1 2 3 PUBLIC MEETING BETWEEN U.S. NUCLEAR REGULATORY COMMISSION 0350 PANEL AND FIRST ENERGY NUCLEAR OPERATING COMPANY 4 OAK HARBOR, OHIO 5 - - -6 Meeting held on Wednesday, July 9, 2003, at 2:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio, 7 taken by me, Marie B. Fresch, Registered Merit Reporter, 8 and Notary Public in and for the State of Ohio. 9 - - -10 PANEL MEMBERS PRESENT: U. S. NUCLEAR REGULATORY COMMISSION 11 John "Jack" Grobe, 12 Senior Manager, Region III Office & Chairman, MC 0350 Panel 13 William Ruland, Senior Manager NRR & Vice Chairman, MC 0350 Panel 14 Christine Lipa, Projects Branch Chief Christopher Scott Thomas, 15 Senior Resident Inspector 16 U.S. NRC Office - Davis-Besse Jon Hopkins, 17 NRR Project Manager - Davis-Besse Jack Rutkowski, NRC Resident Inspector 18 FIRST ENERGY NUCLEAR OPERATING COMPANY 19 Lew Myers, FENOC Chief Operating Officer Robert W. Schrauder, 20 **Director - Support Services** James J. Powers, III 21 **Director - Nuclear Engineering** 22 Michael J. Stevens, Director - Nuclear Maintenance Mark Bezilla, Vice President/Plant Manager 23 Clark Price, Owner - Restart Action Plan Mike Roder, Manager - Plant Operations 24 25 - - -

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1	MS. LIPA: Okay, good							
2	afternoon, and welcome to FirstEnergy and members of the							
3	public for accommodating this meeting today. This is a							
4	public meeting between the NRC's Davis-Besse Oversight							
5	Panel and FirstEnergy Nuclear Operating Company.							
6	My name is Christine Lipa. I'm the Branch Chief for							
7	the NRC in Region III, which is located near Lisle,							
8	Illinois, and I'm responsible for the NRC's inspection							
9	program at Davis-Besse.							
10	We'll go through the rest of the introductions in a							
11	few minutes. I wanted to cover the first slide, which is							
12	the purposes of the meeting, are to discuss FirstEnergy's							
13	status of activities in their Restart Plan and also to							
14	discuss the NRC Oversight Panel activities, focusing on							
15	those activities since our last public meeting.							
16	The next slide is the agenda.							
17	And, let's go ahead and make introductions here.							
18	On the NRC table here, we have Jon Hopkins, and Jon is							
19	seated to my far left. He is the NRR Project Manager for							
20	the Davis-Besse facility.							
21	Next to Jon is Bill Ruland. Bill is the Senior							
22	Manager in NRR, which is the office of Nuclear Reactor							
23	Regulation and he's the Vice Chairman of the Oversight							
24	Panel.							
25	On my left is Jack Grobe, and he's the Senior							

3	To my right we have Scott Thomas. Scott is the
4	Senior Resident Inspector of the Davis-Besse facility.
5	We also have operating the slides for us today, is

Manager in the Region III Office, and he's also the

Chairman of the Davis-Besse Oversight Panel.

6 Jack Rutkowski. He is the Resident Inspector for the NRC

7 at the Davis-Besse facility.

8 And, in the foyer on the way in, you met Nancy

9 Keller. She is the Office Assistant at the Resident

10 Office.

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11 And we have Viktoria Mitlyng of Public Affairs.

12 And, that's about it for NRC folks here today.

13 And, then, if you want to go ahead and introduce

14 your folks, Lew.

15 MR. MYERS: Thank you,

16 Christine. I don't believe this mike is working.

17 Okay, to the far end of the table then, at the end

18 of the table is Clark Price. Clark is our Restart Manager

19 responsible for monitoring our restart performance

20 indicators.

21 Jim Powers next to him, Jim is our Engineering

22 Director.

23 Mark Bezilla. Mark is, this is his second time

24 here, is the Site Vice President of the Davis-Besse plant.

25 Bob Schrauder is to the right of me. Bob is in

1 charge of our support groups.

