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PUBLIC MEETING  
BETWEEN U.S. NUCLEAR REGULATORY COMMISSION O350 PANEL  
AND FIRST ENERGY NUCLEAR OPERATING COMPANY  
OAK HARBOR, OHIO

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Meeting held on Wednesday, November 13, 2002, at  
2:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio,  
taken by me Marie B. Fresch, Registered Merit Reporter, and  
Notary Public in and for the State of Ohio.

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

- Mr. John "Jack" Grobe,  
Chairman, MC 0350 Panel
- Anthony Mendiola,  
Section Chief PDIII-2, NRR
- Christine Lipa, Projects Branch Chief
- Douglas Simpkins, NRC Resident Inspector
- Christopher Scott Thomas,  
Senior Resident Inspector  
U.S. NRC Office - Davis-Besse
- Jon Hopkins, Project Manager Davis-Besse
- Sam Collins, Director of the Office  
Of Nuclear Reactor Regulation
- Marty Farber, System Health Inspector

FIRST ENERGY NUCLEAR OPERATING COMPANY

- Lew Myers, FENOC Chief Operating Officer
- Robert W. Schrauder,  
Director - Support Services
- J. Randel Fast, Plant Manager
- James J. Powers, III  
Director - Nuclear Engineering
- Steven Loehlein,  
Manager - Quality Assessment
- Michael J. Stevens,  
Director - Nuclear Maintenance
- Mike J. Ross  
Manager - Operations Effectiveness
- John J. Grabnar,  
Manager - Design Basis Engineering

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1 MS. LIPA: Good afternoon.  
2 I would like to extend a welcome to the public and to  
3 FirstEnergy for coming to this public meeting.  
4 I'm Christine Lipa, and I'm a member of the NRC's  
5 Oversight Panel and I'm also Branch Chief in NRC's Region  
6 III Office; and I have overall responsibility for NRC's  
7 Inspection Program at Davis-Besse.

8 We'll go through the rest of the introductions in a  
9 few minutes. I want you to refer to our agenda that we  
10 have over on our left. The purpose of today's meeting is  
11 to discuss recent NRC oversight activities and  
12 FirstEnergy's progress on their Return to Service Plan.

13 This meeting is open to the public, and there will  
14 be opportunities before the end of the meeting for the  
15 public to ask questions of the NRC. This is considered a  
16 Category One meeting in accordance with NRC's policy on  
17 conducting our public meetings. And like I said, before  
18 the meeting is adjourned, we will make opportunities for  
19 questions.

20 We're also having this meeting transcribed to  
21 maintain a record of the meeting, and the transcription  
22 will be available on our web page. It's usually about 3 to  
23 4 weeks after the public meeting.

24 In the foyer today, you probably received an agenda  
25 and some handouts. And, you will also see one of the

1 handouts is the November edition of our monthly  
2 newsletter. We've been doing that for three times in a row  
3 now. Also, there are meeting feedback forms that you can  
4 use to provide feedback to us on the format and the content  
5 of the meeting.

6 I would like to start off with introductions on the  
7 NRC panel here today. On the far left, we have Doug  
8 Simpkins, who is the Resident Inspector of the Davis-Besse  
9 Plant.

10 And, next to him we have Jon Hopkins. He is the  
11 Project Manager in Headquarters Office in NRR for Licensing  
12 Activities.

13 Next to Jon is Tony Mendiola. He's Supervisor at  
14 NRR for Licensing Activities of Davis-Besse.

15 Next to Tony is Sam Collins. Sam is the Director of  
16 the Office of Nuclear Reactor Regulation at Headquarters.

17 On my left is Jack Grobe, and he's the Senior  
18 Manager in the Region III Office, and he's also the  
19 Chairman of the Oversight Panel.

20 To my right is Scott Thomas. And Scott is the  
21 Senior Resident Inspector at the Davis-Besse facility.

22 And, next to Scott is Marty Farber. And Marty  
23 Farber was the lead for the System Health Inspection, one  
24 of the inspections that we recently completed at the  
25 facility.

1       Also, from the NRC in the audience we have Viktoria  
2 Mitlyng. She's our Public Affairs Officer. There is  
3 Viktoria.

4       And, we have Jay Collins. He is General Engineer on  
5 rotation at the Davis-Besse facility and he's offering the  
6 slides for us today.

7       We've also got Nancy Keller, who is out in the foyer  
8 greeting everyone with the handouts, and she's the Office  
9 Assistant for the Davis-Besse Inspector Office.

10       And also Rolland Lickus. Who is our state liaison  
11 from Region III.

12       And the transcriber is Marie Fresch from Norwalk,  
13 Ohio.

14       Okay. Before I turn it over to the FirstEnergy  
15 folks, I wanted to see if there are any representatives or  
16 public officials in the room. I know I saw Jere Witt. Do  
17 you want to stand up and introduce yourselves.

18               MR. WITT:           Jere Witt, County  
19 Administrator.

20               MS. LIPA:            Jere.

21               MR. ARNDT:           Steve Arndt,  
22 County Commissioner.

23               MR. KOEBEL:           Carl Koebel,  
24 County Commissioner.

25               MS. LIPA:            Okay. Thanks.

1 And, if you would like to introduce your staff,

2 Lew.

3 MR. MYERS: Yes, thank you.

4 We have some people in the audience. Bob Saunders,

5 the President of FENOC. Also, Gary Leidich, our Executive

6 VP is here. Bill Pearce is also in the audience, Vice

7 President of Quality.

8 There is, our first slide, there has been some

9 change. Remember when we first started on the public

10 meetings, we talked about the senior management changes

11 that were made at Davis-Besse, and also at FENOC. This

12 first slide up here, I want to talk a little bit today.

13 We have a new position with Fred Glese. He's not

14 with us today I don't think, but Fred is the Manager of

15 Human Resources. And he's very much involved with, in our

16 Leadership in Action Programs, the Management Programs that

17 we use to develop our supervisors' management skills across

18 our site. So, that position has been added.

19 Additionally -- next slide. And, Fred also reports

20 to Debbie Sergi, our new Manager in FirstEnergy that I

21 didn't show, that's called Talent Resource Manager. And

22 that's a new position at FirstEnergy. We think it's very

23 important.

24 Also some other people that I show on the next slide

25 is, we have, I talked about Fred Glese.

1 Steve Loehlein is with us today. Steve is at the  
2 end of the table, will be presenting. You know Steve  
3 Loehlein, you know already from the Root Cause  
4 Investigation, and Technical Investigation. He did such a  
5 good job, we decided to make him Quality Manager. So, he's  
6 now part of our team.

7 And Randy, who is in the office audience. We brought Randy  
8 in to focus on Safety Conscious Work Environment. We  
9 talked some about Safety Conscious Work Environment at our  
10 other meetings. We know that's very important, so we have  
11 Randy to really focus in on the Safety Focus Work  
12 Environment on our site.

13 Dave Gudger is here. And Dave is over from our  
14 Perry Plant. Has a Bachelor in Science Degree. Six years  
15 experience. I think 14 years at Carolina Power and Line Light.  
16 He's also certified. He's running our Corrective Action  
17 Program. And, you know, that was one of the programs that,  
18 that we had real concern about, and the AIT letter.

19 And then Greg Dunn is with us today also. Greg  
20 holds a Bachelor of Science Degree. He's from our Perry  
21 Plant. He's also an SRO for them. He has 22 years of  
22 experience in Operation and Outage Management and we're  
23 really happy to have Greg with us.

24 And Jean Ringle Rinkle is next to him. Jean is our field fuel  
25 person, does all our nuclear fields fuels.

1 One of the people not with us, gentleman named Pete  
2 Roberts. We brought him in to be, he's on the night shift,  
3 that's the reason he's not here. The Manager of  
4 Maintenance. And, that's a change also. So, Pete comes to  
5 us. He has a Bachelor of Science Degree in Nuclear  
6 Engineering. He was a System Engineering Manager at  
7 another station. Has 18 years of experience in SRO;  
8 certified from our Perry Plant. So, he left our company,  
9 went to another company and we brought him back. So, we're  
10 happy to have him back at this time.

11 So, that's some recent change we have made in the  
12 management level. I wanted to fill you in on some of those  
13 areas before we got started today.

14 To my left, at the end of the table is John  
15 Grabnar. John came to us by Perry Plant. He was an SRO,  
16 went through the SRO training, came over in charge of  
17 Design Engineering. Glad to have him here also. He'll be  
18 talking about -- as you know, we had some issues with the  
19 reviews of, System Reviews; and we want to talk to you  
20 about some of the issues we found there. He'll be doing  
21 that today.

22 Jim Powers is next to him. You know Jim. Jim is  
23 going to talk about System Reviews.

24 I'll discuss some of the Management Reviews, how  
25 that's going. We've talked about that before.

1 Randy doesn't really have a part today, so we're not  
2 sure what he's doing up here. No, we wanted him up here.

3 And Mike Ross is with us, supporting Randy. We  
4 brought Mike Ross in, because he's an operational expert.  
5 And that's what we consider him. He's really focusing on  
6 the operational ownership of our plant. We'll let him give  
7 you the status of that.

8 Mike Stevens is last on the schedule.

9 Steve Loehlein, the last thing we wanted to talk  
10 about Value-Added from our Quality Group; and he's in that  
11 position. I think they've taken some really good steps.  
12 He's going to brief you on that.

13 And finally, Bob Schrauder, who will talk to you  
14 about the reactor vessel head, so we'll hear more from  
15 him.

16 Let me get started with the desired outcomes.

17 MS. LIPA: Lew, I was going  
18 to go through the rest of the agenda before turning it over  
19 to you.

20 MR. MYERS: Okay.

21 MS. LIPA: If that's all  
22 right.

23 Just one question on that slide, on the dark  
24 blue "New to Position". Is that since a certain date? The  
25 next slide, up one.



1           MR. MYERS:        You know, some of  
2 those, the last time, and I just sort of described the new  
3 ones since then.

4           MS. LIPA:         Okay.

5           MR. MYERS:        So, the FENOC  
6 Organization continues to change somewhat. And, the focus  
7 on the issues that we had at the Davis-Besse Plant to  
8 strengthen us there, and FENOC also at the management  
9 level, bringing people in.

10          When we were here the last time, I know you talked  
11 about the changes we made in the senior managers. I'm just  
12 updating on the changes we made in management level, some  
13 of the actions we've had. Just a continuing process.

14          MS. LIPA:         Okay, thank you.

15          The next thing I would like to cover on the next  
16 slide is just a summary of what we talked about at last  
17 month's public meeting on October 16th.

18          During this meeting, the Licensee FirstEnergy  
19 presented and we discussed a variety of topics. I want to  
20 go through some of the highlights.

21          We talked about the, FirstEnergy gave a discussion  
22 of the restart progress, including some major milestones  
23 and some projects that have been completed. Their  
24 integrated schedule for completion of activities and  
25 performance indicators to measure performance in various

1 areas.

2 The next item was the Reactor Vessel Head  
3 Resolution. And they updated us on the containment vessel  
4 and shield building restored and the vessel head was in  
5 place.

6 On the Containment Health Assurance. FirstEnergy  
7 provided updates on work going on in containment. A lot of  
8 work going on in containment, including the containment air  
9 cooler refurbishment and redesign and a big project on  
10 emergency sump.

11 On System Health Assurance, last time they discussed  
12 the results of their ongoing reviews of various systems,  
13 and that they had identified numerous discrepancies that  
14 would be screened through the process and needed to be  
15 evaluated and most have been corrected before restart.

16 The next building block that they updated us on was  
17 the Program Compliance Reviews, and they gave us brief  
18 updates on the progress in this area.

19 And then probably the biggest part of last month's  
20 meeting was the Management and Human Performance  
21 Improvement Plan, and FirstEnergy discussed that there are  
22 several specific reviews and investigations and root causes  
23 that have been completed. And one of those is outstanding,  
24 not yet completed. And that the results of all those  
25 various activities still need to be integrated to show the

1 complete picture, and improvement initiatives are taking  
2 place in parallel with this work.

3 They also updated us on their plans to address  
4 Safety Conscious Work Environment concerns.

5 The next slide that I have that I want to update  
6 everybody on was some recent NRC, well, Restart Checklist,  
7 which has been revised on October 30th. And there are  
8 three pages of the Restart Checklist. This is also in your  
9 handout.

10 And then the other thing I wanted to spend a little  
11 more time on today was the results of some recent NRC  
12 inspections as they relate to specific checklist items.  
13 So, you may have to flip back and forth a little to follow  
14 along, but let's go first to the slide that says, "Results  
15 Of Recently Completed NRC Inspections" and we'll start  
16 there.

17 Now, the results of these inspections are also  
18 summarized in the November monthly newsletter. So, that  
19 has more details than what I have in your packet today.

20 The first item that I want to cover is Reactor  
21 Pressure Vessel Head Replacement Activity. And that covers  
22 checklist item 2.a. And this inspection exited on October  
23 24, which is when the NRC completes their inspection and  
24 has a formal exit meeting with the FirstEnergy officials.  
25 And that report will be 2002-07 and we estimate that that

1 will be out about 30 days from the exit.

2 And findings from that inspection were that the  
3 replacement head met the applicable codes and it was an  
4 acceptable replacement. And the NRC also reviewed the  
5 Technical Root Cause that FirstEnergy submitted and  
6 concluded that the Licensee's analysis was plausible.

7 There is an item that's still remaining before that  
8 checklist item can be closed, and that is the post  
9 replacement pressure test of the pressure vessel. And this  
10 is an ASME Code related test that would be required just  
11 before restart. So, that's established as checklist item  
12 2.a.

13 The next item is Checklist item 2.b, and this is  
14 Containment Vessel Restoration, and this is really the work  
15 that they did to open up the concrete part of the  
16 containment and the metal part of containment to get the  
17 new head in and the old head out.

18 This inspection exited on October 24th, and that  
19 also will be in a Report 2002-07, which will be about 30  
20 days from that exit date, and these reports will be  
21 available on our web page.

22 And this inspection reviewed the concrete repair and  
23 the welding of the containment vessel, and reviewed the  
24 welding records and radiographs of the welds. And the  
25 inspectors found that the activities were well controlled

1 and implemented.

2 One item that's remaining on that checklist item is  
3 the ~~ORT~~ ILRT of the containment. This is a pressure test to  
4 ensure the vessel meets the requirements.

5 The next item is checklist item 2.c. This is  
6 Structures, Systems and Components Inside Containment. And  
7 this exit was held on October 24th. That inspection report  
8 will be 2002-12. This is actually part two of a  
9 Containment Extent of Condition Inspection. We provided a  
10 summary of part one a couple months ago.

11 During this inspection that just exited on October  
12 24th, the inspectors found that plant personnel were  
13 properly trained and qualified and used quality standards  
14 in identifying components that could be affected by boric  
15 acid. The main purpose of this activity was to verify the  
16 adequacy of the Licensee's activities to walkdown all the  
17 systems and components in containment to see if there were  
18 any that could be affected by boric acid.

19 The Licensee identified several items and entered  
20 those items into the Corrective Action Program or Work  
21 Control Process to resolve them. There are several items  
22 that remain before this checklist item can be closed; those  
23 include, there is an issue on the lower vessel nozzles. We  
24 discussed that at length at the last public meeting. That  
25 will be an unresolved item. Another item is the

1 containment air coolers. There is an unresolved item on  
2 the power cables for those coolers. And also there is an  
3 unresolved item on conduit conductivity.

4 Then there are several other open items that  
5 FirstEnergy is tracking on their Corrective Action Program;  
6 and those include the ~~codings~~ coatings in containment, the sump  
7 modification, and there is some environmental qualification  
8 questions on some junction boxes. So, those are the open  
9 issues that remain before that checklist item can be  
10 closed.

11 The next item, which is checklist item 2.d, which is  
12 Systems Outside Containment, I'll let Marty Farber, who has  
13 the lead for that inspection, give you some results.

14 MR. FARBER: Good afternoon.

15 As Christine said, my name is Marty Farber. I'm a Senior  
16 Reactor Inspector in the Division of Reactor Safety in  
17 Region III; and I'm here to discuss the NRC's inspection of  
18 the System Health Assurance Building Block.

19 System Health Assurance is one of the seven Building  
20 Blocks that was developed by FirstEnergy as part of their  
21 Return to Service Plan. This was intended to ensure that  
22 the systems in the plant are in a condition that can  
23 support safe and reliable operation.

24 The program was comprised of two fundamental  
25 approaches. The first part, there were five very important

1 systems that were examined in detail, including looking at  
2 their design basis to identify any latent issues and to  
3 provide reasonable assurance that these systems could in  
4 fact perform their safety and accident mitigation  
5 functions.

6 The second portion of it was called System Health  
7 Readiness Reviews, and there were 31 other important  
8 systems that were examined, but in this case, they did not  
9 go into that design basis or calculation portion of the  
10 inspection.

11 The question would be, why did the NRC choose to  
12 inspect System Health to the depth that we did? First and  
13 foremost, it was important for us to know that if the  
14 behaviors that caused the degradation of the reactor vessel  
15 head, whether these may have led to degradation of other  
16 reactor plant systems.

17 Second, we can tell something about how well  
18 Management and Human Performance corrective actions are  
19 taking hold by how well the Licensee FirstEnergy executes  
20 the program. To this end, we had six fundamental  
21 inspection areas that we were looking at.

22 First, review and evaluate the Licensee's Building  
23 Block, Program Plan, and applicable parts of FirstEnergy's  
24 Return to Service Plan and some other documents that I have  
25 up there. In this case, the Building Block is the System

1 Health Assurance Program.

2 We wanted to take a look at a risk informed sample  
3 of their implementation efforts for the program. What this  
4 would include, we'll be examining all five of those  
5 detailed reviews and a selection from the 31 less detailed  
6 reviews.

7 We had an area to assess the Licensee's independent  
8 oversight for the program. What this entailed was  
9 examining the monitoring that was done by Davis-Besse  
10 Quality Assurance Organization and to examine the  
11 independent system reviews that were performed by  
12 FirstEnergy's Corporate Oversight Department.

13 We wanted to evaluate the adequacy of FirstEnergy's  
14 performance indicators, for this particular System Health  
15 area. We wanted to review the things that they learned  
16 from implementation in these performance indicators, and  
17 review the actions taken in response to the data.

18 FirstEnergy elected to monitor data, such as review  
19 completion and the rate of closing issuing condition  
20 reports. What we did is we evaluated that information. We  
21 watched how FirstEnergy interpreted it and what actions  
22 they took as a result.

23 We wanted to perform an independent inspection to  
24 verify FirstEnergy's results of one of their Latent Issues  
25 Reviews, that's the detailed reviews, to examine three



1 significant systems; service water, high pressure  
2 injection, and high voltage electrical distribution, the  
3 4160 volt system.

4 We also wanted to classify, see how the Licensee  
5 classified, and see if we agreed with sampling of issues  
6 that came out of their reviews from the discovery portion  
7 of the System Health Assurance Plan.

8 The Licensee has a classification scheme. We have  
9 examined that. And what we want to do is assure that they  
10 properly classify the issues that they find and how they  
11 resolve them.

12 To accomplish all of this, we staffed the NRC team  
13 with nine people that had a wealth of design and  
14 operational experience. We drew from within Region III.  
15 We got inspectors from Region IV, which is based out of  
16 Arlington, Texas, and we had two experienced design  
17 consultants who were part of this effort.

18 Where we stand right now. We began this inspection  
19 on September the 3rd and completed the actual inspections  
20 on November the 8th. We held a formal exit this morning  
21 with FirstEnergy. Four of the six inspection areas that I  
22 talked to you of are done. The remaining two areas will be  
23 inspected after the System Health Review Reports are  
24 completed and reviewed, and then we'll come back another  
25 time to examine corrective actions that they take for

1 issues that they discovered.

2 The results of our inspection to-date are that we  
3 determined that FirstEnergy's process for doing these  
4 System Health Assurance Reviews is acceptable. FirstEnergy  
5 identified that there were problems in calculation and  
6 design basis information.

7 We did closely monitor their implementation. I want  
8 to make sure you understand there is a differentiation. We  
9 examined the process and concluded it was adequate. Then  
10 we also examined how well they implemented. We determined  
11 that they did an adequate job of implementation.

12 With regard to their oversight activities, we  
13 reviewed them and we concluded that those were also done  
14 acceptably.

15 The corporate self-assessment was thorough and  
16 identified some deficiencies. Our own team identified a  
17 large number of issues in the area of design basis,  
18 testing, and corrective actions.

19 At the meeting this morning, we informed FirstEnergy  
20 that there were multiple examples of failure to ensure that  
21 the plan's design bases were accurately reflected in  
22 drawings, specifications and procedures.

23 There were several examples of failure to properly  
24 test systems. And there were several examples of failure  
25 to take corrective actions for identified deficiencies.

1       There was also one technical specification violation  
2 for failure to test the high pressure injection system  
3 after the modification that was made.

4       Having gone through all this, what remains in front  
5 of us looking forward on System Health Assurance;  
6 FirstEnergy is evaluating their review results and the  
7 results of the NRC inspections for possible expansion of  
8 the System Health Assurance Program, especially in the area  
9 of design basis and calculations.

