

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

PUBLIC MEETING  
Between U. S. Nuclear Regulatory Commission O350 Panel  
and FirstEnergy Nuclear Operating Company

- - -

Meeting held on Tuesday, May 6, 2003, at  
2:00 p.m. at the Camp Perry Clubhouse, Oak Harbor, Ohio,  
taken by me, Marie B. Fresch, Registered Merit Reporter,  
and Notary Public in and for the State of Ohio.

- - -

PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

- John "Jack" Grobe, Chairman, MC 0350 Panel
- William Ruland,  
Vice Chairman, MC 0350 Panel
- Christopher Scott Thomas,  
Senior Resident Inspector  
U.S. NRC Office - Davis-Besse
- Jon Hopkins, Project Manager Davis-Besse
- Dave Passehl, Project Engineer Davis-Besse
- John Zwolinski, Director of the Division  
of Licensing Project Management
- Brian Sheron, Associate Director for  
Project Licensee and Technical Analysis

FIRST ENERGY NUCLEAR OPERATING COMPANY

- Lew Myers, FENOC Chief Operating Officer
- J. Randel Fast, Director of  
Organizational Effectiveness
- Michael J. Stevens,  
Director - Nuclear Maintenance
- Mike Ross, Restart Director
- Mark Bezilla, Vice President Davis-Besse
- Fred von Ahn, Vice President of Oversight
- Bob Coward, Director of Nuclear Services,  
MPR Associates
- George Beam, Senior VP - Framatone

- - -

1           MR. PASSEHL:       Welcome everybody,  
2 FirstEnergy, and members of the public for accommodating  
3 this meeting today. This is a public meeting between the  
4 NRC's Davis-Besse Oversight Panel and FirstEnergy Nuclear  
5 Operating Company.

6           I'm Dave Passehl, the Project Engineer and Assistant  
7 to the Branch Chief, Christine Lipa, who is responsible for  
8 NRC's Inspection Program at Davis-Besse. Christine cannot  
9 attend today's meeting due to other commitments.

10          Next slide, please.

11          The purpose of this meeting are to allow FirstEnergy  
12 to present the status of activities in their Restart Plan  
13 and to discuss NRC's Oversight Panel activities, focusing  
14 on these activities since our last public meeting.

15          Next slide, please.

16          The agenda for today's meeting includes the  
17 introductions, opening remarks, a summary of the April 15,  
18 public meetings, a discussion of significant NRC activities  
19 since that last public meeting, the Licensee's presentation  
20 on the status of their Return to Service Plan, and a short  
21 break, followed by public comments and questions of the  
22 NRC, and then we'll adjourn the meeting.

23          Before we go further, I would like to make some  
24 introductions. Immediately to my left is Jack Grobe, a  
25 Senior Manager in the Region III Office in Lisle, Illinois;

1 and Jack is the Chairman of the Davis-Besse Oversight  
2 Panel.

3 To Jack's left is Brian Sheron, a Senior Manager in  
4 Headquarters, who is the Associate Director for Project  
5 Licensee and Technical Analysis. Brian provides overall  
6 project management related to licensing activities  
7 associated with power reactors and he provides management  
8 direction of technical evaluations and assessment of  
9 technical issues.

10 Next to him, to his left is John Zwolinski, a Senior  
11 Manager in our Headquarters Offices, who is the Director of  
12 the Division of Licensing Project Management. John's group  
13 implements the policy, programs and activities, including  
14 coordinating licensing and technical reviews, associated  
15 with the overall safety and environmental project  
16 management for individual power reactors in the regions.

17 Next to John is Bill Ruland, a Senior Manager in our  
18 Headquarters Office. And, Bill is the Vice Chairman of the  
19 Oversight Panel. Bill's position is the Director, Project  
20 Directorate 3, in the Division of Licensing and Project  
21 Management.

22 Next to Bill is Jon Hopkins, our NRR Project Manager  
23 for Davis-Besse.

24 To my right is Scott Thomas, the Senior Resident  
25 Inspector at the Davis-Besse Plant.

1 And in the audience, we have Doug Simpkins, the  
2 Resident Inspector at the Davis-Besse Plant.

3 We have Nancy Keller, who is the Office Assistant  
4 for Davis-Besse.

5 Our Region III Public Affairs Officer, Viktoria  
6 Mitlyng.

7 Margie ~~Gonzales~~ Kotzales is a Technical Assistant to Mr.  
8 Sheron. She is with us in the audience. As is Ho Nieh, a  
9 Regional Coordinator in our Headquarters Offices, and he  
10 works in the Executive Director's Office in Headquarters.

11 Lew, would you please introduce the FirstEnergy  
12 personnel?

13 MR. MYERS: Thank you. In the  
14 audience today we have two guests with us. Bob Saunders,  
15 the President of FENOC is here for FirstEnergy Nuclear  
16 Operating Company. I see you, Bob, right there. Okay.  
17 And Gary Leidich, the Executive VP of Engineering Services  
18 is also with us.

19 To my left is Fred Von Ahn. I'm going to give you  
20 some new names and titles today, and as we go through the  
21 presentation today, it will be clear what's changed and  
22 why. Okay? Fred von Ahn is with us today. Fred is to our  
23 far left. Fred is the new Vice President of Oversight for  
24 FirstEnergy Nuclear Operating Company.

25 Mark Bezilla is next to him. Sitting next to me on

1 the left. Mark is going to be the new Site Vice President  
2 at the Davis-Besse Nuclear Plant. We'll talk about Mark  
3 later on in the presentations.

4 To my right here is George Beam. George is a Senior  
5 Vice President with Framatone.

6 And then Bob Coward is next to him. He's the  
7 Director of Nuclear Services with MPR, which is an  
8 Engineering Contracting Company that we use.

9 Mike Ross is next to him, I believe. And Mike is  
10 the, new title we termed the Restart Director. And Mike is  
11 filling that role.

12 Randy Fast is next to Mike. Randy's got a new title  
13 also; that's the Director of Organizational Effectiveness  
14 at our plant. And Randy is really going to focus on all  
15 the, the Management/Human Performance issues.

16 Then, Mike Stevens, the Director of Maintenance, is  
17 sitting at the end of the table.

18 MR. PASSEHL: Thank you, Lew.

19 Would any public officials or representative of  
20 public officials in the audience please introduce  
21 yourselves at this time?

22 MR. ARNDT: Steve Arndt,  
23 Ottawa County Commissioner.

24 MR. WITT: Jere Witt, Ottawa  
25 County Administrator.

1           MR. GROBE:           Okay, before we  
2 proceed, I just wanted to take a minute to recognize a  
3 member of the Davis-Besse NRC team, who is going to be  
4 moving on.

5           Now you have to stand up Doug.

6           This is Doug Simpkins. I want everybody to  
7 recognize him for a moment. He's been a key member of the  
8 NRC team here at Davis-Besse for the past four years and  
9 has been a significant contributor to that team, based on  
10 his knowledge and experience, but also based on his  
11 diligence to ensuring the safety of the public from nuclear  
12 power operations.

13          Doug has been promoted to the Senior Resident  
14 Inspector position at a plant called Hatch. It's in  
15 Georgia. And those of us that are dyed-in-the-wool  
16 midwesterners can't quite figure out why he wants to go to  
17 Georgia. But, he is going to be taking on significantly  
18 additional responsibilities leading the NRC team down in,  
19 at the Hatch plant, Georgia.

20          In addition to Doug's commitment to his profession,  
21 he's also played a very significant role in the community  
22 here in Oak Harbor. His wife, Lisa, two boys and three  
23 girls, have been very active in the community. Doug has  
24 been an active father. He's been a Cub Master in Oak  
25 Harbor. He's coached the National Rifle Youth Camp here at

1 Camp Perry. He's organized the Youth Rifle Program in Oak  
2 Harbor. He's been a soccer coach and assistant baseball  
3 coach.

4 He's taught Sunday School. He's been very active in  
5 his church and he's even sung occasionally at Sunday  
6 school, which I didn't get any feedback whether that was a  
7 positive or a negative, but he's only been an occasional  
8 singer, so that might tell you a little bit about that.

9 We're going to miss him on the NRC team here at  
10 Davis-Besse. And, I want to recognize his commitment here  
11 and wish him the best as their family moves to Georgia in  
12 just a couple days. May 23rd, they're going to be pulling  
13 up stakes and moving south. So, thanks, Doug.  
14 (applause)

15 MR. PASSEHL: Okay. This  
16 meeting is open to public observation. Please note that  
17 this is a meeting between the Nuclear Regulatory Commission  
18 and FirstEnergy. At the conclusion of the business portion  
19 of the meeting, but before the meeting is adjourned, the  
20 NRC staff will be available to receive comments from  
21 members of the public and answer questions.

22 There are copies of the May edition of our monthly  
23 newsletters and copies of the slides for this meeting in  
24 the foyer. The newsletter provides background information  
25 and also discusses current plant and NRC activities. On

1 the back page, there is some reference information on how  
2 to contact us, if you have additional questions or  
3 concerns.

4 We have included the email address and phone number  
5 of our public affairs officers. And there is also a web  
6 page address, where you can have access to numerous  
7 documents related to Davis-Besse.

8 We also have a public meeting feedback form  
9 available, which we use to solicit comments on aspects of  
10 the meeting that we can improve upon.

11 We're having the meeting transcribed today by Marie  
12 Fresch to maintain a record of the meeting. The  
13 transcription will be available on our web page. And  
14 usually, that's available in about 3 to 4 weeks.

15 It is important that speakers use the microphones to  
16 ensure that the transcriber and the audience can hear  
17 everyone.

18 Next slide, please.

19 Since our last meeting on April 15th, we discussed  
20 the status of ongoing plant and NRC activities. The NRC  
21 staff discussed initiation of a Safety Culture and Safety  
22 Conscious Work Environment inspection, the completion of  
23 the Containment Sump Inspection, and Integrated Leak Rate  
24 Test Inspection in Containment.

25 We mentioned that we were prepared to close Restart



1 Checklist Item 1-A, pertaining to reactor pressure vessel  
2 penetration cracking and reactor pressure vessel corrosion;  
3 and Items 6-A through F, pertaining to licensing issues  
4 associated with reactor vessel head.

5 We provided a status update on our ongoing  
6 inspections of System Health Reviews and Design Issues,  
7 Safety Significant Programs and Corrective Actions.

8 We discussed some upcoming activities, including the  
9 Undervessel Head Inspection, Fire Protection Inspection, a  
10 Restart Assessment Team Inspection and public meetings to  
11 discuss engineering issues and safety culture.

12 Later in today's presentation, we plan to provide an  
13 update on our recently completed and ongoing NRC  
14 activities.

15 FirstEnergy provided an update on efforts made  
16 toward restart. They discussed activities related to  
17 Operations Restart Readiness Assessments, including  
18 preparations to take the plant to Mode 4, which means the  
19 primary coolant temperature circulating throughout the  
20 reactor is between 200 and 280 degrees.

21 FirstEnergy discussed plans to resolve some  
22 engineering issues, including issues with emergency diesel  
23 generator loading, high pressure injection pumps, the  
24 electrical distribution system, and air-operated valves.

25 I want to mention that we are conducting another

1 public meeting tomorrow to discuss engineering issues.  
2 Information on that meeting can be found in our monthly  
3 newsletter.

4 Next slide, please.

5 April 15th, we held a public exit meeting to discuss  
6 the preliminary findings and conclusions of the special  
7 inspection and supplemental inspection that was conducted  
8 to review the utility's corrective actions for two white  
9 findings in the radiation protection area associated with  
10 inadequate radiologic controls during steam generator work  
11 in February of 2002.

12 On April 25th, we completed a one-week fire  
13 protection inspection which reviewed the Licensee's fire  
14 protection features and safe shutdown capability. The  
15 inspection results will be included in the Inspection  
16 Report for System Health Assurance Inspection, which is  
17 currently ongoing.

18 We closed Restart Checklist Item 1-A, which was, as  
19 I mentioned, the penetration cracking and reactor pressure  
20 vessel corrosion. The Davis-Besse Oversight Panel approved  
21 this checklist item for closure on April 29. FirstEnergy  
22 submitted its Technical Root Cause Report to the NRC staff  
23 in August of 2002.

24 NRC's review of the report is complete, and the  
25 results of the review will be included as an attachment to

1 the next Resident Inspection Report, which should be issued  
2 in the near term.

3 We also closed Restart Checklist Item 6-A through  
4 6-F, which is licensing issues associated with replacement  
5 reactor vessel head. The Davis-Besse Oversight Panel  
6 approved this checklist item for closure on April 29th.  
7 The NRC staff reviewed and approved all six proposed  
8 licensing actions and the results of the licensing action  
9 review will be included in the next Resident Inspection  
10 Report.

11 Next slide, please.

12 First I wanted to discuss some continuing NRC  
13 activities, which involve our System Health Reviews and  
14 Design Issues Inspection. The NRC's inspection of this  
15 area is reviewing system health readiness. Part of this  
16 inspection includes safety function validation inspection  
17 of systems and topical issues, high energy line break,  
18 environmental qualification, seismic flooding and  
19 Appendix R. The inspection is being conducted by several  
20 inspectors and is ongoing.

21 We are also evaluating the Licensee's process in and  
22 tools for monitoring improvements in the Safety Culture,  
23 Safety Conscious Work Environment and the effectiveness of  
24 the Employee Concerns Program. The inspection is in  
25 progress this week. On April 7, the NRC issued a press

1 release and biographical information on the team members  
2 for that inspection.

3 The NRC's inspection regarding program effectiveness  
4 is reviewing certain key programs. Our reviews in this  
5 area include assessing the effectiveness of the Boric Acid  
6 Corrosion Control Program, In-service Inspection Program;  
7 Reactor Coolant Unidentified Leakage Program, Plant  
8 Modifications, Quality Audits and Operating Experience  
9 Programs.

10 To-date, we have completed our on site inspection of  
11 all programs, except for Boric Acid Corrosion Control,  
12 Quality Audits, and reviews of completeness and accuracy of  
13 required records and submittals.

14 Our Corrective Action Team Inspection is an  
15 inspection to review the effectiveness of the corrective  
16 action process at Davis-Besse to ensure that it is being  
17 effectively implemented and appropriate corrective actions  
18 taken to prevent recurrence of problems.

19 The inspection includes review of restart corrective  
20 action items to determine if items required to be  
21 accomplished prior to startup of the plant have been  
22 correctly characterized and actions have been completed in  
23 accordance with the Licensee's and NRC's requirements.

24 Our Resident Inspection is ongoing. We have two  
25 Resident Inspectors stationed permanently at the site, who

1 inspect a broad spectrum of activities, as is  
2 characteristic of all our sites, in the areas of  
3 Operations, Maintenance and Testing. And the Resident  
4 Inspectors issue reports every six to seven weeks.

5 MR. GROBE: Dave, before you  
6 go on, I just wanted to talk a little bit about the safety  
7 culture work that's being done by the company and also our  
8 inspection.

9 There's been a lot of confusion, at least I've  
10 sensed a lot of confusion on a number of fronts regarding  
11 whether or not the Licensee is required to improve their  
12 safety culture.

13 The NRC has requirements in 10-CFR-50, specifically  
14 focused on the need to fix problems. It's part of our  
15 quality assurance requirements, that's referred to as  
16 Criterion 16.

17 What it requires is that whenever the Licensee  
18 identifies a problem, a deficiency with safety equipment or  
19 safety processes, that it needs to be fixed, and it's  
20 required to be fixed. In the case of significant problems,  
21 we call them significant conditions adverse to quality;  
22 not only does the problem need to be fixed, but the root  
23 cause needs to be identified and the root cause needs to be  
24 fixed.

25 The NRC doesn't mandate how to fix the problems, but

1 it requires that they are fixed and that there is a  
2 reasonable course of action to address those problems to  
3 ensure they won't recur. Certainly the degradation of the  
4 reactor pressure vessel head at Davis-Besse was a  
5 significant issue adverse to quality. Consequently, the  
6 utility is required to fix that problem. Not only the  
7 specific hardware deficiencies, but also what caused the  
8 problem.

9 FirstEnergy determined that safety culture at the  
10 facility was a significant contributor to why that problem  
11 occurred. So, they're required under NRC regulations to  
12 address that issue. Again, we don't mandate how to fix the  
13 safety culture at Davis-Besse, but we do mandate that it be  
14 fixed.

15 The inspection, regardless of whether it's a piece  
16 of equipment that has a deficiency or program or procedure  
17 or process, or in this case a safety culture, there is many  
18 different ways to address hardware problems to address what  
19 I call software problems, programs and procedures, and to  
20 address people problems. We don't mandate how to fix it,  
21 but what we do is come in and inspect and make sure there  
22 is a reasonable path to success, that the specific actions  
23 the company is taking have a reasonable success path to  
24 ensure that these problems don't recur.

25 To ensure that we did an excellent job assessing

1 this area, as Dave mentioned, we brought in a team of  
2 experts. There is seven folks, who have a proven track  
3 record in the area of Safety Culture Assessment, Safety  
4 Conscious Work Environment Assessment; and two gentlemen  
5 who also have a proven track record in the industry of  
6 effectively managing safety culture at nuclear power  
7 plants.

8 That team's work is ongoing. We will have a public  
9 exit once they complete their work, but our goal in that  
10 effort is to examine, not to impose any requirements in the  
11 area of safety culture, we have no requirements, but to  
12 examine what the utilities is doing and make sure that it  
13 makes sense. That's what we'll be reporting out to you  
14 publicly and to the utility in several weeks.

15 Thanks, Dave.

16 MR. PASSEHL: Okay. Next  
17 slide, please.

18 Okay, the NRC will conduct a public meeting with  
19 FirstEnergy tomorrow, as I mentioned, in the Region III  
20 Office, where FirstEnergy will describe the status of its  
21 engineering reviews and address significant outstanding  
22 design issues and its plans for resolving them.

23 This is the second public meeting focusing on the  
24 status of design reviews of Davis-Besse safety systems.  
25 The first meeting was held in the NRC's Region III Office

1 in Lisle, Illinois on December 23rd of last year.  
2 Transcripts and presentation materials for that meeting are  
3 available, and for the meeting tomorrow, are available on  
4 the NRC's website.

5 The NRC is preparing to conduct an inspection of the  
6 lower reactor vessel head area. This inspection will  
7 review the procedures and related ASME Code requirements  
8 relative to the leak test of the reactor coolant system.  
9 The NRC will also observe conduct of the test and verify  
10 proper implementation of procedures.

11 As Jack alluded to, the NRC is planning to conduct  
12 a public meeting to discuss the Licensee's assessment of  
13 safety culture, once the Licensee has fully integrated  
14 their independent and internal assessments. That meeting  
15 will be held in the Region III Office in the May to June  
16 timeframe.

17 The NRC is preparing to conduct an assessment of  
18 backlog issues. The work Davis-Besse plans to defer until  
19 after the plant has resumed operations, or the work  
20 Davis-Besse plans to defer to future outages. This review  
21 will consider the appropriateness and safety of those  
22 proposed deferrals.

23 Next slide, please.

24 The NRC is preparing to conduct a Restart Assessment  
25 Team Inspection when the utility nears the point where it



1 will seek NRC authorization for restart. This inspection  
2 will review the readiness of the plant and the plant staff  
3 to resume plant operations safely and in compliance with  
4 NRC requirements. The inspection findings will be  
5 considered by the NRC Oversight Panel in making its  
6 recommendation to the Regional Administrator on possible  
7 restart.

8       The NRC is preparing its final Significance  
9 Assessment for the control rod drive mechanism cracking and  
10 reactor pressure vessel degradation identified for  
11 Davis-Besse. The NRC issued its preliminary assessment  
12 letter back on February 25th of this year in which we  
13 preliminarily determined that the performance deficiency  
14 resulting in that reactor pressure vessel head  
15 degradation and control rod drive mechanism nozzle cracking  
16 had high safety significance.