1	charge of our support groups.
2	Mike Stevens next to him. Mike is the Director of
3	Maintenance.
4	Mike Roder. One of things we asked about last time
5	was the Operational Readiness, so we brought Mike Roder
6	with us today. Mike is in charge of the Operations group.
7	He's the Operations Manager.
8	And, then out in the audience, we have Bob
9	Saunders. Somewhere there is Bob. President of FENOC.
10	Gary Leidich, the Executive VP.
11	And then Bob Conrad is with us Coward is with us
12	today from MPR, the people that's working on the
13	modification to the high pressure safety injection pump.
14	That's it.
14 15	That's it. MS. LIPA: Okay. Sounds like
15	MS. LIPA: Okay. Sounds like
15 16	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was
15 16 17	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was working, but I'll be talking for a little while and then
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15 16 17 18 19 20	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was working, but I'll be talking for a little while and then before we turn it back over to you, you might want to make sure the microphones are working, whichever one started picking up there near the end of your introductions.
15 16 17 18 19 20 21	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was working, but I'll be talking for a little while and then before we turn it back over to you, you might want to make sure the microphones are working, whichever one started picking up there near the end of your introductions. MR. MYERS: Thank you.
15 16 17 18 19 20 21 22	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was working, but I'll be talking for a little while and then before we turn it back over to you, you might want to make sure the microphones are working, whichever one started picking up there near the end of your introductions. MR. MYERS: Thank you. MS. LIPA: So, the rest of
<ol> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> <li>22</li> <li>23</li> </ol>	MS. LIPA: Okay. Sounds like your mike is operating better. I'm not sure which one was working, but I'll be talking for a little while and then before we turn it back over to you, you might want to make sure the microphones are working, whichever one started picking up there near the end of your introductions. MR. MYERS: Thank you. MS. LIPA: So, the rest of the agenda we have for today, we'll talk a summary of what

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1	3rd public meeting, and then we'll turn it over to the
2	Utility for their presentation on the status of the Return
3	to Service Plan.
4	And at the end of the presentation, we'll adjourn
5	the business portion of the meeting, take a break, and then
6	turn it over for public comments and questions before we
7	adjourn the meeting completely. And we will be taking a
8	break after about an hour and 15 minutes or so of the first
9	part of the meeting.
10	So, I would like to also see, I know that we have
11	some public officials, or representatives of public
12	officials in the audience. If you'd stand up and introduce
13	yourself.
14	MR. ARNDT: Steve Arndt,
15	Ottawa County Commissioner.
16	MS. LIPA: Steve Arndt.
17	MR. PAPCUN: John Papcun,
18	Ottawa County Commissioner.
19	MS. LIPA: Okay, John Papcun.
20	MR. WITT: Jere Witt, Ottawa
21	County Administrator.
22	MS. LIPA: Jere Witt. Okay,
23	thank you.
24	Anybody else?
25	Okay. This meeting is open to the public,

1 obviously, for observation, and this is a business meeting,

2 so you'll need to save your questions or comments until the

3 end, but we will be available to answer questions at the

4 end.

5 I wanted to point out a few handouts that were 6 available when you came in today. We had copies of our July edition of our monthly newsletter. That's a document 7 8 we prepare just before each of these public meetings to 9 give like the latest status of issues and NRC activities. 10 And then, the newsletter does provide good background 11 information. 12 And also has some information on how you can reach 13 us, if you want to contact us separately; has the Public 14 Affairs Officers phone numbers and email addresses. It 15 also has the web page address, where we have numerous 16 public documents on Davis-Besse. 17 We also have a public meeting feedback form out in 18 the foyer that you can use to provide comments on today's 19 meeting. I would be interested in any feedback on the 20 facility and how it supports your needs for a hearing and 21 seeing our presentation today. It's been working well at 22 both facilities, I think. And so, if you have any feedback 23 on that, be sure to let us know. 24 We're also having this meeting transcribed today by 25 Marie Fresch. And that will maintain a record of the

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1 meeting. The transcription should be available in about

- 2 three to four weeks. And we do have last month's posted
- 3 already.
- 4 Okay. The next slide is the summary of the June 3rd
- 5 public meeting.
- 6 Okay. During our last public meeting on June 3rd,
- 7 we provided a status update on several of our ongoing
- 8 inspections. We discussed some upcoming activities that
- 9 are still upcoming, such as the undervessel head
- 10 inspection, and the other public meetings to discuss
- 11 engineering issues, and the Licensee's work to assess and
- 12 improve safety culture at the facility. And later in
- 13 today's presentation we plan to provide more details on
- 14 recently completed NRC activities.
- 15 Also at last month's public meeting, FirstEnergy
- 16 provided an update on some of their efforts towards
- 17 restart. They provided an update on several projects and
- 18 topical areas, such as Management and Human Performance,
- 19 Engineering Issues, Corrective Action Program and Quality
- 20 Assessment.
- 21 The next slide is the Restart Checklist. And what
- 22 we want to do for today's meeting was to go through the
- 23 whole Restart Checklist. I have ten slides that will cover
- 24 this, but also if you look on page 4 and 5 of the monthly
- 25 newsletter, there is a consolidated list if you want to

1 follow along and have the numbers.

