
12 don't understand why FirstEnergy isn't here.

13 MR. HOWELL: There are FirstEnergy  
14 representatives in the audience, and you have a very  
15 good question. Many of the questions that you  
16 have -- that are of interest and of concern to you  
17 are questions that should be put directly to them,  
18 and it's up to FirstEnergy to provide the forum to do  
19 that.

20 UNIDENTIFIED: Okay. Also, maybe  
21 you can help me on a couple of these. First of all,  
22 who is licensed on a nuclear power plant, is that the  
23 management? The operators?

24 MR. HOWELL: The operators who  
25 manipulate the controls that has a specified

1 definition in the regulation, so there's a number of  
2 plant operators, and some operate equipment outside  
3 of control room, and I'm just generalizing here, but  
4 it's a very small subset of the total staff that  
5 actually has an NRC license to manipulate the  
6 reactivity of the reactor.

7 UNIDENTIFIED: What is the reason for  
8 the license?

9 MR. HOWELL: The reason for the  
10 license is to ensure that the operators are qualified  
11 to perform their duties in accordance with the  
12 regulations and to perform the duty safely.

13 UNIDENTIFIED: Has a license ever  
14 been pulled?

15 MR. HOWELL: I don't know, I don't  
16 know that it has. We could get you in touch with  
17 the folks that could answer that question.

18 MR. (PAUL) GUNTER: How about a nuclear  
19 power plant?

20 MR. HOWELL: Are you talking about  
21 an individual license or --

22 UNIDENTIFIED: Or as of all, yeah.  
23 As an individual license or as a -- when a plant is  
24 shut down, what happens to them? Has a plant ever  
25 been shut down?

1 MR. HOWELL: There have been many  
2 plants shut downs for a variety of circumstances  
3 including this one. Some plants --

4 UNIDENTIFIED: I mean, has there ever  
5 been a plant closed permanently?

6 MR. HOWELL: Yes, yes, but, again,  
7 that's outside the scope of our review, but the  
8 answer is, yes, there's been several.

9 UNIDENTIFIED: May I ask then, who is  
10 being held responsible? You know, I keep hearing of  
11 all these inspections and all these inspections and  
12 all these inspections. I don't think there is any  
13 inspections being done. I think there's a lot of  
14 paperwork, and it goes to someone else's office and  
15 someone else -- evidently real human beings ain't  
16 looking at some of this stuff. I mean, you can go  
17 back 30 years and they recommended to put mouse holes  
18 and stuff like this in there, so you could see the  
19 mechanisms and stuff and none of that has ever been  
20 done.

21 You fellows admit repeatedly how inspections  
22 failed, but now we're going to have more inspections  
23 and more inspections. I don't understand how this  
24 going to help anything if none of the rules or  
25 enforcements were put in place before this.

1 MR. HOWELL: Well, again, you know,  
2 there were problems clearly, many problems, and that  
3 was why we looked at it, and we made some  
4 recommendations, and the recommendations are intended  
5 at least in the view of the task force to address  
6 those problems and as a result of further reviews  
7 there may be other actions identified, but it's a  
8 valid concern. I mean, if an inspector looks at  
9 something and doesn't have, for example, the  
10 technical background to fully appreciate what he or  
11 she is inspecting, then that needs to be addressed  
12 through training and through other activities and  
13 that's why we made a number of recommendations in  
14 those areas to address those deficiencies.

15 UNIDENTIFIED: Don't you think that's  
16 rather scary to have people over power plants,  
17 nuclear power plants, that are not capable of doing  
18 the job?

19 MR. HOWELL: Well, let's be clear,  
20 we're talking about a very narrowly defined technical  
21 area that some folks may know more about than others,  
22 and in this particular case there were a number of  
23 inspections in which the symptoms and the indications  
24 weren't integrated in such a manner that ultimately  
25 lead to the NRC to discover the problem, and so all

1 of those issues need to be addressed, all of them.

2 UNIDENTIFIED: May I ask then, what  
3 is the NRC's basic job?

4 MR. HOWELL: Our basic function is  
5 to regulate the users of nuclear energy, and that's  
6 not only nuclear power plants, but users of nuclear  
7 materials and industrial applications to ensure the  
8 public health and safety.