17       The final letter will be issued after NRC considers  
18 FirstEnergy's reply to our preliminary letter. And we  
19 received that reply on April 24th.

20       This summarizes NRC's activities since our last  
21 meeting. The inspections I discussed are part of our  
22 Restart Checklist, which is a listing of issues that need  
23 to be resolved prior to restart of the plant.

24       So, with that, I'll turn the presentation meeting  
25 over to FirstEnergy. Thanks.

1 MR. MYERS: Thank you.

2 When Doug gets to Hatch and he starts looking up  
3 all that environmental data, you know, history, you know; I  
4 think you'll find it had a lot of good rigor and was very  
5 thoroughly done.

6 MR. GROBE: You don't happen  
7 to know anybody that might have worked down there, do you?

8 MR. MYERS: Yes.

9 (laughter)

10 Okay. We have several Desired Outcomes today. We  
11 have, it's not been quite a month since we had our last  
12 public meeting, so let me talk a little bit where we're at  
13 now.

14 Since the last public meeting, we've completed our  
15 high head safety injection test. We pressurized the plant  
16 to 50 pounds pressure. And, at the present time, we're  
17 looking at going to 250 pounds and we're doing our near  
18 normal operating temperature pressure test later on. We're  
19 not at that point yet.

20 Today, we have several Desired Outcomes. You heard  
21 the new titles that we are using and there has been some  
22 management changes. We want to discuss those management  
23 changes and the reason for the management changes.

24 We also want to review the plant activities  
25 completed since the last meeting, and as it brings you up

1 to our present status; and then, there's some near term  
2 activities for plant testing that we want to discuss; and  
3 then, finally, we want to provide you an update of several  
4 of our issues and their resolutions.

5 If you look at our agenda, the next slide, specific  
6 areas we're talking about, once again, is Management  
7 Actions.

8 The Restart Test Plan. Mike Stevens will discuss  
9 that.

10 Challenges to Restart. You know, we talked a lot in  
11 here about our high end head safety injection pump issues, and  
12 the actions that were taken there. So, we have two people  
13 that are going to discuss those today; Mike Ross, George  
14 Beam and Bob Coward all focus in that area.

15 Operations Readiness. Mark Bezilla is sitting  
16 beside me here. He's been at the plant two days, but he's  
17 going to discuss Operational Readiness. You'll find Mark  
18 has been really working at the plant quite a bit since  
19 we've been in this issue.

20 The Quality Oversight Area. Fred Von Ahn will  
21 discuss. Fred is our new Vice President of Oversight.

22 Safety Conscious Work Environment. We had a couple  
23 of questions that we wanted to discuss from the last  
24 meeting, Jack. And, we're prepared to discuss those  
25 today. I'll do that.

1       Then, the Containment Closure. You know, that's  
2 really closure of the Building Block. And, as Randy will  
3 tell you, you never close the containment out. You know,  
4 what we have put in place is some new procedures and stuff  
5 that we think will keep the, not only fix the containment  
6 to standards we have today, but maintain those standards in  
7 the future.

8       The first area that I would like to discuss -- go  
9 ahead with the next slide -- is Management Actions. You  
10 know, Jack spoke awhile ago about the safety culture at our  
11 station. You know, we define safety culture as attitudes  
12 and attributes in the organization and people that ensure  
13 that safety-related activities receive the management  
14 attention warranted.

15       If you look back, when you talk about that today, I  
16 have my slides; if you look back at our actual root cause,  
17 we said, "There was a focus on production, established by  
18 management". So, it's a management issue of the plant.  
19 "Combined with taking minimum actions to meet regulatory  
20 requirements". Let's justify this and take the minimal  
21 action. "That resulted in acceptance of degraded  
22 conditions" as long as they didn't affect productivity.  
23 That was our original root cause.

24       If you'll look at some of the actions we've taken,  
25 we talked about before, you know, Bob Saunders created a

1 new position of Chief Operating Officer, which is my job,  
2 once we get the plant restarted.

3 Then, Gary Leidich is our Executive Vice President  
4 of Engineering and Service, which is Services, which is  
5 also a new position that helps standardize our programs and  
6 our approaches to the system health and stuff like that.  
7 So, a key part of ensuring that this type of issue doesn't  
8 happen again.

9 And then, finally, you know, if you look at our  
10 Oversight Organization. Our Oversight Organization, what  
11 we found, mostly reported to the site. So, we wanted to  
12 make that a FENOC organization; and we created the Vice  
13 President of Oversight. And, Bill Pearce had been in that  
14 position, and now Fred von Ahn is there.

15 If you go look at the organizational changes that  
16 we've made, first I would like to spend a couple moments to  
17 tell about some of the new players.

18 Fred, as the VP of Nuclear Oversight, has been with  
19 us for many years now. Worked with Fred at our Perry  
20 Plant. Fred has over 25 years of nuclear experience; both  
21 from the Navy and then commercial operations.

22 He graduated from the Naval Academy, so Fred was a  
23 naval officer in 1978 with a Bachelor of Science Degree,  
24 and while we were working together at Beaver Valley, went  
25 back and got his Master's Degree in Business.

1 Fred, after leaving the Navy, worked for General  
2 Electric for a period of time as staff engineer. He had a  
3 Senior Reactor Operator License in a plant in Switzerland  
4 for about two and a half years.

5 Fred worked at our Perry Plant since 1998, and he  
6 was a lead engineer there. And, when I left the Perry  
7 Plant, he was in the engineering department, was in charge  
8 of one of the departments of engineering management. He  
9 had escalated through several positions there in  
10 engineering, from project management to other management  
11 positions.

12 He went to our Beaver Valley Plant as the Director  
13 of Engineering, where he's been responsible for the System  
14 Health Programs and Latent Issues Programs for the last  
15 three and a half years, and some of the improvements we've  
16 made at that plant.

17 We have been talking for some time about announcing  
18 a Vice President for the Davis-Besse Plant. And, in order  
19 to do that, we wanted to put Bill Pearce back with his  
20 broad base experience on Westinghouse reactors, he's now  
21 back to being the Vice President down at the Beaver Valley  
22 Plant.

23 That allowed us to take the next person, Mark  
24 Bezilla, who is sitting to my left, and move him to, that  
25 would be the Site VP at our Davis-Besse Plant. Mark comes

1 to us with a, what we think is an outstanding background  
2 also. He has 26 years of experience in the nuclear  
3 program, including a position at Three Mile Island.

4 Mark was hired by Mike Ross and trained by Mike, so  
5 we're expecting outstanding things there.

6 After that, he came to Davis-Besse and was the  
7 Superintendent of Operations, moved up to the  
8 Superintendent of Operations position. He was moved over  
9 to Perry Plant to improve performance there for several  
10 years, and was the Operations Manager.

11 He then left us and went over to Salem, where he  
12 held numerous positions, from basically Plant Manager  
13 position to the Vice President of Operations, Vice  
14 President of Engineering.

15 And then, we brought him back about a year ago to  
16 work at our Beaver Valley Plant to take my place as Site  
17 VP, and he made good improvements there after I left.

18 So, he did so well, we decided to bring him over  
19 here and let him do the same thing here. So, he's coming  
20 here to be the Vice President, Site Vice President of this  
21 plant.

22 If you go look at Mark. Mark, once again, had an  
23 SRO in this plant. He has an Engineering degree and  
24 Associate degree in Nuclear Engineering Technology. We  
25 think that he knows the plant well. He's had good broad

1 based experience and will do us an outstanding job here as  
2 the Site Vice President.

3 So, that's some of the shuffles at the top. That's  
4 the reason we made those shuffles.

5 If you go look at the next slide, at our Davis-Besse  
6 station, we've worked pretty hard as a Senior Management  
7 Team over the last few weekends to figure out how to  
8 utilize the talents that we have here. You know, I'm  
9 basically located at the station full time, so between Mark  
10 and myself, we probably shouldn't be doing the same job.

11 So, since I'm located at the station, I'm going to stay  
12 here until after startup. And, we tried to figure out ways  
13 to utilize our talents the best.

14 We wanted to take Bob Schrauder, Director of  
15 Support. Bob has been really working on projects since  
16 we've been here as a team. We wanted to get him really  
17 involved in Security, Regulatory Affairs, Corrective  
18 Actions and Quality Services.

19 Regulatory Affairs is an area we're very concerned  
20 with and needs Bob's talents. That's what we brought him  
21 out here to do, so he's really focusing on those things  
22 now.

23 Jim Powers filled the Director of Engineering, and  
24 there was no real changes there.

25 We took Mike Ross, and Mike will continue to focus



1 on Mark in his new position -- so, nothing has changed in  
2 the last 25 years -- as the Director of Restart. And what  
3 Mike is doing is, we're trying to do, we finished our  
4 discovery, if you will, walking all our systems down. We  
5 pretty well have our backlog done in the right direction.

6 But, but there is, as you get to the end, and, Jack,  
7 you know this, you start getting all those issues, the easy  
8 stuff is gone. So, we need to be focusing forward and  
9 making sure that we have good ownership, we have good  
10 fragments in place, good schedules in place, the parts, the  
11 tools, equipment, and the people to get some of the work  
12 activities after the, up to the Mode 4 test; and then after  
13 that test, for those, the windows that we have, all the  
14 work we have after that.

15 So, Mike has got the leadership role in that area  
16 now. We've set up a place out in the Administration  
17 Building, where we're really focused now making sure all  
18 the mods are ready to go, all the issues are ready to go,  
19 and driving those things on a daily basis.

20 Randy Fast has moved over to be the Davis-Besse  
21 Organizational Development Director. Randy has worked hard  
22 in Operations in improving the areas there. And we've been  
23 getting very good feedback about some of the improvements  
24 we've made in Operations and ownership and all.

25 We need to really focus on the management issues

1 that we have ahead of us. And, Randy is here to focus on  
2 the SAP Project, which is a management issue; the new  
3 computer project moving into our plant, that the plant is  
4 going to.

5 Emergency Preparedness, Randy will be focused on  
6 that next week.

7 The Davis-Besse Human Resources Area, to make sure  
8 we're putting key people in the right positions.

9 Communications at our site, trying to improve that.

10 Safety training, our Training Department will report  
11 to Randy. Human Performance person will report to Randy.

12 And, finally, the Restart Building Block will continue to  
13 report to Randy also.

14 Then, Mark Bezilla. Mark is going to sort of take  
15 over the position of Site Vice President and Plant Manager  
16 role combined. What he's going to do is focus on the stuff  
17 inside the fence. So, Mike Stevens, the Maintenance  
18 Director, Outage Management, and Work Control, will report  
19 to him, Chemistry, Operations, and Radiation Protection.

20 And what we feel right now, is that lays out and  
21 uses our talents to the best way we know how to use them.

22 This has been a team effort to figure out, here's all the  
23 things we need to get done, and here's the way to approach  
24 it. So, those are the changes that we have in place at our  
25 plant.

1           The next area is Mike Stevens and Mike will provide  
2 you some information on Restart.

3           MR. STEVENS:           Thank you, Lew.

4           I'm pleased today to talk about our Restart Test.  
5 The purpose of our plan is to improve the work performed  
6 thus far that's been effective to support safe operation of  
7 Davis-Besse.

8           Initially, we've taken lessons learned from the  
9 industry and validated our plan to ensure that the startup  
10 and safe operation of Davis-Besse goes smoothly through  
11 this restart testing.

12          Next slide, please.

13          Our test plan will test our primary system  
14 readiness. We will be performing detailed inspections at  
15 50 pounds, 250 pounds, and 2,155 pressure. The detailed  
16 inspections will include all of the flange and bolted  
17 joints and Reactor Coolant System primary that's normally  
18 pressurized. Additionally, we'll validate the requirements  
19 of our new Reactor Coolant System Leakage Monitoring  
20 Program, which we had previously discussed.

21          MR. THOMAS:           Mike, I looked  
22 through the packet here, and I didn't see where you  
23 discussed this in more detail. Would this be an  
24 appropriate time to talk about the ongoing 50 pound test  
25 and what challenges you may have prior to performing the

1 250 pound test?

2 MR. STEVENS: Yes, I could  
3 answer that, Scott. We're currently at the 50 pound per  
4 square inch pressure test, performing the inspections. The  
5 inspections are not identifying any problems. To go to the  
6 250 pound pressure test, we'll have to get the air-operated  
7 valves on the air duct system completed. And, we're  
8 working through the design and part requirements to get  
9 those, get what we need to repair those valves. That's  
10 primarily makeup 3 and 38, I believe, which will allow us  
11 to have letdown.

12 MR. THOMAS: Thanks. Also  
13 could you talk to, just basically describe the interaction  
14 between the 50 pound, 250 pound, and the 2100 pound test,  
15 as far as what you're looking at for each, the specific  
16 things you're looking at?

17 MR. STEVENS: Well, primarily,  
18 at the 50 pound and 250 pound tests, we're looking for  
19 leakage and validating our leakage monitoring program. We  
20 also will be operating a lot of equipment on our primary  
21 system to achieve the 2,155 pound pressure.

22 Now, as we progress through that, that's when we'll  
23 be making sure we're ready to make the mode change to Mode  
24 4 and Mode 3. Is that what you're asking, Scott?

25 MR. THOMAS: That will do it.

1 Thanks.

2 MR. STEVENS: Okay. We'll be  
3 operating our reactor coolant pump test, all four of our  
4 reactor coolant pumps. Additionally, after we hold that  
5 pressure at 2,155 pounds for 7 days, we'll go in and  
6 perform baseline inspection on our reactor heads using our  
7 inspection program, both the new reactor head that was  
8 installed, as well as the bottom head region of the reactor  
9 vessel. Also, we plan to test our control rod drive system  
10 by performing our insertion time testing.

11 Next slide, please.

12 MR. HOPKINS: Wait a minute.  
13 Let me ask a question here. In the beginning, you talked  
14 about taking lessons learned from others to validate your  
15 program. Where and what you just discussed do you take  
16 lessons learned from that?

17 MR. STEVENS: What we learned  
18 from some of the other units that were down for a prolonged  
19 time, that when we, when they went to start up without  
20 having a system integrated test to ensure that all the  
21 components were ready to operate, they found they had  
22 multiple equipment problem and were not prepared.

23 So, some of the things we're doing is taking those  
24 lessons learned, tie in with this startup plan as we bring  
25 systems on; what most likely could be a problem, preparing

1 for it.

2 For example, one of the scenarios is a small leak,  
3 maybe out of a packing of a valve or whatever. And I know  
4 our Operations Department has been performing different  
5 scenarios on our simulator. I was observing that last  
6 week, to ensure that we're ready. If they anticipate any  
7 equipment problems.

8 And, those are some of the lessons learned we're  
9 pulling out; not only the sequence of the components, but  
10 also the training and the contingency training we need to  
11 have should components not operate as expected, because  
12 they've been in lay-up or at extensive maintenance.

13 MR. MYERS: Let me help you  
14 out some too.

15 We took a document, and the document we got from the  
16 industry is lessons learned from extended shutdown. It  
17 talks about, you know, testing all of your equipment;  
18 coming up and finding problems. We haven't ran the plant  
19 for a year. Valves want to stick, we may not have worked  
20 on them. We worked on like I think five thousand  
21 components or so.

22 After we work on something, we do what we call post  
23 maintenance testing. We have all that post maintenance  
24 testing to do. So, as we get on up to 21, we do the  
25 pressure testing on the way up, and make sure we don't have

1 any leaks and everything at the two pressures. Then we get  
2 up and do what we call integrated testing. We're going to  
3 test our steam pumps, condensating pumps, feed pumps,  
4 anything we can test during that NOP test, and try to make  
5 sure that equipment is ready to operate.

6 Additionally, we'll take all these post maintenance  
7 tests and post modification testing and try to get that  
8 done too. So, then when we come back down and we do the  
9 undervessel inspection, and we do the diesel drain out that  
10 we have, and come back up. It should give us high  
11 confidence the equipment will work and perform not only as  
12 designed, but in a reliable manner.

13 MR. HOPKINS: That helps me most  
14 of all. I have a specific question.

15 Last month, when we talked about the NOP test, we  
16 had a slide item on the slide about control rod drive  
17 testing, and I asked what was that, and you were going to  
18 get back to me. Could you tell me now?

19 MR. MYERS: Do you want to do  
20 that, Mike? Or Randy?

21 MR. FAST: John, we went back  
22 and looked at our test, and as part of normal test  
23 sequence, we latched the control rods and verified their  
24 operation. That's a normal sequence for the plant. And,  
25 we've had further discussion about that, but we're not

1 deviating from our normal startup process.

2       As a matter of fact, one of the things we noted is  
3 while we're in the 7-day test, we'll be borated to maximum  
4 concentration, but we'll actually have shutdown banks that  
5 provide triple reactivity. It's actually a safety margin  
6 added to the plant. And that's in accordance with our  
7 normal startup operation. It's not a reactor startup, but  
8 it does verify rods, and that is one of the lessons learned  
9 as well from the industry.

10       So, we'll verify that the control rod drive  
11 mechanisms will latch and are movable and the shutdown rods  
12 will be in a condition where they can be tripped to add  
13 reactivity while the plant is in the 7-day demonstration.

14           MR. HOPKINS:       Okay. Thank  
15 you.

16           MR. THOMAS:       Randy, on the  
17 same, just to pursue that a little further. The first test  
18 is done in Mode 5, correct, it's normally in Mode 5, where  
19 the individual latch and pull and reinsertion. That's  
20 normally done in Mode 5, so that's not an issue for the NOP  
21 test.

22       The triple, you know, cocking safety group one, I  
23 agree is part of our normal startup process, but the bullet  
24 here is control rod system insertion time testing. Where  
25 is that going to fit into the picture?



1           MR. FAST:           I was going to  
2 say, normally that's performed at normal operating  
3 temperature and pressure and that is a technical  
4 specification requirement that has a very specific time  
5 that has to be met in order to ensure compliance.

6           MR. THOMAS:       Let me be more  
7 specific. Will that be done during the NOP test, the first  
8 NOP Test during that time period?

9           MR. FAST:           I believe it is,  
10 as part of the full temperature and pressure operation.

11          MR. MYERS:        I think it is.  
12 Yes.

13          MR. THOMAS:       Okay.

14          MR. STEVENS:      Thank you, Randy.

15          Initially, on our Primary System Readiness, we'll  
16 perform the Technical Specifications Surveillance Test,  
17 including the Integrated Safety Features Actuation System  
18 Test.

19          Additionally, we'll perform flow testing on the  
20 various systems. Here, we'll be using the special flow  
21 instruments to validate the proper flow is going to the  
22 components and that we have established operating plant  
23 conditions.

24          On the secondary side, the secondary system  
25 readiness places a majority of the secondary plant

1 components in service as required from startup and we'll be  
2 going from layup preservation to operational readiness.

3 Some of the systems we'll be having in service are  
4 the main steam system, the main condenser with the vacuum  
5 drawn, condensate, circulating water, feedwater,  
6 comprehensive auxiliary feedwater testing, as well as  
7 feedwater heating, portions of the feedwater heating system  
8 will be in service.

9 Any additional questions?

10 With that, I would like to turn it over to Mike  
11 Ross, who is going to talk about the challenges to Restart  
12 Test Plan, and our plant readiness for restart.

13 MR. ROSS: Thank you, Mike.  
14 Effective Monday, May 5th, as part of our refocusing of our  
15 efforts, I became Davis-Besse Restart Director. A new  
16 center has been established to address restart issues. The  
17 focus of that center will be on issues and modification for  
18 Mode 4 and those efforts that will be required after Mode  
19 4. The Center will be located in DBAB, Rooms 209 and 210.

20 The Center is different and separate from the Outage  
21 Control Center under Outage Manager Greg Dunn. Greg will  
22 continue to have responsibility for the planning and  
23 execution of outage.

24 Next slide.

25 There are approximately 1,172 Mode 4 restraints at

1 this time. A breakdown of our progress for these items is  
2 listed on the screen. The major work remains in the area  
3 of CR closure, work order closure, and component testing.