10       The NRC will return to further examine System  
11 Health, at the very least when all of the detailed review  
12 reports are approved. We will also return at a later date  
13 to examine corrective actions when enough of those actions  
14 have been completed that we can select the most significant  
15 ones for inspection.

16       That's all. Thank you.

17             MS. LIPA:             Okay, great.

18       Thanks, Marty.

19       Then, the last inspection I would like to update is  
20 the recent Resident Inspection results. And this is from,  
21 mostly from Scott Thomas and Doug Simpkins; and this is the  
22 daily inspection of activities on the site, such as  
23 testing, engineering reviews and temporary plant  
24 modifications.

25       The recent exit, and these occur approximately every

1 6 or 7 weeks, was on October 4th. And that inspection  
2 report is 2002-10; and that was issued on September 30 --  
3 November 30, and that is available on our web page.

4 The results of that was one non-cited violation of  
5 inadequate procedure for building scaffolding and the  
6 scaffolding blocked safety related ventilation for the  
7 emergency diesel generator.

8 And, also observations in that report of minor  
9 significance, but they were still observations of ongoing  
10 weaknesses in engineering, operations and maintenance that  
11 FirstEnergy is correcting. So, that inspection report was  
12 issued October 30, excuse me, and it is available on our  
13 website.

14 The next slide, what I would like to cover is some  
15 continuing NRC inspections. Most of these have already  
16 started. I'm just giving an update. There is a summary of  
17 these on the front page of our November newsletter.

18 The first one is Organizational Effectiveness and  
19 Human Performance Inspection. And, that inspection is  
20 evaluating FirstEnergy's Root Cause Analysis associated  
21 with management organizational effectiveness and human  
22 performance factors that led to the degradation of the  
23 vessel head. And that is an ongoing inspection and hasn't  
24 exited yet.

25 The second activity is the Program Effectiveness

1 Inspection, and that inspection is reviewing the plant's  
2 progress in creating more effective programs for certain  
3 safety significant programs, such as corrective actions,  
4 boric acid, corrosion control, modification control and  
5 others.

6 And then the final continuing NRC inspection are the  
7 two resident inspectors that continue daily inspections,  
8 and that is always underway.

9 There are also some upcoming activities that I  
10 wanted to brief you on. On November 20, the Lessons  
11 Learned Task Force will be holding a public meeting here at  
12 7 p.m., on November 20, to present their findings and to  
13 receive comments from the public.

14 Also, right now a tentative date, November 26, we're  
15 looking to set up two public meetings at headquarters, and  
16 we're planning to have phonelines available for people who  
17 wanted to call in and participate. And those two meetings;  
18 the first one will be a meeting in the morning to discuss  
19 the extensive modification to the containment sump that  
20 FirstEnergy has been designing, and then in the afternoon,  
21 the second meeting in the afternoon will be to discuss the  
22 lower nozzles. And, we discussed this issue last time.  
23 There is a lot of things that the Licensee has been looking  
24 at, plans for testing, and they've been investigating and  
25 coming up with some options. So, that afternoon meeting

1 would be an opportunity to share those with us and with the  
2 public.

3 So, that's all I have for now. I would like to turn  
4 it over to FirstEnergy for your presentation.

5 MR. MYERS: Thank you.

6 We have several Desired Outcomes today. The first  
7 one is to demonstrate, as we discussed last time, the  
8 value-added by our Quality Assessment Organization.

9 I told you what Steve Loehlein is in that position.  
10 Steve came to us from our Beaver Valley Plant. Improved  
11 performer there. Has experience in operations,  
12 engineering, is SRO certified. He'll talk about our  
13 quality efforts today. We think we're very proactive with  
14 that.

15 Then, we want to demonstrate the progress of some of  
16 our key Building Blocks, specifically, we want to talk  
17 about the head, reactor head, and that's ready to go.

18 Some of the System Reviews. We sort of talked about  
19 that. As we did the System Reviews, we found we always  
20 said we'd do the five ~~line~~ latent issues reviews and then come  
21 back and do an assessment with those totals. We need to  
22 change the scope that we would; and, we have decided we  
23 need to look at some other things.

24 And then we're going to brief you on the status of  
25 some of our management actions. As I told you awhile ago,

1 we changed the senior team quite a bit when we first came  
2 here. We're really working hard now. We have a very  
3 strong technical team, who many of them are down below, we  
4 shared with you awhile ago and we're taking a lot of other  
5 management actions.

6 Finally, we want to talk to you about our plans on  
7 the lower vessel penetration. We talked about that in the  
8 last meeting. Since that time, we've met with our vendors  
9 a couple times. Had a very large meeting about a week  
10 ago. Looked at all the alternatives and have come up with,  
11 decided on a game plan going forward that we will share  
12 publicly here and with the NRC on the 23rd of this month, I  
13 believe. So, we have a game plan going forward there not  
14 only of inspection, but repair if we need to.

15 Finally, we're going to talk to you about our, we  
16 told you awhile ago, sort of, as we did the System Reviews,  
17 we came to, the Davis-Besse Plant is a very old plant.  
18 Going back and looking at accounts and stuff like that is  
19 difficult. So, we're still looking for some accounts, we  
20 find. We think we have some issues in calculation areas,  
21 and we're developing a game plan to go forward with that  
22 now, basically a new approach. John Grabnar will share  
23 that with you today.

24 Finally, we'd like to talk about our schedule review  
25 or scheduled milestone, if that's okay. If we don't make

1 it, that's okay also.

2 I would like to get started with Quality Assessment  
3 Value-Added.

4 Steve.

5 MR. LOEHLEIN: Thank you, Lew. I'll  
6 try to speak up until this microphone comes up. I'm really  
7 happy to be here today on behalf of the Quality Assessment  
8 Organization, and the work we're doing. And I wanted to  
9 speak just for a minute about the nature of the business,  
10 Quality Assessment.

11 What we do is really a lot like what the NRC does,  
12 we find problems, and this is a tendency to perceive as  
13 negative. So, we talk about Value-Added Quality  
14 Assessment. I think we can really look at it as something  
15 we want to do, since we want to find problems and resolve  
16 them before they impact nuclear safety. That's really our  
17 role in the organization; to be a barrier, independent  
18 barrier, whose only job is to assess the organization.

19 Specifically -- the next slide please. At this  
20 time, we've got three major responsibilities. We've got to  
21 ensure the plant is ready to restart and operate safely for  
22 the long term. We've got to ensure the staff is ready to  
23 restart and sustain safe performance. And we've also got  
24 to ensure our own effectiveness of the Quality Assessment  
25 Organization.



1        So, in my presentation today, I'll be talking to you  
2 about how our assessment activities are organized in  
3 relationship to the site's Building Block Plans. I'll give  
4 you some examples of our performance to date in the Quality  
5 Assessment area. And I would like to discuss what our  
6 organization is doing to demonstrate the strengthening of  
7 our own effectiveness.

8        Next slide, please.

9        First, in Assessing the Plant and Staff Readiness.  
10 What we have done is we've aligned ourselves with the  
11 Building Blocks. What we're applying is really a  
12 three-step approach. First is confirm the acceptability of  
13 Building Block Plans itself. And we've completed that  
14 assessment in six of the seven plans.

15        Next in the phase that we're really active in right  
16 now is the oversight of the plans as they are being  
17 conducted. And the key to this area is the independent  
18 parallel efforts that we're doing to measure the  
19 effectiveness of those plans. I'll show you the examples  
20 of some of the things we've done.

21        And finally, the last phase would be evaluate the  
22 effectiveness of the plans based on the results that come  
23 out of them.

24        As I said earlier, most of our three-step process  
25 has been in step two of the process, which is the oversight

1 process. I'll take you through a number of the individual  
2 Building Block Plans and report on an item of interest in  
3 each one of them.

4 Next slide, please.

5 The first is as it relates to Reactor Head  
6 Resolution Plan. We had an issue develop out of the Direct  
7 Field Observation of contractor qualification activities  
8 for the containment rebar cad-welding. In this case, we  
9 found issues with inadequate documentation to support the  
10 activity in the field, and we had issues with the  
11 contractors through NRC oversight of that activity. Took  
12 those issues to the contractor, who immediately stopped  
13 work. We directly observed his plan for remediation and  
14 provided heavy oversight to ensure that that activity went  
15 off correctly, which it did.

16 MR. GROBE: Steve, before  
17 you go on, did you have any observations regarding the line  
18 organization's oversight of that contractor work?

19 MR. LOEHLEIN: The supervisor  
20 alignment, you mean the supervisors in maintenance?

21 MR. GROBE: FirstEnergy,  
22 whoever had responsibility for project management of that  
23 activity in FirstEnergy.

24 MR. LOEHLEIN: Yes, as a matter  
25 of fact, project manager was the person who we went to for

1 his resolution of the issue when we first identified it,  
2 and he was involved with our contacting the contractor. At  
3 the time the contractor didn't happen to be there at the  
4 time that we spotted these particular deficiencies. QA was  
5 when we identified them. He was notified and participated  
6 in the, in the reaction we took with it.

7 MR. GROBE: For contractor  
8 quality, the first lines of defense are the contractor  
9 organization itself and its quality assessment; seemed the  
10 second line of defense would be FirstEnergy's Project  
11 Management Oversight; then the third line of defense would  
12 be your oversight assessment.

13 MR. LOEHLEIN: That's correct.  
14 That's exactly right. That's what we would expect.

15 We also know that the site right now is carrying on  
16 a number of parallel activities, which tends to stress the  
17 organization. So, we don't, we'd be unrealistic to expect  
18 they would be there on top of every activity at every  
19 moment. So we, you know, I think we all work together in  
20 assuring the quality. I must have misunderstood the  
21 question.

22 MR. SCHRAUDER: Jack, we did have  
23 line management oversight of that. Our project managers  
24 had identified certain issues, quality issues with the work  
25 that was going on. We were addressing them on a case by

1 case basis. The QA observation of training activities and  
2 that was what I'll call the straw that broke the camel's  
3 back, essentially making sure the stop work was replaced.  
4 That had to do with the Quality Assurance Oversight of the  
5 project, but our project managers were on the job and were  
6 identifying deficiencies and correcting them on the spot.

7 MR. LOEHLEIN: This issue really  
8 was, to clarify this, was a qualification issue, which  
9 meant the actual field activities were not being  
10 conducted. That was the reason why we at QA were in  
11 particular interested, because it's an item we like to look  
12 at before it results in any actual field work; the place we  
13 want to be in terms of preventing issues.

14 MR. MYERS: We did have some  
15 issues we think with contractors during this issue, made  
16 some changes there; is that not correct?

17 MR. LOEHLEIN: That is correct.  
18 The contractor himself took direct action with some of the  
19 people involved in terms of their standards, and took  
20 corrective action.

21 MR. GROBE: I don't want to  
22 diminish the value of the Quality Assurance Organization's  
23 identification of these issues, but a couple meetings ago  
24 we heard about a contractor who was working on the polar  
25 crane, and deficiencies were identified by several levels

1 of management above the project manager; and, heard that  
2 same discussion of stressed organization, lots of  
3 contractors.

4 I think you're finding on cad-welding was probably  
5 several weeks ago, but I was wondering, maybe you can give  
6 me the answer later if you don't have it now, but what  
7 actions FirstEnergy is taking to strengthen its contractor  
8 oversight?

9 MR. STEVENS: I can answer  
10 that. We've gotten together with the project managers  
11 group, taken a look at how we have the organization  
12 structure put together to implement the work. We just last  
13 week revamped and reorganized our work support center, the  
14 project manager structure, as well as integrated some of  
15 the projects into the maintenance organization and made  
16 sure that we had correct ratio, if you will, of FirstEnergy  
17 Davis-Besse employees with the contractors.

18 In addition to that, I've met with each of the  
19 leads, the superintendents and the supervisors of our  
20 contracted work force to make sure we understand what the  
21 standards are for working at the plant, and the expectation  
22 for work quality.

23 We also, to prevent putting the work force in a  
24 situation where they may have been pressed for time or  
25 trying to execute the work without it being ready, which

1 would maybe set up an event, we've instituted ready  
2 meetings during the day pretty much every day of the week  
3 to watch all the major projects to make sure we understand  
4 what the level of readiness is, what the needs are; and  
5 then in addition to that, we've scheduled the managers some  
6 field observations, as well as tightened up our  
7 observations of work activities in the plant.

8 I've personally talked with several of the project  
9 managers, who I felt like we weren't meeting the standard  
10 in every case. In other words, we've gotten some  
11 indication looking at the observations that we're not where  
12 we need to be with foreman groups or work packages.

13 And got some feedback from the project managers,  
14 toured the area with the project managers, visited with the  
15 supervisors that are responsible for that work, corrective  
16 behavior in the field.

17 And got to the point now, where I go out and I look  
18 and I see the right behavior, can reinforce the positive  
19 behavior and start reinforcing, looks like we're doing  
20 correctly, and it's changed.

21 I'm not saying, this is the skeptical side, the  
22 oversight, we still have to manage that, but it is  
23 changing; the performance is improving as a result of  
24 that.

25 MR. GROBE: Okay, thank you.

1           MR. FAST:           Jack, just to  
2 reinforce that, what I'll term an anecdotal piece of this;  
3 I made a tour on Saturday morning visiting all the major  
4 projects. In every case, there was a supervisor and  
5 project manager on the scene. Those were in the  
6 containment projects.

7           But just to reinforce what Mike is telling us, I  
8 have seen that we have much better oversight. So, as I  
9 visited the containment sump and decay heat valve pit,  
10 containment air coolers, the refueling machine  
11 modifications underway; every project had a supervisor,  
12 direct supervisor oversight, something I look for when I do  
13 field walkdowns and observations, as well recognizing  
14 direct project management support.

15           MR. GROBE:           Okay, thanks,  
16 Randy.

17           MR. LOEHLEIN:       Ready to move on  
18 to next slide.

19           Under Containment Health, I would like to point out  
20 Independent Field Walkdowns. This is where the QA people  
21 went out on their own, not as part of an engineering team  
22 with anyone else, find the criteria we were looking for,  
23 for conditions in containment or extended condition.

24           And the results of that, what we found is that the  
25 containment health walkdowns were fully effective. We

1 found nearly duplicate reports on each of the areas from us  
2 in line. So, we found that to be an effective thing that  
3 was done. Some of the minor differences we found were  
4 mainly cosmetic; differences in opinions of what is  
5 cosmetic and things to do now.

6 We also, point out below, it identified some issues  
7 in qualification and work packages area related to the  
8 valve contractor. And this is a case where there is a  
9 lineup with what some of the other managers were saying,  
10 when this was first revealed, there might be some issues  
11 here with qualification of work packages. And the line  
12 organization got involved with this right away, and this  
13 was taken care of before it resulted in kind of issues with  
14 plant components.

15 MR. MYERS: That same  
16 contractor is pretty much involved with the valve work  
17 after the draindown. And we've met with them, I met with  
18 the person, made sure we got good integration of our  
19 maintenance group with that team. We believe that's why  
20 it's going to go very well. We were assigning each and  
21 every valve to one of our managers to look at, because we  
22 don't want to come back up and have problems.

23 MR. LOEHLEIN: That's another  
24 reason we took a hard look when we did, we knew the  
25 contractor was going to do a lot of the valve work and



1 important valve work and the deep drain while we're in  
2 this. We wanted to make sure we had any issues  
3 straightened out before we did that work.

4 MS. LIPA: Steve, did you  
5 have any examples of the design basis issues that you  
6 identified?

7 MR. LOEHLEIN: Yeah, kind of  
8 things that come to mind that I recall is that we had  
9 identified an issue with a containment air cooler fan flow  
10 and questioned the design basis for that flow rate.  
11 Another is air temperature is measured down in the air  
12 coolers, and some question whether that properly identified  
13 the possibilities of stratification in containment. There  
14 were a few others, but they were identified on future  
15 reports. I've given you the details on that, that we  
16 have.

17 MS. LIPA: Thank you.

18 MR. LOEHLEIN: I'm sure  
19 Mr. Farber is ready to say he's already seen them.

20 Next slide, please.

21 Under the Program Compliance Plan, here we've been  
22 very active in observing the operation of the Program  
23 Review Board, and we have confirmed that that board has  
24 been both intrusive and effective in their reviews. In the  
25 concept of independence, we identified six selective

1 programs to reviewing independently, so we can compare our  
2 results against what the line organization reports in that  
3 review.

4 Now, the six we've selected, none of those have yet  
5 been reported as complete by the line organization, so we  
6 issued no formal report on a finding on those yet.

7 Next slide.

8 System Health Assurance. Once again, I would point  
9 out the independent reviews we're doing. We selected three  
10 independent systems to look at, using the process that's  
11 established to do it. And, one of those three has been  
12 completed by the line. It's 125 volt, 250 volt VC, which  
13 Mr. Farber I think commented on as well.

14 We did find generally that that review was  
15 successfully done. We found a number of conditions that  
16 were not especially significant, that we did put on our  
17 condition reports.

18 MR. GROBE: Before you go on,  
19 Steve, the last bullet or the last dash, I guess on that  
20 slide; could you expand on that just a little bit?

21 MR. LOEHLEIN: That really represents  
22 what showed up on many condition reports when the QA  
23 Evaluator originally went through the process. We tended  
24 to go a little deeper and evaluated our responses to  
25 commitments and to condition reports historically, and

1 aligned them when we went through the same process.

2 So, we wrote down on a condition report. Would not  
3 evaluate what that means in total yet. We are going to do  
4 three systems, and write a report on what we think of all  
5 this. Preliminarily that was our assessment of that  
6 particular review. So, those aspects will be more  
7 extensively done. That was just between us and them.

8 Next slide, please.

9 Under Management and Human Performance, key thing  
10 that's happened in recent weeks has been in the case  
11 study. I thought I would share with you how Quality  
12 Assessment Organization got involved with this. From the  
13 beginning, we made sure we were involved with all of the  
14 developmental activities that were conducted over in  
15 training, and participated in lots of feedback on what we  
16 saw in the train the trainer type of classes, and content.

17 I went to several of them myself, having done the  
18 root cause, to make sure that root cause was accurately  
19 portrayed as related to the lessons we needed to learn.

20 Then, what we did, when it came time to roll it out,  
21 the day before the site had the roll out, QA had a live  
22 presentation conducted by Dave Eshelman, who did the video  
23 assisted by others. We wanted to do a couple things with  
24 that. We could then assess the significant difference in  
25 the value of the live presentation and videotape that

1 people would see. It also gave us a chance to prepare for  
2 the presentation that would be done the next day; what we  
3 would be looking for at various site groups.

4 Then, we did an observation of divide and conquer,  
5 basically, the entire QA organization. And there is very  
6 few of these case study presentations that we do not  
7 participate in or let's say observe. And then, when we  
8 were done observing, we got together as a team and  
9 discussed what future communication activities we thought  
10 would be useful for the site.

11 What we found was that case study was effectively  
12 done; effective in that most of the employees seemed to be  
13 really embrace the opportunity to understand the case study  
14 and move forward from it. We provided a condition report  
15 that as a result of that recommends some additional  
16 communication in and management might take on to build on  
17 those, what was done in case study.

18 We also have taken the case study results to the  
19 other two sites. I myself, I went to Perry and Beaver  
20 Valley to participate in case study discussions with the  
21 Employee Assessment Organization.

22 I might also mention on here, we did a case study of  
23 the Management Observation Program and that was ruled out.  
24 Once again, quality assessment tried to get out there  
25 early, see what the issues might be there, in the early

1 days.

2 Initially we found with the observations, there  
3 times when their issues deserved a condition report to be  
4 generated for the organization to deal with, and there were  
5 times we found that they were not being reported that way.  
6 We wrote that up, reported that to the line. We were  
7 already starting to see some improvement in that area in  
8 the observations that we're looking at now.

9 Next slide.

10 Outside of these Building Blocks Plan work that we  
11 do, we still have our normal Quality Assessment activities  
12 that we conduct, and we report on these on a quarterly  
13 basis. I'll point out a few bullets of noteworthy issues  
14 we had on the most recent report.

15 Maybe the second one here is a good one to talk  
16 about, Radiation Protection Area. We had an issue  
17 identified on a condition report which a high radiation  
18 area is protected by a floor plug had, nearby had a lift  
19 ring available for use, had not been secured, that  
20 theoretically someone could have used to lift the floor  
21 plug and violate the high radiation area. Did not occur,  
22 but potential was there.

23 The QA Evaluator through his investigation found  
24 that, that had happened some months back, a similar thing,  
25 with a lift ring in an area like that. So, we wrote a

1 condition report requiring a higher level evaluation to  
2 find out why the action we took some months ago did not  
3 prevent this action or this thing from happening again.

4 My final slide.

5 MR. MENDIOLA: Before you leave  
6 that slide, slide 14 there, can you characterize that  
7 fourth dash a little more for our understanding.

8 MR. LOEHLEIN: The non-destructive  
9 examination. That was a case where we found that the field  
10 welds had been installed on these flow meters that  
11 incorrectly did not call for a radiograph. We found that,  
12 pointed that out.