9 UNIDENTIFIED: Don't you find it very  
10 peculiar that even as all the inspections and the  
11 eyes are looking at Davis-Besse, that they allow  
12 workers to go in and be contaminated? How did that  
13 happen?

14 MR. HOWELL: Again, we did not  
15 review that activity, I can't speak for that  
16 activity. I can put you in touch with the folks  
17 that did review that, and if, sir, after the meeting  
18 if we can get some contact information we can do  
19 that.

20 UNIDENTIFIED: Okay. There is just  
21 one more issue I'd like to bring up or ask and this  
22 was in The Plain Dealer. The agency prepared a shut  
23 down order as a bluff -- excuse me, as a bluff, I  
24 don't understand why you would have a shut down order  
25 for a bluff and also as a back up in case FirstEnergy

1                   played hardball.    I'm really lost.   I don't  
2                   understand what that's about.

3                   MR. HOWELL:                   Bill?

4                   MR. BORCHARDT:            Maybe I can go back to  
5                   a couple of your comments earlier, and then we'll get  
6                   to the one about the shut down order.    I just want  
7                   to make sure you understand -- and I apologize if you  
8                   already know this.    I'd like to describe for a  
9                   second the NRC inspection program whose sole focus is  
10                  public health and safety.    There are two resident  
11                  inspectors assigned to Davis-Besse full-time.  They  
12                  live in the area.  They report to work at the plant  
13                  every day, and they perform inspections.  They are  
14                  supplemented by inspectors out of Region III in the  
15                  case of Davis-Besse by inspectors who have expertise  
16                  in particular technical areas, so there are  
17                  significant inspection hours going on every week at  
18                  Davis-Besse, and now under the 0350 process, even  
19                  supplemented even more, and they looked at all  
20                  different kinds of engineering, radiological  
21                  protection activities throughout the plant.

22                  Regarding the preparation of an order, back  
23                  when the original bulletin was issued at the end of  
24                  last year and there were concerns raised or  
25                  questioned raised about when Davis-Besse would shut

1 down and do the inspections that were required by the  
2 bulletin, we were operating as we do every single day  
3 on the best information you have available at the  
4 time. We saw at that time that there were a number  
5 of scenarios that could possibly have played out  
6 based on the incomplete information we had and based  
7 upon that, we worked in several parallel paths. One  
8 of those paths was the preparation of an order  
9 requiring Davis-Besse to shut down and perform the  
10 inspections. Ultimately that order was not utilized  
11 because based upon the information we had available  
12 at that time, we agreed to allow Davis-Besse to  
13 operate until the date that they had proposed and  
14 then they would shut down and do the inspections.  
15 Had we known then what we know today, clearly we  
16 would have issued that order.

17 UNIDENTIFIED: But even though what  
18 you do know today, I have read where you made the  
19 statement where you didn't feel that it put the  
20 public in anymore danger by running that extra few  
21 weeks, I find that appalling.

22 MR. BORCHARDT: I can understand your  
23 point. If we had known that there was that  
24 degradation in that vessel head at that point,  
25 without hesitation, we would have issued that order.



1 UNIDENTIFIED: Like again, the other  
2 thing I don't understand, like you keep saying how  
3 many inspections are done how did all this come about  
4 if all these inspections are being done? I don't  
5 understand that. Maybe you can help me with this.

6 MR. BORCHARDT: Well, we're very  
7 disappointed about it also. That's why we have a lot  
8 of significant --

9 UNIDENTIFIED: I'm more than  
10 disappointed because for the simple reason, you know  
11 if things goes to hell here, we're talking all the  
12 Great Lakes, thousands of people's lives. You know,  
13 I don't understand why no one is being held  
14 accountable for some of the things that's went on  
15 here. There's been time after time after time that  
16 FirstEnergy has lied to you people or you people have  
17 not told us the truth. No one is being held  
18 accountable for anything. Therefore, I guess, if no  
19 one is held accountable for anything, what would make  
20 me think that you guys are going to change anything  
21 that's going on now?