2 So, what I wanted to do was kind of give you an 3 update on each of the checklist items; where we stand, which ones are closed, what we're waiting on. And kind of 4 5 a status; and after this, we'll just cover the changes each 6 month. 7 First of all, I wanted to let you know on July 2, we 8 revised the Restart Checklist item, added two items to that 9 list. The first is the high pressure injection pumps that 10 are susceptible to debris intrusion that could lead to pump 11 failure following an assumed accident. 12 So, based on the information that was provided to 13 the NRC that is publicly available on the docket, which is 14 in a Licensee Event Report, we call those LERs, that was 15 2003-002, which was issued in May. And based on the 16 information in that LER, the issue of the high pressure 17 injection pumps appears to be greater than very low risk 18 significance. So, it meets the criteria for being added to 19 our restart checklist. We've added it to our Restart 20 Checklist, and that would be Item 2e. 21 The second issue being added, that was added is the 22 license amendment that the Licensee has requested prior to 23 restart. And that's associated with relocating the 24 requirements for certain emergency core cooling system tests from the tech specs to the group USAR. And this has 25

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1 been added as Item 6g.

2	The current division Revision 3 to the Restart Checklist now
3	contains a total of 31 items. To-date, the NRC has
4	concluded that 13 of those 31 items has been closed, and 18
5	remain to be resolved.
6	Okay. First two items, 1a and 1b. These are both
7	complete. The first one is documented Inspection Report
8	2003-04, which was issued on May 9th. That report is
9	available on our website. The second item is complete, and
10	that will be documented in Inspection Report 2002-18.
11	The next slide has Items 2a and 2b. And, 2a is
12	still open. We completed our initial inspections of this
13	item and found the replacement head to be acceptable. That
14	was documented in Inspection Report 2002-07. This item
15	remains open pending some testing, such as the Normal
16	Operating Pressure Test and the Control Rod Drive Testing
17	results that will be coming later.
18	For Item 2b, we've reviewed the test package for
19	this test, and it would be documented in Inspection 03,
20	2003-05.
21	The next slide has a couple of checklist items here;
22	2c and 2c-1. For the first item, we did what we call an
23	Extended Condition Inspection, and Inspection Reports
24	2002-09 and 2002-012, and we identified three unresolved
25	items. So, we have to resolve those three unresolved items

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1 before we can close this checklist item.

2	Two of those unresolved items are being reviewed by
3	one of our inspection teams called the Corrective Action
4	Team Inspection, and they are scheduled to be back on site
5	in August. And the third unresolved item would be review
6	during the Normal Operating Pressure Test.
7	The next item is <del>2c1</del> 2.c.1, which is the Emergency Core
8	Cooling System and Containment Spray Sump. We've done our
9	inspection of that. We had one open item, which is still
10	under review by our inspector. And, once that issue is
11	resolved, we'll be able to consider closure for that item.
12	The next slide shows the Extent-of-Condition for
13	Boric Acid, Outside Containment, and the High Pressure
14	Injection Pump issue that was recently added.
15	So, for the Extent-of-Condition of Systems Outside
16	Containment, we've done a lot of our inspection work in
17	that area. We have three separate inspection reports where
18	we've documented our walkdowns of several Systems Outside
19	Containment that the inspectors have walked down. We have
20	no significant issues that we've identified as a result of
21	those, but we're waiting for some closure packages from the
22	Licensee to be able to finish that issue.
23	2e, which is High Pressure Injection Pump Internal
24	Clearance and Debris Resolution. The Licensee is pursuing
25	two options to resolve that. The first is a modification

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1	of the num	and the	cocond ic ro	nlacomont	of tha	numne
1	or the pump	and the	second is re	placement	oi ine j	pumps.