4 Next slide.

5 MR. GROBE: Mike, before you  
6 go on, I want to make sure I understand the difference  
7 between outage management and this new function.

8 If I understand correctly, what your focussing on is  
9 not field work, coordination of field work and management  
10 of field work, you're more focusing on what goes beyond  
11 that; is that correct?

12 MR. ROSS: Yeah, think of it  
13 as issues management. We want to focus on appropriately  
14 addressing the issues and make sure when we do address  
15 them, it's the complete effort.

16 MR. GROBE: Okay. Once an  
17 issue is ready for field work, then it would be managed by  
18 the Outage Management Group?

19 MR. ROSS: That's absolutely  
20 correct.

21 MR. GROBE: Thank you.

22 MR. ROSS: Next slide.

23 Looking to Mode 3, there are 509 restraints and we again  
24 show our work there.

25 We have maintained a list of issues affecting Mode

1 4. Our completion efforts have reduced this list to what's  
2 on the next two slides. I would think it's, what I would  
3 call a manageable list at this time. I'll discuss briefly  
4 each issue and kind of where we are on these issues.

5 HPI bearing or the high pressure injection bearing  
6 issues due to the postulated sump debris. A licensing  
7 amendment is being prepared for submittal that was designed  
8 to allow one time use of the existing HPI pumps and proceed  
9 to pressurize and heat up the reactor coolant system using  
10 the reactor coolant pumps as a heat source and complete the  
11 7-day NOP and NOT Test.

12 Additionally, two options are being worked that will  
13 either install new HPI pumps that we already own or they  
14 will modify the existing pumps to fully meet all  
15 requirements. Later presentations will discuss these  
16 options in detail.

17 Safety Features Actuation System Relay Replacement  
18 is coming toward resolution, and probably have us put the  
19 original relays back in after obtaining spares from other  
20 utilities and other nuclear users. In completing a  
21 detailed quality check of each of the system relays,  
22 approximately 250, 60 relays involved in that effort.

23 The Electrical Transient Analysis Program issues  
24 are receiving additional focus. It appears to be one of  
25 our major issues for Mode 4. Our project team continues to

1 work to improve delivery of this issue.

2 Next -- you have the next slide up, thanks.

3 The Low Pressure Injection Pump Cyclone Separator  
4 Clogging Issue appears to be on track and will not require  
5 work for Mode 4, but will receive an evaluation for our mod  
6 installation prior to restart.

7 4160 Undervoltage Relay Field Work started on the  
8 first bus, which is being done this week.

9 The Air Operated Valve Program Issues are receiving  
10 additional focus, and are presently holding out the reactor  
11 coolant 250 pound test, due to the need for seal injection  
12 and letdown valves that are involved in this issue.

13 MR. THOMAS: Mike, what's the  
14 present scope of that? How many valves are you down to,  
15 approximately?

16 MR. ROSS: There is twelve  
17 valves that need work. There is seven requires, seven of  
18 those require spring adjustments or adjustments of some  
19 kind, and I think we're going to end up with 12 valves  
20 requiring ECR's. That's kind of the scope of the work and  
21 that's after having looked at a total of 83 valves in our  
22 program.

23 MR. THOMAS: That's what  
24 remains still to do?

25 MR. ROSS: Yes. That's

1 correct.

2 MR. THOMAS: Okay, thank you.

3 MR. ROSS: Back on the Air

4 Operated Valve Program Issues; we are putting additional  
5 focus on that. And, that in itself is what's holding a 250  
6 pound test. We could go to 250 pound and do that testing,  
7 including pumping reactor coolant pumps without entering  
8 Mode 4 because that testing is done less than 200 degrees.

9 The Makeup Pump Over-current Relay Setpoint Issue  
10 appears to have been resolved, and we're waiting closure  
11 and documentation of that issue at this time.

12 The Emergency Diesel Generator Room Temperature  
13 Issues, while not a Mode 4 concern, or a concern due to the  
14 approach of warm weather; that continues to be a challenge  
15 to us and there is a lot of effort going on in that area.

16 The major issues for Mode 4, as we see it now, are  
17 the High Pressure Injection Pump, the ETAP Issue, and the  
18 Air-operated Valve Program Issues. All are receiving  
19 additional focus and resources, and we do believe we have  
20 workover resolutions for all of those issues.

21 Next slide.

22 Looking ahead to Mode 1 and 2; there is 396 mode  
23 restraints for Mode 2. And 39 mode restraints to complete  
24 for Mode 1. As you can see, the majority of that work lies  
25 on our Mode 4 and 3 preparation.

1 In closing, the high pressure injection pump, the  
2 ETAP and the air-operated valve issues are definitely  
3 solvable and receiving additional focus. Additionally, we  
4 have not identified any items that we would classify as  
5 unsolvable or not doable through total restart.

6 I'm open to questions.

7 No questions, I would like to turn back to Mr. Myers  
8 for discussion on the high pressure injection pump issues  
9 and options. Thank you.

10 MR. MYERS: Thank you.

11 We've talked in here several times about the issue  
12 of the high pressure safety injection pump that we've  
13 hypothesized. Basically, that issue has to do with  
14 potential debris. We're talking about debris so fine that  
15 it would pass through the sump strainer that we install;  
16 and over time, over a long period of time, would erode the  
17 internal clearances, specifically in the hydrostatic  
18 bearings, which are internal to this pump on each end of  
19 the pump shaft. And then -- I'm sorry. Hydrostatic  
20 bearing in the center, and then also debris on the bearings  
21 at the end.

22 We've looked at a couple of options today. The  
23 first option was to replace the pump. As we stated  
24 earlier, we went out and we bought two pumps that we found  
25 in the industry that were from plants that were not, not

1 ever completed. We have those two pumps. We own those two  
2 pumps as we speak. And, the second approach was to modify  
3 the existing pumps.

4       You know, we know our equipment that we have now.  
5 It's worked well. The pump that we have now is high  
6 reliability. If there is a modification that we can make  
7 to that pump to ensure that it would operate under a  
8 certain limited number of conditions, limited number of  
9 conditions we're talking about, is whenever the pump would  
10 be called upon to take water from the low head safety  
11 injection pumps, because it does not pump out of the  
12 containment sump.

13       We can go into what's called a piggyback mode, where  
14 we take low head safety injection pump water and pump that  
15 through the suction of the high head pressure pumps, and  
16 then we inject in long term core coolant at a high  
17 pressure, if we need to.

18       So, there is certain events, a certain limited  
19 number of events where we'd want to use that mode of  
20 operation. So, ensuring the reliability of those  
21 postulated -- of this pump during those postulated events  
22 is important.

23       If you go look at today, we've got George Beam here.  
24 George is the Senior Vice President with Framatone, next to  
25 me. What we did is, we went into a contractual agreement



1 for a sole source delivery of that pump, similar to what we  
2 did with the reactor vessel head, if we decide to replace  
3 the pump.

4 So, we have the new pumps. So, George is going to  
5 give you the status of that project as we speak now, which  
6 is ongoing.

7 Additionally, we also pursued the modification  
8 option. Bob Coward is with us today. Bob is the Director  
9 of Nuclear Services with NPR, which is a nuclear  
10 engineering company that we use very often. They've been  
11 focused on the modification approach, and that project is  
12 also ongoing. We're going to describe what that  
13 modification would look like today, and if we do decide to  
14 go that approach.

15 What's important, is that we've got to focus on what  
16 are the advantages and disadvantages of each approach.  
17 Every day we have different issues pop up, from anything  
18 from increases in temperature to the new pumps in our  
19 safety-related rooms, and would ~~not~~ room coolers take that, or  
20 changes in loading on our diesels. So, we've got to find  
21 the right technical issue, the right technical approach for  
22 the plant.

23 So, we're very confident these two approaches are  
24 both doable; and we've got to, in the next few weeks,  
25 decide exactly which one we're going to do, because after

1 we do the NOP test, we have to get started on one of them.

2 Okay?

3 So, with that, I'll turn it over to George.

4 MR. BEAM: Thank you, Lew.

5 As Lew Myers said, I represent Framatone, the  
6 Nuclear Services Business. And I think you're aware,  
7 Framatone bought the former nuclear assets of the Babcock &  
8 ~~Wilcox~~ Wilcox Company, which I've been a part of for 20 years.

9 Babcock and Wilcox designed the original HPI system  
10 as part of the primary system that was delivered to  
11 Davis-Besse, and provided those pumps and motors under a  
12 subcontract. So, we have a lot of engineering analysis  
13 already in support of the existing systems. So, when this  
14 came up as a potential self-managed task where Framatone  
15 would come in and work with the FENOC assets, it was easy  
16 to work our engineering capability in with the FENOC  
17 engineering capability, because of all the past design  
18 information that we had.

19 The challenge is to, is pretty straightforward, in  
20 that we basically will take pumps and put them back into  
21 the same place. The challenge is that these pumps are a  
22 different design, the motors are a different design,  
23 hookups are different, so it's a little bit more of a  
24 logistical challenge or technical challenge than just a  
25 straightforward replacement.

1       We're currently performing the following scopes for  
2 the replacement; the complete engineering design and  
3 analysis, including a safety analysis. As Lew mentioned,  
4 procurement of replacement pumps and motors. The pumps  
5 right now are at a facility in Charlotte, North Carolina.  
6 The motors are in Texas, and they're going, undergoing  
7 teardown, where we're looking at what is required to do the  
8 modifications and upgrades.

9       We also have done photogrammetry on the penetration  
10 room to look at what modifications we're going to have to  
11 do, procurement of required piping and components and  
12 fixtures to go in there. Photogrammetry, you know, is the  
13 precision measurement capability used a lot in steam  
14 generator replacement to do precision fitups for narrow  
15 groove welding. So, basically, we're down to ~~mills~~ mils in  
16 trying to measure the interferences that are required to  
17 put these pumps in here.

18       We will remove the existing pumps and motors, which  
19 is not an easy task by any means. It's very tight quarters  
20 in this room. Removal of interferences. The installation  
21 of the replacement pumps and motors, which are slightly  
22 bigger than what the existing pumps and motors are. The  
23 final acceptance test and procedure. And then, participate  
24 in final acceptance testing once the pumps are  
25 operational.

1 Next slide.

2 The current status is, the project is being  
3 self-managed task. We're working now with FENOC to define  
4 self-managed from a standpoint of QA Program in Lynchburg,  
5 Virginia, and QA at the site to do the work. We have  
6 procured the two pumps and motors. As I said, they're in  
7 the OEM shops for upgrades and checkout.

8 It's a four-party transaction right now, between  
9 Westinghouse, Flow Serve, Framatone and FENOC in designing  
10 the final configuration. The pumps are a little bit  
11 larger, not much larger, but just a little bit larger, and  
12 the motors have a greater horsepower. So, we're having to  
13 work that into the whole analysis scheme to figure out  
14 exactly how we're going to run them between the diesel and  
15 heat loads.

16 The last bullet is just simply to say, these, the  
17 safety analysis, design and construction work is all,  
18 getting the pumps and motors is the easy part. Trying to  
19 figure out how to get them in this room and get them tied  
20 in together, and doing all of that work, is probably going  
21 to be the most challenging thing for this whole project.

22 That's currently what we're working on in parallel  
23 with the other options being worked on.

24 Any questions?

25 MR. THOMAS: Is it too early to

1 tell, you're going to have to derate the pump in some  
2 fashion. Have you decided on a method to do that; and as  
3 well, a motor may or may not have to be derated from a  
4 horsepower standpoint. Has that decision been made yet?

5 MR. BEAM: As a matter of  
6 fact, that phone call was happening this afternoon at 4:00  
7 to figure out the final configuration of both the motor and  
8 pump, between the electrical output and the heat load that  
9 goes on in that room, but we have not made a final decision  
10 on exactly what the final horsepower will be for the motor,  
11 or the pump output.

12 MR. THOMAS: Okay, thanks.

13 MR. BEAM: But it will be  
14 done this afternoon.

15 MR. GROBE: George, this is  
16 not really a question for you, but what you've described is  
17 a fairly complex engineering challenge, as well as a  
18 complex number of interfaces between different  
19 organizations.

20 Lew, it gives me an opportunity to ask a related  
21 question, thanks.

22 MR. MYERS: You're welcome.

23 MR. GROBE: Last December,  
24 individuals in your engineering organization surveyed a  
25 number of folks regarding the at-risk change process. And,

1 the question at that point was whether or not the extensive  
2 use of at-risk changes created a perception of production  
3 over safety. And there was a significant concern at that  
4 time that utilization of that process at the extent that  
5 was being done during this outage presented a challenge to  
6 the concept of production over safety and quality.

7 And more recently, during our inspection of the sump  
8 modification, we identified a number of issues regarding  
9 the quality of calculations, and those calculations were  
10 done by the subcontracted engineering firm, ~~Intercon~~ Enercon; and  
11 accepted through the ~~Intercon~~ Enercon review and approval process,  
12 and accepted through your review and approval process, and  
13 those problems weren't picked up.

14 I'm not sure if the at-risk change process  
15 contributed to that, but I would like to hear a little bit  
16 about the utilization of at-risk change at Davis-Besse and  
17 what you've learned from the experience with the sump  
18 modification and calculations, and where you stand on these  
19 issues?

20 MR. MYERS: You know, an  
21 at-risk change for us, you know, doesn't mean that the  
22 engineering is not done. What it means is, some of the, I  
23 would say the last part of the validation. So, there is a  
24 risk, financial risk of doing the at-risk change approach,  
25 you know. It is a more expedient process, but it doesn't

1 have all the rigor that a normal change process would  
2 have. And before you go to closure and use that, that  
3 component, you finalize that with normal mod process.

4 So, the checks and balances are in there to ensure  
5 that you don't put something in place that's not had the,  
6 the complete modification done, but it does put you some  
7 financial risk up front.

8 We've used that pretty extensively on the, many of  
9 the mods that we've installed to-date. What we're doing  
10 with this one, the approach is to do the test, the restart  
11 test that we talked about, NOP Test first. What that  
12 allows us to do, is take these pumps and the motors and  
13 make the necessary modifications and not use the at-risk  
14 change, because we would install the pumps and motors after  
15 the NOP Test.

16 So, on this particular change I wouldn't anticipate  
17 that we would be utilizing the at-risk change process.

18 MR. GROBE: Okay. Do you  
19 have any, maybe Fred, you can pipe in from the quality  
20 perspective, if you're aware of assessments that quality  
21 has done in this area. Do you have a sense of the level of  
22 challenge the at-risk change process presents to your  
23 organization?

24 MR. VON AHN: The at-risk change  
25 process, Jack, as you know is a generally accepted process

1 throughout the industry, and there are certain steps we  
2 take throughout that process that the product is not  
3 delivered and turned over and operationally accepted until  
4 all the I's or-- T's are crossed and the I's are dotted.

5 So, I'm not aware, I don't know, John, do we have  
6 any specific information on that?

7 MR. REDDINGTON: No, we have not  
8 done any correlation between any errors that we found in  
9 engineering and draw a correlation with the at-risk change  
10 process. We did bring that issue up ourselves from a  
11 quality standpoint early on, and, what we found is that  
12 they have the Engineering Assessment Board. There is  
13 checks and balances before even an at-risk change gets  
14 issued to the field. So, it does go through a certain  
15 level of rigor prior to the field guys giving it for  
16 implementation.

17 MR. MYERS: You asked the  
18 question last time about the calculation issue that we had  
19 on containment sump. I went back and looked. Now, my  
20 understanding, we had added up all the margins, we still  
21 had plenty of margin, but there was an issue there, I'm  
22 trying to remember what you call, the diffuser, that we had  
23 not taken in account for it in the calculation, but there  
24 was an issue.

25 I don't think that had anything to do with the



1 at-risk change. It really had more to do with the rigor  
2 that the vendor used in their validation process and how  
3 they, two things; how the vendor, when they developed the  
4 mod, where they got the, some of the information from. The  
5 sources of information, we found some other numbers that  
6 were not as on conservative active as we would like, and  
7 one of the accumulators.

8 So, we found several problems as we went through  
9 that validation process with the vendor and some of the  
10 numbers not being as rigorous what we would like.

11 Additionally, what they have is, that we pay them to  
12 do, was the validation process. They hand that off to  
13 another engineer, that other engineer validates that  
14 calculation as a thorough and adequate calculation. You  
15 know, that vendor controls, in this particular mod, I  
16 think, it's an issue more than the at-risk change process.  
17 Because it was, when we were reviewing, what you were  
18 reviewing as organization was a final product.

19 MR. GROBE: What have you  
20 done to strengthen your owners acceptance on vendor work  
21 products since the sump issues came forward?

22 MR. MYERS: You know, we  
23 tried to strengthen our reviews in-house. We've also tried  
24 to strengthen our engineering oversight review board  
25 reviews, some additional criteria there, where we've gone

1 back and tried to look at the mod calculation. We had  
2 owners acceptance. Owners acceptance is not a  
3 comprehensive review of the calculation. We're  
4 strengthening that also.

5 If you want to discuss that in great detail, I need  
6 to get Jim Powers involved.

7 MR. GROBE: Right, I didn't  
8 see him in the audience here with you.

9 MR. MYERS: No, he'll be with  
10 you tomorrow. Ask him that question.

11 MR. GROBE: Yeah. You had a  
12 number of complex engineering issues that you're beginning  
13 to bring to closure and a lot of engineering work is being  
14 done by subcontracted organizations. I think it would be  
15 useful to hear a little more about this subject at our next  
16 meeting.

17 MR. MYERS: We can add that to  
18 the agenda next time. Be glad to.

19

20 MR. COWARD: Hi, I'm Bob  
21 Coward. I'm with MPR Associates. MPR, I guess we're an  
22 engineering company formed about four years ago by Harry  
23 Mandil, Bob Panoff and Ted Rockwell. They were the three  
24 chiefs that built independence working for Admiral Rickover  
25 in the design and construction of the Nautilus and then

1 shipping port.

2 I think, you know, we provide a wide variety of  
3 engineering services in the nuclear industry, with the  
4 common theme being the concept of trying to take the rigor  
5 and depth and quality of the naval reactor's approach to  
6 engineering and apply it to commercial industry. So,  
7 that's sort of where we're coming from.

8 FirstEnergy asked us to take a look at this issue,  
9 the HPI pump issue, just because it's a fairly complex  
10 issue, and, you know, all the solutions seem to be  
11 difficult.

12 And, I guess, and also the idea that the pump we  
13 have works well. So, what we looked at was the idea of,  
14 rather than replace the pump, can we come up with an  
15 approach in which we modify the pump, so the postulated  
16 degradation mechanism won't occur. So we can be confident,  
17 a hundred percent confident, that in the event of a loss of  
18 coolant accident the pump will work acceptably.

19 Which given, I can just tell you my own personal  
20 opinion, we know several other people, pump experts who've  
21 looked at the pump, who think there is a very good chance  
22 that the pump would work as is even without modifications.  
23 But in order to be sure, in order to be safe, we want to  
24 make sure we have sufficient safety margins in the plant.  
25 The idea was, we would come up with a design approach to

1 modify it to get that level of confidence.

2 And, I'm going to show you in just a moment what the  
3 concept is, just so people, because people haven't seen it  
4 before, but basically, what it comes down to, the approach  
5 we laid out involves a number of steps. The first is to  
6 design modification. We do have to make some modifications  
7 to the pump itself.

8 Our approach involves not just modifications to the  
9 pump, but a rather detailed testing approach, using both  
10 mockup testing and some testing in the plant, to  
11 demonstrate that the approach is acceptable and the  
12 modification performs its intended function, and the pump  
13 would work acceptably under the design conditions.

14 We also have some analyses that we do to support the  
15 modification. We'll do some motor dynamics analysis to  
16 show the pump will still function properly; we won't have  
17 vibration problems; won't run at critical speeds.