22 MR. BORCHARDT: Well, I think you're  
23 premature saying no one is being held accountable.

24 UNIDENTIFIED: Well, we're going  
25 almost a year and all these questions have been asked

1 and everyone we have talked to no one can answer one  
2 single question.

3 MR. BORCHARDT: Well, there are  
4 ongoing investigations separate from the staff that  
5 are looking at staff performance. There have  
6 been -- there's investigations looking at the  
7 performance of Davis-Besse individuals. Those --  
8 these activities are formal investigations that don't  
9 happen overnight, they're in process, and you will  
10 know about the final conclusions when they're issued.

11 UNIDENTIFIED: I realize these things  
12 don't happen overnight, but if that place lights up  
13 it's going to be quicker than overnight. Thank you.

14 MR. HOWELL: Thank you, sir.

15 MS. RYDER: My name is Amy Ryder.  
16 I'm with Ohio Citizens Action.

17 MR. HOWELL: Good evening, Amy.

18 MS. RYDER: I just have a brief  
19 comments. I think what stood out to me most this  
20 evening was when Dr. Hackett stated that this was a  
21 preventable event. FirstEnergy has a massive  
22 responsibility of operating this plant and two other  
23 safely, and it's clear that they failed with  
24 Davis-Besse, and I understand that this group's job  
25 was to identify what can be learned from all this,

1 and I think you came up with 51 recommendations.

2 MR. HOWELL: Yes.

3 MS. RYDER: But I think you forgot  
4 very one important recommendation. The one  
5 recommendation that I think would prevent this from  
6 happening at any other facility would be for the  
7 Nuclear Regulatory Commission to revoke FirstEnergy's  
8 license to operate Davis-Besse. If FirstEnergy  
9 thought for a minute that this agency would revoke  
10 their license, they would have never allowed this  
11 degradation to happen. If this agency revoked the  
12 Davis-Besse operating license as a result of this, I  
13 think we could be confident that other plant  
14 operators would take much more caution in the way  
15 they operate their facilities. Recommending a  
16 revocation of a license, that is a recommendation  
17 with some meaning, and I think you're missing that.  
18 Nuclear power is unforgiving technology and you have  
19 never had more justification for revoking a license  
20 than you've had in the last nine months, and like  
21 FirstEnergy you have failed at your job. You're a  
22 regulatory agency. I mean, earlier this evening  
23 somebody asked what your job is and your job is to  
24 make sure that FirstEnergy does their job, and I  
25 don't understand how you think you can be effective

1 if you refuse to exert your most powerful authority  
2 of revoking or suspending a license. I have  
3 unfortunately zero confidence that the NRC is willing  
4 to do its job, and I've think if you continue to do  
5 things the way that you have been, either this  
6 community or some other, God forbid, is likely to  
7 suffer the catastrophic consequences. Thank you.

8 MR. HOWELL: Thank you. And all of  
9 us here agree that what happened is unacceptable and  
10 that it needs not to happen again and we need to make  
11 sure that we take those steps to ensure that it  
12 doesn't.

13 MR. GUNTER: Thank you. Paul  
14 Gunter.

15 MR. HOWELL: Good evening, sir.

16 MR. GUNTER: I'm with Nuclear  
17 Information and Resource Service. Actually, I'm out  
18 of Washington, so I would ask if we could provide an  
19 extension to this so that other people, local, would  
20 like to speak before me, I would certainly relinquish  
21 the microphone here.

22 MR. HOWELL: I think we have -- how  
23 much time? Maybe another 30 minutes, are there other  
24 folks, local folks, that have questions or comments?

25 (No response).

1 MR. HOWELL: Okay, please.

2 MR. GUNTER: Thank you. Again, my  
3 name is Paul Gunter, I'm with Nuclear Information and  
4 Resource Service out of Washington, and we've  
5 provided the agency with our formal comments tonight  
6 on the Lessons Learned Task Force final report, and  
7 anybody in the audience who would like a copy, we do  
8 have enough here to provide folks with copies. I'm  
9 not going to go verbatim through our comments, but I  
10 would like to touch on a few points given the hour  
11 and a few questions. I think it's clear that the --  
12 to the agency, that more than a hole at the reactor  
13 was recreated by Davis-Besse's malpractice, and what  
14 you've heard tonight is that a significant hole in  
15 public confidence, and that's going to be a hole more  
16 difficult to repair than just bringing in a  
17 replacement part, but we need to look at the issues,  
18 not only from Davis-Besse management point, but from  
19 NRC management point, and I understand that's your  
20 responsibility, and I appreciate the fact that has --  
21 it's a rare opportunity that we do get the NRC out on  
22 the carpet, so to speak. Unfortunately, we don't  
23 have your senior management on the carpet tonight and  
24 I think that tonight is the appropriate night for Sam  
25 Collins, Dr. Brian Sheron, and others who play