13 MR. MENDIOLA: Okay. So, the  
14 response of the closeout of that item has been done?

15 MR. LOEHLEIN: What's happened is  
16 the line has responded to that and since found that was a  
17 case where they actually should have been called for,  
18 taking care of, I don't recall if they have been done yet.

19 MR. COLLINS: Steve, I have one  
20 question about the overall trend on your slide 14. How  
21 many of these would you expect in an ideal situation to be  
22 part of the poor planning process rather than being found  
23 during the work processes? In other words, there are two  
24 stop works and one last item here, as Tony mentioned, that  
25 appears to be, that's probably a department modification,

1 right?

2 MR. LOEHLEIN: Right.

3 MR. COLLINS: So, part of a  
4 modification package. Is it your expectation that as part  
5 of a job process and work order, modification package, that  
6 that would include promulgating experience that you would  
7 go back and look at the trends of corrective action. You  
8 indicated a concern about QA issues. You can't ask perhaps  
9 QA to bring that to the table as a part of the preparation?

10 MR. FAST: The field would be  
11 responsible, the line organization would be responsible for  
12 ensuring that that's do-able. So, that's available by our  
13 report management. We didn't catch that in process.

14 MR. COLLINS: Is that data  
15 available? In other words, I know you're revamping your  
16 Corrective Action System looking at your trends, looking at  
17 historicals. These are historical issues perhaps. You're  
18 changing your processes. Is that type of information  
19 available to your staff to build a work package?

20 MR. STEVENS: Yes. The  
21 information associated with issue reports that are  
22 documenting this?

23 MR. COLLINS: Right.

24 MR. STEVENS: And corrective  
25 actions to be evaluated, corrective actions will fall into

1 it, and we'll look to improve.

2 The stop work order for the fuel work went as a  
3 result of direct observation where we had grid strip damage  
4 and its effects. We understand that violation, and issued  
5 a stop. I thought that was pretty good.

6 The stop work order for the inadequate work with the  
7 feedwater heater. We had a contractor subcontracted to  
8 replace that heater and build it in place, like if it was  
9 in their shop. We took the documentation, married it with  
10 the work order, had him working to his document and ours.  
11 We got oversight, looked at that and said, hey, this isn't  
12 in accordance with our control work procedure. We stopped.  
13 We got the work documents. Married together. And  
14 proceeded on, so.

15 And, we don't, we didn't have a procedure for that.  
16 We didn't intend to finish that work order to the field  
17 that way without the vendor's instructions with it. And  
18 project manager and supervisor overseeing that intended to  
19 build the heat shield to do that, and incorporate their  
20 documentation at the end. That was a misunderstanding of  
21 how we would be working on a piece of equipment.

22 So, we corrected that; and we did a review cursory,  
23 didn't see any other areas where we had that kind of  
24 situation where we're relying on vendor information to do  
25 the work actually in the field and have shelter where



1 you're trying to control it, in that case.

2 The non-destructive examination was right out of the  
3 retest. Take that off of the design, either comes from our  
4 retest procedure, retest requirements, or it's part of the  
5 design change package. And what was recognized was we  
6 didn't specify the radiograph for the weld.

7 We have to do that, and it got missed through the  
8 review. More of a, that being part of the modification,  
9 that was more of a human performance review to  
10 specification, than it was a procedure compliance or work,  
11 work issue. You had to know that at some level of  
12 technical knowledge the type of weld and specification.

13 We took that and reviewed that back through the  
14 Quality Control Organization, I believe, who went and  
15 reviewed all the other welding that we were making to make  
16 sure that we didn't have any others out there without  
17 adequate retest.

18 MR. MYERS: I really believe,  
19 you know, that it's one of these, you can't win. If  
20 Quality Assurance finds anything, or we find something, you  
21 know. What's good is, I think, is fixing the problems you  
22 find.

23 You know, we want our quality group in the field.  
24 We want them to do things. We stop the work and take  
25 corrective action. We did that when we found the vendor

1 problems in training. We found our own problems on the  
2 crane. We took the two weeks to make sure that crane was  
3 in good stead before we went forward. And we probably  
4 could've justified some of that stuff. We didn't. We made  
5 sure it was in good stead until we were satisfied.

6 Then, on the containment you know, we're the first  
7 company I think in the country to take a big reactor vessel  
8 head across the state, wash away your concrete, cut your  
9 containment, put your new head in, then plug it back up.  
10 If I had to go back and analyze how we did that, it's not  
11 problem free. We had problems on the vendor procedures.  
12 We had problems with the welding. I can tell you a number  
13 of problems. But when I stand back and look at it, we did  
14 a quality job. We did a pretty quality job, you know.

15 MR. COLLINS: I would agree, but  
16 you would acknowledge there is a difference between first  
17 in technology and routine work.

18 MR. MYERS: Yeah. And we had  
19 about 1200 or 1300 contractors in there. The more we were  
20 in the field watching, we know what's going on. And I  
21 expect our quality group to find some things. I feel bad  
22 every time they do, we didn't find it ourselves. But in  
23 general, with all the work going on, really have going on,  
24 I think hopefully concerned about any of the things we  
25 find.

1 MR. COLLINS: Thank you.

2 MR. LOEHLEIN: I would also like  
3 to point out that one of the reasons we are mentioning stop  
4 work orders is because I want to make clear to everyone we  
5 won't hesitate to exercise an authority to stop work if we  
6 think the timeliness of the situation demands we do so, on  
7 something that would affect quality. So, that's, this is  
8 an authority we take seriously, we have to exercise.

9 MR. MYERS: Once again, I  
10 think most important is when our quality group finds  
11 something, they have management support to take the actions  
12 they need. I don't think you'll find anybody at this table  
13 that you wouldn't have that. That's the environment we're  
14 looking for.

15 MR. LOEHLEIN: Next slide.  
16 My final slide, to wrap up what we discuss today;  
17 Strengthening Quality Assessment. What we've done so far,  
18 as we've said at prior meetings, that we have done  
19 organizational changes. We comment today about management  
20 changes.

21 The part we're in right now is we're, we're taking  
22 action, for instance, stop work orders, if that's what it  
23 calls for; we're conducting independent intrusive  
24 assessments; we're participating in ensuring that case  
25 study is well done and presented and the work went out to

1 all those that needed to have that information.

2 In terms of wrap up, I would like to share with you  
3 something we're doing right now, is the Quality Assessment  
4 Program Review. We brought in about six outside experts.  
5 It's their job to evaluate the Quality Assessment Process  
6 that we have right now, so it will be the best it can be  
7 when we restart the plant. Thank you.

8 MR. GROBE: Do you have  
9 questions?

10 MR. MENDIOLA: Yes. Steve, my  
11 question is actually kind of simple. Basically, Quality  
12 Lessons Learned has to be Quality Lessons, and clearly,  
13 you're looking at things across the board, whether it would  
14 be a hardware issue or software issue and you're getting a  
15 lot of input into your organization.

16 MR. LOEHLEIN: Right.

17 MR. MENDIOLA: So, it will surely  
18 filter back out to the processes to make them better.

19 My concern quite clearly is, is if you can kind of  
20 estimate the size and scope of the work; is it too much out  
21 there to do; do you have enough staff to do it all or?

22 MR. LOEHLEIN: Yeah, I would like  
23 to answer it this way. We've gotten really great support  
24 from our other sites. We have several people from each of  
25 our other sites rotate on assignment to us, and they're

1 helping us through the Building Block Assessments. We also  
2 have several contractors, give us a lot of experience there  
3 on this restart.

4 We have apprised the need to augment staff to do  
5 these, what I call, nuts and bolts of the assessments. The  
6 long term things that we want to do with our organization,  
7 we're taking on primarily with our normal staff. They are  
8 involved in case studies, for example, and observation of  
9 those. And they will be involved quite a bit on this heat  
10 drain work, provide a lot of the oversight on that. But,  
11 yes, we would recognize that we have a lot of work to do,  
12 and lot of staff reporting.

13 MR. COLLINS: Steve, I had a  
14 comment perhaps you might want to respond to it. When you  
15 look, if you're able to, but I'll point you to slide 7,  
16 Responsibilities. Quality Assessment. And focusing on the  
17 word ensure. And I guess I'm contrasting that with the  
18 responsibilities of the line organization, who own these  
19 processes and programs.

20 I really am wondering if you have a view of the  
21 division of responsibilities between the implementers, if  
22 you will, people that work with the processes, own the  
23 systems, operate the systems, and quality assessment; and  
24 how you would define quality assessment?

25 It appears to me that the value here is, as

1 indicated by your examples taking them at face value, that  
2 you're exerting yourself in these processes, finding good  
3 issues, corrective actions are implemented and we can move  
4 on. That's success perhaps for the stage of programs and  
5 processes at Davis-Besse as we sit here today.

6 Contrast that with the fact that you look, but you  
7 don't find, because things are going well; and, value-added  
8 is more confirmatory rather than ensuring; and what that  
9 message is to the line organization. Do you have a comment  
10 on that?

11 MR. LOEHLEIN: Yeah, I think it's  
12 interesting. My staff is probably chuckling right now,  
13 because I've had a lot of discussion in staff meetings  
14 about the difference in the role of the real people that  
15 ensure quality are the line organization, because they all  
16 had a chance to be in the line.

17 We are an assessment group. Our job is to have a  
18 single-minded focus, not having distraction of schedule and  
19 cost and those types of things, only going out and  
20 independently assess how effective the organization is  
21 implementing the Quality Assurance Program.

22 So, I guess I would chastise myself for having used  
23 the word ensure, and I'm sure they're getting a little bit  
24 of a chuckle out of that, because I've chastised them for  
25 not recognizing the difference.

1           So, clearly our job is assess, to provide  
2 recommendations where we can do so for improvement. And  
3 the line organization's job to internalize that they are  
4 quality, they are a quality organization, as implementers.

5           So, I agree with that a hundred percent.

6           MR. STEVENS:       I can provide an  
7 anecdotal example. Last week, week before, we had all of  
8 our maintenance supervisor go through a qualification board  
9 at the end of completing the practical facts, if you will,  
10 for qualification.

11          Steve sat on one of the meetings, boards I chaired,  
12 we have managers and we ask questions. And the probing  
13 questions; it's not an easy board to get through. Steve's  
14 questions center around line ownership to ensure that we're  
15 meeting X and in accordance with.

16          And one of the questions he asked was, to one of the  
17 electrical supervisors was, how does 10-CFR-50 apply to you  
18 in your everyday job. And, when you first hear that, it  
19 was, it's a little bit, it's not something you talk about  
20 every day, but it brings home that ownership and that  
21 understanding. We implement. Quality assurance is  
22 providing the oversight to make sure that we're  
23 implementing it. That becomes very clear.

24           MR. COLLINS:       Thank you.

25           MR. LOEHLEIN:      I'll turn it over

1 to Bob Schrauder.

2 MR. GROBE: I have one more  
3 question, if you don't mind. First an observation just to  
4 echo something that Sam, observation that Sam made.

5 The findings that you've highlighted today, and  
6 certainly not your only findings, just a sampling of your  
7 findings; these are not superficial issues, and it takes  
8 capable people to find these type issues. I compliment you  
9 on that.

10 Do you have within your structure a process where  
11 you determine whether or not an item that you identify is  
12 something that you're going to follow-up on, an additional  
13 focus audit?

14 MR. LOEHLEIN: Really, I don't  
15 know if you finished the question; are you finished?

16 MR. GROBE: Go ahead.

17 MR. LOEHLEIN: How we decide to  
18 focus on? I will tell you this, Jack, that is part of the  
19 program review we're doing, because right now what we rely  
20 on is sort of inscribed. If we see issues in certain  
21 areas, we ask ourselves, is that telling us something and  
22 that's how we decide to do a focus assessment in a given  
23 area.

24 The trouble with that, we think, is that may not be  
25 as objective as it needs to be based on the informational



1 criteria to really look at the right things. So, as part  
2 of the program review as it is now, is one of the  
3 challenges we have for our team is to try to advise us on  
4 criteria based assessment decision-making which we do,  
5 because right now we do rely on exactly what you describe.

6 We like to discuss it with the supervisors, myself,  
7 for example, overseeing this area, that area, and focus on  
8 that. And there's nothing wrong with that, but it's not  
9 the criteria base. It may not be the best way to focus our  
10 resources. So, we're looking at that.

11 MR. GROBE: Our inspection  
12 program includes a broad set of baseline inspections,  
13 which I describe as a criterion basis inspection program,  
14 as well as when we find something that appears to be more  
15 substantive to specific targeted inspections, call those  
16 supplementals.

17 The issue of contractor control concerns me. Is  
18 that something that you consider doing an additional  
19 assessment? I've heard from Mike and Randy, that  
20 additional emphasis is being placed on the organization to  
21 provide contractor oversight, but had you considered it?

22 MR. LOEHLEIN: I have to admit right  
23 now, Jack, I don't know that the status of our, obvious  
24 status of the contract issue. We have had different issues  
25 with different contractors, we discussed that. And so far,

1 our sense is that they are just that, they have been  
2 different issues. And it's been more along the lines of  
3 the managers here talk about that we've not perhaps as a  
4 management team been involved as we need to be, and that's  
5 where the actions are going right now.

6 I don't think we've drawn conclusions to do a  
7 separate audit in that area yet.

8 MR. GROBE: Okay. Okay.

9 Very good.

10 Any other questions from the NRC. Great. Thank  
11 you.

12 MR. LOEHLEIN: I'll switch spots

13 here, so Bob can be well heard.

14 MR. SCHRAUDER: Thank you,

15 Steve.

16 I'm Bob Schrauder, the Director of Support Services  
17 Organization, and management oversight for the reactor head  
18 replacement.

19 Very brief update on where we're at with that. I  
20 stated last time that our service structure was in place on  
21 the reactor vessel head. It is welded on now. All the  
22 touch-up paint is done. That job is virtually complete.  
23 We have a few cables to reconnect yet, the position  
24 indication groups, the control rods. The control rod drive  
25 mechanisms are reinstalled on the reactor vessel head and

1 we still have to attach a couple of the lifting devices to  
2 replace the head onto the vessel. But that job is very  
3 nearly at successful completion now.

4 With regard to the head that we replaced, we have  
5 moved that out of the turbine train building into a  
6 temporary storage building, out on the dry cask fuel  
7 storage pad that we had poured and we'll retain it in that  
8 temporary storage building until after the, after this  
9 outage. And, then we intend to take some additional  
10 samples off of the head for ongoing research by the  
11 industry and the NRC.

12 Then, that's the status of the head.

13 Now, the issue that we addressed last week, I'll go  
14 over a little more, and that is with regard to the bottom  
15 head of the reactor vessel. As you recall, we had some  
16 material going down the side of the vessel, and had Boron  
17 accumulated on the bottom nozzle.

18 We were unable to positively exclude through  
19 chemical analysis that those Boron deposits on the bottom  
20 head were not coming from leakage from the incoming nozzles  
21 on the bottom.

22 As Lew alluded to before, we have gotten together  
23 with Framatone. They have made recommendations to us and  
24 we are proceeding with a plan on what we will do to assure  
25 ourselves that the bottom nozzles are not leaking on the

1 reactor vessel head.

2 I'll walk through a couple of those steps with you  
3 here. First of all, the first step here we have completed,  
4 we thoroughly cleaned the sides and the bottom head and  
5 have removed any indication of Boron that's down there  
6 now.

7 As we complete this outage, we'll restore the head  
8 on the vessel, then we'll bring the Reactor Coolant System  
9 up to normal operating pressure and temperature. We'll  
10 hold then that temperature and pressure for 3 to 7 days.  
11 We haven't zeroed in on the exact amount of time, but  
12 approximately a week we'll have the plant up at normal  
13 operating pressure and temperature.

14 We'll then bring the temperature and pressure back  
15 down. We'll remove the insulation off of the vessel  
16 again. And we will perform a bare metal inspection, this  
17 time prior to restart, so we will have a very good picture  
18 before and after.

19 The next slide we show why we think that will be  
20 effective. And then, as we complete this outage, bring our  
21 unit back on line, we have talked about before, we do  
22 intend to do a mid cycle outage. We will take the  
23 insulation off the bottom head again. We will reperform a  
24 bare head inspection at that time.

25 Then, we're also continuing our investigation of our

1 on-line leak detection system we will install on the bottom  
2 head. And, we're continuing to look at that. If we can  
3 get it in during this outage, we will put it in, in this  
4 outage. It is more likely that it will be in the mid cycle  
5 outage before we are able to get all the hardware and  
6 complete installation of that. But our intent is to put an  
7 on-line monitoring system on the vessel, probably will be  
8 on the bottom vessel as well as the head.

9 The next --

10 MR. GROBE: Bob, before you  
11 go on, could you explain a little more detail why you need  
12 to put fuel in the reactor to do this test, and then  
13 secondly, how you raise your Reactor Coolant System to  
14 normal operating temperature and pressure?

15 MR. SCHRAUDER: Sure. We  
16 looked at our ability to bring the system up to its normal  
17 operating temperature and pressure without fuel as is done,  
18 it's a hot functioning test before you go in operation,  
19 the equipment used to do that.

20 The issue there is you have to get proper  
21 differential pressure through the vessel so that your  
22 reactor coolant pumps don't exceed, and rerun it in that  
23 condition. So, you have to put in some, something that  
24 will simulate the core, basically to give you the proper  
25 differential pressure across what is normally the core.

1       The way that you heat up the vessel in this  
2       condition is not with nuclear heat, but actually with heat  
3       coming off of the reactor coolant pumps themselves. And  
4       so, and that's what we usually heat this up to. Even  
5       though fuel will be in the vessel, it's not nuclear heat,  
6       we will be using generator pressure from the reactor  
7       coolant pumps themselves.

8       We were unable to get plates, and the equipment  
9       that's necessary to create the differential pressure. They  
10      just don't exist anymore in the industry. And so, we're  
11      not able to get that equipment. So, we're going to need to  
12      put the fuel back in the vessel in order to get the proper  
13      differential pressure across the vessel.

14             MR. MYERS:           Also, the seal,  
15      Bob, the way our incore seal, seal moves in and out. There  
16      is a seal at the end of the incore, with them installed,  
17      the seal is made up. And so, if you have the incore  
18      installed, try running the pumps, that wouldn't be good.  
19      And if you pull them out, you can't get a seal. So you  
20      couldn't get the pressure. So, you have to have the incore  
21      installed to get your fuel to do that. That's what we need  
22      also.

23             MR. COLLINS:       Excuse me.

24             MR. MYERS:       Those are the  
25      conditions that's driving that.

1           MR. COLLINS:        I had a question  
2 of clarification for you. I understand you'll be  
3 performing nuclear tests before the NOP/NOT Operation?

4           MR. SCHRAUDER:     Integrated leak  
5 test on containment?

6           MR. COLLINS:        Correct.

7           MR. SCHRAUDER:     Yes, sir.

8           MR. COLLINS:        That's to ensure  
9 your interior area is intact?

10          MR. SCHRAUDER:     Yes, sir.  
11 Containment integrated test will be done prior to, before  
12 the normal operating temperature.

13          MR. COLLINS:        And I think, as  
14 far as a leading technology, we would be very interested in  
15 your online integrated attempt, realizing it's not required  
16 by the license. One of the lessons learned through reading  
17 the NRC Lessons Learned Report from Davis-Besse is to  
18 challenge yourself to go back and look at the existing leak  
19 rate requirements specs, when you go through the  
20 specifications, or one gallon un-identified, and the other  
21 criteria.

22          So, we're looking for enhanced ways consistent with  
23 some of the technology that's overseas, as you say, to  
24 supplement those systems.

25          MR. SCHRAUDER:     We do believe

1 the technology is available for this leak detection  
2 system. It's a question of whether we can, the amount of  
3 time it will take to get the equipment here, and to  
4 complete the design modifications to install it on the  
5 vessel during this outage. And as you said, this modern  
6 system is used overseas in several reactors.

7 MR. COLLINS: In conjunction  
8 with that, of course, that would require a response  
9 procedure by operators and perhaps even modification of the  
10 simulator has been ~~wanted~~ warranted to deal with the conditions and  
11 the expectations of the operators in response to this.

12 MR. SCHRAUDER: Right.

13 MR. GROBE: Just one more  
14 thing, Bob. This is the issue Sam is addressing on the  
15 need to address. This is an interesting enough issue, but  
16 once you finalize your design and have a good grasp on it,  
17 may want a meeting with us, just to go through the system,  
18 how it's going to work. As Sam indicated, how the  
19 operators, what kind of operators you're going to have to  
20 respond to it. Similar to what you're doing in sump  
21 modification.

22 So, we need modification. I think it would be  
23 beneficial if you can, then chat with us prior to that.

24 MR. SCHRAUDER: Right, we  
25 were planning on that.



1           MR. MYERS:           We're pretty  
2 excited about this new technology, about the Flus Monitor.

3           MR. GROBE:           Okay, go  
4 ahead.

5           MR. SCHRAUDER:       This graph,  
6 the next slide shows a graph of the type of accumulation of  
7 Boron you might expect to see for the various leak rates.  
8 This was developed for us by Framatone. The original graph  
9 of the whole series of how long you held the reactor at  
10 normal operating temperature and pressure.