18 We do some hydraulic analysis to demonstrate that  
19 the changes we're making won't affect the ability of the  
20 pump to perform its intended function from a pumping  
21 capability perspective. And since we're making some  
22 modifications to the pump; not the, what I'll call, ASME  
23 code pressure boundary parts, but there are parts in the  
24 pump in which would be, that do react a pressure  
25 difference. Since we're making modifications to them, we

1 want to do some stress analyses to confirm that the stress  
2 levels remain acceptable.

3 We've already done the preliminary versions of all  
4 those analyses. I'll talk about that later. But, moving  
5 forward, we have to do the final versions.

6 We would do the mockup testing. We'd implement the  
7 modifications, and once again, do a post modification test  
8 program to ensure everything worked out okay.

9 If I could get the next slide, Marla. Just to get  
10 everybody, make sure everybody is on the same page.

11 This is the fourth stage pump volute from the  
12 Davis-Besse HPI pump. This piece right here, this  
13 component is stationary inside the pump. It's a stationary  
14 part of the element. And, the pump is a multi-stage pump.  
15 I think there is 11 stages within the pump. This is the  
16 four stage.

17 And, if you look carefully, there is a hole there  
18 and hole there. Those are the take-offs for the flow which  
19 goes from this volute back to the hydrostatic bearing  
20 supply. And, that's sort of, you know, the flow is inside  
21 here, goes out that hole to the bearing, basically coming  
22 out this hole. They're 180 degrees apart; same basic  
23 function. And this hole is about 3/8 of an inch in  
24 diameter.

25 The tubing back to the bearing has an orifice in it,

1 which is only about 110 ~~mils~~ mils, .11 inches in diameter. And  
2 there are some clearances in the bearing itself, which are  
3 only I think about 15 ~~mils~~ mils. And so, given that the sump  
4 screen is about 3/16 of an inch, the mesh; clearly, I could  
5 get particulate into pump flow, which could plug not this  
6 hole, but could plug the orifice and could plug those  
7 clearances.

8 So, this is sort of what we start with. And, we say  
9 to ourselves, well, what are we trying to do? We're trying  
10 to keep debris from going down that hole, because if we can  
11 keep it out of that hole, the pump should work acceptably.

12 So, if I could get the next slide, Marla.

13 The concept we've come up with, and I apologize,  
14 we've sort of, for the hole in the top, this is a backwards  
15 view. This is a see-through, looking at the hole in the  
16 bottom right corner from the last slide.

17 The concept we've come up with is to basically go in  
18 and create a recess or small excavation on the volute,  
19 just enough room to allow us to put a strainer on the  
20 surface. If you want to think of it this way, it's  
21 essentially just another sump screen, just like inside  
22 containment.

23 This strainer has a considerable number of smaller  
24 holes, such that the overall flow area through the stainer  
25 is much larger than the port size, so that they prevent

1 getting debris through the hole into the port; and also a  
2 size, so in the event 90 percent in our concept, even if 90  
3 percent of these holes got blocked with debris, we would  
4 still have satisfactory bearing operation.

5 And by inserting this screen basically flush with  
6 the surface, one of the key advantages this approach offers  
7 is that the pumped flow itself is going to make this sort  
8 of naturally clearing. We expect that what's going to  
9 happen as the pump is pumping, to use a phrase, it will be  
10 self-flushing. Any debris which is filtered by the  
11 strainer will just get retrained in the pump flow and  
12 pumped right back into containment into the sump.

13 So, some of the earlier question, some of the  
14 earlier design concepts from a month or two ago, which had  
15 various filters and strainers installed outside of the pump  
16 itself, they had the problem of how do I get the  
17 particulate, filter particulate back into containment.  
18 This approach solves that problem by never letting it get  
19 out of the main pump flow.

20 So, if I could get the next slide, Marla.

21 It turns out, as Mike talked about before, one of  
22 the issues that is still being resolved, is cyclone  
23 separators on the low pressure injection pumps. Well, it  
24 turns out there is a very similar issue on the high  
25 pressure injection pumps.

1           If I remember correctly, I think the LPI pumps, it  
2 was found as the ~~extended~~ extent of condition on this one, where  
3 there is a cyclone separator in the flow path from the  
4 pump, pumped fluid back to the pump seal. And then in this  
5 design, this is a different location on the pump, but that  
6 right there, is a flow port through the pump casing itself,  
7 going out to the cyclone separator.

8           That is only about an 8th of an inch in diameter;  
9 smaller than the 3/16 inch sump screen. So, theoretically,  
10 I could also plug the intake to that port. So, the design  
11 concept is to take the same kind of approach where I take  
12 this strainer, I'm going to create a slight recess in that  
13 pump part, and install that over the flow path of the  
14 cyclone separator.

15          And, we believe that those modifications would  
16 work. We're very confident they can be made to work.  
17 We're confident that the strainers will be self-flushing.  
18 We've had discussions with the pump vendor. We've had  
19 discussions with other pump vendors to confirm those  
20 assumptions, and everyone is very confident.

21          So, what we would do is, we would do those  
22 modifications; and in parallel, we would go through a  
23 rather extensive testing, mockup testing procedure, to  
24 verify the pump will still function properly and the  
25 bearing will still work.



1           So, in terms of -- the next slide, Marla -- sort of  
2 where we're at, what's the status.

3           MR. SHERON:           Bob, before you go  
4 on, how do you hold those strainers in place? Are they  
5 welded in or what?

6           MR. COWARD:           As of right now,  
7 that concept is welded, but that's not been finally  
8 determined yet.

9           Where are we at? We have conceptual designs for  
10 the modification and the mockup fixtures. We actually need  
11 four or five different mockup fixtures to fully demonstrate  
12 the satisfactory satisfaction of this modification.

13          We've done preliminary analyses. We've done  
14 preliminary rotor dynamics analysis, preliminary ~~hydraulic~~ hydraulic  
15 analysis, and preliminary stress analyses. So, we've done  
16 the preliminary analyses, and we're in the process now of  
17 getting ready to do the final analysis.

18          At this point, sort of the key activity we're  
19 working on that we're just starting in the last few days is  
20 the detailed procedure and specification of the mockup  
21 testing. We think that's critical to demonstrating the  
22 success of this approach.

23          In particular, as an example, one of the things we  
24 have to come up with, is we have to come up with a recipe  
25 for the soup. I think people have used that phrase, where

1 we want to demonstrate that the hydrostatic bearing will  
2 still function properly with the strainers installed. And  
3 so, one of the things we have to do for our mockup testing  
4 is, we have to load the pump flow path with debris, which  
5 would, you know bound, considerably bound the type of  
6 debris we would expect to see in the plant following the  
7 LOCA.

8 So, that activity is in process right now to come up  
9 with that approach and we're confident we can do that.  
10 There has been a lot of work done by, you know, sponsored  
11 by the NRC in the last 20 years, plus there's been a lot of  
12 work done specific for Davis-Besse in the last year looking  
13 at the regeneration and retransport within containment  
14 within the sump.

15 And so, other than developing a test specification,  
16 you know, we're also finalizing the detailed designs for  
17 the modification and mockup testing fixtures.

18 MR. GROBE: When you say  
19 mockup testing fixtures, you're not actually going to use  
20 the pump?

21 MR. COWARD: No, what we found  
22 was, it was impractical to test this, although we think the  
23 pump would pass, it was impractical to test the pump, the  
24 actual pump.

25 Trying to take the pump out, take it to a test

1 facility, and test it with debris, given it's contaminated,  
2 was sort of, you know, it wasn't a nonstarter, but it was  
3 close. And, we don't want to test the actual pump with  
4 debris, because we don't want to introduce debris into the  
5 plant.

6 So, what we've come up with, it's actually a  
7 sequence of separate effects touch testing with some  
8 collective testing at the end to show that all the various  
9 features and portions, items of interest will still be  
10 acceptable.

11 MR. ZWOLINSKI: Bob, have you ever  
12 encountered an issue such as this before?

13 MR. COWARD: Such as?

14 MR. ZWOLINSKI: The problem with  
15 this HPI pump.

16 MR. COWARD: This specific  
17 problem?

18 MR. ZWOLINSKI: This, or something  
19 like it?

20 MR. COWARD: No.

21 MR. MYERS: Let me ask him a  
22 question. Is this same approach used elsewhere in pumps?

23 MR. COWARD: We've done some  
24 surveys; and clearly, the concept of installing a strainer  
25 in a flow line to the hydrostatic bearing is not unusual,

1 that's a common design approach. Installing it in the pump  
2 itself where we're installing it is not, I'm not sure if we  
3 found a specific application of that design; however, we've  
4 spoken with pump designers and pump vendors, and they've  
5 agreed there is no reason it shouldn't work.

6 MR. ZWOLINSKI: Are you far enough  
7 along with your thinking that you would be able to do this  
8 in place; or would you have to move the pumps?

9 MR. COWARD: That's mostly a  
10 workmanship issue. We would want to have people who are  
11 very good at doing pump breakdown and maintenance do this;  
12 and our expectation is they prefer to do that in a  
13 controlled setting, rather than in the pump room.

14 MR. MYERS: That's right.

15 MR. ZWOLINSKI: So, if you  
16 embarked on this particular fix, you would probably be  
17 taking the HPI pumps out of that room?

18 MR. COWARD: We would be taking  
19 the -- I'm not sure, are you familiar with the design of  
20 these pumps?

21 MR. ZWOLINSKI: Yes.

22 MR. COWARD: There is an  
23 element that's inserted into the casing.

24 MR. ZWOLINSKI: Um-hmm.

25 MR. COWARD: The element which

1 is inserted in, the pump part, the guts, we will be  
2 removing that component from the pump room; yes.

3 MR. MYERS: Not the whole  
4 pump.

5 MR. COWARD: Not the whole  
6 pump.

7 MR. ZWOLINSKI: I was trying to  
8 garner a sense of the amount of work required to get after  
9 that particular pump.

10 MR. COWARD: We had four people  
11 do walkdowns of the pump removal last Thursday and Friday.  
12 They were in there all day. And their conclusion at the  
13 end of the two days was they had developed an approach for  
14 taking the pumps out. There is some effort involved, yes,  
15 but they're confident they can do it.

16 MR. GROBE: Do you have a  
17 sense of the relative flow rates to these two ports?

18 MR. COWARD: Oh.

19 MR. GROBE: Just in rough  
20 terms. I would imagine it's fairly low.

21 MR. COWARD: Yes. The one to  
22 hydrostatic bearing, I think is measured in less than 10  
23 gpm. If I remember correctly, the one to the cyclone  
24 separator I think is only 1 or 2, but don't quote me on  
25 that.

1           MR. GROBE:       And in the, what  
2 you call soup in the concoction for the soup, the recipe  
3 for the soup.

4           MR. COWARD:       Yes?

5           MR. GROBE:       Are you  
6 considering the hardness of the materials as well as the  
7 physical size?

8           MR. COWARD:       Yes.

9           MR. GROBE:       I would think  
10 that would be a critical component.

11          MR. COWARD:       That's, yes,  
12 that's in the full parameter; it's the size, the shape, and  
13 the hardness.

14          MR. GROBE:       That's an  
15 interesting challenge.

16          MR. COWARD:       Yes. The whole  
17 project is.

18          MR. PASSEHL:      Yes, I have a  
19 question.

20          MR. SHERON:       I'm sorry. We  
21 would probably like, once you firmed it up, learn a little  
22 bit more about your separate effects test that you want to  
23 run, in terms of how it would appear or compare with, say,  
24 the integral test, because my understanding is you don't  
25 plan on doing an integral test; right?

1           MR. COWARD:       Not of the whole  
2 configuration, no. And, also, we already recommended to  
3 FirstEnergy that as part of the approach in the near term,  
4 although we feel very confident that this can be made to  
5 work, we also recommended to FirstEnergy that we suggest  
6 that they assemble a small team of experts, you know, a  
7 murder board, just to go through the whole concept to make  
8 sure that nothing has been missed.

9           MR. MYERS:       We have to talk  
10 about Safety Conscious Work Environment, to use a different  
11 term.

12          MR. GROBE:       I'm not sure I  
13 heard you, Lew. Your mike wasn't on.

14          MR. MYERS:       We would use a  
15 thorough, rigorous hearing board, rather than a murder  
16 board. I've got to do a safety conscious work environment,  
17 okay?

18          MR. COWARD:       Sorry, Lew.

19          MR. GROBE:       You don't have a  
20 spare pump, spare HPI?

21          MR. MYERS:       We have a spare  
22 rotating assembly, but we don't have a whole pump, no.

23          MR. GROBE:       So, you really  
24 don't have the capability of doing integrated testing?

25          MR. MYERS:       That's correct.

1 MR. COWARD: The spare was  
2 actually removed from the plant last year, so it's  
3 contaminated.

4 MR. MYERS: If you go look at  
5 the testing, what we would be doing though, and compare  
6 that, we would have more testing of this type than I think  
7 anyone in the industry for this particular application.

8 MR. ZWOLINSKI: I believe I heard  
9 one of you gentleman say something to the effect that a  
10 number of industry experts have looked at this particular  
11 pump and associated scenario, and call into question the  
12 need for any change whatsoever.

13 MR. COWARD: Correct.

14 MR. ZWOLINSKI: So, you all are  
15 talking about a lot of effort whatever way you go. The  
16 third option of not doing anything is off the table?

17 MR. MYERS: That's not  
18 something we have on the table at all now; not doing  
19 anything. No. It's off the table.

20 MR. ZWOLINSKI: So, you've  
21 concluded that, that you disagree with these experts and  
22 you want to go forward with one of these, at least two  
23 options, and whatever else you may come up with?

24 MR. MYERS: I think, I think  
25 it's important that we, we look at these options. Either



1 one of these two options gives us a very good, thorough and  
2 rigorous approach to make sure that the quality of our  
3 pumps for these designated efforts, the quality of our  
4 pumps would ensure good reliability.

5 And I think it's important that since we've had the  
6 issue, that rather than just have an opinion, that we go do  
7 something to improve the over, ensure that we have that  
8 reliability.

9 So, really, our intention right now is one of these  
10 two approaches now. The idea of doing nothing is not  
11 something we considered. I think that's correct; isn't  
12 that right, Gary?

13 MR. LEIDICH: That's right.

14 MR. MYERS: We believe the  
15 pump would work as is. We believe that. But we, you know,  
16 it would be very difficult to really validate. We think  
17 this approach would give us pretty thorough validation.  
18 And, also, the new pump installation, the way we're  
19 designing the new pump with the hardnesses, and the, the  
20 amount of clearances would give us a very good reliability  
21 too. So, both approaches are pretty sound.

22 MR. RULAND: As I understand  
23 it, you'll need to submit a license amendment for only one  
24 of these options; is that correct?

25 MR. MYERS: No, that's not,

1 that's not true. It depends on the, the approach we take  
2 for installation.

3 One of the things, if our Mode 4 Test slipped out,  
4 there were some technical issues, that would probably go  
5 ahead and make the modification or install the pump, one of  
6 the two.

7 But, you know, right now, the way we're looking at  
8 the situation, the Mode 4 Test, assuming it's near term,  
9 gets rid of a ton of issues. I mean, it ensures that  
10 equipment is working properly. It allows us to do a lot of  
11 PMT testing. Allows us to ensure the head we bought  
12 doesn't have any leaks in it, you know. There is a lot of  
13 components up there, and gaskets and stuff.

14 So, if you look at what the NOP Testing does, it  
15 allows us to do a bottom head inspection, ensure that we  
16 don't have any leaks there. So, assuming we can do that in  
17 the near term is something that we would go forward with.

18 MR. PASSEHL: I just had another  
19 question. You mentioned there is, you believe there is a  
20 self-limiting feature on the screen that would flush  
21 itself. Is part of your mockup testing intended to verify  
22 that?

23 And the second part of my question is, you mentioned  
24 a 90 percent debris loading where you feel you would still  
25 have the adequate loading to the bearing. Would your

1 mockup testing verify, you know, at what point your screen  
2 could be loaded and have debris on it and still have the  
3 proper flow to the bearing?

4 MR. COWARD: The mockup, the  
5 tests concept as we pointed out so far, would clearly  
6 validate that the strain, the strainer is self-flushing. I  
7 mean, that's a critical element of the whole approach. If  
8 we can't show that, then we can't show the thing will  
9 work.

10 And the second is, at this point, we had not planned  
11 on doing what I'll call the limit test, where how much can  
12 we block before the hydrostatic bearing stops working  
13 properly. We had planned on basically just demonstrating  
14 the 90, 95 percent blockage, it will still work properly.  
15 I guess, so, we're not, I don't know the firm answer to  
16 that question yet.

17 MR. PASSEHL: Okay, thank you.

18 After this section, and before Mark starts, we would  
19 like to take a ten minute break. Everybody gets a chance  
20 to stretch their legs.

21 MR. MYERS: I was going to  
22 suggest that.

23 MR. PASSEHL: Okay. So, 20  
24 minutes until, we'll reconvene.

25 (Off the record.)

1           MR. PASSEHL:       Okay, next on the  
2 agenda is Mark Bezilla.

3           MR. MYERS:        You know, before  
4 you start, we were talking about the pump. And you know,  
5 if the no option was an option. I guess overall I thought  
6 about it during the break talking to Gary.

7           I think it's an issue that we have to address. And,  
8 I think from a Safety Culture standpoint, that we might be  
9 from an analysis process to demonstrate, or from an  
10 analysis standpoint, we think it's okay.

11          But we can gain a lot of margin by either installing  
12 a new pump or the mods to ensure the pump operates these  
13 couple of small scenarios in a very reliable manner. So,  
14 it's our intention at this time, you know, to go forward  
15 with one of the two options; and I validated that here for  
16 you. Okay.

17          MR. ZWOLINSKI:    Thank you.

18          MR. BEZILLA:       Okay, thank you.

19          I've got two Desired Outcomes today. First, I would  
20 like to tell you a little bit about my previous and current  
21 Davis-Besse experience. And also, I would like to present  
22 some of our recent Operations Section's accomplishments and  
23 our status on readiness for restart in the Operations  
24 Section.

25          As Lew stated, I was previously at Davis-Besse

1 during 1987, 1993 time frame, and I held an SRO, Senior  
2 Reactor Operator's License at Davis-Besse. I was a shift  
3 supervisor, and then I was the Op. Superintendent. And as  
4 Lew said, I had a couple of other stops on my way before I  
5 ended up at Beaver Valley as the Site Vice President about  
6 twelve months ago.

7 In my new assignment as Vice President at  
8 Davis-Besse, as well a Plant Manager, I'm excited about the  
9 opportunity to restore Davis-Besse to safe, reliable  
10 service. And even though I was a Site Vice President at  
11 Beaver Valley, I have been involved in the Davis-Besse  
12 restart activities for about six months or so.

13 Lew asked me to sponsor the Restart Readiness Review  
14 Process for Davis-Besse. I helped create the process and  
15 was involved in the Restart Review Meetings prior to Mode 6  
16 and Mode 5. And this involvement helped me get up to speed  
17 on some of the challenges and issues.

18 Let me now shift gears and tell you about some of  
19 the recent Op. Section accomplishments and our status on  
20 Readiness for Restart.

21 We have developed and implemented Operations and  
22 Operations Leadership Plan. And, what we did was, we had  
23 the Institute of Nuclear Power Operations come in and do an  
24 assessment of Operations, as well as a number of internal  
25 assessments.

1       We bundled up those assessments and came up with,  
2 I'll say, an improvement plan. And we've accomplished  
3 about 90 percent of those actions to improve our  
4 performance; and there is about ten percent that will be an  
5 ongoing activity for us. We suspect it will take about 12  
6 to 18 months to finish out those actions.

7       We've developed and implemented a comprehensive  
8 Expectations and Standards document. We trained all our  
9 operators on the Expectations and Standards, and we use  
10 shift turnovers to reenforce specifics out of those  
11 Standards and Expectations on a daily basis.