1 critical roles in management decisions on the  
2 Davis-Besse degradation, they should be here tonight,  
3 and I'm disappointed that they're not, but the fact  
4 is that you not only have this significance lack of  
5 public confidence, but the NRC is significantly  
6 undermined the confidence of its own staff by the --  
7 in the current regulatory decision-making process,  
8 and that was most evident at a meeting in Washington  
9 on October 30th, 2002 where Dr. George Apostolakis,  
10 who is with Massachusetts Institute of Technology and  
11 also Chair of the Advisory Committee on Reactor  
12 Safeguards for the U.S. NRC in a conference, and as a  
13 panel, panelist, basically said that recent events  
14 have shaken our confidence in our assumptions. These  
15 being the regulatory assumptions that govern safety  
16 issues for U.S. nuclear power plants, and that he  
17 basically was left with the question, what is the  
18 appropriate consideration of uncertainties in this  
19 regulatory process, and, frankly, I don't know, at  
20 this time. That is a significant admission and  
21 worrisome to those of us who realize that the only  
22 mission of the NRC is to uphold public health and  
23 safety, but to specifically address the task force  
24 report, I'm here tonight to say that the task force  
25 final report did not fully address and fulfill it's

1 charter. For one, the task force failed to interview  
2 appropriate external stakeholders for all of the  
3 germane issues, and -- that were related to the lack  
4 of NRC oversight and enforcement actions at  
5 Davis-Besse.

6 Nuclear Information Resource Service and the  
7 Union of Concerned Scientists have played critical  
8 roles in addressing the issues in researching in  
9 providing through the Freedom of Information Act  
10 internal documents that pointed to the mechanics or  
11 the breakdown of the process that contributed to the  
12 degradation, and, yet, while NRC went out to industry  
13 trade groups and owners groups, they never contacted  
14 the public, and, particularly, the recognized public.  
15 Stakeholders that have come to you tonight and that  
16 have been before you numerous times, were never  
17 brought into the review process, and I understand you  
18 had a couple of meetings, but it's my understanding  
19 that those were scoping meetings and were not really  
20 conducted as interviews to pull out germane issues as  
21 you conducted with foreign reactor operators and with  
22 the B&W owners group, so I think that that was --  
23 that was a significant shortcoming, but, more  
24 importantly, I'd like to focus on the fact that the  
25 task force did not provide a complete review of all

1 the significant germane regulatory issues that might  
2 have come forward if you had contacted all of the  
3 stakeholders.

4 One issue, is The Abandonment of Your  
5 Regulatory Guide 1.174, and nowhere in the report is  
6 it mentioned, and it seems to us to be a -- a very  
7 conspicuous omission. It gets arcane very quickly  
8 here, but just to try to explain regulatory guide  
9 1.174 is the agency's own analysis technique to  
10 improve safety decision-making at U.S. reactors by  
11 using Probabilistic Risk Assessments, and it was used  
12 as part of the agency's review of FirstEnergy's  
13 request to blow off your bulletin and the reporting  
14 requirement and the deadline, and that requirement  
15 basically provided staff and the licensee with  
16 clearly established governing safety policies and  
17 principles and procedures to -- to understand if this  
18 requested waiver was -- was appropriate, and to make  
19 a long story short, the five criteria that the agency  
20 used, the NRC staff had concluded that -- that if the  
21 inspections were conducted at Davis-Besse in the fall  
22 of 2001, that the current regulations would not be  
23 met for that facility with request -- or with regard  
24 to its own technical specifications. With your  
25 requirements under code of Federal regulation, it