11         I chose 7 days as the example here, but you can see  
12 that you would actually begin seeing some Boron deposits  
13 for as little as a millionth of a gallon per minute leakage  
14 was deposited on the nozzles. And then as you go into more  
15 leakage down to ten millionths of a gallon, for example,  
16 you see you're up over the inches, in cubic inches of  
17 Boron you would be able to detect on the bottom nozzle.

18         So, we believe if there is leakage on the bottom  
19 nozzle, we will be able to have the system up and pressured  
20 for a week.

21           MR. GROBE:           So, this is one  
22 graph, 7 days.

23           MR. SCHRAUDER:     There are a series  
24 of graphs for 3, 7, 10 and 30 days, but it looked like 7  
25 days was fairly reasonable amount of time that you would

1 expect to see any leakage that might be there.

2 I would also like to add that Framatone is  
3 continuing to do some laboratory modeling of different leak  
4 sizes held at different pressures to verify. This is  
5 analytical curve right now they're creating --

6 MR. GROBE: I don't want to  
7 speak for Bill Bateman, but if I was Bill Bateman, I would  
8 ask that exact question. What kind of crack tightness are  
9 you talking about, what size of crack, two thousand, maybe  
10 2,250 pounds per square inch. That would be great  
11 information on what leak rate if you would encounter.

12 MR. SCHRAUDER: Then in the  
13 event you do find leakage, we have a fix that is designed  
14 and in fact has been used in the industry, not on the  
15 bottom nozzle, but on the pressurizer, for instance, this  
16 type of repair has been made.

17 And, the first, the first thing here is the, you see  
18 on the initial nozzle, the first thing you do is come in  
19 and you'll pull the incore of the tube out of the nozzle;  
20 plug the nozzle from the top of the vessel. You can see on  
21 there on the top edge of the, still not right, top edge of  
22 the, what represents the vessel is the weld, and that is  
23 the current pressure boundary for these nozzles.

24 What we'll do is we'll cut that nozzle after, cut  
25 the nozzle, you'll see in the middle picture, goes up about

1 an inch up into the metal itself on the reactor vessel.  
2 Then there is a head welded onto the bottom vessel, a weld  
3 put on down there.

4 Then you take a new nozzle and insert it into the  
5 opening and then the new pressure boundary weld is a weld  
6 that's put on between the nozzle knob and the head that was  
7 welded on the bottom of the vessel. So, you remove the  
8 pressure valve inside the reactor vessel to the outside of  
9 the reactor vessel.

10 The advantage that this fix has for us is, in that  
11 nozzle, the replacement nozzle that goes up in there, is  
12 not attached to the remaining piece of the old nozzle. So  
13 that if you weld this thing on the top and the bottom, one  
14 might say you could just do a weld on the bottom of the  
15 thing. That's preemptive, move the pressure valve down to  
16 there. The problem with that is, now you've anchored that  
17 nozzle on the inside and the outside, and you can induce  
18 thermal stresses into that. As the tube has to expand when  
19 you bring the vessel up to its temperature and pressure,  
20 this allows for thermal expansion in the nozzle itself.

21 MR. HOPKINS: Let me understand,  
22 Bob. So, the leak barrier still will be the top weld then  
23 essentially, you're saying?

24 MR. SCHRAUDER: The pressure  
25 nozzle there will be welded at the bottom.

1 MR. HOPKINS: It will welded.

2 MR. SCHRAUDER: Yes. That will be  
3 where your pressure weld is.

4 MR. HOPKINS: Okay. So, by  
5 cutting, you're no longer tying the top and bottom.

6 MR. SCHRAUDER: That's correct.

7 MR. GROBE: I'm not sure how  
8 accurate this drawing is, but it appears that the new  
9 penetration inserting from the bottom is butted up against  
10 the one that you're cutting off. Is that going to be a gap  
11 there or --

12 MR. SCHRAUDER: It's  
13 essentially, it won't be flush up against it, but pretty  
14 close.

15 MR. GROBE: It will be a  
16 gap, okay.

17 MS. LIPA: And Bob, this  
18 is, as I understand what we were talking about, in more  
19 detail on the November 26th meeting?

20 MR. SCHRAUDER: That's  
21 correct.

22 MS. LIPA: Tentatively  
23 set up for 26th.

24 MR. MYERS: This is on  
25 the schedule though, what is it, three days, Bob?

1 MR. SCHRAUDER: Maybe seven  
2 days.

3 MR. MYERS: And it's been  
4 done on the pressurized vessel before, so it's kind of  
5 unique.

6 The interesting thing is, the bottom of our vessel  
7 is the, the pole, where the pole goes into the lowest  
8 temperature, we really don't believe there is a high  
9 probability there is leakage there. We just can't  
10 substantiate there is not leakage there; that we can  
11 substantiate we found that Boron there.

12 So, we've cleaned it up and now we can substantiate  
13 it. We'll find the leak. And we have the repair at hand.  
14 This is the repair suggested for us.

15 MR. GROBE: Sam has one more  
16 question, which I think I answered correctly. You're  
17 expecting this is going to be a ~~cold prepare~~ code repair not requiring  
18 NRC approval; is that correct?

19 MR. SCHRAUDER: That's what  
20 we believe at this time. We're going to look through this  
21 and make sure whether we need any approval or not. We  
22 don't believe we do.

23 MR. GROBE: I'm sure we'll  
24 talk about that a little more on the 26th, but I appreciate  
25 your point, Lew, is you don't expect the penetrations to be

1 leaking, you're just going to be ready with the design to  
2 install a repair, if in fact there is one.

3 MR. MYERS: When we took the  
4 chemical sample, we didn't, we couldn't validate from the  
5 chemical samples that, exactly where the Boron came from,  
6 and we couldn't trace it back either, due to insulation.  
7 So, the conservative thing to do is do a good inspection to  
8 see if there is leak damage. We don't expect it, we can do  
9 a little work and if we find it, we repair and fix it right  
10 then. That's our plan.

11 MR. MENDIOLA: Going back to  
12 slide 19, your graph slide, what are the two vertical lines  
13 there; that one and the one to the right? Those two.

14 MR. SCHRAUDER: Those are  
15 miscellaneous vertical lines. They have no meaning at  
16 all.

17 MR. MENDIOLA: Okay.

18 MR. POWERS: I think what those  
19 are is, the initial dialogue we had Framatone on those,  
20 that's the flus monitoring range, ranges of effectiveness  
21 for flus monitoring for tracing cracks.

22 MR. MYERS: That's exactly  
23 what those are.

24 MR. SCHRAUDER: They were notes on  
25 this. I cleaned them off, or pulled them off.

1 MS. LIPA: Any other

2 questions for Bob?

3 MR. THOMAS: One other thing,

4 Bob. If the flus monitoring system doesn't get installed

5 on the vessel prior to the NOP/NOT check, are there any

6 other temporary monitoring systems that you'll put between

7 the insulation and the bottom vessel and monitor for leak

8 during the ~~cool~~ hold period?

9 MR. SCHRAUDER: Not that we're

10 aware of at this time. We're looking for potential for

11 cameras and the like, but it is not looking very promising

12 right now.

13 MR. GROBE: Fairly high

14 temperature environment.

15 MR. MYERS: We're looking

16 into having cameras --

17 MR. GROBE: Talk to the coal

18 miner.

19 MR. SCHRAUDER: We are continuing

20 to look for some cameras that will work. We're

21 investigating that.

22 MS. LIPA: Any other

23 questions for Bob, because this would be a good time for a

24 break. So, we'll start back in ten minutes at 3:40.

25 (Off the record.)

1 MS. LIPA: Are you ready,  
2 Jim? Go ahead.

3 MR. GROBE: Jim, before you  
4 start, just quickly. Apparently, some of us are speaking  
5 too softly and if there is any inability to hear, please  
6 speak up. Mr. Stucker does an outstanding job, and for  
7 some reason some of us have our head turned or something  
8 like that, and it's not, our discussion is not discernible.  
9 Please let us know. Thank you.

10 MR. POWERS: Okay. My portion  
11 of the discussion today is focusing on System Health  
12 Assurance piece of the Building Blocks. And my desired  
13 outcome today is to provide a status of the Latent Issues  
14 Review and our plan to perform a Collective Significance  
15 Review of the results we've obtained.

16 The Collective Significance Assessment consists of  
17 rounding up all the findings that we found from different  
18 individual valuations and we use to determine areas that  
19 require improvement.

20 You recall at the last meeting I brought along a  
21 pretty substantially thick report that we prepared on  
22 Service Water System whereby our engineers went through the  
23 system in a lot of detail checking a lot of attributes and  
24 developing a substantial report out on it, also finding  
25 some discrepancies.



1       We did similarly report efforts for five systems in  
2 total, plus we've been doing what we call System Health  
3 Readiness Review Reports on 31 systems, which are important  
4 to the safety of the plant.

5       So, we take all those results from those reports and  
6 the findings from the reports and we roll them together  
7 with self-assessment activities that we've undertaken,  
8 particularly in the calculation quality area. We also  
9 rolled together with inspection results that Marty Farber  
10 described earlier in the presentation. And, we took all  
11 that information and put it together and see what it's  
12 telling us in terms of areas that require improvement.

13       From the Latent Issues Review, which we did on five  
14 systems, as you see here, we checked 31 topical areas. And  
15 by a topical area, what I mean is calculations, drawings,  
16 what we call system design descriptions, quality of the  
17 use. There is a number of engineering documents that  
18 provide the basis for a system and its design basis.

19       And a process of going through that matrix of doing  
20 those checks of all the individual attributes that support  
21 system quality. We did over 14,000 individual checks. So,  
22 there is a lot of things we went into checking and looking  
23 for any sort of discrepancies.

24       Going through it, we found 777 discrepancies, which  
25 is about a 5 percent hit rate. And of those our station

1 Restart Review Board classified 447, as being required to  
2 be resolved prior to restart. That was about three  
3 percent.

4 So, we checked a lot of activities and we found  
5 about a two percent error rate, if you will, in  
6 discrepancies.

7 Now, we added to those findings the results of the  
8 System Health Readiness Reviews, Self Assessments and  
9 Inspection Results and what we found then -- next slide.

10 The topical areas out of those 31 that really call  
11 for more attention and improvements are areas of  
12 calculation and analysis, electrical calculations,  
13 instrumentation and control calculations; and that  
14 typically is set point for instruments in the plant  
15 mechanical and structural calculations.

16 And also system descriptions, and in this area,  
17 there may be discrepancies between references and various  
18 numbers and different references that make up our system  
19 description manuals. And as a result of those,  
20 configuration management shows up as an area that needs to  
21 be improved as well. We refer to configuration management  
22 as an overarching program for all the documentation of the  
23 plant to be sure that it's managed in a way so it is all  
24 consistent.

25 So, we consistently groom configuration management

1 systems with your Corrective Action Program. And these are  
2 areas that thinned out, a significant requiring further  
3 work. All the issues that we found during our Corrective  
4 Action Program and all the issues are going to be addressed  
5 per the Corrective Action Program. These issues will  
6 require some additional attention.

7 On the next slide then. We also went through a  
8 Collective Significance Assessment of what we call common  
9 attributes. These are engineering programs, technical  
10 programs. And you can see the list of them, high energy  
11 line break. That's for breaks of steam lines, for example,  
12 high pressure and temperature lines that affect the  
13 equipment. We design for that.

14 Environmental Qualification. We design the  
15 equipment so it withstand access conditions.

16 Appendix R is our fire protection program.

17 Seismic qualification of equipment.

18 Temperature effects upon system operability, and  
19 this was several issues, but in particular one of the  
20 license men requested that I mentioned at the last meeting,  
21 that was related to the lake temperature increases and  
22 changing our intake water temperature, to coincide with  
23 anticipated lake temperature increases, and carrying out  
24 the analysis rigorously into the heat exchangers in the  
25 systems in the plant.

1           And the Natural Phenomenon, which can be flooding of  
2 the lake, if you get a high enough level to flood into some  
3 of the sumps and sump pumps.

4           So, these are areas that we're going to be looking  
5 at in some more detail, and what's been referred to as  
6 expansion plans. We're going forth and taking these  
7 results that are of a collective significance and looking  
8 into the balance of our, making control safety significant  
9 systems to assure that they are safe and ready to support  
10 restart and continue live operation.

11          The plans are putting together for that now, take  
12 into consideration the collective significance, and it lays  
13 out our roadmap, if you will, for what we're going to do  
14 looking into other systems to be sure that the issues are  
15 appropriately addressed in our other systems.

16          So, in summary, we're in that evaluation phase now.  
17 Other collective significance, this is a valuable process  
18 to us.

19          The latent issues process, I think you heard Lew  
20 talk about that many times in the meeting. It originated  
21 out of the Beaver Valley Plant and we brought it to  
22 Davis-Besse also. I think we've improved on it  
23 substantially, and we plan to utilize it going forward in  
24 all of our FENOC facilities on a regular basis during  
25 operation of units.

1           So, with that, I'm go to turn it over to John  
2 Grabnar. John is our Design Basis Manager, and he's going  
3 to talk about our plans going forward and addressing some  
4 of the issues we found, collective significance.

5           MR. COLLINS:           Jim, if I may, I  
6 have a question and you may refer this to John if it's more  
7 appropriate.

8           The findings that you have depicted on slide 23,  
9 have those areas been flagged such that if those calcs or  
10 portions of those calcs were to be used in the immediate  
11 future given the activity at the plant, if that would be  
12 known to the engineers?

13           MR. POWERS:           All the  
14 discrepancies are flagged within the corrective action  
15 process, and one of the more significant activities we've  
16 undertaken at the plant in the past several weeks is to go  
17 through the process of laying out the communications  
18 channels that need to occur, for example, people that are  
19 working in calculation topical areas versus system  
20 engineers that are working to get their systems ready for  
21 restart, and looking at the list of issues that need to be  
22 corrected and have those communication channels set up, so  
23 people know who is working on what issue.

24           So there is a major set of activities occurring, if  
25 you will, and we've gotten all the engineers involved

1 together to talk about that. And it's an area we need to  
2 communicate as we go through this aggressively, because  
3 there are a lot of activities going on parallel.

4 MS. LIPA: Sam brings up a  
5 good point. I hadn't really thought about this before  
6 either. If you have a calculation that you find a problem  
7 with, you write a condition report on that, and then  
8 somebody tries to solve that problem. Is that calc then  
9 quarantined so it's not used somewhere else?

10 MR. POWERS: Well, the  
11 condition report is written against the calculation. And  
12 going through the, what we call our press database that  
13 lists all the conditions reports and what they're written  
14 against, the activities go on, the engineers need to be  
15 familiar with, Chris, and know what's in there in terms of  
16 issues that have been written against calculations.

17 MR. GRABNER: That's one of the  
18 issues, Christine, that we are aware of and we are  
19 concerned about. We're working on doing that to make sure  
20 as part of our review process, first of all, the engineers  
21 in the different disciplines are aware of the calculations  
22 that have been in question. And we have lists of various,  
23 various sorts of condition reports versus calculations, and  
24 open items that still remain open from a program that I'll  
25 talk about in a few minutes.

1           So, we're putting those altogether to make sure that  
2 as the owners accept for review upon the modification work,  
3 we take into account that A, there are calculations out  
4 there that have been that may need to be revised, and could  
5 be that we have some other calculations that we're working  
6 on. And we will have to, we're going to make sure we're  
7 using it in some of the design work going forward.

8           MR. POWERS:           Typically, what  
9 happens is the supervisor involved in the areas, for  
10 example, the analysis group or the service water system  
11 that I've talked about issues, lake temperature and service  
12 water, they are aware of the ramification of the systems  
13 going into the plant. So, the contracted work that's  
14 proceeding under their direction, they have that direct  
15 communication and are working at laying out the sequencing  
16 of, you know, what's important and the steps which need to  
17 occur if the calc has to get revised, when to support the  
18 ultimate logic train through the plant. So, it's an  
19 ongoing process with the supervisors.

20           MS. LIPA:           Seems like you can  
21 probably have a similar thing with drawings or procedures,  
22 where you find a problem while you're solving the problem,  
23 that a drawing or that procedure is sitting there where  
24 somebody could use it.

25           MR. MENDIOLA:        To your knowledge,

1 is there any licensing actions in-house occurring in the  
2 NRC review or any recent NRC amendments that we have  
3 approved that are affected by any of these discrepancies,  
4 that we should be aware of?

5 MR. POWERS: Nothing comes to  
6 mind. Two active license amendments or requests that we  
7 have had relate to the code applications that, Tony,  
8 there's no application on those. And I don't believe that  
9 we have any other, currently any other submittals in  
10 place.

11 The one we would need that does come to mind, that  
12 we need to look into, is the calc on power free  
13 modification that we had in pressure resistance. And I  
14 think there is one request for additional information on  
15 that, that remains to be answered, and that's an area we do  
16 need to check and be sure that application is still  
17 examined.

18 MR. MYERS: Can we go back --

19 MR. MENDIOLA: The reason I  
20 asked -- sorry, Lew. The reason I asked, had to do with,  
21 you said more than a few times, the temperature of the heat  
22 sensor and things like that, I was wondering if any recent  
23 amendments that we allow, or approved, if you will, had,  
24 were affected by any of this?

25 MR. POWERS: The one that comes



1 to mind that actually involves most of the, many of the  
2 issues centering around the service water system is the  
3 application made for the lake temperature increase, and the  
4 difficulties; part of the difficulties we're experiencing  
5 is in the dialogue with the staff on reaching approval, was  
6 taking a design basis consideration that the plant could be  
7 cut off from the lake, the canal could be cut off from the  
8 lake by an earthquake, for example, and needs to be able to  
9 cool the water recirculating now.

10 And when that's a consideration for design,  
11 temperature goes up, and that affects our margins of the  
12 plant. And so, although that one was approved, it's  
13 something we're looking at a little more closely to see,  
14 you know, the basis of approval, if we could work to do  
15 more technical work and have further dialogue with staff on  
16 that, that's the basis for that improvement.

17 MR. MYERS: What we do, we're  
18 taking action to go back, go back a year or two, and look  
19 at previous approvals we had and bounce it off of this  
20 stuff. We can do that pretty easy. So, we're taking  
21 action to do that. As we sit here, we don't know.

22 MR. HOPKINS: Just to expand  
23 that a little bit, you mention here instrumentation control  
24 calcs. And again, I'm wondering now about set point values  
25 and allowables in technical specifications, are those

1 detected, you know, that we're not aware of?

2 MR. POWERS: That needs to be  
3 checked, Jon. That's part of the assessment that we're  
4 doing in that area is take a look at those critical  
5 calculations and certainly those values or set point values  
6 of that population.

7 MR. HOPKINS: Okay. So, that's  
8 part of your evaluation phase now?

9 MR. POWERS: That's correct.

10 MR. MENDIOLA: I assume you're  
11 talking specifics rather than the methodology. When you  
12 said, set point methodology is still sound, your  
13 calculations on this are still sound in the way that you  
14 calculate your allowables and methodologies; and it's just  
15 basically on a specific case where they may be a set point  
16 that needs to be recalculated?

17 MR. POWERS: What we want to be  
18 sure is when a set point has been calculated, that all the  
19 associated tolerances and inaccuracies and instrument loop  
20 are included in that appropriately. And so the issues that  
21 have occurred that have been found in the set point calc  
22 area, we'll be looking at, you know, I say bundling all  
23 those issues together, looking at them collectively, and  
24 looking at each specific issue.

25 If there is any issues that occur that, that merit

1 looking broadly across the board at, for example, aspects  
2 on set point, for example, that's what we'll be doing, to  
3 make sure that the methodology is sound across the board in  
4 this area.

5 MR. MENDIOLA: Thank you.

6 MR. GRABNER: Okay. Good  
7 afternoon everyone. Again, I'm John Grabner, Manager of  
8 Design Engineering at Davis-Besse. I wanted to share with  
9 you this afternoon a process that we're undertaking to  
10 resolve the design-related issues that we've uncovered  
11 between our Latent Issues Reviews, the Safety Systems  
12 Design Performance Capabilities Inspections, as well as  
13 some of our own self-assessments; and talk about not only  
14 resolving those, the five systems that we've done latent  
15 reviews for, but also for across the other population of  
16 important systems of the plant.

17 First of all, as a result of the number of issues  
18 that we've identified, I've issued a functionality review  
19 to be performed that will focus on what's the ultimate  
20 effect in total of the questions that have been asked on  
21 the ability of the five latent issues systems to actually  
22 perform their important function. That assessment is  
23 currently in progress and we expect that to be done by the  
24 end of the month.

25 Secondly, being new to the plant, I had, I didn't

1 have a good picture of all the design basis activity that  
2 have been performed here in the past, so we had a timeline  
3 commission, which is down here on the wall to the left. If  
4 I could have Chuck here point out as I call some things  
5 out. Just point out some big picture items in red.

6 The red bars on top indicate periods of plant  
7 operation. The blue bars below them indicate periods of  
8 plant shutdown. This timeline starts in 1985, and runs to  
9 the present.