12       We've issued an Operations Leadership Statement;  
13 and what this is, I'll say, it's Management's expectations  
14 for the Operations leadership and the requirements for an  
15 operationally focused and operationally led site.

16       We've expanded the Operator Observation Program.  
17 What we want from each of our on shift Senior Reactor  
18 Operators is a minimum of eight observations a month. And  
19 we use these observations to watch our people, watch their  
20 behaviors and performance, and then coach those folks on  
21 those areas that need to be improved with the overall goal  
22 being the improved performance.

23       We've completed an NRC Appendix R Fire Inspection.  
24 And, some of the positives that were noted out of that  
25 inspection was that the plant support was recognized as a

1 positive in support of that inspection. The NRC also  
2 acknowledged that our self-assessments had been pretty  
3 thorough in regard to Appendix R and fire protection. And  
4 the NRC recognized our documentation process and website as  
5 a good configuration management tool.

6 Additionally, out of that inspection, there were a  
7 handful of questions that were asked that we've entered  
8 into our Corrective Action Program. We need to do some  
9 follow-up, and we will have interface with the staff to  
10 provide answers to those questions.

11 MR. GROBE: Mark, I  
12 appreciate you bringing up that inspection. Let me just  
13 provide some additional detail on that.

14 We have a routine inspection program called The  
15 Baseline Program; and that includes once every three years  
16 performing a very comprehensive design inspection. We  
17 always talk about this as fire protection, but it's really  
18 not fire protection per se, it's more focused on the  
19 ability to safely shut down and maintain the plant in a  
20 safe configuration in the event of a fire in various areas  
21 of the plant.

22 Davis-Besse was due for that inspection prior to  
23 restart. And as I mentioned, it's a very intensive  
24 inspection. And we evaluated the need for that inspection,  
25 and concluded that what we wanted to do was perform a kind

1 of a scoping effort, where we brought in three engineers  
2 that are expert in this area for a week and ran you through  
3 your ~~bases~~ paces. And the results of that inspection were fairly  
4 positive.

5 We concluded we don't need to do the Intensive  
6 Design Inspection prior to restart. We'll put that in the  
7 schedule for calendar year '04.

8 But what we did find, one issue, the panel received  
9 the results from the team in one of our internal meetings,  
10 and concluded that we don't need to do that full inspection  
11 prior to restart; but there was one issue that's  
12 outstanding that we need to come back and look at prior to  
13 our ability to close out that Restart Checklist item, and  
14 that's the firm hydraulic calcs that we expect to be done  
15 prior to us arriving on site. They weren't completed.

16 So, once those calculations are completed, if you  
17 make sure we are aware of that, and we'll schedule time to  
18 come back to take a look at those analyses.

19 MR. BEZILLA: Thank you. We'll  
20 do that.

21 Okay, Significant Training Accomplishments.  
22 Through the shutdown period here, we've continued our  
23 operator requalification training, and I think that's a  
24 positive.

25 Also, we've successfully completed the annual



1 requalification training and testing for all of our  
2 operators, both licensed and nonlicensed; and we did have a  
3 couple of failures, but we successfully remediated those  
4 individuals.

5 We completed License Operator Responsibilities  
6 Training. What this was, we provided training to the  
7 operators on what a Nuclear Regulatory Commission ~~issue~~ issued  
8 Senior Reactor Operator/Reactor Operator License meant to  
9 them personally, and we completed that training.

10 We also completed Operability Determination Program  
11 Upgrades and Training for our Senior Reactor Operators,  
12 select engineers and some select support staff that deal  
13 with Operability Determination. And as part of our  
14 upgrades, we used industry peers to help us upgrade our  
15 Operability Determination Process.

16 A couple of plans for going forward in regard to  
17 operator training; we're in the process right now of doing  
18 a Just-In-Time Training on our heatup to Mode 3, our hold  
19 at normal operating pressure and temperature, and then  
20 subsequent cooldown, as well as some casualty and  
21 contingency plans that may be encountered during those  
22 evolutions.

23 MR. THOMAS: Mark, I would be  
24 interested in hearing what having an SRO license means to  
25 you personally. What your viewpoint on that is?

1           MR. BEZILLA:        Okay. I have had  
2 the opportunity to have two Senior Reactor Operator  
3 Licenses; one was on Three Mile, as you know, back in the  
4 early 80's; and Davis-Besse, back in the late 80's, early  
5 90's.

6           The way I look at it, that was you all, the federal  
7 government, giving me permission to operate and oversee the  
8 operations of that facility, if you will.

9           I would say it's a lot of responsibility and  
10 authority. What it means to me is that I'm, as a Senior  
11 Reactor Operator holder, I'm imbued, I would say, with the  
12 responsibility of protecting the health and safety of the  
13 public. So, first and foremost, is making sure I'm  
14 operating that facility in a safe manner, so I would not  
15 challenge the health and safety of the public. Then, of  
16 course, I want to be as safe and reliable as possible.

17           MR. THOMAS:        Thank you.

18           MR. BEZILLA:        Back to the  
19 training that we're doing. The simulator instructors and  
20 evaluators; they're going to emphasize a few things for  
21 us. These are things we think are real important to, I'll  
22 say, successful error-free operations. And, that's proper  
23 communication techniques, Senior Reactor Operator command  
24 and control responsibilities, use and compliance of  
25 procedures, focus on technical specification compliance,

1 to reinforce other operation's expectations and standards,  
2 and thorough prejob briefs.

3 In addition, the training scenarios will closely  
4 match the planned evolutions to make sure that our guys are  
5 seeing how the plant is going to respond during the heatup,  
6 during the hold, and during the cooldown.

7 The operation superintendents will also evaluate  
8 each of those sessions and then provide coaching on areas  
9 that we can improve at the end of those training sessions.

10 And, finally, I would like to talk a little bit  
11 about some Operations led major evolutions since the  
12 beginning of the year. Since the beginning of the year,  
13 Operations has successfully conducted the following major  
14 evolutions; integrated electrical bus testing, and there  
15 were four tests that the guys performed. Integrated safety  
16 features actuation system testing. There were two separate  
17 tests there. Reactor Coolant System fill, drain, refill,  
18 and then pressurization here to 50 pounds to do our initial  
19 leak checks in the reactor coolant system, and  
20 comprehensive high pressure injection testing on both  
21 pumps.

22 The reason I mention those, is that those are fairly  
23 complicated integrated type of tests and it requires a lot  
24 of coordination between the Operations Department, as well  
25 as some other support organizations from the site.

1 Next slide, please.

2 Industry Feedback. I would like to spend a minute  
3 just to let you know about some of the industry feedback  
4 we've gotten in the Operations sections. The Institute of  
5 Nuclear Power Operation has made three assist visits to  
6 Davis-Besse. Two of them were specifically focused on  
7 Operations, and one of them was a site, I'll say, visit;  
8 and that site visit had twelve senior management members  
9 from other nuclear facilities as well as senior ~~INPO~~ INPO  
10 personnel.

11 Additionally, there were seven Operations assessment  
12 conducted by various management level personnel from other  
13 nuclear power stations. And you can see some of the power  
14 plants up there on the slide.

15 Then, lastly, the FENOC Corporate Nuclear Review  
16 Board Operations Subcommittee has recently performed an  
17 assessment of the plant looking particularly at Operations  
18 Department Readiness.

19 Next slide.

20 Some of the positives we received from those bodies  
21 that were taking a look at us; was that the "Shift Managers  
22 are stepping up to their new leadership roles." This is  
23 best evidenced by their challenging of engineering  
24 conclusions; physical involvement in an observation of  
25 field activities, most recently in some maintenance and

1 refuel sequence activities; pursue the plant proper  
2 resolution, and their ability to articulate their role.  
3 "Standards are equal to or above industry norms."  
4 Operations is being recognized as the site's lead  
5 organization.  
6 "Ownership of equipment in plant is improved."  
7 "Vertical alignment in Operations is very good."  
8 And, "Every interviewee complimented the greatly  
9 improved management attitude toward, and expectation to  
10 identify problems."  
11 Lew will talk a little about Safety Conscious Work  
12 Environment, but that's what that's talking about.  
13 Next slide, please.  
14 The industry also left us with some areas of  
15 opportunities. I'll say these are the highlights. They  
16 said, we need to work on "Establishing consistent  
17 implementation of the Expectations and Standards when  
18 stressful situations occur."  
19 What this is, we want our operators to behave the  
20 same way in a stressful situation as they do in a routine  
21 situation. We want habits and behaviors to be second in  
22 nature. We need to work on that.  
23 We need to "improve facility housekeeping", overall  
24 cleanliness. We just can improve in that area.  
25 "Improve use of Pre-job Brief Checklist" for routine

1 activities.

2 There are opportunities to improve in our three-way  
3 communication; and the implementation of our procedures is  
4 not always consistent with our standard. So, they saw  
5 areas and provided us feedback on procedure use and  
6 appearance.

7 The last slide, please.

8 MR. GROBE: Mark, before you  
9 go onto the last slide, were those last three issues  
10 related to stressful situations or are those separate  
11 issues?

12 MR. BEZILLA: Randy or Mike?

13 MR. STEVENS: Separate.

14 MR. BEZILLA: Separate issues.

15 MR. GROBE: Okay. What  
16 specifically are you talking about when you talk about  
17 consistent implementations of inspection, expectations and  
18 standards in stressful situations; what other observations  
19 were made that, where the operator's performance slipped,  
20 what areas did it slip in?

21 MR. BEZILLA: Lew would like to  
22 answer this.

23 MR. MYERS: There was some  
24 indications present when we were running drills in our  
25 simulator that our operators didn't, could have proofed the

1 plant more quickly than they did. There was some  
2 reluctance to, quickly to do that. So, we're going back  
3 and reenforcing that standard that, you know, if you're  
4 down, go to a conservative approach. So, that was one  
5 indication that they taught us.

6 They also indicated that, that three-way  
7 communication sometimes let down, while we were on duty.  
8 So, those are the kinds of feedback we got.

9 MR. GROBE: I understand now,  
10 I think. These were training induced stressful operations,  
11 stressful situations.

12 MR. MYERS: Right.

13 MR. GROBE: So, the rest of  
14 the findings were field work and that first finding was  
15 training oriented. Okay, got it.

16 MR. BEZILLA: Yes.

17 Okay, then this last slide.

18 Just like a minute to talk about continuing  
19 improvement plans within the Operations sections. We're  
20 continuing our Just-In-Time Simulator Training; and that's  
21 the heatup, hold at pressure, and then depressurization.

22 We're going to complete our assigned actions from  
23 the Ops Section's Business Plan, that's that ten percent of  
24 the improvement plans that are going to take us 12 to 18  
25 months to complete.

1           We're going to have continued emphasis on Safety  
2 Culture and a robust Safety Conscious Work Environment.

3           We're going to continue to coach the operators in  
4 establishing their ownership role at the site.

5           MR. THOMAS:           Mark, could you  
6 expand on that one a little bit?

7           MR. BEZILLA:           Yeah. That's just  
8 we need to continue to reinforce, I will say, Ops  
9 leadership and Ops ownership at the site. I'll give you  
10 example today.

11          We had an activity planned to stroke a motor  
12 operated valve. And the on-shift SRO took a look at that,  
13 and based on the current plant conditions he said, I'm not  
14 sure if this is the right thing to do or the right time to  
15 do that. He raised that up through his Ops management  
16 chain.

17          They made the decision not to proceed with that  
18 activity. Then he went and provided coaching to the  
19 scheduling organization, provided them feedback on why they  
20 had decided not to do that evolution. And they thought  
21 there would be a better opportunity to do that the next day  
22 or two.

23          So, that's the kind of leadership we're looking for  
24 from our operators.

25          MR. THOMAS:           When you say



1 operators, what does that include?

2 MR. BEZILLA: That includes  
3 Senior Reactor Operators, Reactor Operators, and the Field  
4 Equipment Operators.

5 MR. THOMAS: Thank you.

6 MR. BEZILLA: We're going to  
7 take look at our secondary plant startup plan and make sure  
8 if there is any additional training that we need to provide  
9 to the operators, that we will do that.

10 And then, lastly, I think this is a good news story  
11 here. We're going to be recommencing the initial Senior  
12 Reactor Operator and Reactor Operator License Class, and  
13 that's scheduled for the June time frame. And that's  
14 making the next group of operators for us; and that takes  
15 anywhere from, I'll say, 15 to 18 months to complete that  
16 training course. So, I think that's a real positive for  
17 us.

18 So, that concludes my remarks. Any questions?

19 MR. ZWOLINSKI: Mark, focusing in  
20 the control room, are there very many workarounds in the  
21 control room?

22 MR. BEZILLA: Mike, would you  
23 answer that for me, please?

24 MR. RODER: There are  
25 currently seven workarounds, all scheduled to be completed

1 prior to startup.

2 MR. MYERS: Gentlemen, we've  
3 been through our A-1 systems, our operator workaround, our  
4 temporary mods. Right now, I believe every one of those  
5 three, every one of those issues will be completed prior to  
6 startup and on schedule.

7 Is that correct, Mike?

8 MR. RODER: That's correct.

9 MR. THOMAS: So, you'll start  
10 up with no level one workarounds; is that a correct  
11 statement?

12 MR. MYERS: That's what I  
13 said.

14 MR. THOMAS: That's why I asked  
15 if that was a correct statement.

16 MR. MYERS: All the ones we  
17 know about we will solve. We could gain another one during  
18 the startup.

19 MR. THOMAS: Based on what you  
20 know now, the plant is not to startup with the current.

21 MR. MYERS: That's correct.

22 MR. ZWOLINSKI: I guess I asked  
23 the question in the context, if there were a lot of  
24 workarounds in the control room, have they been mimicked  
25 over on the simulator, but if you don't have many, and it

1 sounds as if you're essentially having zero, then the  
2 simulator reflects the control room as you expect it to be,  
3 and you are ready to restart.

4 MR. MYERS: That's a standard  
5 we would expect. If we have a temporary mod or it's a long  
6 term temporary mod or an operator workaround, we would  
7 mimic it during training.

8 MR. ZWOLINSKI: Thank you.

9 MR. GROBE: During February  
10 and March, there was a rather large work evolution that was  
11 underway related to reassembly of the reactor coolant pump  
12 motors and the reactor coolant pumps themselves. And there  
13 is, it's just an interesting story to read about.

14 There was a number of learnings that came out of  
15 this. There was some mechanical maintenance challenges.  
16 I'll just highlight a couple here; overtorquing flanges,  
17 incorrect bolt engagement, some differences between various  
18 alignment procedures for different components.

19 There was some planning issues, pump motor alignment  
20 checks weren't adequately identified in the initial scope  
21 and the plan for accomplishing work. There was some  
22 challenges with draining the reactor coolant system cold  
23 legs, some operational type challenges, coordination.  
24 There was some RP direction that deviated from the initial  
25 work plan as far as what RP believed was appropriate

1 radiologic protection practices. Then a number of delays  
2 in handoffs between work groups, operational tagging  
3 delays.

4 Like I said, in reading through this, there is a  
5 number of learnings I think that come out of this.

6 We heard about maintenance, mechanical maintenance  
7 and some efforts that are underway there to identify  
8 opportunities to improve and to implement some changes,  
9 but I would also, I would like to hear about what you've  
10 seen as a result of those changes in the maintenance  
11 organization.

12 But I would also like to hear a little bit about  
13 work coordination from the outage management group,  
14 operational support, and particularly in this activity,  
15 you're in increased risk configuration. And these various  
16 activities significantly extended the time period that you  
17 were in that increased risk configuration.

18 So, I would also like to hear from an Operations  
19 perspective as far as risk management what you've learned  
20 from this and what you've seen over the last month or two?

21 MR. BEZILLA: Jack, if I could,  
22 I would defer that to Randy.

23 MR. FAST: Jack, let me  
24 first, we'll start with the end in mind.

25 Working through that sequence of work, which was the

1 replacement of four reactor coolant pump seals, we went  
2 into that well knowing that we would be at reduced  
3 inventory. That represents a higher challenge of risk to  
4 the plant, because the time of boil is shorter. Through  
5 that evolution, we, as an Operations Group, noted that the  
6 work was not proceeding as we expected.

7 I was very pleased that our Senior Reactor Operators  
8 were very vocal about what was going on. And they elevated  
9 that immediately. In fact, Mike Roder, our Operations  
10 Manager, myself, and key leaders from the Operations staff  
11 looked at the work that was going on, and challenged the  
12 Maintenance Organization to complete that work in a timely  
13 fashion; however, it did do, I'll say there was a side  
14 benefit in that it changed Operations behaviors.

15 For subsequent work we have instituted a, measures  
16 that have the Shift Manager get directly involved in work  
17 preparation and implementation of the work.

18 And there are two key areas I want to highlight.  
19 The first of which is the work comes to the Work Support  
20 Center, and before Operations will sign on and grant  
21 authority to start that work, we are challenging the  
22 Maintenance Organization to deliver the work products, the  
23 work tasks that we have put hands-on materials necessary to  
24 ensure that the work can be completed in a timely fashion.  
25 We're ensuring that resources are allocated. And we're

1 talking directly with the crafts people to verify that they  
2 have every confidence that the work will go well.

3 I do have examples where the work was not in that  
4 configuration and the shift manager turned that work away.  
5 And that is the appropriate behavior for Operations.

6 There is a second issue I want to bring up as well,  
7 in this number of issues that you raised. That was the  
8 Return to Service after the work is complete, and meeting  
9 the standards of housekeeping that Operations requires.  
10 And what we've elected to do is walk down those  
11 housekeeping, those areas with the Maintenance Organization  
12 to ensure that housekeeping standards are managed and we're  
13 not releasing the clearance to allow that equipment to be  
14 returned until housekeeping meets Operations expectations.

15 And with that, I'll turn it over to Mike to talk  
16 about the things that, the Maintenance Organization has  
17 risen to the challenge to take on to ensure that they are  
18 ready to perform the work.

19 MR. STEVENS: Thanks, Randy.

20 We discussed a little bit last, as a result of that,  
21 we put a multi-discipline team together at varying levels,  
22 used our decision-making NOP to see what we could learn.  
23 There are three major areas.

24 The first one and largest was lack of preparation,  
25 and that was in the Maintenance Organization, as well as

1 all the supporting pieces, the parts and engineering  
2 products. Second was supervisory involvement. Third was  
3 work package quality.

4 From that, we put together an action plan in  
5 implementing it. The most recent success I would say we  
6 have is the current work we're doing on the [(D-1)bus] Delta one, or  
7 increased risk. We did not go into that maintenance  
8 activity, because we were not ready. We needed some  
9 additional engineering products. We needed some spare  
10 parts. There were issues with releasing the relays.

11 So, it looks like the activity from Operations'  
12 challenge and Maintenance thorough review prior to  
13 implementing the work is improving our performance; and  
14 currently that's going pretty smoothly.

15 MR. GROBE: Okay. Thanks,  
16 Mike.

17 Fred, have you folks had any observations both in  
18 the Maintenance and Operations Management area over the  
19 past month or so that you would like to add here?

20 MR. VON AHN: Yeah, I believe we  
21 have, and John, why don't you give us some specifics on  
22 those, and also some ones previous to that?

23 MR. REDDINGTON: John Reddington.

24 Okay, I'll talk loud. Is that all right?

25 We have seen Operations step up in their leadership

1 roles. We've seen, we being Quality Assessment. We have  
2 anecdotal evidence where Ops has, at a turnover meeting, at  
3 one of the 6:30 meetings says, hey, we don't feel  
4 comfortable with the status we're getting. We want better  
5 statuses, and it's kind of held the management accountable  
6 for that.