1 would have found that it was likely that barriers in  
2 the defense and depth strategy that's much touted by  
3 the agency were degraded, and the agency knew that at  
4 the time. It also stated that -- and these were  
5 revelations that were coming out on September 9th,  
6 well -- just after this August bulletin had been  
7 issued and Davis-Besse's request for the deferral.  
8 Staff realized that it was likely safety margins were  
9 reduced at Davis-Besse. Staff recognized that  
10 operation in this condition could result in a higher  
11 core damage frequency than -- than is normally  
12 accepted under the regulatory guides, and that the  
13 only way that you could measure this would be to  
14 inspect, and that was the reason for the order, to  
15 inspect, and when NRC provided Davis-Besse with the  
16 waiver to operate until February 16th in spite of the  
17 staff's consideration and determination that it was  
18 unsafe to operate beyond December 31st, the staff --  
19 the staff in reviewing 1. -- Reg Guide 1.174 again  
20 determined that five of the criteria were not met,  
21 and this was your own guidance talking, so I guess my  
22 first question is, why did the task force not review  
23 this fundamental tool that led to the abandonment of  
24 your own order that would have brought about an  
25 inspection at an albeit -- at a late date, at a much

1 earlier date given the significance of the damage?

2 MR. HOWELL: Yes, first of all, as  
3 I mentioned earlier, the task force sought to  
4 understand why the event was not prevented, and as  
5 you indicated, the issue about whether or not the  
6 plant operated whether you're talking in the time  
7 frame of the fall of 2001 or for some point for six  
8 or seven weeks after December 31st, 2001, as you  
9 know, at that late stage the damage was already done,  
10 and so, in the sense of our question that we're  
11 attempting to answer why the event was not prevented,  
12 although there are a number of important issues  
13 there, they were not central to answering that  
14 question. Having said that, however, we did review  
15 this matter, although -- and, quite frankly, we  
16 identified a number of issues that touch on some of  
17 your concerns. Basically the bottom line is that had  
18 more review been done to confirm the information that  
19 was provided through meetings and letters, in all  
20 likelihood, this would have been brought to light in  
21 the fall of 2001, simple as that, and I think we do  
22 make that point in the report.

23 Now, I agree, we did not review in detail Reg  
24 Guide 1.174, as you noted.

25 MR. GUNTER: And this is my concern

1           that if there's one central lesson we believe that  
2           needs to be learned, is that you uphold your own  
3           principles of guidance in the safety of the operation  
4           of these reactors, and the fact that that guidance  
5           was abandoned, does not restore public confidence,  
6           particularly in light that it's not being addressed  
7           in your final report.

8                       MR. HOWELL:                       Well, again, one of  
9           the other issues in the report was that since the  
10          basis for the decision was not documented in detail,  
11          that was a finding, and so it becomes difficult to  
12          understand ultimately what the basis was. Now, in a  
13          general sense, we know that risk information was  
14          provided by the licensee and was considered by the  
15          staff. We also know that information clearly in  
16          response to the bulletin was provided by the licensee  
17          in terms of the scope of past inspections of the  
18          nozzles, as well as a review of operating experience  
19          involving other B&W plants, and so beyond that, it  
20          becomes a little bit difficult to piece together the  
21          story since there's a lack of documentation for the  
22          ultimate decision. Bill -- and that is addressed in  
23          the report.

24                     MR. GUNTER:                     But there is, there is  
25          lots of documentations that was produced through the

1 Freedom of Information Act that indicated that the  
2 bulk of the staff determination was that this plant  
3 was not fit to operate beyond December 31st and that  
4 was determined through your on own guidance  
5 principles that were then put to the side, and  
6 that's -- that's the concern. I just want that to  
7 be clear to you, that if you -- if anything is to be  
8 understood here tonight from our organization, it is  
9 that when you abandon your principles, what can you  
10 expect when -- for the industry, they serve two  
11 masters; to keep their profit up and to run the plant  
12 safely. You serve one master, supposedly, and that  
13 is to keep these plants safe. When you abandon your  
14 principles, that leaves the plants open to running  
15 wild with production over safety.