10 The green bars in the middle, that first green bar  
11 indicates the Davis-Besse course of action, which is the  
12 plan we undertook beginning in '95.

13 The second long green bar is our Design Basis  
14 Validation Project. Now, Design Basis Validation was a  
15 project we committed to as part of our response to the  
16 letter from the NRC, the industry received regarding design  
17 basis information, commonly referred to as the 10-CFR-5054  
18 letter.

19 And in there we took a look at our system  
20 description manual, as well as our design criteria manual,  
21 which are two documents that we prepared as part of that  
22 course of action back in the 80's, and those comprised a  
23 design basis of the plant.

24 So, we looked across 29 of our most important  
25 systems with this Design Basis Validation Program, and we

1 have a course on every one of those 29 important systems to  
2 take a look at all the important features of each system  
3 and look for where calculations or analysis supports that  
4 that function can be performed.

5 Now, our preliminary review to-date shows these are  
6 very good documents. They're high quality. They do have  
7 limitations. And I'll talk about in the next slide how  
8 they correlate with the questions we've had so far. But  
9 they provide for us a very valuable resource. And, had we  
10 followed through completely with all the issues that were  
11 asked back in the late 90's, we would have a lot more  
12 issues today that we can talk about.

13 MR. GROBE: John, before you  
14 go on, you indicated a third bullet down under Design Basis  
15 Validation, that it validated Systems Descriptions and  
16 Design Criteria Manual. Were there any deficiencies  
17 identified during that process?

18 MR. GRABNER: Yes, there were.  
19 We referred to, there is a data base of open items.  
20 Originally there were about a thousand, roughly a thousand  
21 open items. Now we have 275 or so of those still open  
22 today. And the, in fact the third green bar over there,  
23 which started around March or April time frame this year,  
24 indicates the renewed focus we took on closing out those  
25 275 actions. We've applied a lot of resources to doing

1 that, and suspect those will be closed out by the end of  
2 this year.

3 So, yes, there were a lot of issues. A lot of them  
4 were issued, not all of them were answered correctly or  
5 completely, however; so, and we're finishing that up now.

6 So, from our Latent Issues Reviews, I talk about  
7 latent issues. I'll add into here other, of course,  
8 activities that we perform on our five most important  
9 systems. We do have a number of design basis questions  
10 that have been raised.

11 Looking through these, and again, this is all  
12 somewhat preliminary in nature. A lot of these issues have  
13 been previously identified in this Design Basis  
14 Validation. A number of them are merely questions and  
15 really aren't issues. I couldn't find this calculation, we  
16 find actually we do have it. Other cases we thought we  
17 didn't do testing and we find a test report.

18 However, there are a number of potentially important  
19 issues that were not previously identified that were  
20 identified either by Latent Issue Reviews or one of the  
21 other reviews that were conducted. So, what we're working  
22 with, of course, is what's the difference between those  
23 two.

24 So, many of the areas that weren't previously  
25 identified by the way are in topical areas that Jim had

1 talked about earlier; flooding, environmental  
2 qualification, energy line break design, those were topical  
3 areas that were not looked at in detail during Design Basis  
4 Validation, because specific credit was taken to previous  
5 inspection and assessment activities, which by the way are  
6 allocated on the bottom half of the timeline, which shows  
7 the assessment and inspection activity both internal and  
8 external that's gone on through the timeline.

9 So, that brings us to our resolution approach. And,  
10 if we start here, first of all I will point out that this  
11 is all conducted within our Corrective Action Program. We  
12 have condition reports for every one of these issues that's  
13 been identified, in many cases multiple condition reports.

14 So, the first task that we're currently undertaking  
15 as we speak is consolidating, eliminating the redundant  
16 condition reports, so we're not answering the same question  
17 twice; consolidating similar calculations or similar  
18 condition reports, so when we do things such as revise a  
19 calculation, we have all the issues combined together so we  
20 can do it once.

21 So, we take those condition reports and we ask  
22 ourselves, first of all, is there a potential impact on  
23 safety function or operability. Either one of those, a yes  
24 to either one of those questions is going to require that  
25 we resolve the issue and run the ground prior to deciding

1 how to act.

2       So, once we now group to the balance of the number  
3 of conditions or issues that are potentially safety  
4 significant, we look at how many of those have been  
5 previously identified under the Design Basis Validation  
6 Program. And, what that does for us is provides us a more  
7 efficient way of looking at the extended condition, because  
8 we've already looked at 29 systems under Design Basis  
9 Validation; and we verify the issues, these open items, on  
10 each of those 29 systems, we can revalidate the answer,  
11 make sure we answer completely and correctly, if it's  
12 already been answered. We follow through to make sure it  
13 gets answered and is still open.

14       Then, there is going to be a number of issues that  
15 will fall out as a no to that question to say, it's  
16 important to safety or operability, it was not identified  
17 by Design Basis Validation. For those, we have to do an  
18 extended condition in our Corrective Action Program, and  
19 apply those to all the important systems of the plant to  
20 make sure it's not a generic issue.

21       That's essentially our methodology we're going to be  
22 using here to try to make sure that the issues that we know  
23 of are solved, and that the issues that we know that have  
24 application to the other systems are also applied  
25 appropriately.



1           So, this is an approach that we've developed. We  
2 believe it's based on sound engineering principles. We  
3 have our new engineering principles expectations manual,  
4 which I believe you're all familiar with. We talked about  
5 that in the past.

6           We're applying that new level of rigor and concern  
7 to the open items, not simply accepting the answer that was  
8 provided maybe five years ago. And we'll take a look at  
9 every one of those again, it's important prior to restart,  
10 and make sure we've answered it right.

11           MS. LIPA:           So, John, are you  
12 talking about the 275 open items?

13           MR. GRABNER:       I'm talking about  
14 the 275, plus even we're going to look at the ones already  
15 closed, because there are some of those that we found, in  
16 fact a couple that were identified by Marty's group, where  
17 we didn't bottom line if we would have answered the  
18 question using today's standards more completely, we would  
19 have found the issue and addressed the problem then.

20           MS. LIPA:           And have those  
21 open items been put to Corrective Action Program?

22           MR. GRABNER:       The 275 open items  
23 have been rolled into the Corrective Action Program, so  
24 they are tracked in the Corrective Action Program.

25           MS. LIPA:           Thank you.

1           MR. COLLINS:       John, I have a few  
2 questions if I could, right before summary. If you want to  
3 cover them during the wrap up, please defer me to that.

4       Who owns the design basis of the plant? Is it  
5 system engineers, is it design engineers?

6           MR. GRABNER:       Design engineers.

7           MR. COLLINS:       Design engineers.  
8 And you have a design engineer for each system or how do  
9 you specify that?

10          MR. GRABNER:       We have, that's  
11 one thing we're looking on. That's one of the deficiencies  
12 actually we're tracing. We don't have design engineers  
13 assigned specifically to systems. That's one of the items  
14 we're looking at in terms of realigning.

15       So, we do get that assignment, so we can feel more  
16 ownership directly. We're really broken down  
17 discipline-wise, and it's not clear always system by system  
18 where that applies.

19          MR. COLLINS:       Okay. So, that's  
20 a go forward approach you need to establish?

21          MR. GRABNER:       That's correct.

22          MR. COLLINS:       How is the system  
23 now used? Do you have a readily available automated means  
24 for engineers to access the design basis of the plant and  
25 to search for the latest calcs? Do you intend to have

1 one, or how are you going to transform this information  
2 when you have confidence in it, do you have a process that  
3 can be applied?

4 MR. MYERS: Let Jim answer  
5 that question. Do you have an answer?

6 MR. POWERS: I'll jump in on  
7 that. At the Perry Plant, we used an electronic design  
8 basis information system called Atlas, that we worked with  
9 General Electric to extract much of their design basis  
10 information out of San Jose, and get it electronically  
11 assessible to the engineers. We even scanned in some of  
12 the old memos from the original system designers out  
13 there. It's electronically available on desktops.

14 Sort the information by accident and, you know,  
15 design parameters and functions for the systems, anyway you  
16 want to slice it and dice it. It helps the 5059 writers do  
17 their jobs and the reviewers and the modification  
18 preparers. And so, we had success with it there, and we're  
19 going to bring it to both this plant and our Beaver Valley  
20 Plant. That's ongoing now. That's one of the improvements  
21 that we'd like to kick that into gear and get that up,  
22 because we do want to capture this information to be sure.

23 What we're concerned about is the demographics of  
24 the plant through the technical staff, and there is going  
25 to be turnover occurring over probably the next five to

1 seven years, retirement starts. Bringing in younger staff  
2 now, entry level staff. We need to turn over that  
3 knowledge. And we see the tools to capture this thing are  
4 critical to us to continue improving that.

5 MR. COLLINS: Thank you.

6 MR. MYERS: We said something  
7 yesterday about having the right tools. It's painful going  
8 back here and looking for the information, we're still  
9 looking for information through the records and  
10 everything. And it's there a lot of times, but with the  
11 technology we have, it should be a lot easier to attain.  
12 And we put that in place.

13 We really designed the system at our Perry Plant  
14 when I was there. And our engineers raved about it all the  
15 time, our system and design, but we didn't bring it over  
16 here. We're going to do that.

17 MR. COLLINS: A comment would be  
18 that this multiple purpose, reestablishing and confirming  
19 the design basis of the plant, of course, one is the  
20 existing safety basis of the plant in a confirmatory way,  
21 is always important. The other is ensuring that in a  
22 go-forward sense rather than a legacy sense that that  
23 information is available to be applied. And I think that's  
24 where you're going perhaps with your future initiatives.

25 I'm curious about the 97-5054F there. You indicated

1 there are some legacies having to do with quality to those  
2 findings. Are you in to broaden the scope of your response  
3 to 97-5054F letter? Are there any lessons learned that you  
4 found of your sampling that are causing you to question the  
5 implementation of the actions from that 5054?

6 MR. POWERS: No, we haven't  
7 really looked at that yet, specifically. The areas that  
8 John described, there is a follow through on the action  
9 items, Design Basis Validation that was done. We know we  
10 need to follow through on that.

11 There was also the four topical areas that we talked  
12 about, that were excluded because recent external QA  
13 assessment, self-assessment and inspection activities. It  
14 was felt at that time those programs were in good  
15 standing.

16 Now what we're finding as we go through this, we're  
17 taking some discrepancies that have been identified and  
18 we're in the process of looking at that to see what's the  
19 significance of them, what's the validity of them, and then  
20 we'll go through the process of looking at the 5054F and  
21 see if there is any lessons learned to report.

22 MR. COLLINS: Thank you.

23 MR. MENDIOLA: I have a process  
24 question. Your two decision blocks here, Resolution  
25 Approach. Who does those, who makes those decisions and

1 what process are you using or is there any special process  
2 they use to make those decisions?

3 MR. GRABNER: That would be,  
4 that's, when we set up to do that, we set up system teams  
5 that consist of system engineer, a design engineer who is  
6 assigned, as well as technically some contract help to both  
7 the teams. They are doing this resolution process on a  
8 system by system basis. They will hone the resolution of  
9 all those open items and will ensure they're done to their  
10 satisfaction.

11 They will be the ones also who will be doing the  
12 screening and they will be documenting the results of that  
13 as part of the Corrective Action Program as every one of  
14 these issues again is in the Corrective Action Program.  
15 So, there should be trail, an explanation of that decision  
16 and have that documented in the Corrective Action Program.

17 MR. MYERS: Our program all  
18 along has been set up so we're using our CR process, now  
19 we roadmap this. We have our CR going through a screen  
20 committee that Mr. Schrauder chairs, and they classify them  
21 as restart and nonrestart in that committee.

22 MR. MENDIOLA: So, then I would  
23 understand that when the decision, for example, that first  
24 decision is made, whether it affects safety or functional  
25 operability, the answer is no, so then the CR is resolved

1 and it shows up in front of this committee to, if you will,  
2 quality check the decision. And subsequently, the same  
3 thing would occur on the second decision block depending on  
4 its outcome.

5 MR. GRABNER: That's correct.  
6 It may not, well, I have to take it back. First of all,  
7 this population of CRs have already been identified by the  
8 Restart Station Review Board as being restart related.  
9 We'll take those. The ones we feel do not have to be  
10 resolved prior to restart, because it goes through one of  
11 those blocks, we'll have to take that back to that board  
12 with an explanation to present all of those items and  
13 explain the rationale for concluding these are not restart  
14 items.

15 MR. MENDIOLA: So, there is a  
16 little bit involved, obviously, there is a process and what  
17 you just discussed there, some standardization in the  
18 approach, closing on each of these, if you will, the same  
19 as you go through the entire list of design related CRs?

20 MR. GRABNER: That's correct.

21 MR. HOPKINS: I have a specific  
22 question. Are you reviewing the control room envelope?  
23 Is that possibly expanded largely inappropriately or not,  
24 or that part of your design basis review?

25 MR. POWERS: We are not looking

1 at the size of the control room envelope. I don't know  
2 whether we're looking at that from a technical perspective  
3 in terms of any size of it; however, we are looking at the  
4 control room habitability and leakage testing.

5 MR. JOHNSON: All right.

6 MR. GRABNER: I don't recall any  
7 issues we have identified specifically raise questions  
8 regarding the envelope itself.

9 MR. HOPKINS: But you're looking  
10 at the building?

11 MR. POWERS: Yes.

12 MR. MYERS: Are you ready for  
13 summary?

14 MR. GRABNER: In summary, we  
15 believe we have developed a process that will let us  
16 efficiently and effectively go through, screen the issues  
17 we have, resolve them down, the issues, and resolve those  
18 with the highest priority of those which have a potential  
19 to affect function. And, again, the teams of people that  
20 will be performing this work are the system engineers,  
21 design engineers, and complimented by contractor staff.

22 MR. MYERS: I would like to  
23 take a couple moments to talk about our Management issues,  
24 and Human Performance Action Plan that we have.

25 Next slide.



1       As you remember our issues, we broke all the issues  
2 down, took several reports, and we broke everything down  
3 there in the areas of Nuclear Safety Culture, Standards and  
4 Decision-Making, Oversight and Assessment,  
5 Programs/Corrective Action and Management/Personal  
6 Development.

7       We're not, I'm not going to talk much about the  
8 programs today. I think that Steve did a good job of  
9 oversight. I'm going to give you some of the actions taken  
10 in some of the other areas.

11       Some significant improvement initiatives we've  
12 completed so far is we completed a training program for  
13 Safety Conscious Work Environment at our plant. We went  
14 through 210 of the 250 site supervisors, from contractors  
15 and our supervisors. So, we've done that.

16       That training program is about four hours long. A  
17 major commitment of time. It's designed to ensure that our  
18 supervisors are very proactive with our personnel when they  
19 address concerns. So, that is our desire. Our supervisors  
20 to go from reactive to proactive when it comes to personnel  
21 concerns.

22       Additionally, we've completed 98 RHR assessments of  
23 our FENOC personnel. What is that? Well, that's an  
24 industrial psychologist, that we said, some of our other  
25 means, we're going to go baseline our staff. We've

1 completed that.

2 What we committed to, what it means, is we would  
3 look at behaviors and do an assessment of each individual  
4 that's a supervisor in Operations, Engineering, Work  
5 Management, Chemistry/Radiation Protection, Quality  
6 Assessment. I'm here to tell you, we've gone above that.

7 We've interviewed all of our managers. We've done  
8 our directors and our FENOC executives. And we're now  
9 moving to the directors at our other plants.

10 Next slide.

11 MR. GROBE: Lew, before you  
12 go on, could you give me a sense of what attributes,  
13 performance attributes you examined in these assessments?

14 MR. MYERS: Certainly. You  
15 know, we looked at each of our people, and you know, we  
16 went back and used our Leadership in Action guidelines that  
17 we assess people by. Everything is broken down into  
18 safety, teamwork, accountability and ownership, which is  
19 sort of the FENOC values. Then we have criteria on each  
20 one of the values we're looking for to make sure that  
21 people understand our standards just as well.

22 You know, we have some issues there that we got to  
23 go deal with. Probably the whole population, ten areas of  
24 issues that we want to go deal with. But, there was some  
25 good things that really came out of that review, and the

1 people that are at our plant are there because they want to  
2 be there because it's a good place to work in the area,  
3 and they feel like it's a good asset to the area, and good  
4 place to work. They're pretty vocal about that.

5 We learned a lot from that review, and we've already  
6 had a round table review with our senior management team,  
7 myself.

8 How long was it, Randy; five, six hours? Went over  
9 each individual, and action plans going forward.

10 From a Safety Conscious Work Environment, we've  
11 brought Randy in. He's developed a plan already. That  
12 plan has been communicated and distributed to all of our  
13 employees. We completed the case study training of 864  
14 employees. And, one of the things that we really stressed  
15 is, we sit down as senior management team and developed a  
16 set of standards that we want our employees to hold us to,  
17 and we shared those with each and every employee; and I'll  
18 talk some about the results in a moment.

19 We revised our Leadership in Action Training already  
20 too, based on reviews we've done of this issue. And we've  
21 already went out and trained, using new Leadership in  
22 Action models, 17 new supervisor personnel.

23 And additionally, our Chief Operating -- Chief  
24 Executive Officer of our company, Pete Burg. He's been to  
25 our plant four times since May. But, last Tuesday, he came

1 down and spent all day at the plant and met with two  
2 different sessions; one at 7:00 at night, one in the  
3 afternoon, with our employees, an All-Hands Meeting.  
4 Really talking about doing the job right, safety the first  
5 time, and setting the standards that he expects at our  
6 nuclear plant. And, for him to come down four times and  
7 spend the entire day like he did last week is pretty  
8 exceptional.

9 Our four C's meetings. I really enjoyed those  
10 meetings.

11 MR. GROBE: Just a question  
12 on that last slide, Lew.

13 MR. MYERS: Yes?

14 MR. GROBE: The Safety  
15 Conscious Work Environment area. Without going into detail  
16 or specifics on any issues that are brought up through  
17 either our Allegation Program or your Safety Conscious Work  
18 Environment Program, do you have any insights gained from  
19 the types of issues and the number of issues that are being  
20 brought to our attention as compared to the number and  
21 types of issues that are being brought to your attention  
22 through your, I can't remember what you call it; common  
23 goal?

24 MR. MYERS: You know, many  
25 times I would give you, there was some questions about, you

1 know, the confidentiality of our program, and the  
2 willingness of people to use that. What we've done is we  
3 brought Randy in. Randy established his plan already.  
4 And one of the things, another thing we've done is  
5 put independent investigators in there, so we're not going  
6 back to the line organization doing investigations. And  
7 what we're trying to do there is really show our employees  
8 this is a very confidential program. And go from a  
9 situation where it's a reactive program, Randy is trying to  
10 set a program where we're actually meeting, all the  
11 meetings have been more proactive, to go out and look for  
12 concerns now. And I think we're going to find that very  
13 successful.

14 Randy, you're out there now. Do you have any  
15 comments there?

16 MR. HUEY: I would just  
17 reinforce.

18 MR. MYERS: You can go up to  
19 the speaker there.

20 MS. FRESCH: Would you state  
21 your name?

22 MR. HUEY: I'm Randy Huey. I  
23 would just reinforce what Lew said, that we are discouraged  
24 by the fact that the amount of use, traffic we have with  
25 the existing offensive program does not, is not ahead of

1 what we're seeing coming in from the NRC. So, combine that  
2 with the survey that we did, showed a less than acceptable  
3 confidence on the part of the employees at the plant in the  
4 existing program.

5 We are in the process of putting in place this month  
6 an expanded employee concerns process that will have  
7 essentially two major elements that we think will improve  
8 that, the circumstances of the employees' lack of  
9 confidence.

10 One, is that it will be more independent, instead of  
11 being more or less a brokerage for employee concerns where  
12 an employee comes to the ombudsman, and then that concern  
13 is just directly turned over to the responsible  
14 supervisor.

15 We'll be doing more independent investigations  
16 because we will have an in-house, either in-house  
17 independent investigator or we will have the resource of an  
18 outside investigator to investigate more cases. We've  
19 only opened ten cases this year. I expect to see that turn  
20 around with our, with our new ECP.

21 And, the second feature of it will be to meet with  
22 employee groups when we get this thing, get procedures in  
23 place.

24 In addition to publicizing it in the various  
25 communications journals, like a newsletter, we're going to

1 go out and meet with, across the board with, at the plant,  
2 with groups of employees to explain and get a little bit of  
3 dialogue on it, on what the capabilities of this program  
4 are going to be and encourage people to use it.

5 And, I think that my experience has been that most  
6 employee concerns involve failures and breakdowns in  
7 communications. So, we're going to have emphasis on not  
8 only the ECP personnel, talking to the employees, but  
9 getting their supervisors to be demonstrating on a  
10 continuing basis that employees' concerns are a top  
11 priority and they will not be discouraged.

12 MR. GROBE: Thank you.

13 MR. MYERS: Go ahead.

14 MR. GROBE: Just a question,

15 Randy, now that you're standing in front of the microphone;  
16 two questions. When do you anticipate having this new more  
17 robust program in place?