7 So, overall, I would say in the Operations area,  
8 we've seen a lot of progress being made.

9 MR. VON AHN: John, what about  
10 Maintenance?

11 MR. REDDINGTON: The problems we  
12 see in Maintenance are still schedule issues, I would say.  
13 Right now what we have is, we have a process that is  
14 designed for online scheduling. And if you're in an  
15 outage, as you guys know, you schedule everything ahead of  
16 time and then prepare for it. So, what we're finding  
17 ourselves in is, we're doing real time scheduling.

18 So, compensatory measures, like Randy and Mike have  
19 talked about, are really what's driving the schedule. And  
20 I see that as the biggest issue, the fact that we don't  
21 have a good tight scheduling process.

22 MR. ZWOLINSKI: What you just  
23 described for Operations is maybe some change in  
24 management; has nothing to do with the leadership. You're  
25 not running the 6:30 meeting the way it should be run, so



1 now you're going to run it a little bit better.

2 MR. REDDINGTON: Well, the point  
3 was, the operator stood up and said, look. I mean, the  
4 operator wasn't the guy running the meeting. The operator  
5 said, I need to know a better status of what my plant is,  
6 and he made sure everybody bellied up to the bar, so to  
7 speak.

8 MR. ZWOLINSKI: Okay. The  
9 question was associated with leadership. Leadership, not  
10 just within Operations, but leadership to the rest of the  
11 facility. You've already taken as a given that we want  
12 leadership coming out of the Operations Department.

13 MR. REDDINGTON: Right.

14 MR. ZWOLINSKI: How do we expect  
15 our Operations Department to act, and what attributes do we  
16 expect them to demonstrate to the rest of the entire  
17 Davis-Besse team?

18 MR. VON AHN: John, I'll talk  
19 about that a little bit in my remarks, because we do see  
20 improvements in the questioning attitudes of Operations,  
21 but you're exactly right, we need to review that in each of  
22 the other organizations. And we'll take a look, we'll do  
23 further monitoring, especially in the area of maintenance  
24 in the upcoming months to see how we're doing.

25 In my remarks, we see Operations leadership as broad

1 based at a variety of levels, and in improvements and  
2 questioning attitude and the example that, that John  
3 brought up where a shift manager was dissatisfied with the  
4 cursory level of work reporting, he gave, he demanded  
5 actually that the, that his expectations for a higher level  
6 of and a better reporting status be given.

7 That met with some initial pushback from the rest of  
8 the organization, but he overcame that. And as a  
9 consequence of that, we're getting much better stats. And,  
10 I actually talk about that in my slides coming up.

11 MR. ZWOLINSKI: So in setting the  
12 standard or raising the bar, that's leadership.

13 MR. VON AHN: That's right.

14 MR. ZWOLINSKI: I understand that  
15 one. But running a meeting is a little different or  
16 whatever, to me is another category.

17 MR. VON AHN: Yeah, it's just,  
18 right.

19 MR. ZWOLINSKI: I look forward to  
20 hearing some of your comments on leadership.

21 MR. REDDINGTON: Anything else?

22 MR. GROBE: No, thank you.

23 MR. VON AHN: Well, why don't I  
24 just roll right in now.

25 MR. MYERS: It's your turn,

1 Fred.

2 MR. VON AHN: Good afternoon.

3 As Lew indicated, I am Fred von Ahn, the new Vice  
4 President of Oversight. And, although, I am most recently  
5 from Beaver Valley, I'm not new to Davis-Besse. I was the  
6 manager responsible for the original technical root cause  
7 on the reactor pressure vessel head event with Steve  
8 Loehlein, who is now the Oversight Manager at Davis-Besse.

9 Additionally, I've worked extensively with Bill  
10 Pearce while he and I were at the Beaver Valley Power  
11 Station. And I would like to discuss our observations, and  
12 we heard some of them from John, for the oversight period  
13 from January of 2003 to March 2003. And these activities  
14 have been debriefed with the Davis-Besse Management Team in  
15 mid April.

16 First Operations Leadership. There have been  
17 noteworthy improvements in operations leadership. We see  
18 this as broad based at a variety of levels in the  
19 operations organization.

20 How we see improvements and a questioning attitude,  
21 and I talked about the one shift manager demanded that he  
22 get a better status on the activities associated with his  
23 plan in the work status, was brought to bear on the  
24 organization, and the organization and as a consequence  
25 we've stepped up the, elevated the report to meet higher

1 standards.

2 Shift briefings are improving with better discussion  
3 of abnormal action, contingency actions and what can go  
4 wrong.

5 We've additionally seen improvements in safety  
6 focus. Operations generated over 400 Condition Reports in  
7 the first three months of this year. We see more  
8 engagement in this process at all levels in the Operations  
9 organization.

10 One noteworthy condition report I would like to  
11 discuss is the Collective Significance Condition Report  
12 that Operations wrote on the reliability of the diesel  
13 generators. Operations saw a number of lower level issues,  
14 and because they saw these lower level issues on the  
15 diesel, they questioned the diesel and the collective  
16 significance of those issues, so they generated that type  
17 of Condition Report. That's what we expect to see out of  
18 the organization; that questioning attitude and questioning  
19 the safety of our, of our systems.

20 As well, another example where Operations stepped  
21 in, where we were having problems with our fuel handling  
22 equipment. Operations stopped all activities until they  
23 were satisfied and there was adequate resolution to those  
24 issues.

25 Additionally, we see improved ownership. For

1 example, on the reactor coolant system cleanliness,  
2 Operations championed removal of a part of the reactor to  
3 allow vacuuming debris from the bottom of the head area to  
4 ensure proper cleanliness.

5 So, we see a theme here that we've been building  
6 on. We've seen previously from previous quarters of  
7 Operations taking a leadership role and demanding  
8 excellence out of their, out of their plant.

9 Next --

10 MR. ZWOLINSKI: I think the, I  
11 think the sensitivity I have to management and leadership;  
12 at least, I want to talk about it just a little bit.

13 You're using leadership in the way I would use the  
14 word management; and you're trying to manage more  
15 effectively. Leaders tend to lead people, and managers  
16 tend to manage programs and projects and what have you.

17 Your last bullet on reactor coolant system  
18 cleanliness sounded like someone took a leadership role.  
19 And, if you're saying your folks, you're observing a  
20 leadership role being taken, exhibiting the attributes of a  
21 leader, then that's played out in the way the individual's  
22 managing these other tasks.

23 So, I think you're really talking about Operations  
24 management in some of those successes.

25 MR. MYERS: Can I help with

1 that maybe a little bit?

2 MR. ZWOLINSKI: Sure.

3 MR. MYERS: Sometime ago, Bob  
4 Saunders and the Senior Team of FENOC signed a letter on  
5 Safety Culture. Shortly after that, we at the VP level,  
6 myself, we worked very, a lot of long hours, and carried  
7 things around the country on duties and responsibilities of  
8 our shift managers, on shift, and their role in the  
9 organization, and from a leadership perspective.

10 But the way we, I would sort of in my career define  
11 leadership is the ability of a person to get someone to  
12 jump off a cliff or something, not follow in our standards,  
13 you know. And, I think relative to root cause, that we  
14 shared earlier, that was an example of maybe not the best  
15 leadership in the world, you know.

16 Finding and fixing problems, setting the right  
17 standards are all examples of good leadership. What we see  
18 nowadays with our shift managers, we've worked, our shift  
19 managers have all been interviewed by the CEO of our  
20 company. I've taken every one of our shift managers at  
21 Davis-Besse up to Pete Berg's office, and he's even met  
22 with the shift managers and gone over responsibilities.

23 What we see is a willingness to stand up and say,  
24 we're not going to tag equipment out if the work is not  
25 ready to go; and setting that standard. We had really

1 difficult problems with, with operators performing a  
2 tag-out; then we get halfway through it and we find out the  
3 work wasn't really ready to go, which is a reflection of  
4 the maintenance walkdowns for readiness that we have,  
5 right?

6 And, they put their foot down there. And, that's  
7 what we want them to do. And shift manager is the senior  
8 person on site when this plant is running by itself at  
9 night. Okay? They've got to have the authority and  
10 decision-making to call in the resources they need, call  
11 the duty team at home, and get us out of bed and into the  
12 plant to help them when we need them, you know.

13 I think that our shift managers feel they can do  
14 that now. They're not hesitant of doing that. I also see  
15 them not accepting the status quo on risk management. You  
16 know, well this is going to be out this much longer.

17 Talk about the reactor coolant pump job, all right?  
18 That job really went on event, we didn't have any events  
19 there -- if you had to grade, probably grade it as a C  
20 minus, C plus, something like that. But was it carried out  
21 in a timely manner, organized properly? You know, we have  
22 to have those standards when we take that pump out.

23 The big thing that I want to talk about is skill of  
24 the craft, you know. I mean, that craftsman that worked  
25 that job did not demonstrate the good ownership and good

1 skills of that job. Okay?

2 And we had some vendor support on that. So, our  
3 shift managers willingness to stand up and take a stand  
4 when they see poor performance with any organization in our  
5 plant; that's maintenance, that's engineering giving them a  
6 sloppy operability review, or something like that; that's  
7 what we consider leadership.

8 And we've seen good examples of them taking a  
9 leadership role in our plant; better than we saw before.  
10 More rigor, more, we're requiring more rigor in people  
11 bringing them.

12 We had operability concerns being closed out in  
13 engineering, and they would just call the shift manager and  
14 tell them. That was what was happening. Now, those  
15 engineers come over and convince the shift manager that  
16 this operability call is correct. That's what we consider  
17 our leadership role; that they have standards, they demand  
18 those standards, and help us implement our standards at the  
19 site. And we're seeing good improvement in those areas.

20 Does that help?

21 MR. ZWOLINSKI: Leadership is  
22 difficult to measure.

23 MR. MYERS: Leadership is  
24 difficult to measure.

25 MR. ZWOLINSKI: And having metrix



1 and how do you know when things are a little better, are  
2 far less clearer in leadership than in management, because  
3 if I'm an effective manager, I'm getting a lot of things  
4 done. And there is metrix to that. The metrix in  
5 leadership are far, far less obvious and much more soft.

6 MR. MYERS: One example, you  
7 see in the past from a leadership perspective, Operations  
8 willingness to let tag-outs, tag equipment out, put it back  
9 in service when the work hasn't been thoroughly ready.  
10 They're standing up and saying, we're not going to accept  
11 that standard. In my mind, that's leadership. That's  
12 setting the requirements. And, we see evidence of our  
13 shift managers taking on that responsibility fairly  
14 regularly now.

15 They, when we were getting ready to load the core,  
16 you know, the shift supervisor came to us and said, you  
17 know, we only have to have one RHR pump to load the core,  
18 but we would like to have two. Guess what? We stopped and  
19 waited a week until we had two decay heat pumps, based on  
20 that discussion.

21 So, they're willing to take that leadership, and  
22 that's what we're after them to.

23 MR. ZWOLINSKI: Thank you.

24 MR. MYERS: I don't know if I  
25 helped or not. Tried.

1           MR. VON AHN:       Next we'll discuss  
2 Corrective Action and the Condition Reporting process.  
3       Here, implementation continues to be challenged.  
4 Effectiveness of Corrective Action needs work and has room  
5 for improvement. As oversight, we've taken a look at a  
6 number of Condition Reports and Corrective Actions that we  
7 have tagged for post closure review, and in some cases we  
8 see the issue has not been fully addressed.

9       We've made two process improvements recently to help  
10 us in this arena. We've started an internal assessment  
11 writing trending Condition Reports, so we have a database  
12 or data readily available to support conclusions and allow  
13 us to readily evaluate that. As well, we've put into place  
14 previously Condition Report analysts in each section, and  
15 we're expecting these Condition Report analysts to evaluate  
16 these Condition Reports and take a look at the trends in  
17 each section to help the section with this issue that we  
18 see.

19           MR. ZWOLINSKI:     Fred, in the area  
20 of Condition Report, when we have somebody raise an issue,  
21 does it go through a review board in which it gets  
22 prioritized as high, medium and low, or 1, 2, 3, 4?

23           MR. VON AHN:       Yeah, there are  
24 several conditions. The three conditions we have are,  
25 there is November, Charlie or Sierra. Significant

1 condition adverse to quality, condition adverse to quality,  
2 not a condition adverse to quality.

3 So, there is that high, medium and low ranking, as  
4 well as a multi-memory board actually takes a look at that,  
5 so you don't have tunnel vision. A management team looks  
6 at those on a daily basis, evaluate those, and as a peer  
7 group decide which ones are significant or conditions  
8 adverse to quality or simply not significant.

9 Finally, at the end, a Corrective Action Review  
10 Board will take a look at those Condition Reports that are  
11 of higher significance to ensure that the issue has been  
12 fully addressed.

13 MR. ZWOLINSKI: Does the higher  
14 category require that you do a root cause?

15 MR. VON AHN: Absolutely. There  
16 is a matrix we use and the higher category will require  
17 root cause.

18 MR. ZWOLINSKI: Can you give us a  
19 sense of the type of Condition Report you are seeing today  
20 versus all the Condition Reports that you saw yesterday?  
21 I would, without, without giving an answer, I would like to  
22 think you should not be finding very many significant  
23 issues that would require root cause, so you're in that  
24 middle or even low group. That would be my instinct.

25 MR. VON AHN: Yeah. We would

1 want to identify the problems at their lowest possible  
2 level, so we see that, and we see that we're addressing the  
3 problems at the lower levels, so they're not becoming more  
4 significant. That's what we strive for.

5 We look at that with a number of different ways. We  
6 look at that with a number of Condition Reports we generate  
7 to see that we're identifying problems and fixing them at a  
8 low level, as well as taking a look at and grading certain  
9 Condition Reports which we're doing.

10 Do we have specific data, John, on that for  
11 Davis-Besse?

12 MR. REDDINGTON: Since I can't  
13 handle that microphone again -- I'm John Reddington.

14 The threshold is very low, the initiation rate of  
15 Condition Reports has been good. What we're seeing, what  
16 QA has been seeing is the implementation. When they go out  
17 and they generate a Corrective Action, they actually go out  
18 and do that corrective action. So, that's the kind of  
19 problems that we're finding.

20 The actual initiation is very good. Shop people, I  
21 mean, all over, everybody.

22 MR. VON AHN: So to answer  
23 John's question, we are identifying questions at a lower  
24 level. It doesn't sound as we're getting as many root  
25 cause or the higher level Condition Report.

1           MR. MYERS:           We have way over  
2 the industry average of root causes. If you look at the  
3 number of engineering causes and things we have had, come  
4 identify all these walkdown teams and all the Building  
5 Blocks; our total number of root causes, and I don't  
6 remember the number, is way high compared to industry.

7           MR. VON AHN:       Right. We would  
8 expect that to be high, but is it trending down is John's  
9 question?

10          MR. MYERS:        I know it's  
11 trending down. The number of CRs we're generating is  
12 trending down, but that percentage of open Condition  
13 Reports requiring, requiring root cause is still very high.  
14 But they're not new ones, they're issues that we identified  
15 as part of our Building Blocks.

16          MR. ZWOLINSKI:    At some facilities  
17 when you have Condition Reports that are at that lowest  
18 level, Licensees are not required to necessarily get after  
19 that particular issue during this outage, and may defer and  
20 may openly say, I don't really need to do it because the  
21 safety significance is very low.

22         Where I was going with today's environment, feeling  
23 that you may have exhausted many of the more safety  
24 significant issues is, are you looking at common, common  
25 threads amongst medium and the lows that would argue maybe

1 we do want to get after that and put an end to this  
2 particular outage? I mean, I know what you're doing with  
3 the highs, you're going after those for a fact.

4 MR. MYERS: We evaluate  
5 issues and categorize them.

6 MR. ZWOLINSKI: Yes.

7 MR. MYERS: And look for  
8 similarities, is there a root cause. And we see that  
9 trend, we'll go write a higher level threshold root cause  
10 type of CR.

11 MR. ZWOLINSKI: So, you would  
12 actually roll several of those up?

13 MR. MYERS: We had issues we  
14 roll, yes.

15 MR. VON AHN: That's similar to  
16 what I discussed with the Operations, the collective  
17 significance of the issues that they saw. They saw a  
18 number of issues with the diesel. Hey, what's going on  
19 here? Let's go with collective significance, a higher  
20 level Condition Report that would address that, see if we  
21 have a common thread or some issue that we don't see with  
22 those singular items.

23 MR. ZWOLINSKI: Thank you.

24 MR. THOMAS: Fred, as part of  
25 the corrective action process, selected Condition Reports

1 have to be reviewed by SROs as part of the process.

2 MR. VON AHN: Correct.

3 MR. THOMAS: Has your

4 organization done any kind of look at the quality of the

5 SRO evaluations and can you comment on that, if they have

6 looked at that?

7 MR. VON AHN: In my larger

8 organization, yes, I can. SRO's do review those on the

9 front end at Beaver Valley and we actually review them on

10 the back end as well. They're part of the Corrective

11 Action Review Board. There is an Operations Rep on that

12 board that will take a look at those.

13 That board is a multi-discipline board, again, of

14 Operations, Maintenance and a number of folks take a look

15 at that.

16 MR. THOMAS: You missed the

17 question.

18 Has your organization looked at the quality of those

19 reviews at Davis-Besse?

20 MR. VON AHN: I believe we have,

21 and, John, do you want to go over this.

22 MR. REDDINGTON: Yeah. Scott,

23 we've looked at that. I would say about a year ago, we

24 identified that was a weakness, that the SRO's were not

25 given enough verbiage when they would call something

1 operable or inoperable. We also noticed that that didn't  
2 translate effectively into the unit log, because when a guy  
3 comes in, he doesn't necessarily read Condition Reports, he  
4 reads the unit log before he takes the shift.

5 So, we've been focusing on that, and as part of  
6 Program Review of Operability Determinations we've been  
7 monitoring that. I would say we've seen a marked  
8 improvement, a significant improvement. They've instituted  
9 peer checks and things like that that's helped that, but it  
10 has definitely improved significantly over the last year.

11 MR. THOMAS: Okay, thank you.

12 MR. VON AHN: Any other

13 questions?

14 Finally, Quarterly Reviews. In our Quarterly  
15 Reviews, one area we're starting to focus on, ~~our~~ are Procedure  
16 Compliance Issues. We did identify this during this  
17 quarter's activities, and we know this was a contributing  
18 issue to the ~~RPD~~ RPV head root cause, one of the contributing  
19 issues were procedural adherence issues.

20 We will start to develop comparative data in this  
21 area, and we are looking at the, we'll look at subsequent  
22 CREST Condition Report reviews to validate what we're  
23 seeing. Again, we identified it with our observations.  
24 We've looked at some comparative data in CREST. We see  
25 some things here and we're going to continue to monitor



1 that.

2 In summary, we see improvements in key areas like  
3 Operations. The plant is making headway on resolving  
4 Containment Health Issues. The challenges still remain  
5 with Corrective Action Process, and we'll continue to  
6 monitor this area.

7 Finally, I would like to introduce Lawrence Martin.

8 Lawrence, could you stand up. Thank you.

9 Lawrence joins the team with over 40 years of total  
10 nuclear experience. Lawrence also has extensive experience  
11 at a number of sites upon restart after an extended  
12 shutdown. And Lawrence will be stationed full time at  
13 Davis-Besse. His main focus will be to assist me, not only  
14 in the oversight of the Davis-Besse restart activities, but  
15 putting into place measures that assure long term  
16 continuous performance improvement at FENOC in Quality  
17 Assurance Programs and Safety Culture.

18 I would like to turn the program back over to Lew  
19 Myers for Safety Conscious Work Environment discussion,  
20 unless there are any other questions?

21 MR. ZWOLINSKI: I know you tried  
22 to cover it. I maybe didn't get the full thrust on the  
23 procedure compliance issues.