16 The other -- the other concern is that -- and  
17 I believe that we hear this time and time again, it  
18 was only last week, I believe, that Mr. Collins of --  
19 the Director of NRR, Nuclear Reactor Regulation,  
20 stated that the waiver was conducted on new  
21 information, that justified with reasonable assurance  
22 that the reactor was safe to operate. The one thing  
23 that I also noticed the final report does not address  
24 is that there was significant known confidence on the  
25 part of staff in the new information that Davis-Besse

1 was providing to push the -- forward with the  
2 extension.

3 MR. HOWELL: The report does  
4 address the range of views expressed during the  
5 discussions on this matter.

6 MR. GUNTER: The range of views,  
7 though, I think would have been -- it would have been  
8 worthwhile to note that the staff involved in the  
9 decision-making process had determined that the  
10 compensatory actions that FirstEnergy was offering  
11 such as a dedicated operator was a ruse, that there  
12 was no dedicated operator, and the staff realized  
13 that, that this person was not going to be dedicated  
14 to particular activities that would have made that  
15 plant safer, but, in fact, had all other sorts of  
16 duties and that to operate the reactor at a lower  
17 temperature, staff recognized that technically that  
18 was not significant over the time frame, so the --  
19 the fact that the reactor operator was able to push  
20 beyond the shut down date, beyond what you were  
21 suggesting was the enforcement date, again, does not  
22 set you up as an example of a -- of a regulator, but  
23 an accommodator, and that's what we need to hear from  
24 this Lessons Learned Task Force is that you are no  
25 longer willing to accommodate the financial interest

1 of the utility over the public health and safety.

2 MR. HOWELL: Again, the central  
3 focus of the task force was to understand why the  
4 event was not prevented and these are all important  
5 issues and they're being reviewed by other agency  
6 review organizations and -- but I have to emphasize  
7 that by the time of the fall of 2001, there was  
8 already significant degradation to the reactor vessel  
9 head.

10 MR. GUNTER: But also you knew at  
11 that time that the plant was highly likely to be  
12 operating outside of its own technical specification  
13 and code of Federal regulations, and yet those  
14 considerations were set aside that it was operating  
15 outside of its own license that you are mandated to  
16 uphold and regulate, and that's what -- that's why  
17 you're not going to fix the hole in the public  
18 confidence if you don't recognize that your actions  
19 or lack of actions continue to a widening hole.

20 MR. HOWELL: And I don't disagree  
21 with the notion that operating experience at other  
22 similar plants would have indicated the high  
23 likelihood of cracking of nozzles at Davis-Besse,  
24 and, in fact, the task force independently concluded  
25 that by an independent review of the operating

1 experience that's available and reported -- that's  
2 available to everybody to review, so we agree with  
3 that conclusion, that there was a high likelihood  
4 that the nozzles were cracked.

5 MR. GUNTER: And that was -- and  
6 that was in violation of its license.

7 MR. HOWELL: If, in fact, it were  
8 known with certainty, yes.

9 MR. GUNTER: And that your own  
10 internal documents indicate that FirstEnergy Vice  
11 President of Operations, Guy Campbell, admitted that  
12 it was also -- he agreed that it was highly likely  
13 that they were operating outside of there own tech  
14 specs.

15 MR. HOWELL: I'm not familiar --

16 MR. GUNTER: I can assure you that  
17 the document is available, and it was established  
18 that both the NRC and FirstEnergy came to the  
19 agreement that the plant was operating outside of its  
20 own technical specifications and your law and  
21 governance over safety, and that's, see, again, you  
22 don't fix the hole in the public confidence until the  
23 agency sets about a course of action to guarantee  
24 that it will uphold its own guidance and regulation.

25 The other concern, of course, is that the

1 task force fails to address the agency's own  
2 avoidance of regulatory management changes and the  
3 admission of future agency oversight as necessary  
4 lessons to be learned. In your Appendix, you  
5 acknowledge the lessons learned from South Texas  
6 project in 1995, Millstone in 1997, Indian Point 2 in  
7 2000. In all three of these cases and in the current  
8 case at Davis-Besse, there were numerous utility  
9 management changes made to accelerate the pace of  
10 corrective actions. These management changes  
11 contrast sharply with the very limited, if any,  
12 management changes within the NRC due to these cases.  
13 If corporate management changes are an integral,  
14 essential part of the overall reform program at  
15 troubled nuclear power plants, what basis does the  
16 task force have for believing, and the public have  
17 for accepting, the notion that no management change  
18 at NRC is warranted as part of the regulatory reform?