18 MR. HUEY: Procedure is being  
19 worked on today. I expect to have procedures in place by  
20 the end of December, and have, start these meetings that I  
21 mentioned by the end of the year.

22 MR. GROBE: I would suggest  
23 that you think about not waiting until you have the new  
24 procedure in place to start making a one-to-one interface;  
25 one-on-one interface.

1           MR. HUEY:           Well, in that  
2 regard, I'm attending some of these Four C Meetings, and  
3 based on your comment, maybe I'll start attending more too.  
4 Lew has deferred to me to talk with the employees about,  
5 during those meet meetings about what this new process is  
6 going to do, and I've had some feedback following those  
7 meetings by employees saying that what they hear is good,  
8 and they'll be interested in seeing how it's implemented.

9           MR. MYERS:           We're not sitting  
10 back. I mean, we're actually getting out and we're acting  
11 on it.

12           MR. COLLINS:        Thank you, Lew.  
13        Randy, one question if I may, first grievance. Will  
14 this program be subject to independent auditing by QA or  
15 some oversight towards its effectiveness? Have you gotten  
16 that far yet in its implementation and how you would define  
17 success for its effectiveness?

18           MR. LOEHLEIN:       We haven't  
19 discussed whether QA would provide that or someone else  
20 would. I don't know if Bill knows the answer to that,  
21 Pearce?

22           MR. PEARCE:        I'm sure that we  
23 will provide some oversight of the program once we get the  
24 program established, but as of yet, we haven't got the  
25 program in place, so then we can look at how we're going



1 to provide oversight, but I'm sure the answer is going to  
2 be positive to your question, we will provide some level of  
3 oversight.

4 MR. COLLINS: So, you would, I  
5 guess in a more general way, my question would be  
6 appropriate to say, that you would provide all of the  
7 normal processes and checks and balances for an onsite or  
8 Licensee program, including performance measures and  
9 success material and oversight?

10 MR. PEARCE: That is correct.

11 MR. COLLINS: Training, those  
12 types of things?

13 MR. PEARCE: That is correct.

14 MR. COLLINS: Thank you.

15 MR. GROBE: Randy, don't go  
16 away yet. I think -- I appreciate your emphasis that the  
17 first line of resolution of employee concerns is the  
18 relationship between employee and their supervisor, and the  
19 next line is going to the managers, next line would be  
20 going to you, and then if they're still not satisfied or at  
21 any time they can certainly come to us.

22 The thing that concerns me and has a sense of,  
23 causes me to have a sense of urgency in this issue, is I  
24 believe that we're at a rate of about 3 to 1 allegations  
25 coming to the NRC as what are coming to you, and that

1 should be substantially in the other direction.

2 So, I think you need to take some pretty prompt  
3 action to regain the confidence of your staff, that in  
4 those several opportunities they have to resolve concerns  
5 within house, certainly they always have the opportunity to  
6 come to us.

7 MR. HUEY: I agree.

8 MR. MYERS: Okay. One of the  
9 things we've been doing, each one of the Four C's Meeting,  
10 I've now met with 280 of our employees. Randy sat in these  
11 meetings. And they're two, two and a half hours each, so  
12 they're pretty timely. Very valuable information comes out  
13 of the meetings.

14 What we've done consistently is we have stressed the  
15 atmosphere that we want a Safety Conscious Work Environment  
16 at each meeting. There's 280 employees at that plant that  
17 I've personally assured them that that's the atmosphere we  
18 want. We want them to bring up issues. And, it's okay to  
19 come to me, to Randy or whoever, but if they have an issue,  
20 we at least want to handle it in a professional matter.  
21 And, we've done that at each and every meeting.

22 And the other thing I think we demonstrated is the  
23 action we take at each meeting, I think actions at each  
24 meeting, we publicize the actions that we've taken in the  
25 newsletter. So, I think the employees are receiving

1 positive feedback. And in fact, Pete Burg was here last  
2 week. They commented to him, they find these meetings very  
3 valuable.

4 Next area is Town Hall Meetings. There has been 18  
5 Town Hall Meetings with our employees to-date. We find  
6 those positive also.

7 Do you have any comments, Randy?

8 MR. FAST: It's more like the  
9 fireside chat, an opportunity to get with our folks, give  
10 them opportunity to bring up things going on at the  
11 station. Typically get questions about rumors that come  
12 up. Try to create an atmosphere where people can come in,  
13 feel like they're being informed, but as well bring up  
14 issues. We get a wide array of questions from our folks,  
15 and we're most able to resolve those on the spot.

16 We try to build confidence, just another medium to  
17 communicate confidence with our employees that we can  
18 connect with them and provide them timely updates on things  
19 that are going on in the station.

20 MR. STEVENS: We also videotape  
21 them and use the videotape for those on the back shift that  
22 are not able to attend Town Meetings, so they can hear and  
23 recognize what's being discussed.

24 MR. COLLINS: Lew, having heard  
25 where you are, if this is an appropriate time, maybe I can

1 ask a question about an ongoing program.

2 MR. MYERS: Okay.

3 MR. COLLINS: If we were to take  
4 a step back and look at the purpose of Safety Conscious  
5 Work Environment and the promotion of appropriate safety  
6 culture, including a program that captures concerns, and  
7 what might cause those types of concerns; clearly, the  
8 status of the plant as it exists today with a lot of work,  
9 a number of contractors, some highly unusual work, and  
10 schedule being important, has all the trappings, if you  
11 will, of probably worse case environment, and perhaps more  
12 appropriately a significant challenge for Safety Conscious  
13 Work Environment Program.

14 Given that your program is admittedly being started  
15 up, being established, what do you have in place today;  
16 what confidence do you have today that you're not missing  
17 opportunities for these types of challenges? Once the  
18 plant progresses and restart decision is appropriately made  
19 by FirstEnergy, and the NRC takes it into consideration,  
20 that embarkment will be a little perhaps benign than what  
21 it takes to get there.

22 MR. MYERS: Well, the  
23 strategy that I have, and we have, is become proactive  
24 through this environment on looking for issues. I can tell  
25 you that in each one of the Four C's Meetings I have, we

1 have been proactive, and they've given me some issues both  
2 in public and in private. I won't say any of them are  
3 safety issues right now.

4 We've also brought Randy in, and he has a lot of  
5 experience in this area, to be independent. He reports to  
6 Bill. And we put a team of independent investigators with  
7 Randy already, and we've communicated that to our site  
8 personnel.

9 So, once again, the approach has been a strategy,  
10 rather than sitting back in the office and being active and  
11 proactive, out in the people looking for issues; whether  
12 they be, whether it be contractors, our own employees.

13 Initially, you know, when we trained all the  
14 supervisors for, we just spent four hours with each  
15 supervisor, and both contractors and our own supervisor,  
16 make sure that they were sensitive to addressing employee  
17 issues. So, the strategy is to really be proactive in this  
18 area.

19 Are we successful yet? I think it's quite too  
20 early to tell, but we have a lot of things in place  
21 already.

22 MR. COLLINS: Do you have  
23 majors in place with this interim program? Majors of  
24 effectiveness, have you defined success of the program?

25 MR. MYERS: I don't think so,

1 no.

2 We're working that out. Do we have that yet, Bill?

3 MR. PEARCE: No, we don't. Let

4 me say something.

5 I think what we've worked on, what we prioritized

6 first was this; it's more important that if there are

7 issues out there, that our folks feel that they're able to

8 raise the issue. So, that's what we prioritize is the

9 first thing. That's why we did the Safety Conscious Work

10 Environment training with the supervisors and made sure

11 that there is no, that there is no harassment or

12 intimidation issues and that kind of thing.

13 So, that, you know, what we really want is safety

14 issues to make sure we get those captured. And whether

15 it's captured in your program or our program is, I guess,

16 somewhat of it's more painful to collect it in your

17 program, but as long as they get captured, that's the main

18 issue in what we focused on first.

19 And we brought Randy in and the group of contractors

20 in to do independent investigation, because when we did the

21 survey, one of the issues as you might remember that was

22 brought up in the survey, was the fact that the management

23 when somebody brought up an issue, before they do it, the

24 management folks were hearing about it and going and doing

25 an investigation.

1 Well, we countered that by doing independent  
2 investigations. That's the idea, to make sure we didn't  
3 lose issues, safety issues that needed to be brought  
4 forward. And so, I think that was the right priority to  
5 take on the issues.

6 Now, we're moving out from that issue and putting in  
7 place a longer term program to make sure that we, within  
8 our own house that we collect the majority of the issues  
9 and get them investigated in-house. So, that's kind of the  
10 sequence that we're going through.

11 And we've got more things we haven't talked about.  
12 We've got a team put together that looks at all the  
13 employment issues that we're having; HR issues, and all  
14 that kind of thing. And so we're collecting and being  
15 proactive, as Lew talked about. The Four C's Meetings are  
16 a part of it. So, there is a wide range of issues we're  
17 dealing with there.

18 But I think that more accurately portrays overall  
19 what we're doing, rather than just focus on the, you know,  
20 which issues are going where.

21 MR. MYERS: The actions we're  
22 taking are a direct reflection of our survey. We're taking  
23 actions that solve issues addressed in our survey. You  
24 think that's fair?

25 MR. PEARCE: Yes.

1           MR. MYERS:        The first thing I  
2    want to go to is first line supervisors, and that's where  
3    we thought the issue was, and that's what we attacked  
4    first. Okay?

5           Another thing we've done is we have implemented our  
6    Management Observation Program that we brought over from  
7    our Perry Plant and Beaver Valley Plant. It's  
8    computerized, and I've seen Randy use it personally. It's,  
9    we think it's an excellent program.

10          And, I think you like it.

11          But, it allows us to take issues and review issues  
12    from an implementation standpoint. We've talked to, we  
13    don't think we're at the point yet where we can make any  
14    determination. We have five hundred observations now. We  
15    know that we've seen some issues with supervisors were not  
16    coaching and counseling like they should in the field.

17          So, it's too early to tell. The problem is  
18    implementing, and we'll give you more information on that.

19          MR. GROBE:        Lew, five hundred  
20    observations is a lot of observations and if I remember  
21    your program correctly, you've got a number of attributes  
22    that are listed that people are evaluating in the field.

23          Have you done any tracking or trending of these  
24    issues, and do you have any performance indicators or  
25    evaluation of criteria for success?



1           MR. MYERS:           Yes. And, you  
2 know, a month or so ago I went through the various areas,  
3 and picked out performance areas that I think we need to go  
4 look at. I haven't used any of that yet. And I'd probably  
5 be willing to tell you about that at the next meeting. I  
6 think it's just too new.

7           MR. GROBE:           I would be  
8 interested once you get these performance indicators and  
9 measures in place in receiving them, as well as the other  
10 performance indicators on productivity.

11          MR. MYERS:           You like to hear  
12 that at the next meeting, we'll give you information on  
13 that.

14          MR. GROBE:           That would be  
15 great.

16          MR. MYERS:           Okay. Another  
17 thing is we're physically scheduling two of our managers  
18 for observation. So, we're building the managers into the  
19 schedule for these observations.

20         I would like to talk a few minutes about a case  
21 study, to tell you I think how that went. That was a  
22 major, I don't want to use the word production for us, but  
23 a major happening.

24         The case study, which took an entire day with  
25 everyone on site. Took an entire day. All the managers,

1 including Mr. Saunders, Gary Leidich, were involved in  
2 this, what we call a case study. It was four hours long.

3 It really was not just a case study. It was, first  
4 of all, we went over and over what happened in this event.  
5 What are the issues that we saw in the event, the  
6 timeline.

7 We then went to each department. We didn't do this  
8 with multiple groups; we did it with individual groups.  
9 Then, we took each group and we looked at how they could  
10 have helped prevent this event. How they could  
11 contribute.

12 We looked at their standards, talked about the  
13 problems, and we talked about the standards of senior  
14 management that we just rolled out. And each and every  
15 group and each and every person took tests. Passing was  
16 80. We completed 864 people.

17 We received feedback from 76 percent of the people  
18 that took the test, and the course. The overall ratings  
19 were that 96 percent of the people said it met  
20 expectations. One hundred percent -- 15 percent indicated  
21 that it was one hundred percent successful in their minds.  
22 In fact, comments were, why didn't we do it quicker. Well,  
23 the reason was, we weren't ready quicker.

24 The population across the board was pretty uniform.  
25 You look at craft versus noncraft. And if you look at

1 technical factors versus nontechnical factors. Uniform  
2 population.

3 Here's some of the things we got out of that.

4 First, to be successful in the future, they liked what we  
5 did here, but we have to walk our talk and be effective.

6 This is just a beginning. We must follow through.

7 It's nice we gave them all this stuff, but we have to  
8 follow through at every level.

9 They talked about Bob Saunders coming down and  
10 spending his day with them was very positive, as well as  
11 Gary Leidich.

12 It was important that we get this out to everyone,  
13 but we should have done sooner.

14 And the overall, we think that the feedback received  
15 about the presenters, were they did an excellent job on the  
16 presentation. And, the presentation consisted of a  
17 videotape, so we have that timeline consistent with each  
18 department. Then the departmental managers, you know,  
19 reflecting how this affects their own department.

20 Another area of concern was management's production  
21 versus quality and safety priorities. What we're trying to  
22 do, what we're trying to prioritize, I know Randy has too,  
23 is to demonstrate that we're willing to stop and take the  
24 time we need to address problems.

25 We have done that on the feedwater heater.

1       We've done that on containment, containment closure,  
2       which we talked about awhile ago.

3       Fuel movement stop work.

4       The polar crane work we stopped. We did two weeks  
5       there. We took a hard two-week hit in or schedule there.

6       And finally the other day we had problems with  
7       moving RCP motors, and we didn't go forward with that until  
8       we felt confident that everyone was safe and reliable to  
9       move those motors. That's the message we're trying to put  
10      out.

11      There's still some skepticism in our groups about  
12      raising issues and fear of reprisal. And we talked about  
13      that. That's what we've got Randy working on. That's the  
14      atmosphere. I can say here that I want to create an  
15      atmosphere where people bring up and tell us their issues.  
16      And if we can create that atmosphere, we'll be successful.

17      On the test results --

18             MR. GROBE:             Lew, could I do a  
19      quick time check? I would like to try to end this portion  
20      of the meeting at five, so we have time for the public.  
21      You've got two additional sections. Mike was going to talk  
22      about -- two Mikes. Mike Ross was going to talk about  
23      Operations, Mike Stevens was going to talk about Schedule.

24             MR. MYERS:            I suggest we skip  
25      Schedule.

1           MR. GROBE:           Well, I think  
2 that's pretty self-explanatory, so I think folks can get  
3 that and you've talked about it already. I definitely want  
4 to get to Operations.

5           MR. MYERS:           Okay. I'll  
6 finish up now.

7           MR. GROBE:           Good.

8           MR. MYERS:           From a case study  
9 standpoint, the average grade was 93 percent. We had one  
10 failure of a past criteria, 80 percent. We remediated that  
11 person immediately. And 45 percent of the people made up  
12 on the test.

13          So, I feel like I can look the public and you in the  
14 eyes now and tell you that we have rebaselined and clearly  
15 documented. We understand our departmental standards. We  
16 understand with each group how this event happened, and  
17 we're ready to go forward.

18          With that, I would like to have Mike talk to you  
19 about Operations Excellence Plan.

20          MR. ROSS:           Good afternoon.  
21 My name is Mike Ross and I'm the Manager of Operations  
22 Effectiveness at Davis-Besse.

23          A little about my background. I've worked in  
24 commercial nuclear power for more than 30 years.  
25 Additionally, I spent time in the United States Navy in the

1 Nuclear Submarine Program and also had a tour of duty  
2 assigned to Naval Reactors Branch.

3 I have held management positions as Operations  
4 Manager, Maintenance Manager and Plant Manager at the Three  
5 Mile Island Nuclear Facility for more than 20 years. All  
6 but four of my commercial experience years have been in  
7 nuclear power plant environment. Two of those four years I  
8 spent as an instructor at a test facility, and two years I  
9 spent in the corporate office of the Exelon MidAtlantic  
10 Regional Group. I held a senior reactor license for more  
11 than 25 years.

12 Next slide.

13 I was brought to Davis-Besse to assess the  
14 operations staff, and prepare for restart. And above all,  
15 assure after restart they had a sustainable level of  
16 performance.

17 The RHR group has completed an assessment, as Lew  
18 said, for all operations supervisory personnel.  
19 Additionally, the first line supervisors were completed.  
20 RHR find no or found no individuals that they deemed did  
21 not have the ability to go forth and represent the FENOC  
22 standards and values, that we're really clearly interested  
23 in having in the Operations Department.

24 Several personnel, and that's very key personnel,  
25 were deemed to be in need of some additional improvement

1 actions, and those plans are under way now for those  
2 individuals.

3 My assessment of the Operations staff, actually  
4 centered on the leadership team in Operations. As they  
5 will definitely set the standards for health and progress  
6 in operation as we set for restart and after restart.

7 We've got a fairly new team of people involved in  
8 operations; the Plant Manager, Operations Manager,  
9 Operations Superintendent, and Operations Support  
10 Superintendent have all been new within this year. That's  
11 since January of this year.

12 Two shift managers are relatively new to their  
13 position; one has been new this year and the other within  
14 two years.

15 Plant Manager, while new to Davis-Besse, has many  
16 years of nuclear experience and he is a proven manager.

17 The Operations Manager has been a licensed operator  
18 at Davis-Besse and has experience in maintenance. He has  
19 very good standards and excellent people skills.

20 The Operations Superintendent has an active, I said  
21 active SRO license, and is a very knowledgeable and  
22 respected long time employee of Davis-Besse.

23 The Operations Support Superintendent also holds an  
24 active SRO license, and he's very knowledgeable and is  
25 actually sought out for his expertise and source of

1 knowledge and logical approach to doing business.

2 The Shift Managers are all very experienced, and are  
3 respected and supported by their groups. This is a very  
4 experienced operation leadership team as well. They have  
5 good standards and values; and the Operations, Operations  
6 Staff is very supportive of this team. They're very happy  
7 to have this group leading them, and they have confidence  
8 that this group will position them in the right direction.

9 Next slide.

10 Recognizing that needed improvements were necessary  
11 in Operations, the Leadership Team led by the Shift  
12 Managers putting together a Leadership Plan. Purpose of  
13 the plan was to prepare operations for restart and ensure a  
14 sustained high level after restart.

15 Next slide.

16 Vision plan is very important and underlines the  
17 attributes necessary for an operations group. I want to go  
18 through that rather slowly.

19 The Operations Department is recognized as the lead  
20 organization at Davis-Besse. Very important item.

21 Continuous improvement is expected, demonstrated and  
22 embraced by operations personnel.

23 Operations ownership of equipment deficiencies,  
24 nuclear fuel performance and plant chemistry is strong.

25 Operation management communicates, demonstrates and



1 reinforces desired performance standards.

2 Shift management consistently demonstrates  
3 leadership.

4 And, I'm losing my voice, so bear with me. Next  
5 slide. A little bit about the plan.

6 MR. THOMAS: Mike, could I ask  
7 a quick question. In your opinion, what is the status of  
8 bullet one?

9 MR. ROSS: I didn't hear the  
10 question.

11 MR. THOMAS: I said, in your  
12 opinion, what is the status of bullet one?

13 MR. ROSS: I think there is  
14 some -- the question, what's the status of bullet one. I  
15 think there is some work to be done there. I think this  
16 has been internalized in Operations and they're trying to  
17 step forward and we're working on bringing the staff  
18 together to ensure, or our agency step forward. It's not  
19 done yet, working.

20 MR. THOMAS: Okay.

21 MR. GROBE: Along that same  
22 line, is the Operations' Organization Root Cause, I'm not  
23 sure exactly what the title is of that document; is that  
24 completed?

25 MR. FAST: It's in review.

1 The draft has been produced. It's in review. In fact, the  
2 author is in the audience.

3 MR. GROBE: I received a copy  
4 of the first version of that document, and then that was  
5 pulled back, then you initiated a second effort. That  
6 activity is curbed within the last eight weeks. Could you  
7 give me your assessment of the first effort and what that  
8 tells you about operations leadership and what changes have  
9 occurred in the last eight weeks?

10 MR. FAST: The first, the  
11 first report that was put out was focused more internally,  
12 rather than looking at the organizational impact. The  
13 human dynamics associated with operations leadership have  
14 degraded over the years. And the quality of the root cause  
15 we did was, I would say it's superficial.

16 We dug deeper, we've gotten more feedback from  
17 across the organization. It substantiates more direct  
18 linkage to our 000891, that's the root cause of our  
19 management performance for our head case.

20 So, we see direct linkage. So, this is, I'll say, a  
21 full body stout report that focuses on the human dynamics  
22 associated with the organization. It's a much improved  
23 version and I believe it will be more successful in really  
24 identifying what the root cause is and the actions that we  
25 will be taking going forward.