24 MR. VON AHN: We saw some  
25 procedural compliance issues in our review.

1           MR. ZWOLINSKI:     If I understood  
2 correctly, you're dedicating a team that will be  
3 responsible for procedures going forward --  
4           MR. VON AHN:       Yes.  
5           MR. ZWOLINSKI:     -- in Bob  
6 Schrauder's organization?  
7           MR. MYERS:         That's correct.  
8           MR. ZWOLINSKI:     Is that accurate?  
9           MR. MYERS:         That's accurate.  
10          MR. ZWOLINSKI:     So, he'll have the  
11 opportunity to look backwards and see what kind of problems  
12 you've identified and Lessons Learned, take that forward  
13 and make that robust?  
14          MR. MYERS:         We have a  
15 procedures group at our other plants, and we're able to  
16 monitor a number of procedures changes, the top procedure  
17 changes, problem areas and all that. We expect Bob to  
18 check that out.  
19          MR. ZWOLINSKI:     Okay.  
20          MR. GROBE:         Lew, before you go  
21 on with Safety Conscious Work Environment, could you  
22 comment a bit on the efforts you have underway to  
23 understand better the impact of the CR rollovers and where  
24 that stands and what you've done from that?  
25          MR. MYERS:         Yeah. I think

1 there is like five thousand CRs that were restart type CRs,  
2 gone back and looked at, what we did is, we had some  
3 questions about the rollovers, where we rolled several CRs  
4 together and performed one root cause. And the question  
5 was, we look at the original CR, once you rolled it into  
6 this big bunch, do we really solve the problem with the  
7 original CR.

8 What we've done is gone back and looked at that, out  
9 of that 5,000 population, about 500, 490 something, the  
10 rollover, rollovers as I understand right now. We're  
11 taking and reviewing each and every one of those  
12 rollovers. We have a team together, that we pulled  
13 together from our other sites, and went over each and every  
14 one of them and traced the issue to make sure the  
15 corrective action finally addressed that issue, so it's not  
16 lost. So, we got that team together now.

17 MR. GROBE: When do you  
18 expect that activity to be completed?

19 MR. MYERS: Probably the next  
20 couple of weeks. I hope.

21 MR. GROBE: Thank you.

22 MR. MYERS: Safety Conscious  
23 Work Environment. At the last meeting, we talked about the  
24 March survey, and we were very pleased with that survey and  
25 improvements in the performance that we saw.

1       At that meeting though, there was two questions that  
2 were of concern; Question 35 and 36, which weren't as  
3 positive as what we've seen in the past. In fact, the  
4 performance in those two questions were worse. So, we took  
5 an action to take and evaluate the results.

6       Let me tell you what we did there. We took, what we  
7 did, is response analysis. What we did there, we took the  
8 responses to several questions, we grouped those questions  
9 together, sort of asked the same thing, looked at the  
10 questions, not only similar questions, but by group; and  
11 maintenance, electrical line, contractors, so First FENOC  
12 employees versus contractors.

13       So, we did that. Then, we went out and did a  
14 comparison with other programs from those two questions.  
15 We looked at our Employees Concerns Program, Quality  
16 Assurance Program, and our NRC Allegations Program; and,  
17 how does this stuff correlate. And then, finally, we went  
18 out and talked to some people and did some personnel  
19 interviews about these two questions.

20       So, the next couple of slides, I'll share with you  
21 the results.

22       If you go look at the questions that are positively  
23 correlated, this question 7, 25, 30, 35, and 36.

24       The question 7, "I can raise a nuclear safety or  
25 quality concern without fear of retaliation." We went from

1 a negative response rating total of 18.5 percent to 7.1  
2 percent. We were pretty pleased with that. And  
3 especially, when we go look at it in the FENOC area, which  
4 we went from 22 percent to a 4.2 percent.

5 If you go look at the next question, "I feel free to  
6 raise nuclear safety or quality issues on CRs without fear  
7 of reprisal." We had a negative rating overall of 16.1  
8 percent. And when we go back and look at FENOC by itself,  
9 we went from 18 percent down to 3 percent. So, we're  
10 pretty pleased with that. And the total rate, we went down  
11 to 5.6 percent.

12 "I can use the EC Program without fear of  
13 retaliation." We had 14.6 percent total, and 5.1 percent,  
14 but when we look at just FENOC, we went from 18 to 3.2  
15 percent negative rating.

16 Now, the next two questions, concerned intimidation,  
17 harassment issues. And we didn't get the response in those  
18 two questions. I guess the response sort of surprised us,  
19 because we went from a negative response of 7.1 percent to  
20 8.1 percent. "I have been subjected to an HIRD within the  
21 last six months." and "I'm aware of others who have been  
22 subjected to HIRD within the last six months." That's  
23 question 36. We went from a 7.1 percent or 12.4 percent  
24 negative response, to an 8.1 and 15.3. That's what  
25 generated the issue.

1        So, when we went back and broke that apart, we  
2 looked at FENOC, we actually went from a 8.9 FENOC rate to  
3 5.1 percent FENOC rate, which was a positive trend. And  
4 from a FENOC standpoint on Question 36, we went from 14.6  
5 percent down to a 10.2 percent negative, which is another  
6 positive trend.

7        Now, contractors are the areas where it tended to  
8 poke out in red, and we tried to analyze that somewhat.

9        Go to the next slide, please.

10       We went back and looked at the survey analysis with  
11 interviews and stuff. If you look at the survey question  
12 on harassment, intimidation, retaliation, and  
13 discrimination, what we found is there was a clear focus on  
14 [10CFR] 50.7 issues.

15       When people, when contractors, most of the  
16 contractors responding to this, were hourly type. We went  
17 from, if you look at the original survey we did a year ago,  
18 most of the contractors in there were longer term  
19 engineering type contractors, down to more of an hourly  
20 type contractors that we have on site right now, in work  
21 area.

22       And when you go question them about harassment and  
23 intimidation and 50.7, their knowledge of that is not as  
24 thorough. And if they do something that they don't like,  
25 you know, they consider that harassment, intimidation, for

1 a job they didn't want to do. So, we got a lot of feedback  
2 there from that question.

3 Then we went back and asked them about the term  
4 HIRD, question was not clearly stated, when you use the  
5 term HIRD, it wasn't terms like harassment, intimidation,  
6 that's the name of a bird or something. So, you know, the  
7 question was not clear in their mind when they read that  
8 from a contractor standpoint. That's some of the feedback  
9 we got when we talked to employees.

10 Responses are more consistent that we found in FENOC  
11 with ECP and Safety Culture survey results. Worker concern  
12 about schedule pressure and directive management rather  
13 than 50.7 HIRD concerns; are one question.

14 When you read that again to question people, you  
15 know, what you heard was, a lot of pressure to get the work  
16 done from a schedule pressure standpoint, and the  
17 management approach right now is more directive than what  
18 they've seen in the past. And that's, they would answer  
19 that from a HIRD concern as being a negative trend. So,  
20 they're not clearly understanding what that meant.

21 So, that was the two areas that they focused on.

22 MR. GROBE: Could you go back  
23 to the last slide, Lew?

24 MR. MYERS: Sure.

25 MR. GROBE: So, what I hear

1 you saying, is the questions 35 and 36 --

2 MR. MYERS: Are correlated to  
3 7, 25 and 30, and got different results overall.

4 MR. GROBE: Right. So, going  
5 forward, if you plan on using those questions again, you're  
6 going to restructure them?

7 MR. MYERS: We might spell  
8 out what HIRD means in the question. So, yeah, we would  
9 restructure the question, something like that.

10 MR. GROBE: But FENOC  
11 question 7, 25 and 30, if you look at your contractors, it  
12 either has stayed the same or got worse.

13 MR. MYERS: That's correct.

14 MR. GROBE: What are you  
15 doing about that?

16 MR. MYERS: Well, I was going  
17 to answer that question earlier.

18 MR. GROBE: Good.

19 MR. MYERS: The contractors  
20 are our concern. What we have to do in our contractor  
21 training program; when we bring them in, we have to be more  
22 clear about our programs and our terms, and address these  
23 results. Maybe that's improve our training programs, I'm  
24 not sure, but we are going to put an action plan in place  
25 that goes to try to understand what that's telling us



1 about, you know.

2 MR. GROBE: Okay, is there a  
3 CR on that, that I can?

4 MR. MYERS: I don't think  
5 so.

6 MR. GROBE: Randy is nodding  
7 yes.

8 MR. MYERS: Okay. There is,  
9 Randy? Okay.

10 MR. GROBE: So, I can go find  
11 that.

12 MR. MYERS: Okay.

13 If you look at the next slide, the NRC Allegations.  
14 One of the things, we go back and look at our other  
15 program, like allegations, and there is a negative trend  
16 there, which would substantiate from an NRC allegation  
17 standpoint, it's an improvement.

18 Next slide shows that, really gets into the  
19 Retaliation Category, and we see a negative trend there,  
20 which would substantiate, tend to substantiate in the First  
21 FENOC areas we're seeing improvement and even in the  
22 contractor areas, overall we're seeing an improvement.

23 If you go to the next slide, we went back and looked  
24 at ECP programs, that work in progress. Remember, back a  
25 few months ago when we looked at ECP versus NRC type

1 concerns, people would use the NRC Concern Program before  
2 they would use our own in-house.

3 That's greatly changed. You see the trend now where  
4 our ECP Program is really taking off and people are feeling  
5 free to come forth and use that program. We think that's a  
6 positive trend from an intimidation, harassment standpoint  
7 also.

8 Next slide.

9 Overall, you know, we base our overall conclusions  
10 on looking at these two questions. We think our workers  
11 recognize the responsibility to raise nuclear safety  
12 concerns and quality issues. And you can see our CR  
13 process has a low threshold, and overall certainly noticed  
14 that people will bring stuff forward.

15 I can tell you in my 4-C Meeting too, I ask that  
16 question routinely. I get extremely, I think, a hundred  
17 percent results without raising concern.

18 "Workers feel free to raise nuclear safety and  
19 quality concerns without fear of retaliation through their  
20 chain of command, through the Condition Report process, and  
21 through the Employee Concerns Program."

22 We tend to see that all across the board, that the  
23 first thing you would like people to do is use the  
24 Corrective Action Process. Next thing, there is chain of  
25 command; either one of those two; and up to my level if

1 they need to. Then, finally, the Employee Concerns  
2 Process. We see all three of those having a fairly  
3 positive trend right now.

4 There is still pockets of negative perception.  
5 Sometimes in the RP/Chemistry Maintenance and Engineering  
6 Departments. Survey people, we recognize those are pockets  
7 and areas we need to continue work on.

8 And then "Contractors have a more negative overall  
9 perception than the FENOC employees." That's something we  
10 need to get action plan on, look at our in-processing, make  
11 sure they understand the processes and how to use them; you  
12 know, and are willing to work with our contractors. We're  
13 taking an action on that.

14 And additional senior management needed attention to  
15 Safety Conscious Work Environment. Once again, RP,  
16 Chemistry and Maintenance, we found still some hot pockets  
17 there, especially on specific shifts and stuff. Okay?

18 But overall, once again, we told you last time, we  
19 were pretty pleased with the results of that survey. The  
20 purpose of this is just to answer the question to us as  
21 last time about those two. Okay?

22 MR. GROBE: Appreciate that.

23 So, you're going to be taking some additional  
24 actions in some areas. What is your plan? Are you  
25 planning on doing this type of evaluation again in six

1 months or a year or what is the plan?

2 MR. MYERS: We'll continue to  
3 use this type of evaluation, as well as others.

4 MR. GROBE: Okay. Thank  
5 you.

6 MR. MYERS: You know, the  
7 term convergent validity, really caught on.

8 MR. GROBE: Yeah.

9 MR. MYERS: Next area,  
10 Randy.

11 MR. FAST: All right. Thank  
12 you, Lew.

13 Good afternoon. I'm pleased to provide an update  
14 and final report on our Containment Building Block  
15 progress. First slide, please.

16 The bullets represented here are the actual scope of  
17 the Containment Health Building Block. Of those, those  
18 that you see on the lefthand side, Emergency Sump,  
19 Containment Coatings, Fuel Integrity, Environmentally  
20 Qualified Equipment, FLUS, and Boric Acid Inspections are  
21 complete and ready for Mode 4.

22 On the right side you'll see, Decay Heat Valve Tank,  
23 we still are sealing conduits there. That work is  
24 progressing well and will be completed within the next  
25 week.

1 Containment Air Coolers, we've done a final air  
2 balance test on all three Containment Air Coolers and  
3 results are being evaluated by Engineering.

4 Refueling Transfer Canal. We've implemented our  
5 implementation plan -- or excuse me, our discovery plan.  
6 We still have some actions that we'll do, you know, future  
7 outage, not required to be done now as part of restart.

8 Containment Pressure Vessel. That's the sealing of  
9 the annular space in the lower portion of containment in  
10 the steel, steel pressure vessel and the concrete. And  
11 we're still evaluating that work. That may be done after  
12 the first Mode 4.

13 As well, Corrective Action, Evaluations and all of  
14 the Corrective Actions are in their final stages of  
15 closure. So, that's very close coming to an end.

16 Next slide, please.

17 MR. SHERON: Randy, before you  
18 go off that slide.

19 MR. FAST: Yes.

20 MR. SHERON: On the FLUS  
21 System, where is, I'm still kind of trying to understand  
22 where that fits in your overall scheme of things. When you  
23 came in, I think, the agency several months ago, it was not  
24 going to be a tech spec requirement on it or anything like  
25 that. And so, the question is, I mean, NRC has no

1 requirement, okay, for it.

2       You know, in terms of, okay, you start up, and let's  
3 say this thing starts giving you a lot of false positives  
4 or something, is it your plan to fix it or just say, it's a  
5 failed experiment, and turn it off, or?

6           MR. FAST:        Brian, let me try  
7 to answer that question. We don't have any reason to  
8 believe it's going to be a failed experiment. And,  
9 principally, the reason we feel that way is we have looked  
10 at it extensively. It is used in Europe. It's been used  
11 very extensively. In fact, we look at that closely because  
12 we would be concerned about installing a monitoring system  
13 that could not provide the right level of reliability.

14       This project has really been a model for  
15 installation and the calibration. We brought over a Ph.D.  
16 that was part of the development of this program. We've  
17 calibrated it. And, we have a lot of confidence in it.

18       It has a lot of self-check features built into it  
19 that will allow us to monitor the humidity levels under the  
20 vessel. So, we did a lot of analysis of this. And,  
21 although, not required from a regulatory standpoint, it  
22 really requires the right standards for us in monitoring  
23 undervessel performance.

24       So, I know obviously my optimism might be  
25 overzealous here, but based on the kinds of results that

1 we've seen from the industry, we have a pretty high  
2 confidence this is going to work well. Part of our test  
3 plan Mike talked about previously is injecting the test  
4 signal and actually monitoring the system's performance so  
5 we have some real time data and we'll do that during our  
6 normal operating pressure and temperature test.

7       There is another element of this. We believe that  
8 by looking at industry best practices, we've developed a  
9 Leak Monitoring Program and we have, one of our engineers,  
10 system engineer, a program owner for that; and that will go  
11 through a validation process of looking at Reactor Coolant  
12 System leakage, which is done on a daily basis by the  
13 Operations staff. And then, correlating that information  
14 with the information we get from the FLUS System.

15       So, that as well provides a validation of the leak  
16 integrity of the Reactor Coolant System.

17           MR. SHERON:       I'm not trying to  
18 be, you know, rain on your parade or anything, but that  
19 does depend on your understanding of, say, crack behavior  
20 on lower penetrations. I mean, for example, the type of  
21 leakage that has been seen in South Texas, which they  
22 haven't confirmed yet, as far as I'm aware. I'm not sure,  
23 would that even be detected by this system?

24           MR. FAST:        Brian, I  
25 understand, the correct propagation would have earlier

1 indications of higher humidity, which could subsequently be  
2 dismissed, because of the close after some period of  
3 time.

4 So, that's something that, we understand the  
5 phenomenon, we understand the crack propagation of the  
6 J-groove weld on the undervessel attachments. And well --

7 MR. SHERON: Where I'm going is  
8 there is two aspects to this whole thing. One is obviously  
9 leakage and, say, accumulation of boron, okay, the  
10 potential for any corrosive environment. The second is  
11 understanding the crack growth phenomenon. In other words,  
12 will I have a crack, you know, the stress fields are  
13 different and so forth on the lower head and the like, and  
14 there are residual stresses which we may not even know  
15 about.

16 For example, when we met with south Texas the other  
17 day, they told us about the installation of the, of the  
18 thermal tubes that they put in on the lower head. They  
19 said, there is a streaking process in there where they  
20 physically have to bend them over to get them straight so  
21 they're aligned. That's introduces residual stresses,  
22 which obviously, nobody can put their finger on in terms of  
23 knowing, you know, is it large, small, or the like.

24 The point I'm driving at is that, you know, unless  
25 we know about crack behavior and whether cracks will always



1 go through the wall and exhibit leakage before they, for  
2 example, turn circumferential; is there a stress field for  
3 turning circumferential. There is still an uncertainty.  
4 Do you follow that?

5 MR. FAST: I understand  
6 that. You're absolutely right, Brian. This will only  
7 provide us the opportunity to monitor for humidity and  
8 changes in moisture content.

9 We were able to mockup in Lynchburg with Framatone  
10 very, very small leaks in the area of .01 gallons per  
11 minute, and be able to detect that very small leakage.  
12 Although, your points are that we may not understand the  
13 crack initiation, propagation and leakage elements, we do  
14 have some confidence that the equipment is able to measure  
15 changes in the humidity undervessel.

16 MR. SHERON: Yeah, I'm  
17 certainly not advocating taking it out or anything, but I  
18 just recognize there could be some limitations on it.  
19 That's all.

20 MR. FAST: I understand.  
21 Thank you, Brian.

22 MR. MYERS: I think what it  
23 does, if you had a real leak, it would tell you, there is a  
24 very, very low leakage, like .01, so it could be early  
25 warning. Okay?

1 MR. SHERON: Right.

2 MR. ZWOLINSKI: I saw that  
3 equipment. I guess maybe somebody said it, I apologize.  
4 Where is it going to read out at?

5 MR. FAST: Reads out on the  
6 plant computer system.

7 MR. ZWOLINSKI: Is that right?

8 MR. FAST: Yes, sir.

9 MR. ZWOLINSKI: Okay.

10 MR. GROBE: Randy, before you  
11 go on, we actually had a question from a member of the  
12 public, but it fits right in here. If you don't mind I  
13 would like to.

14 It says, with the recent findings at the Texas  
15 plant, has that changed the way you'll be checking for  
16 leaks on the bottom of the reactor?

17 And, secondly, are you confident the scheduled tests  
18 will be able to detect any leaks on these nozzles and once  
19 the plant is restarted, how would you monitor the bottom  
20 for leaks?

21 MR. FAST: The answer to the  
22 first question is I believe our Leakage Detection Program  
23 is comprehensive, and we believe we will be able to detect  
24 any minor amounts of boric acid that would collect on the  
25 floor annular space for the attachment to the lower

1 vessels.

2 And the second question again, was?

3 MR. GROBE: The first  
4 question was, with the recent findings at the Texas plant,  
5 has that changed the way in which you will be checking for  
6 leaks on the bottom of the reactor at Davis-Besse?

7 MR. FAST: It does not, our  
8 program is comprehensive.

9 MR. GROBE: Once the plant is  
10 restarted, how will you monitor the bottom for leaks?

11 MR. FAST: That is the FLUS  
12 System, as well as doing the Reactor Coolant System  
13 Inventory Test and the leakage management.

14 MR. GROBE: Brian?

15 MR. SHERON: I'm not sure who  
16 asked this, but I just, for people that are saying what's  
17 going on with South Texas. South Texas Project was  
18 inspecting the lower head. I guess it was now several  
19 weeks ago. And they found slight traces of Boron on two  
20 penetrations. One, basically right in the center of the  
21 lower head and one on a periphery.

22 There was a very small amount, one was about 3  
23 milligrams of Boron, one was about 150 milligrams of  
24 Boron. They said to put that in perspective, 150  
25 milligrams of Boron is like half an aspirin.