19 MR. HOWELL: The focus of the task  
20 force was to look at our regulatory processes. We  
21 did that. Where we found gaps in the processes we  
22 made recommendations to address those. Where we  
23 found implementation problems with an otherwise  
24 suitable process, we sought to understand why was it  
25 we didn't provide the tools to management and staff



1 to help them be successful in their job and we made a  
2 number of recommendations to address those areas, and  
3 those recommendations are under review, and I would  
4 point out there are other ongoing reviews in which we  
5 don't know what the findings are yet, so, again,  
6 you're right, if your point is that we didn't make  
7 any recommendations about specific organizational  
8 management changes, we did not. We focused on those  
9 process issues that we found deficiencies with and  
10 those are being reviewed by senior managers at this  
11 time.

12 MR. GUNTER: The task force report  
13 does not address NRC's role in placing production of  
14 electricity at Davis-Besse over public safety  
15 requirements, and I think that, you know, in the  
16 FirstEnergy's Management Human Performance Root Cause  
17 Analysis, they admitted that they placed production  
18 ahead of public safety.

19 MR. HOWELL: There is a section in  
20 our report that clearly articulates an overemphasis  
21 on production --

22 MR. GUNTER: By FirstEnergy.

23 MR. HOWELL: Correct, correct.

24 MR. GUNTER: But what does the task  
25 force have to say about the acknowledgment that staff

1           agreed that FirstEnergy Vice President of Operation,  
2           Guy Campbell, agreed that the plant was operating  
3           outside of its technical specifications identified as  
4           early as October 2001?

5                       MR. HOWELL:                       Again, I'm not  
6           familiar with the document you're referring to.

7                       MR. GUNTER:                       But you probably are  
8           familiar with the fact that NRC manager Dr. Brian  
9           Sheron as early as November 15 in correspondence to  
10          the commission stated as Larry Chandler and Sam  
11          Collins also said, we could have made an argument for  
12          immediate shut down, but we're exercising discretion  
13          in allowing them to go to December 31st, and what  
14          he's referencing there is that your own requirements,  
15          that Davis-Besse's own licensing document established  
16          that they -- that once you all came to agreement with  
17          FirstEnergy that you had leakage on the reactor -- of  
18          reactor coolant from the nozzles that that enacted a  
19          six hour limited condition of operation, the reactor  
20          was, by its own license, required to shut down within  
21          six hours and that -- that was ignored as --

22                      MR. HOWELL:                      We uncovered no  
23          information to suggest that anybody on the NRC side  
24          was aware with certainty that those nozzles were  
25          leaking at the location that would have mandated a

1 tech spec required shut down, and that, in effect, is  
2 part of the problem because had more independent  
3 verification of the circumstances been conducted --

4 MR. GUNTER: Right.

5 MR. HOWELL: -- then in all  
6 likelihood or strong likelihood that it would have  
7 been identified in the fall, but I must emphasize, by  
8 that point the damage had already been done, the  
9 damage had already been done by that point and that's  
10 not to say that those issues are not important,  
11 because they are very important.

12 MR. GUNTER: But the cracking at  
13 Ocone was, in fact, a blessing because it identified  
14 the issue that uncovered this gross damage at  
15 Davis-Besse and had we not -- had you not seen the  
16 cracking at Ocone, we may have allowed Davis-Besse  
17 to go into another two year operating cycle where the  
18 corrosion rates very well could have failed that  
19 vessel. I mean, the damage was ongoing. It wasn't  
20 that it had occurred. It was ongoing. It was not a  
21 stagnant issue. It was aggressive, aggressive  
22 corrosion.

23 MR. HOWELL: Correct, and I would  
24 agree with that notion, and, clearly, there were  
25 other missed opportunities in the past that -- that

1 in the realm of the review involved in the operating  
2 experience that were also problematic that need to be  
3 addressed.