1           MR. GROBE:           Randy, when do  
2 you think we're going to be seeing that?

3           MR. FAST:           Soon. Let me  
4 just, let me comment. One of the things that Lew did, is  
5 Steve was the team lead from day one. We will take all the  
6 time necessary to ensure we have a quality product. And  
7 what we have in the review and comment cycle right now are  
8 some individual facts that need to be either substantiated,  
9 or they need to be withdrawn. And that was some of the  
10 comment that we had for this past weekend. I read that  
11 report in great detail.

12           And, we want to make sure that all of the facts that  
13 are provided are substantiated. And so, that's a level of  
14 effort that's going on right now. But, I'm going to allow  
15 that team all the time necessary to ensure we get a quality  
16 product.

17           MR. GROBE:           I appreciate  
18 that. I wouldn't suggest that you do anything otherwise.

19           The case study, are all of the issues that are  
20 captured in your draft report on Root Cause for Operations,  
21 were they captured in the case study? Because it seemed  
22 to be case study was already completed, you hadn't yet  
23 completed this root cause report.

24           MR. FAST:           I would say there  
25 are some additional elements, more organizational elements,

1 outside involvement, the focus on operational standards;  
2 those will be addressed in more detail that really talk  
3 about organizationally how do we provide support and  
4 acknowledgement to the operations leadership role. That  
5 will be evaluated more in depth.

6 And I believe as well there will be some corrective  
7 actions that extend organizationally to ensure that we have  
8 the right level support of the operations staff.

9 MR. MYERS: Okay, Mike.

10 MR. THOMAS: One more question  
11 on that slide, please. This is open to anyone, whoever,  
12 probably Randy or Lew, if you could answer this question.  
13 I'm real interested in bullet one. And I'm curious what  
14 your assessment is of the, the other organizations on site;  
15 are they embracing that vision as well?

16 MR. FAST: Let me tell you.

17 You know, we're not the lead right now. What's happened  
18 is, I will use the term that there has been a dilution over  
19 time of operations having that leadership responsibility.  
20 It's a two-fold responsibility. Organizationally, we need  
21 to focus on that, but also we need to stand up and take  
22 responsibility. That ~~delusion~~ dilution has occurred over many  
23 years, just as the head degradation occurred over many  
24 years.

25 So, the reality is, that's not a step chain. We can

1 not stand up and say Ops is now the leader of the site and  
2 everybody will rally around. Operations has to demonstrate  
3 their leadership and demand that, and the rest of the  
4 organization has to respond to that. Will that happen  
5 overnight? The answer is absolutely not. That will be our  
6 focus.

7 MR. MYERS: We know of  
8 several times, we're, just sit down and try to take the  
9 lead on something, it's not had the proper response. So,  
10 we have to have senior management support, and you'll see  
11 us doing that.

12 MR. THOMAS: Okay.

13 MR. GROBE: Your supervisor  
14 observations and your manager observations, this seems like  
15 an area that should be fairly easy to develop some  
16 performance indicators, track progress, and I would be  
17 interested in that.

18 MR. ROSS: Okay.

19 Next slide.

20 As to the content of the plan, I'll give you an idea  
21 of the size. There are 67 items total, 42 for restart,  
22 and benchmarking, training and other improvements.

23 Next slide.

24 One of the real important items within the plan was  
25 benchmarking. We took benchmarking very serious and we

1 benchmarked with teams. The teams were led either by the  
2 Operations Manager or one of the Operating Superintendents;  
3 and they had an SRO Shift Manager, Equipment Operator, a  
4 Reactor Operator and Staff person on them.

5 We benchmarked three facilities. We purposely  
6 picked three operators of multiple units, Excelon, Intergy  
7 and Progress Energy. From that three, we compiled the  
8 improvements we wanted to make, and as of now we have  
9 written new standards, expectations and how they align with  
10 the reactor.

11 Shift Manager has been moved out of the work control  
12 center, so he be more visible and involved in other plant  
13 activities and interact with the people more readily.

14 As to training that's in that plan, we did complete  
15 a case study training. That was very well received in the  
16 Operations. Conducted an INPO first line supervisors  
17 course. That course was aimed at the sharpening the human  
18 performance and prevention tools of the supervisor, and  
19 sharpening his general skills.

20 Boric acid program requirements were completed and  
21 made part of the core program for operations.

22 Safety Conscious Work Environment training for all  
23 supervisory personnel is completed.

24 We did additional training on Operability  
25 Determinations.

1 Next slide.

2 One of the things the staff did do at Davis-Besse is  
3 they kept the operator Requal Program intact. Presently  
4 the Requal Program is at the stage where they're taking  
5 tests in simulator, taking written tests and taking job  
6 performance tests. That will give us a good idea where we  
7 are in skills and how well we're prepared for restart.

8 As part of our planning for restart, included in our  
9 Leadership Plan, there is additional training scheduled.  
10 The standards and expectations that we just talked about  
11 are brand new. There will be training going on with  
12 written tests.

13 Decision-making training, restart test plan training  
14 with a simulator evaluation of that training, plant  
15 modifications, licensed operator responsibility training  
16 and ombudsman responsibilities and procedures.

17 As to other activities, just looking a little bit  
18 ahead, an additional INPO assist visit will be scheduled  
19 for sometime in April. The thrust of that INPO assist  
20 visit will be check and evaluation. I want to take the  
21 word evaluation out there. It's an assist visit. They'll  
22 give us an assist visit of our simulator performance.  
23 Additionally, they'll do a check in the field of our  
24 standards and how well we're going on.

25 That concludes what I was going to say about the

1 Operations Leadership Plan.

2 MS. LIPA: Okay, thank you.

3 Do you have any closing remarks, Lew?

4 MR. MYERS: Well, we had some

5 Desired Outcomes today. That was to demonstrate that we're

6 making progress.

7 I think that the reactor vessel head, we're ready

8 for testing there. The containment sump, we're done. We

9 removed the old covering and putting new bolts in now, and

10 have the sump being manufactured. I think the painting is

11 going well, and paint removal.

12 Decon efforts also are doing well in containment.

13 We've taken one reactor coolant pump apart, already removed

14 the rotating assembly. Working on the second as we speak.

15 System readiness reviews are being completed.

16 We status on some of the actions that we've taken;

17 very timely, time consuming and timely; and Management

18 Human Performance Plan.

19 We are getting ready now to prepare for what we call

20 deep drain. That's a place that a plant very seldom goes,

21 couple times in the lifetime of the plant. There is no

22 fuel in the vessel now. So, we're going to drain it down

23 below the nozzles. And it's tight; it's 11 inches, or

24 something.

25 And, anyway, we would drain it down, we will go down



1 and take, work on like 76 valves, 79 valves. The first  
2 valve on all Reactor Coolant System. So, it gives us an  
3 opportunity to do some serious maintenance on those  
4 valves.

5 It would have been easy for us not to do a lot of  
6 the maintenance we're doing, but we decided to go change  
7 some things out. We're repacking the valves. We want to  
8 bring the plant up to quality condition. So, we're  
9 preparing for that deep drain now.

10 After that, we'll be preparing for fuel load,  
11 pressurization of the containment, pressurization of the  
12 reactor to ensure we have good integrity.

13 That's all I have. Thank you.

14 MS. LIPA: Okay, thanks,  
15 Lew.

16 I'll check to see if there is anybody who has some  
17 comments, but I want to thank you for the information that  
18 you shared today, and we then look forward to the next  
19 public meeting, which will be December 10th at Camp Perry.

20 We talked already today about a couple of things we  
21 would like to hear about next time; performance indicators  
22 on management observations, for one. And then, root class,  
23 talk about root cause. Hopefully that will be ready, but  
24 as Randy said, it will be done when it's done properly.  
25 But, we're eager to see that document.

1 And then, do you have any comments?

2 MR. GROBE: Any final  
3 questions?

4 Yeah, I just wanted to summarize the meeting. It  
5 was a long meeting, and I appreciate the candor and all the  
6 information that was shared. Christine and Marty opened  
7 the meeting summarizing the results of some recent  
8 inspections. And several of those inspections have had  
9 positive results; and, by and large, went a great distance  
10 toward closure of some of those issues; reactor head,  
11 containment restoration, the issues that Christine  
12 discussed earlier and presented in our newsletter, Marty's  
13 inspection, and to a certain extent the resident  
14 inspections identified some issues that require some  
15 continuing work.

16 I think we've talked about most of the issues today  
17 that I think are several of the key issues that you're  
18 actively working on, but warrant a great deal of attention  
19 on your part. One is the lower reactor pressurized  
20 penetrations, resolving that issue; and we're looking  
21 forward to the meeting on the 26th to discuss that  
22 further.

23 Second, is the design issues and getting assessment  
24 of those, and as soon as you're ready to talk about that  
25 we're ready to meet.

1           The third is Safety Conscious Work Environment, and  
2 Human Performance. In this area, our inspection on  
3 Management/Human Performance is currently suspended. We're  
4 evaluating how to proceed on that. You have initiated a  
5 significant amount of activity in that area, but there is  
6 still activity that is yet to be completed; and that's an  
7 area that we're particularly focusing on.

8           And then, of course, the final one we didn't talk  
9 about today is just getting work done, what I refer to as  
10 bulk work. But I think the outcome is that there is  
11 progress. Our inspections are confirming in several areas  
12 the accuracy of work that's been done. In some areas, we  
13 still have work to do. Okay. Thanks a lot.

14           Why don't we take a very short break?

15           MR. MYERS:            Could I give you  
16 one other thing?

17           MR. GROBE:            Sure.

18           MR. MYERS:            We had a question  
19 earlier about Management/Human Performance. To ensure that  
20 we're moving forward and making progress that we wanted to,  
21 I've got three of our RRP members coming in during the next  
22 month at different times; and what they're doing is getting  
23 out and meeting with our employees. We have a lot of  
24 confidence that they're independent and then giving us  
25 feedback.

1 MR. GROBE: Okay, good.

2 MR. MYERS: Thank you.

3 MR. GROBE: Thank you.

4 Let's take a very short break and reconvene in three  
5 minutes. So, stand up and then sit down. Don't walk out.  
6 (Off the record.)

7 MS. LIPA: Well, this is  
8 the, we finished the formal meeting with FirstEnergy.  
9 Before we adjourn the rest of the meeting, we want to offer  
10 an opportunity for members of the public or anybody who has  
11 a comment to come up and talk to us. And what we would  
12 like to do is start with local members of the public first  
13 and then speaking clearly into the microphone for the  
14 transcription, and then give us your comment or question  
15 and try to take three to five minutes.

16 MR. GROBE: Let me comment.  
17 Before we get started, we have a very special person here  
18 today, Sam Collins. Sam is a Director of the Office of  
19 Nuclear Reactor Regulation in Headquarters. He has overall  
20 responsibility for the safety of nuclear power plants in  
21 the United States. And I think Sam wants to make, did I  
22 make that too big?

23 MR. COLLINS: You made it too  
24 big.

25 MR. GROBE: Sam wants to make

1 a couple of comments, and then we can take public  
2 comments.

3 MR. COLLINS: I'm not that  
4 special, but I am here. My name is Sam Collins. I'm the  
5 Director of the Office of Nuclear Reactor Regulation. And,  
6 before we get started, I wanted to acknowledge that people  
7 in Oak Harbor and Catawba Island had an occasion over the  
8 weekend to, of course, be affected by tornados. So, we  
9 know this probably isn't on the top of your mind as far as  
10 this meeting is concerned for many of those local  
11 individuals. So, we want to acknowledge that.

12 Having said that, we are available. I'm here  
13 particularly to address the decision-making and the  
14 processes that went on in regards to the reactor vessel  
15 head and the degradation of the head, and the continuation  
16 of the operation of the unit beyond December 31st.

17 So, to the best of my ability, and recognizing I  
18 don't have my technical staff with me that usually keeps me  
19 out of trouble when we get into those type of details, I  
20 can acknowledge the processes that we use and the  
21 decision-making process, so I will be available for that.

22 Thank you, Jack.

23 MR. GROBE: We're now open  
24 for any questions. As Christine indicated, we prefer to  
25 limit it to 3 to 5 minutes. And we would like to start

1 with any local, public representatives or members of the  
2 local community.

3           HOWARD WHITCOMB:     My name is Howard  
4 Whitcomb.

5           Welcome, Mr. Collins.

6           I think there is a young gentleman, I don't see him  
7 here, or this afternoon; I think might want to ask some  
8 questions. I hope you're here for the evening session.

9           MR. GROBE:           Howard, pull the  
10 microphone down a little bit. There you go.

11          HOWARD WHITCOMB:     In keeping with  
12 the spirit of being short, I have a very, well, I have a  
13 comment, quick comment. Mr. Ross, I think you're right on  
14 target with your vision statements. I think you have a  
15 magnificent challenge ahead of you to get Engineering to  
16 subscribe to the notion that Operations is the boss.  
17 That's been a problem at Davis-Besse for as long as I know  
18 Davis-Besse people, and I think that's, it's going to be a  
19 big hurdle to overcome.

20          In looking at the FirstEnergy, I guess it was the  
21 handout on July 16th, in looking at the Restart Overview  
22 Panel, which was specifically page 5 of that handout, I had  
23 a question. There is a Mr. Jack Martin, who is identified  
24 as the Company Nuclear Review Board Representative. I  
25 guess he's on the Restart Overview Panel.

1 My question is, is this the same Jack Martin who was  
2 the Regional Administrator in Region III of the Nuclear  
3 Regulatory Commission in the mid 90's?

4 MR. GROBE: I think I can  
5 answer that question. That is correct. Jack retired from  
6 the Nuclear Regulatory Commission a number of years ago,  
7 and is providing services to the industry. There is also  
8 other former members of the Nuclear Regulatory Commission;  
9 Mr. Joe Callan, the former Executive Director for  
10 Operations. I guess that's it, Jack and Joe are the only  
11 two former NRC executives.

12 HOWARD WHITCOMB: Okay. That's all  
13 I needed to know. Thank you, Jack.

14 MR. GROBE: Thanks.

15 Other questions or comments from the local  
16 community?

17 Okay. I would like to open it up to the floor  
18 then. Any questions or comments from anyone else?

19 AMY RYDER: Amy Ryder. Like  
20 the truck.

21 I have just a couple of quick questions. My first  
22 is regarding the testing of the reactor looking for the  
23 leakage at the bottom. It raises a little bit of a red  
24 flag that they want to put fuel in the reactor. They want  
25 to put fuel in the reactor when they test it. And it seems

1 like there is an alternative way to do it.

2 Does the NRC have the authority to tell them, no,  
3 you can't put fuel in the reactor?

4 MR. GROBE: What alternative  
5 were you thinking of?

6 AMY RYDER: Well --

7 MR. COLLINS: Without fuel.

8 AMY RYDER: Without fuel.

9 MR. GROBE: Thanks, Sam. You  
10 clarified that.

11 There is two issues that precipitate the need to  
12 have the fuel in the reactor. The way, the way you heat  
13 up, if you're not using the fuel, which you're not going to  
14 use the fuel, the power from the fuel to heat up, is with  
15 pump heat, and you have to run the pumps; and that  
16 circulates a huge amount of water through the reactor; on  
17 the order of probably half a million pounds, something of  
18 that order. A lot of water.

19 That causes two concerns. One is that if you're  
20 not, if you don't have the equipment inside the reactor  
21 vessel itself appropriately supported, it can move around  
22 and damage itself. And, the fuel provides some of that  
23 structural support for the equipment inside the reactor.

24 The second issue, I think that this issue was  
25 discussed by FirstEnergy a little bit, but just to make



1 sure you're clear. The pumps would damage themselves if  
2 they're not pushing against enough force. They're going to  
3 be circulating water. And they're designed to circulate  
4 that water with the fuel in there. And that fuel  
5 represents a significant burden to push water through.

6 So, if the fuel isn't there, the pumps would go into  
7 what's called runout. What that means is, they run too  
8 fast and they can damage themselves. So, FirstEnergy has  
9 concluded that they need to have the fuel in the vessel to  
10 do the test.

11 Now, that precipitates a number of different  
12 things. If you're going to heat up the reactor to normal  
13 operating temperature and pressure with the fuel in the  
14 reactor vessel itself, you are entering one of the modes in  
15 the technical specifications that require a variety of  
16 systems, safety systems to be in service.

17 So, there is a large number of work activities that  
18 have to occur to put all those safety systems, including  
19 the containment structure itself back in service and other  
20 emergency systems, including the sump; the sump has to be  
21 operable; various emergency systems have to be operable in  
22 service, containment has to be in place.

23 So, there is a lot of work that has to occur to make  
24 sure that doing the test in that configuration is in  
25 accordance with our requirements and done safely.

1 In addition to that, there is a rule, that's  
2 10-CR-50.65A4. And what that specifically talks about is  
3 whenever you do something unusual, maintenance activities,  
4 testing activities, that you assess the risk of that work,  
5 and then if it is risky work, take compensatory actions.  
6 And that is also something that the company would need to  
7 consider, whether this is an unusually risk significant  
8 activity and what type of compensatory actions.

9 So, we would be looking at all of these various  
10 valuations that they would have to do, as well as we would  
11 be thoroughly inspecting the Return to Service and  
12 Containment Integrated Leak Test would have to be completed  
13 before that would occur.

14 AMY RYDER: When you asked the  
15 question this afternoon, why do you want to put the fuel in  
16 the reactor when you heat it up. And their response,  
17 simplified, was that certain equipment doesn't exist  
18 anymore, so we have to put the fuel in versus equipment  
19 that is no longer produced.

20 MR. GROBE: Yeah. They  
21 referred to hot functional testing. Back when plants were  
22 being built in the United States, one of the first, excuse  
23 me, one of the final tests that's done before a plant is  
24 put into operation is what's referred to as hot functional  
25 testing. As you construct equipment, you test it as you

1 build it, and then final tests are integrated tests that  
2 are done at normal temperature and pressure.

3 There was a special piece of equipment, for lack of  
4 a better term, an orifice that provided that back  
5 pressure. And that equipment just doesn't exist anymore.  
6 So that the pumps would not damage themselves.

7 AMY RYDER: Can't they just  
8 make them?

9 MR. GROBE: There is two  
10 issues. You can probably manufacture a piece of equipment,  
11 but installing it is not, as an operating reactor, reactor  
12 vessel would react from the neutrons from the fuel. So,  
13 it's not the kind of thing that is reasonable to do. And,  
14 I'm not sure it's unreasonable to put fuel to run this  
15 test. I think it's something that insistent with test tech  
16 specification, the operating license, and we would provide  
17 appropriate oversight inspection.

18 AMY RYDER: I'd probably never  
19 put the fuel back in.

20 MR. GROBE: I understand.

21 AMY RYDER: But let's skip  
22 that.

23 My next question is for Sam Collins. What was the  
24 reasoning behind you not issuing, allowing to operate until  
25 February 16th without allowing the shutdown to take place?

1           MR. COLLINS:       Thanks for the  
2 question. I'm going to start a little bit in time, if I  
3 may, and kind of march through the process.

4           AMY RYDER:        Okay.

5           MR. COLLINS:       The NRC issued a  
6 bulletin back in 2001, it's Bulletin 2001-01. And what we  
7 did with that bulletin was alert licensees to the  
8 phenomenon of the cracking of the reactor vessel head. It  
9 had been observed for a period of time, particularly in the  
10 French plants. They were the first plants to discover it.  
11 They replaced their heads.

12          And, subsequent to the initial type of cracking,  
13 which we recall axial, which is straight up and down, there  
14 was a secondary type of cracking, which is circumferential,  
15 which goes around. And the circumferential cracking was of  
16 more concern, because it was not initially well understood  
17 for crack rules rates and how and when it happened.

18          We knew plants had been inspecting for cracks since  
19 the 90's, quite awhile, including Davis-Besse. And what we  
20 challenged the plants with in the Bulletin 01-01 was to  
21 indicate to the NRC why those inspections had been  
22 satisfactory. And, if the inspections had not been  
23 satisfactory, we wanted them to shut down before December  
24 31st in order to perform what we determined would be an  
25 appropriate type of inspection.

1       So, we were receiving information from all 60 some  
2 odd pressurized water reactors in the United States, but  
3 there was a group of plants that were what we call high  
4 susceptibility plants, particularly the B and W type of  
5 reactors of which Davis-Besse is one, that we were more  
6 sensitive to the information and had them on an accelerated  
7 schedule, if you will.

8       The information that Davis-Besse submitted to us in  
9 December, the initial response to the bulletin, we  
10 determined was unsatisfactory. It did not contain enough  
11 information for us to make a determination that the  
12 inspections that had been performed prior to that time were  
13 satisfactory, given the new circumferential cracking  
14 phenomenon.

15       So, we had a series of meetings with them. I  
16 believe there were, if I have this right, five letters back  
17 and forth; there were perhaps four public meetings that  
18 went on with the Licensee to glean information and to try  
19 to have a better understanding of the plant.

20       The plant was originally to run until the end of  
21 March. That was when the next outage would be for them.  
22 The normal shutdown, if you will, for them to do the  
23 inspection.

24             AMY RYDER:        Right.

25             MR. COLLINS:      Some plants did

1 shut down to do the inspection. Some plants provided us  
2 enough information to provide them to run until the next  
3 cycle. Davis-Besse was kind of in between.