1       They don't know, they've pretty much concluded that  
2 the Boron came from primary coolant leaking. It wasn't  
3 something that ran down the side.

4       What they don't know yet is the root cause of this  
5 leakage. There is several possibilities that one could  
6 postulate. Stress corrosion cracking is one. The other  
7 might be fatigue, it could be a fatigue crack; for example,  
8 due to a flow induced vibration. Could be, just be a bad  
9 weld.

10       We don't know yet. So, we're waiting to see what  
11 the Licensee finds out, what their root cause. They have  
12 come in. They were in for a meeting, I think it was just  
13 last week, and talked to us about their entire program.

14       They're actually doing a mockup of the penetration  
15 down at the EPRI Research Center to better look for ways  
16 that they could do UT on the lower penetrations.

17       So, basically, until we find more and understand  
18 better what the root cause of this is, you know, NRC is not  
19 for example off, going to ask all Licensees to go off and  
20 inspect their lower head penetrations and the like at this  
21 time. But again, we have to wait and see what the Licensee  
22 comes up with on their root cause.

23               MR. GROBE:           That's correct.

24               MR. MYERS:          My understanding,  
25 they're looking at a FLUS System.

1           MR. FAST:           Brian, we have  
2 been in regular contact with South Texas as well. Our lead  
3 engineer, in fact, I got a call today that they identified  
4 that, and I hooked them up with our guy, and we've been in  
5 regular communication. I've seen pictures as well.

6           So, I know they're working through that issue.  
7 We'll certainly want to understand what they're dealing  
8 with and share that with the industry.

9           MR. GROBE:           One other issue  
10 on that, Randy, if I could.

11           One aspect of the findings at South Texas that  
12 complicates understanding the applicability of those issues  
13 at Davis-Besse is that the design of the penetrations are  
14 substantively different on that reactor, on the lower head  
15 from the Davis-Besse design penetrations. So, there is not  
16 a direct correlation at all between South Texas and  
17 Davis-Besse.

18           MR. FAST:           I understand  
19 that. Thank you, Jack.

20           Last slide, please. Containment Closeout. Physical  
21 work and paper closeout in support of Containment Health is  
22 in the final closure phase.

23           I want to make a comment that we have team meetings  
24 with our staff before we have public meetings, so that we  
25 can disclose information. One of the things I mentioned,

1 we do this kind of off the cuff in front of our folks and  
2 talk, I made a comment that as the sponsor for containment  
3 health, we were getting out of the containment health  
4 business.

5 I really thought it was kind of interesting that I  
6 had one of the system engineers come up to me afterwards  
7 and say, Randy, we're never getting out of the containment  
8 health business. I said, well, that's a great comment.

9 The reality is, the project may be coming to a  
10 close, but we have institutionalized the right standards  
11 through our Maintenance folks, our Operations folks and our  
12 Engineering folks. We have what we believe is a good Boric  
13 Acid Corrosion Control Program and Owner; and we're using  
14 our Corrective Action Program to identify those issues,  
15 evaluate them, and take the appropriate corrective  
16 actions.

17 So, certainly, those Lessons Learned at Davis-Besse  
18 are going to be long held to the future. So, we're not  
19 getting out of Containment Health business.

20 The last I wanted to identify, is you see the  
21 American flag is painted up in our containment dome. It's  
22 quite impressive actually.

23 John, I think you had a chance and Brian to see that  
24 today.

25 Really a tribute to our great country. And, also to

1 the hard work and dedication of all the men and women who  
2 have worked so hard in our containment to get that work  
3 done. As you saw, our containment is in pretty good  
4 shape. We're proud of it. And we'll be glad to set new  
5 standards for our containment health.

6 MR. SHERON: They assured us,  
7 it was painted with qualified coatings.

8 MR. FAST: Yes, sir, I  
9 checked the spec myself. You know, they sent it to me, and  
10 I verified it. It's actually Old Glory Red and Blue, but  
11 it is a qualified coating.

12 With that, I'll turn it over to Lew for closing  
13 comments.

14 MR. GROBE: Any other  
15 questions?

16 MR. ZWOLINSKI: Lew, can I go back  
17 to Graph 44 on your ECP trends?

18 Just so it's clear to this person and maybe others.  
19 Do you put these kind of issues when they're raised either  
20 to NRC or to ECP, do you put those in the Corrective Action  
21 Program?

22 MR. MYERS: The answer is no,  
23 not normally. We have on occasions.

24 MR. ZWOLINSKI: And, do you, does  
25 somebody take look at these, as far as the safety

1 significance; and I'm going back a little bit to the CR  
2 Program. In other words, someone wanted to raise a  
3 significant issue, and you found a lot in here, they're not  
4 going to the right place, but you know, the lightbulb isn't  
5 fixed or something.

6 MR. MYERS: If we look at one  
7 of our ECP issues and we found a concern, that can generate  
8 a CR, safety-related CR. It would. In other words, if we  
9 were looking at the issue, and we found that it was a CR  
10 type issue, we would generate one.

11 MR. ZWOLINSKI: Okay. So, and I  
12 think the short answer to this, these two graphs, is that  
13 you handle these issues outside the normal CR process  
14 though.

15 MR. MYERS: Yes.

16 MR. ZWOLINSKI: Okay. Thank  
17 you.

18 MR. MYERS: In closing, our  
19 intention today was to talk about the Management/Human  
20 Performance, Root Cause and Safety Culture. We continue to  
21 improve, we think, in the overall quality of our management  
22 team that we have in place, and management ownership of  
23 problems that we find at our plant. We think our  
24 management continues to bring quality people in, and we're  
25 seeing improvements in the fragnets and ownership.



1           It's our intention to modify the HPI pump or replace  
2 the existing pump. We feel that will gain us a reliability  
3 margin. It's probably the right thing to do.

4           We will continue to focus on our Mode 4. That tends  
5 to answers a lot of questions for us, and the activity that  
6 we need to complete, complete prior to restart.

7           One of the comments I have here; you know, if you go  
8 look, a lot of extended shutdown plants, they just put  
9 things in bucket; restart, nonrestart. We continue to work  
10 about 50 percent of the stuff off, that are classified as  
11 nonrestart. So, we have not stopped working off our  
12 nonrestart items throughout this outage.

13          What we believe that will do for us, we'll start the  
14 plant back up, we'll do it in good stead from a backlog  
15 standpoint, better than we typically see before. We are  
16 pleased with that.

17          And that's also true in the maintenance work order  
18 area. We believe our total maintenance backlog for  
19 corrective maintenance will be somewhere in the 275 range  
20 when we start up, which was the goal in the original  
21 outage. So, we're just not letting backlogs continue to  
22 build.

23          We believe that our station performance, both from a  
24 physical and people standpoint, continues to show good  
25 progress. Randy gave a good example awhile ago that, about

1 the containment and not closing our containment. You know,  
2 our Building Blocks were put in place in our restart plan,  
3 not just to close a bunch of actions out, but to take the  
4 necessary actions and implement those actions to ensure  
5 sustained performance for each and every Building Block  
6 after restart.

7 I mean, and a lot of times we've added programs in  
8 place. For example, our Leak Rate Program is really state  
9 of the art. It really is state of the art.

10 You go over and look in our engineering area, our  
11 system walkdowns and program reviews, we think are pretty  
12 unique for the industry. For each of the these Building  
13 Blocks our intention is sustained performance.

14 And Brian, John, Bill and Jon, I thank you for  
15 coming to the plant today. We appreciate you coming there,  
16 and appreciate it.

17 MR. PASSEHL: Okay. Okay, that  
18 concludes the meeting. We would like to take five minutes  
19 break and let FirstEnergy people leave or whatever they  
20 want to do, then we'll take questions from the public.

21 Thank you.

22 (Off the record.)

23 MR. GROBE: This part of the  
24 meeting is intended to receive questions and comments from  
25 members of the public.

1 I do have one card, while you all are queuing up in  
2 front of the microphone. The question is, have these  
3 meetings been a help or hinderance to the NRC's inspection  
4 or investigations? It's really an interesting question.

5 These meetings have several purposes. Folks like  
6 Dave Passehl and Jon Hopkins and Scott, the Senior Resident  
7 Inspector, and Christine Lipa in the Region, have very  
8 close daily connection with what's going on in the plant.  
9 Other members of the panel have a less close connection  
10 with day-to-day activities.

11 For the panel as a total, these meetings serve the  
12 purpose of getting a broad update on topics that are of  
13 interest. We work with the utility on the agenda, so we're  
14 discussing things publicly that we have a particular  
15 interest in.

16 They don't directly help or hinder the inspections  
17 or investigations, but what it does do is occasionally  
18 helps us bring focus. You may see me slip a note to Scott  
19 every once in awhile during a meeting. Those notes are  
20 usually, hey, take a look at such and such next month or  
21 take a look at this, or put some more time in that. We do  
22 the same thing in region.

23 So, it does give us some assistance in planning on  
24 some of the inspection type of activities we do. But as  
25 far as hindering or helping the inspections, they don't

1 really have a significant impact on that.

2 The other purpose to these meetings is we're doing  
3 them publicly. That gives you an opportunity to see what  
4 we're doing, what kind of issues we're addressing with the  
5 utility, seeing the way in which we do our jobs. So, those  
6 are the purposes to the meetings.

7 Does anybody else have a question or comment? This  
8 is the only other card I have.

9 MR. RULAND: Could I add  
10 something? See if this works. How is that?

11 Okay, as somebody that's basically come new to this  
12 process, this is my second panel, you know, the kind of  
13 discussion here is, while it provides us sufficient detail,  
14 it's to a certain extent topical. Behind our judgments  
15 about all these items, you know, a very large amount of NRC  
16 inspection has to go on.

17 If you heard me ask a question about license  
18 amendments, just finding out about license amendment is not  
19 really going to make or break what we're going to do, but  
20 it's sure going to get us to mobilize our folks back in  
21 headquarters to get them ready to review that license  
22 amendment. So, for me, it has helped me get up to  
23 speed, hopefully, relatively quickly and it helps us plan  
24 our resources.

25 But again, it's not going to form our judgment

1 ultimately on the acceptability of what the Licensee is  
2 doing. It keeps us posted, and the inspections support  
3 that.

4 MR. GROBE: I don't see a  
5 whole line of folks queueing up.

6 Ah, there we go. Amy Ryder.

7 MS. RYDER: Actually, just  
8 two questions. One is just a logistical question. This  
9 was a question I had at the last month's meeting that I  
10 have again this month with regards to the survey that was  
11 taken by FENOC, the worker survey.

12 The numbers still don't seem to add up with the  
13 number, total number of surveys that were collected and  
14 then broken down between FENOC and contractors. Was there  
15 a third category of people that were included in that  
16 survey?

17 MR. GROBE: Is Randy still  
18 here?

19 MR. RULAND: You mean it  
20 doesn't add up to a hundred percent, is that what you're  
21 saying?

22 MS. RYDER: No, it says 666  
23 FENOC employees and 337 contractors were surveyed in 2003,  
24 which would be a 1,043 individuals, but on here it says  
25 1,139 surveys were distributed.

1           MR. GROBE:           Amy, I'm not sure  
2 that we have that level of detail. Randy Huey for the  
3 company --

4           Mike, do you know the answer to that?

5           MR. STEVENS:         There's Randy.  
6 Let him answer.

7           MR. GROBE:           Yeah, what I  
8 would suggest is that, for that kind of question, you chat  
9 with Randy Huey, fine looking fellow in the blue shirt,  
10 after the meeting and he knows every little bit of data  
11 that goes into it.

12          MS. RYDER:           Can he answer it  
13 now, so everybody can hear?

14          MR. GROBE:           Sure, why don't  
15 you ask your question again?

16          MS. RYDER:           I'm trying to  
17 understand why these two numbers don't add up to that?

18          MR. HUEY:           Randy Huey.  
19           The answer is that this is just showing the people  
20 that we knew were FirstEnergy and the people we knew were  
21 contractors. There were 95 people who took the survey, who  
22 didn't indicate whether they were FirstEnergy or  
23 contractors.

24          MS. RYDER:           So then, these  
25 numbers reflect just the ones that you knew?

1           MR. HUEY:           Right. Each of  
2 these are reflecting -- actually, it's like this number is  
3 666 total FirstEnergy people identified themselves as such  
4 on the survey. Now, for each question, all of those didn't  
5 necessarily answer each question, so the percentage for  
6 each question is based on the number of people that  
7 actually answered that question.

8           MS. RYDER:           Good, thanks.  
9           My other question is whether or not, will there be a  
10 public meeting to hear about the results of the Haber  
11 study?

12           MR. GROBE:           Yeah. Well,  
13 yes. There is going to be two different public meetings.  
14 I anticipate a meeting sometime in the next month or two.  
15 I think Dave Passehl alluded to it earlier in his  
16 presentation.

17           The focus of that meeting, it will be in the Region  
18 III office, but there will be availability through  
19 telephone lines, or if you happen to be in Washington or  
20 Chicago. We would love to have you out to Chicago. You  
21 can sit in. There will be a public meeting in Chicago.  
22 For the Utility to present the results of their Safety  
23 Culture Assessments, as well as what those assessments  
24 informed them of, what actions they're taking as a result  
25 of those, and what long term plans they have, specifically

1 with respect to continuing improvement in Safety Culture,  
2 as well as continued monitoring of Safety Culture?

3 MS. RYDER: Do you know when  
4 the NRC's inspection of Safety Culture will be completed?

5 MR. GROBE: That's the second  
6 public meeting. We'll have a public exit. The when is not  
7 clear. Next several weeks, I would expect the inspection  
8 will be complete as far as the on site work. There will  
9 likely be some additional work that's done off site. And,  
10 our expectations is that we will have a public exit  
11 meeting. That will probably be conducted at the  
12 Davis-Besse Administration Building.

13 MS. RYDER: Actually one more  
14 sort of general question. I understand there is, this is  
15 sort of a follow-up question to the South Texas issue, but  
16 I understand that corrosion has been found on the lids of  
17 two other plants. I know one is in Florida. I can't  
18 remember where the second one is.

19 MR. GROBE: I've been kind of  
20 foresighted on Davis-Besse.

21 Brian?

22 MR. SHERON: Yeah, the Saint  
23 Lucy Plant did an inspection and they found several cracks,  
24 as I understand, on two, I think it was two penetration so  
25 far. They may have found some more today.



1           And there, I think, I'm trying to remember, I think  
2 they're scheduled to replace their head in 2000 -- Unit One  
3 is 2005, Unit 2 is 2006. And so, they'll probably be  
4 looking at repair options with regard to their head.

5           MS. RYDER:           It sort of leads  
6 me to wonder whether or not these plants are really built  
7 to last the 40 years they were licensed to operate, if  
8 we're starting to see cracks a lot sooner than that.

9           MR. SHERON:          Remember, the 40  
10 years for a license was principally based on economic  
11 considerations, rate of return, and depreciation, and so  
12 forth. When we licensed the plants, there was every  
13 expectation, I think at the time, that they would perform  
14 for 40 years; although, we did put in place programs and  
15 requirements for inspections for the very reason that we  
16 were, you know, obviously didn't know everything at the  
17 time.

18          I think the cracking of Inconel 600 is something  
19 that was not fully expected when the plants were designed  
20 and built; and, as such, you know, as we find the  
21 degradation, we are putting in place appropriate, you know,  
22 inspection requirements. The order that will now, back in  
23 I think February, I think as an example of that.

24          We are looking at the operating experience as these  
25 plants like Saint Lucy do inspections, to see if there is,

1 if they learn anything that would say we need to modify the  
2 order. For example, we had susceptibility criteria in  
3 there, which was time and temperature, and we had rankings  
4 of plants, and the inspection requirements were sort of  
5 graded in accordance with their susceptibility.

6 If we come across a plant that, for example, has  
7 degradation that maybe is in a low or medium susceptibility  
8 category, we may have to consider modifying these  
9 requirements as we move forward.

10 Certainly, with South Texas, once we learn more  
11 about what the root cause of that is, we'll have to see how  
12 we move forward in terms of inspection requirements for the  
13 lower vessel heads.

14 MR. GROBE: There is actually a  
15 broader context to that answer too, because a license  
16 exists for 40 years, didn't mean that the expectation was  
17 that all the equipment would last for 40 years. There is  
18 regular preventative maintenance and replacement of  
19 equipment. There is many modifications that occur every  
20 year which improves systems.

21 Some utilities have actually been able to replace,  
22 for example, feedwater control systems with new systems  
23 that are more effective. They engage on that for one of  
24 two purposes; one, is they no longer have replacement parts  
25 for a system that might be twenty years old; the other is

1 they might get more power out of their secondary plant.

2 So the, there is not a nexus between the 40 year  
3 license and expectation of all the equipment would last for  
4 40 years. That wasn't, there is no connection between  
5 those two concepts.

6 MS. RYDER: Well, will the  
7 conditions of the plants be considered when companies start  
8 applying for relicensing?

9 MR. GROBE: Right. There is  
10 not only about a year and a half's worth of effort that's  
11 done in headquarters looking at plant license renewal  
12 applications, there is also a series of two or three very  
13 large team inspections, upward of ten folks, looking at  
14 specific age-related type degradation, maintenance  
15 activities, before license renewal is granted.

16 MS. RYDER: It just seems  
17 that at some point, they're going to have to close the  
18 plant. You know, I drive a twelve-year-old car and it's a  
19 Honda, it's a very reliable car, but at some point I'm  
20 going to have to turn it in for a safer vehicle. It seems  
21 the same principle does apply to these plants.

22 MR. SHERON: That's true.  
23 First off, as you know, there are some components that will  
24 probably limit the life of the plant; for example, the  
25 reactor vessel.

1 MS. RYDER: Right.

2 MR. SHERON: We do have  
3 requirements for the reactor vessel in terms of  
4 embrittlement, for example, 5061, which is the pressurized  
5 thermal shock rule, okay.

6 As plants get older, as they become irradiated,  
7 okay, their ability to withstand pressure as normal shock  
8 decreases. When it reaches a certain level, then they have  
9 to make a choice; either they can anneal the vessel, for  
10 example, to restore a lot of that toughness, okay, or they  
11 can replace it, if that's even a feasible thing, or they  
12 can shut down at that point.

13 When we do renewed licenses, one of the things that  
14 we focus on is making sure that plants have in place  
15 age-related degradation programs to monitor it, to replace  
16 components, and the like. That's the whole focus of the  
17 license renewal reviews is to make sure that these plants,  
18 the utilities have in place programs that will either  
19 replace components or monitor at least the components for  
20 age-related degradation.

21 MR. RULAND: And a number of  
22 the programs, Licensees already have in response to the  
23 maintenance rule, as an example, already do, do do that  
24 monitoring.

25 MR. GROBE: These are usually

1 economic decisions. As Brian said, essentially every part  
2 of the plant can be replaced, simply an economic decision  
3 whether it's economically feasible to replace those  
4 components or upgrade them or deal with age-related  
5 degradation, or if there is some other approach that's more  
6 cost beneficial. Those are company decisions, not NRC  
7 decisions.

8 MS. RYDER: I understand,  
9 thank you.

10 MR. GROBE: Okay, thank you.

11 Anyone else?

12 Okay, I guess the only final comment I would make,  
13 I'm working my own personal age-related degradation  
14 program, and I encourage you each to do the same.

15 We'll be back here at 7:00 if you're interested in  
16 coming back.

17 Our next public meeting is June 3rd. That will be  
18 here at the Camp Perry Clubhouse. And, we're currently  
19 scheduling meetings through the summer. Those will likely  
20 be back over to the high school, if we can procure that  
21 facility.

22 Thank you very much.

23 (Off the record.)

24 - - -

25

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 17th  
10 day of May, 2003.

11

12

13

14

Marie B. Fresch, RMR

15

NOTARY PUBLIC, STATE OF OHIO  
My Commission Expires 10-9-03.

16

17

18

19

20

21

22

23

24

25