4 MR. GUNTER: But let me just  
5 conclude by saying that also in that the task force  
6 failed to recognize and articulate that the NRC  
7 wields a two edge sword. One side of -- one blade  
8 of the sword is razor sharp, and that is the blade  
9 that cuts safety requirements, cuts the obligation of  
10 the utility for expediting practices, procedures that  
11 benefit the utility, and the other edge is that would  
12 protect public health and safety, has a nerf-like  
13 quality to it and that it's used rarely, and if  
14 Probabilistic Risk Assessments that could have --  
15 that were indicating to the staff that six of seven  
16 Babcock & Wilcox reactors had cracks and Davis-Besse  
17 was the only one of those seven that had not  
18 inspected and that three of those Babcock & Wilcox  
19 reactors had circumferential cracks and those are  
20 what we are to believe and would have hoped that the  
21 agency would have articulated to be part of a  
22 Probabilistic Risk Assessment that would have cut in  
23 favor of public health and safety and shut that  
24 reactor down at appropriate time for the appropriate  
25 inspections, yet the blade that wielded against the

1 utility had no cutting edge, and that was most  
2 clearly demonstrated by the fact that the order, that  
3 the staff had ardently worked on was never wielded  
4 and, in fact, the utility was provided with the  
5 waiver that was production oriented, and this is  
6 where we believe that the task force has failed to  
7 address a -- perhaps the most dangerous part of this  
8 is that if these utilities are left to their own  
9 devices to self-assessment, that we can only expect  
10 more Davis-Besse's, not less, and so we look to you  
11 as a regulator to wielded a double-edge sword that  
12 cuts fairly, and we don't see that happening and the  
13 task force has failed to recognize that, and, believe  
14 me, this is not just coming from your critics that  
15 are the watchdogs in the Washington -- in the D.C.  
16 area, but that it's -- it's becoming clearer to  
17 editorial boards, to the public that's here tonight,  
18 that the agency is unwilling to fairly exercise  
19 regulation that cuts both ways, and that what we're  
20 seeing more and more of is -- is the side that allows  
21 more self-assessment and less prescriptive oversight,  
22 and I can only say with fear that that course is a  
23 collision course, and we expect you to at least  
24 acknowledge it and put forward the recommendations  
25 that would alter us from that collision course.

1 Thank you.

2 MR. HOWELL: Thank you, sir, and  
3 just one final point, you raised a number of issues,  
4 and we do thank you for putting those in writing so  
5 that we can look at them in further detail. Thank  
6 you, sir.

7 We're at about 35 minutes over the schedule.  
8 I don't know how much longer the auditorium is  
9 available. I think we're actually out of time.

10 Are there any other folks that had a question  
11 that didn't have an opportunity to ask it that  
12 perhaps there may be some opportunity for us to get  
13 with you after the meeting is formally adjourned?

14 (No response).

15 MR. HOWELL: No? Okay. Well,  
16 again, I want to thank all you folks for taking time  
17 out of your busy schedule to participate in this  
18 meeting. Again, I encourage you all to fill out the  
19 feedback forms and provide those, mail those in, and  
20 I just want to say that all of the materials that  
21 were provided will be made publicly available in the  
22 form of a meeting summary, and with that, the meeting  
23 is adjourned. Thank you.

24 THEREUPON, the meeting was adjourned.

25

## CERTIFICATE

STATE OF OHIO       )  
                          )    ss.  
COUNTY OF HURON    )

I, Marlene S. Rogers-Lewis, Stenotype Reporter and Notary Public, within and for the State aforesaid, duly commissioned and qualified, do hereby certify that the foregoing, consisting of 110 pages, was taken by me in stenotype and was reduced to writing by me by means of Computer-Aided Transcription; that the foregoing is a true and complete transcript of the proceedings held in that room on the 20th day of November, 2002 before the Lessons Learned Task Force.

I also further certify that I was present in the room during all of the proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of office at Wakeman, Ohio this 21 day of January, 2003

*Marlene S. Rogers-Lewis*

Marlene S. Rogers-Lewis  
Notary Public  
3922 Court Road  
Wakeman, OH 44889

My commission expires 4/29/04