4 On, if I get my dates right, on November 28th or so,  
5 the final meeting with the Licensee, where they provided us  
6 information to substantiate their inspection scope,  
7 including compensatory measures that they would take in the  
8 event that they did have a problem, that had leaks or  
9 catastrophic failure. I can go into those, but those are  
10 probably detail at this point.

11 The staff then made two types of determinations.  
12 Made one of, do we believe that the past inspections are  
13 adequate. And based on the information that was provided  
14 to us, we did. We did not know about the erosion on the  
15 head. Had we known of the erosion on the head, clearly we  
16 would have made a different decision.

17 Did we have opportunities to do, to review the head  
18 and to discover the erosion? The answer to that is yes.  
19 We missed opportunities to do that. But at that point, we  
20 made the decision, we did not know.

21 AMY RYDER: I think the  
22 confusion is, the decision that you were ultimately  
23 responsible for differed from what your staff had decided.  
24 That your staff had decided that those inspections were not  
25 adequate, that they needed to shut down by December 31st to

1 look for those cracks. And, on the 28th, FirstEnergy made  
2 their final plea, and it was ultimately your decision to  
3 allow them to continue to reopen, and that differed from  
4 the staff that had done all the investigative work.

5 MR. COLLINS: Yeah, I understand  
6 why you say that, based on the information as provided from  
7 the FOIA, of course, Freedom of Information Act, process of  
8 information action, emails, letters, notes; and perhaps  
9 what you may have read or may have heard. Let me try to  
10 clarify that if I can.

11 The staff made a decision at the end of November,  
12 and the staff consensus at that point was that it was  
13 acceptable for Davis-Besse to operate halfway through their  
14 normal cycle, as it extended beyond December 31st. So,  
15 they ran to the middle of February.

16 The staff was specifically asked if they had any  
17 reservations about that? And the answer was no. There  
18 were two individuals who indicated that they would have  
19 made a different decision, but that they would go along  
20 with the consensus and they didn't believe there was an  
21 immediate safety concern.

22 I asked the manager, who was at that meeting, if I  
23 could talk to those two individuals. And I personally  
24 talked to those two individuals to ensure that they in fact  
25 did not have any safety concerns with the continuation of

1 the operations of the Plant. And they expressed to me that  
2 they did not.

3 They had different views, if you will, of some of  
4 the technical information. They might have done  
5 calculations differently, but they did not disagree with  
6 the consensus of the staff.

7 So, in fact, what the emails depict is a process  
8 that's building towards a resolution. And, we had, and I  
9 tried to find out if we issued it today, I apologize I  
10 don't have the answer. But there is a safety evaluation  
11 that we're issuing to Davis-Besse that will outline that  
12 process and the basis of that process, and that information  
13 will be contained in it. If it's not issued today, it will  
14 be issued by the end of the week.

15 AMY RYDER: Did Mr. Saunders  
16 make a plea to you to postpone the shutdown order based on  
17 public perception based on fuel and financial markets?

18 MR. COLLINS: To the extent that  
19 you express it, no.

20 AMY RYDER: Okay.

21 MR. COLLINS: However, as in any  
22 decision that has to be made, there are a number of  
23 ramifications of those decisions, which I've discussed.  
24 The NRC makes decisions based on safety. They have four  
25 performance goals; maintain safety, we want to do our work



1 efficiently and effectively, we want to reduce unnecessary  
2 burden, when it's appropriate, and we want to have public  
3 confidence to the extent that it's public confidence in a  
4 strong credible regulator. Not nuclear power, but nuclear  
5 regulator.

6 This was strictly a maintain safety decision. What  
7 was discussed over lengths of time was when it is  
8 appropriate for the plant to shut down for an outage, and  
9 what are the ramifications of the different dates as they  
10 were proposed. Clearly, I won't speak for the Licensee,  
11 but clearly I think the Licensee, everything being equal,  
12 would like to run to the end of their cycle. The NRC had a  
13 question of, tell us why your inspections are adequate and  
14 why they support operation beyond December 31st.

15 For this plant, the staff determined that it was  
16 acceptable to run beyond December 31st. So, the question  
17 comes, what is the most opportune time for the plant to  
18 shut down, given that the end of the cycle, which is,  
19 perhaps increases the probability of cracking, although  
20 minuscule, you're talking 45 days of extra operation, but  
21 if you could minimize that, you want to.

22 So, the discussion became, when is the new fuel  
23 available? When will the modification packages for the  
24 outage, as originally proposed for the end of March, be  
25 finalized, so that they could be performed on a sooner

1 schedule?

2       What is the amount of mainline exposure, which is a  
3 real maintained safety issue, because there are  
4 individuals, many in this community, who work at the plant,  
5 who have to be concerned about the limits of radiation  
6 exposure; and if job's unplanned, if equipment isn't ready,  
7 if training isn't done, extra exposure can be increased.

8       And then there is the issue of the accelerated  
9 inspection itself, which the determination being that the  
10 plant did need to do different types of inspection. When  
11 is the training of individuals available? When is the  
12 equipment available? And what is the impact of all of  
13 this?

14       Those are resources, is time, people and money. Is  
15 that financial, yes? Does it deal with maintaining  
16 safety, yes. So, the optimum date that was determined to  
17 be, halfway between, if you will, December 31st, and the end  
18 of the cycle. That was the earliest date by which we  
19 determined the risk of doing an outage on a short term  
20 basis is negated by the risk of continuing to operate.  
21 And, FirstEnergy would be prepared to perform an efficient  
22 and effective outage.

23       So, in a long-winded way, and I kind of excuse  
24 myself for that, if you will.

25             AMY RYDER:           Okay.

1           MR. COLLINS:       That kind of gives  
2 you background of how the finances or how the schedule of  
3 resources were discussed in the manner that it takes to  
4 support accelerated outage.

5           AMY RYDER:        I appreciate what  
6 you're saying, but from somebody who lives in Ohio, and I  
7 believe I could be -- I live in Cleveland -- I believe I  
8 could be affected if there was an accident at this  
9 facility. It does seem a little arbitrary. And I would  
10 rather the NRC err much more on the side of caution, than  
11 to base these decisions on a cost-benefit analysis, because  
12 that's the decisions that FirstEnergy has been making for  
13 quite sometime now and we see what happened when they do  
14 that, so.

15          MR. COLLINS:       And that's an  
16 appropriate comment.

17         If I can, the cost-benefit analysis is only gone to  
18 after the maintain safety question is answered. And we  
19 have processes that provide for that.

20         You mentioned the order perhaps, in your first  
21 question, if I could just answer that also, take the  
22 opportunity.

23         We had prepared an order for Davis-Besse, like we  
24 would with any plant that we felt it was necessary to shut  
25 down in order to do the inspections on the maintain safety

1 basis. That order was predicated on establishing the  
2 condition by which we felt like there was an undue hazard,  
3 if you will, where a plant either did not meet the license  
4 or we had conclusive evidence, that's kind of a legal term,  
5 but conclusive evidence that there was a condition that  
6 placed the public and environment in an undue hazard.

7 That order was, in fact, available to be issued if  
8 it was necessary. And it went through me, went through the  
9 Executive Director, it went to the Commission for  
10 Information, the Commission of Technical Assistance were  
11 briefed on it. I am the individual who would have signed  
12 it out.

13 Based on discussions with FirstEnergy, if the NRC  
14 had decided that the plant needed to shut down on December  
15 31st, I had the commitment of Mr. Saunders that he would  
16 shut the plant down. And we would not have to issue an  
17 order, although we had it available; if we came to that  
18 decision that it was necessary to maintain safety. We did  
19 not come to that decision, based on the consensus of the  
20 staff, so the order was not necessary to issue.

21 AMY RYDER: Wasn't there also  
22 a press release written along with the order?

23 MR. COLLINS: Yes. Any time--  
24 that's a good observation. Any time that we propose a  
25 significant regulatory action, we have what we call a

1 communication plan that goes with it. That's not only a  
2 press release, but it's notification of elected officials,  
3 notification of Congress; it's all of those areas that help  
4 us in the public confidence.

5 AMY RYDER: Thank you.

6 JAMES DOUGLAS: I have not met you  
7 before, sir. I'm one of the neighbors. I live down the  
8 street from Davis-Besse. And I'm also a retired chemical  
9 engineer. Okay.

10 MS. FRESCH: Excuse me, sir.  
11 Could you state your name, please?

12 JAMES DOUGLAS: My name is James  
13 T. Douglas. I live on Duff-Washa Road. I'm a retired  
14 plant engineer and chemical engineer by trade. I've got a  
15 couple of questions.

16 How does Davis-Besse justify their gross negligence  
17 of not inspecting the reactor and letting it get so far, as  
18 paper thin stainless steel? Now, how do they justify  
19 this?

20 This to me is absolutely, I could almost vomit. I  
21 have run the biggest acid plant in the world. Now, let me  
22 tell you, I can't get by that statement, that question. I  
23 can't get by it.

24 MR. GROBE: I don't want to  
25 speak for the company, but what I can share with you is

1 they met with us on August 15th, and submitted what they  
2 believed was their root cause, and there was no  
3 justification or, I guess there was no justification of how  
4 it would have been acceptable for this to have occurred.

5 There was a lot of reasons that it occurred. No  
6 justification. And --

7 JAMES DOUGLAS: Okay.

8 MR. GROBE: And they're in  
9 the process of trying to address those reasons. We call  
10 them root causes. And we're in the process --

11 JAMES DOUGLAS: Well, they have a  
12 horrible problem. They have the biggest plant problem I  
13 could ever imagine. They're all brand new, the employees.  
14 The other guys were kicked out by the Board of Directors.  
15 They have the Board of Directors looking over their  
16 shoulders at them, every single action that they take.

17 Their employees, and all of the hourly employees  
18 that worked under them, when they take a look at the head  
19 of the vessel head, how badly it was deteriorated, they  
20 have a reason to sit down and almost hate the supervisors  
21 that sent them in to almost get them killed. Nobody can  
22 justify in my mind how paper thin stainless steel can  
23 retain two thousand pounds of pressure.

24 MR. GROBE: I understand your  
25 comment. And I think it's a very appropriate comment.

1 Sam, do you want --

2 JAMES DOUGLAS: I mean, they've  
3 got pressure from the top. They've got pressure from the  
4 bottom. And all I hear is gobbledygook from the stage.

5 MR. COLLINS: Mr. Douglas, let  
6 me tell you what we know about the inspection of the head,  
7 if that would be helpful for you. I don't think it's going  
8 to answer all of your questions, but it can perhaps give  
9 you a perspective of the information that we have and what  
10 the ongoing reviews are. If that's okay.

11 In response to the bulletin I mentioned earlier in  
12 response to the young lady's question, FirstEnergy came and  
13 presented to us their inspection plans that they had been  
14 conducting over a period of time in response to the concern  
15 about cracking.

16 There was Boron that was found on the head. It's  
17 not unlike other plants when you look at it on the surface,  
18 because of the mechanical leakage, not because of the  
19 pressure primary leakage, but because of mechanical  
20 leakage.

21 FirstEnergy presented to us their inspection plans,  
22 if I have the dates right, it's '96, '98 and 2000. I think  
23 I have that correct. And, indicated to us that those  
24 inspections had been complete; that the head had been  
25 inspected; the head was relatively clean. But there was a

1 group of control rod drive mechanisms, if I remember the  
2 numbers, four or so, on the top area of the head that had  
3 not been inspected.

4 JAMES DOUGLAS: Can I interrupt  
5 you here for a second?

6 MR. COLLINS: Sure.

7 JAMES DOUGLAS: How can they  
8 inspect in behind that big steel false wall without cutting  
9 holes in it; and they never did that to take a look. Now,  
10 when they did, what did they see? Enough crap and  
11 corrosion to make you sick to your stomach.

12 MR. COLLINS: I don't disagree  
13 with that at all. In fact, the NRC was at the head also.  
14 We had an opportunity to identify this. We had inspectors  
15 at the head. We observed the cleaning of the head. We  
16 observed the in-service inspection of the head. And we  
17 ourselves did not recognize the phenomenon that was going  
18 on with the Boron.

19 We knew there was Boron there, but we didn't  
20 understand completely the phenomenon, as chemical  
21 engineering probably do, but we did not jump to that. That  
22 was a missed opportunity.

23 JAMES DOUGLAS: What are they  
24 going to do to prevent this in the future? They have a  
25 bunch of mouse holes. Okay?



1 MR. COLLINS: Mouse holes.

2 JAMES DOUGLAS: They cut a whole  
3 bunch of mouse holes, they said, and it showed them on the  
4 picture on the paper, all the way around the head, so they  
5 can at least get in there with some kind of cameras and  
6 look.

7 MR. COLLINS: There is a number  
8 of issues, I guess, in a different form perhaps FirstEnergy  
9 could speak for themselves. But, as a regulator, what we  
10 understand; one, they're replacing the head, of course.  
11 So, there is a new head. There are additional inspection  
12 requirements on the head itself. There is new types of  
13 insulation on the head, so that the insulation could be  
14 readily removed to provide for more --

15 JAMES DOUGLAS: Engineering never  
16 stands still, sir.

17 MR. COLLINS: There is a new  
18 type of mouse holes and doghouse, as you refer to them,  
19 called access ports, which other plants have done, other  
20 ports have modified that access house, so they could  
21 visually see what was going on. That's been done.  
22 They're proposing also in addition to the more  
23 frequent inspections new types of leak detection systems,  
24 which I'm not sure if you were here on the presentation,  
25 but that would be a first of a kind in this country. They

1 are used in some plants in Europe to monitor the upper head  
2 and the lower head for leakage.

3 Other plants are doing these types of things too.

4 There are a number of plants that are replacing their  
5 reactor vessel heads. Eventually all plants that want to  
6 continue to operate under this condition, not because of  
7 Boron degradation, but because of the stress corrosion  
8 cracking of the Alloy 600 stainless steel.

9 JAMES DOUGLAS: Let me present one  
10 scenario to you. Let us say in 2007, they do not get their  
11 new head. Okay? It gets delayed. All right?

12 MR. COLLINS: They have it now.

13 JAMES DOUGLAS: No, no, no, they  
14 have the new one from Michigan now. They have another one  
15 on order to be delivered 2007. Am I correct in that?

16 MR. GROBE: I believe that's  
17 correct. Yeah.

18 JAMES DOUGLAS: Okay. Now, I  
19 don't care if it's a year off, I don't give a rat's-- okay.

20 Let us say that they do not get this new head in  
21 2007, because everybody in the nuclear industry is  
22 absolutely shook up. They're all going to order new heads.  
23 And only those that are real bad are going to get them,  
24 because you can only make them so fast. They're  
25 fantastically complicated. Okay? All right.

1 At least Davis-Besse is going to be told, you're not  
2 going to get your head, your new head, you're going to have  
3 to go with the Michigan head. Okay?

4 MR. GROBE: Let's just make  
5 sure the premises are correct. It's my understanding the  
6 company plans on replacing their steam generators in 2012.  
7 Is that it? And --

8 JAMES DOUGLAS: The whole thing?

9 MR. GROBE: The steam  
10 generators. It's a component inside containment.

11 JAMES DOUGLAS: Oh, okay. All  
12 right.

13 MR. GROBE: And at the same  
14 time, they would be installing the redesigned head. That  
15 head is on order, and I know of no reason it wouldn't be  
16 received. Each plant has to order their head if they  
17 desire a new one. And again --

18 JAMES DOUGLAS: Okay. Let me  
19 finish my scenario just for a second, because my point is a  
20 little different than you think.

21 MR. GROBE: Okay.

22 JAMES DOUGLAS: Suppose they don't  
23 get the head. It gets delayed. They have to wait ten more  
24 years to get the head. They have to make this head last,  
25 because it will only be seven years old then. They at

1 least got 25 years or so out of the first head, okay. So,  
2 they are not in dire need of that new head. Whereas, some  
3 other plants might and the government may just take it away  
4 from them. Okay.

5 Now, what can they do?

6 MR. GROBE: We issued a  
7 bulletin, recently, which described augmented testing for  
8 reactor pressure vessel heads. And, that testing is,  
9 increases in its comprehensiveness, based on the age of the  
10 head, and the amount of degradation that might be present  
11 in the parts of the head.

12 Given the fact that the head that Davis-Besse is  
13 installing is not used, it's not been exposed to service  
14 conditions, there are very well little inspection  
15 requirements, other than visual inspections. As this head  
16 gets older, based on our current bulletin to all  
17 pressurized water reactors, there would be augmented  
18 inspections requiring required nondestructive examination  
19 of the penetrations.

20 JAMES DOUGLAS: Okay, my point is  
21 this. If you assume and think about that they are not  
22 going to get the head, and they have to make the head go,  
23 wouldn't it be a marvelous scenario if they had a whole  
24 series, thousands of photographs of all of the square  
25 inches of weld on that head that they have? This is what

1 it looked like before our last, right after our last annual  
2 refeuling. And, there it is, a nice smooth bald  
3 head, clean as can be.

4 Wouldn't that make them, the Board of Directors  
5 happy? Wouldn't that make John Q. Public happy? Wouldn't  
6 that make their employees happy?

7 MR. COLLINS: Mr. Douglas, I  
8 think you're on to something.

9 JAMES DOUGLAS: Well, I wish to  
10 hell they would listen.

11 MR. COLLINS: Let me clarify a  
12 few things and then agree with you.

13 The government, meaning me, doesn't decide whether  
14 FirstEnergy procures a new head for Davis-Besse or not.  
15 They have one on order. They can decide to trade it, which  
16 they might and I agree with that.

17 JAMES DOUGLAS: Mr. Bush might  
18 disagree with you, I don't know. (laughing)

19 MR. COLLINS: Well, I'll take  
20 that.

21 This head is Alloy 600, so it is the old type of  
22 material.

23 JAMES DOUGLAS: Yes, it is.

24 MR. COLLINS: The new heads are  
25 a different type of alloy that are perhaps less

1 susceptible. The amount of age on the head is really  
2 effective full power years. It's not the age in dog years,  
3 so to speak, it's the age that the plant has been operating  
4 at full power. So, that will be tracked.

5 This plant will remain a high susceptibility plant,  
6 so it will have enhanced inspections. We're also going  
7 back as a lessons learned at the NRC to the National Codes  
8 and Standards, and working with the National Codes and  
9 Standards Group to create generic as-need type of standards  
10 for the inspection of the head. Those will continue at  
11 this plant for this type of head and potentially even for  
12 the new upgraded type of head.

13 In fact, the inspections you've been asking for,  
14 they've been done.

15 JAMES DOUGLAS: Okay. I'm very  
16 happy about it. I'm talking about a photographic  
17 preventative maintenance program. They keep the  
18 photographs on file; and any, they can of course leave it  
19 open to the public, but certainly any of your people that  
20 want to look at them, and they can see they are in good  
21 shape; and this is exactly what we need is a good strong  
22 head to operate that bloody machine.

23 MR. COLLINS: In addition to  
24 that, it's also what you would know as nondestructive  
25 examination of the head, which means that they have done a

1 mapping of the head and metallurgy. The heads are forged.

2 So, there are welds in the area of the CRDN I believe on

3 the old style heads, and that's susceptibility area, but

4 the majority of the head is forged.

5 JAMES DOUGLAS: But I sure wish as

6 long as you guys stayed, I sure wish you would think about

7 a good photographic PM program and keep it on file.

8 MR. MYERS: That will do it.

9 JAMES DOUGLAS: Everybody. It

10 would make everybody in the whole damned place happy as can

11 be. And I would sleep much better at night, I'll tell

12 you.

13 MR. COLLINS: I'm hearing there

14 is a videotape that exists of the head.

15 JAMES DOUGLAS: I thank you for

16 staying and listening. Okay.

17 MR. COLLINS: Thank you for your

18 comments.

19 MR. MYERS: We'll show it to

20 you, if you want to see it.

21 JAMES DOUGLAS: I would love to

22 see it.

23 MR. MYERS: We'll show it to

24 you.

25 MR. COLLINS: Maybe we can link

1 you up with Mr. Myers here.

2 MR. GROBE: When they're  
3 showing you the videotape of the head, why don't you ask  
4 them also to bring the case study, and they can share that  
5 with you too.

6 JAMES DOUGLAS: I'll listen to  
7 your advice, thank you.

8 MR. GROBE: Any other  
9 questions?

10 Okay. I think that's it. We'll be back here at  
11 7:00. If any of you want to rejoin us, you're welcome.

12 Thank you very much.

13 (Off the record.)

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1 CERTIFICATE

2 I, Marie B. Fresch, Registered Merit Reporter and  
3 Notary Public in and for the State of Ohio, duly  
4 commissioned and qualified therein, do hereby certify that  
5 the foregoing is a true and correct transcript of the  
6 proceedings as taken by me and that I was present during  
7 all of said proceedings.

8 IN WITNESS WHEREOF, I have hereunto set my hand and  
9 affixed my seal of office at Norwalk, Ohio, on this 23rd  
10 day of November, 2002.

11

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14

Marie B. Fresch, RMR

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NOTARY PUBLIC, STATE OF OHIO  
My Commission Expires 10-9-03.

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