- 2 Depending on which option the Licensee pursues, we'll gauge
- 3 our inspection accordingly and then develop our plans to
- 4 inspect that area.
- 5 The next slide is the Adequacy of Safety Significant
- 6 Programs. And what we did for all the programs and what
- 7 the Licensee did for all the programs was they developed a
- 8 process to review the programs and to reset the programs in
- 9 detail and then come up with corrective actions for things
- 10 that needed to be corrected or enhanced in those programs.
- 11 So, we had our programs inspections in a couple of
- 12 phases. The first phase looked at the process and the
- 13 initial findings that the utility came up with, and then
- 14 the second phase looked at the final product and how the
- 15 items that were found to be needing correction were
- 16 corrected.
- 17 So, the first item is the Corrective Action Program,
- 18 and that, we've documented parts of that review in two
- 19 inspection reports, and we plan to continue the on-site
- 20 portion of the Corrective Action Team Inspection in August,
- 21 and assess that program at that point.
- 22 The next item is the Operating Experience Program,
- 23 and that one is complete and that's documented in
- 24 Inspection Report 2003-09.
- 25 The next item is Quality Audits and Self-Assessments

- 1 Programs. We've finished part of that review in
- 2 Inspection Reports 02-11 and 03-09; and we have more
- 3 inspections to do.
- 4 The next slide shows three programs; Boric Acid
- 5 Corrosion Management Program, Reactor Coolant System
- 6 Unidentified Leakage Program, and In-Service Inspection
- 7 Program.
- 8 The first one, Boric Acid Corrosion Program remains
- 9 open pending NRC follow-up on some engineering evaluations
- 10 of some identified discrepancies; and when that's
- 11 completed, that will be considered for closure. And if
- 12 it's determined to be closed, it would be documented in a
- 13 Resident Inspection Report.
- 14 The other two items are closed; and those are
- 15 documented in Inspection Report 2003-09, which was just
- 16 issued a couple days ago.
- 17 The next slide shows the next three or the last
- 18 three of the programs that we're assessing. For the
- 19 Modification Control Program, our assessment is complete on
- 20 that. That is documented in Inspection Report 2003-09.
- 21 The second item is the Radiation Protection
- 22 Program. We did a couple of inspections on that already.
- 23 One of them was the Radiation Protection Special Inspection
- 24 2003-08, but before we can close the checklist item, we
- 25 have a couple of other items to review, and that would be

- 1 done during the week of July 14th.
- 2 The next item, which is the Process for Ensuring
- 3 Completeness and Accuracy of Required Records and
- 4 Submittals to the NRC. The Licensee actions on that so far
- 5 is they have selected a sample of approximately 70
- 6 documents to review for completeness and accuracy of
- 7 information. Some of those include generic letters,
- 8 bulletins, Licensee event reports and amendment requests.
- 9 The Licensee estimated approximately four weeks to complete
- 10 those reviews; and then the NRC is monitoring the
- 11 Licensee's activities and developing an inspection plan for
- 12 that area.
- 13 Okay, the next slide is the Adequacy of the
- 14 Corrective Action Plan and the Organizational Effectiveness
- 15 and Human Performance Area. This one is considered
- 16 complete and will be documented in Inspection Report
- 17 2002-18.
- 18 For Restart Checklist Item 4b, which is the
- 19 Effectiveness of Corrective Actions. The Licensee has
- 20 indicated that they're partially complete on this and they
- 21 have some remaining items, such as completing development
- 22 of Safety Conscious Work Environment Performance
- 23 Indicators, Long Term Safety Culture Assessment Tools, and
- 24 a Restart Readiness Review Meeting that will be held next
- 25 week.

1	The NRC action is that we plan to do a continuing							
2	Phase Three Inspection in this area. And the inspection is							
3	evaluating the Licensee's process and tools for monitoring							
4	the Licensee's improvements in the Safety Culture and							
5	Safety Conscious Work Environment area and also the							
6	effectiveness of the Employee Concerns Program. Our							
7	inspection, our Phase Three Inspection is in progress.							
8	The next slide shows Readiness for Restart; and for							
9	these items, we'll be, NRC will be reviewing the Licensee's							
10	Restart Action Plan and associated findings are being							
11	evaluated by the Resident staff. And the results of this							
12	review will be documented in the Resident Inspection							
13	Report.							
14	For the Systems Readiness for Restart, this is							
15	actually a continuing inspection. We've documented the							
16	results of our inspections last fall in the Inspection							
17	Reports 2002-13 and 14. And the System Health Assurance							
18	Inspection, which is 2003-03 just continues.							
19	So, right now we have and they're also doing							
20	inspections, the Corrective Action Team Inspections, doing							
21	inspections in this area which are planned to be on site							
22	for a couple of weeks in July and a couple of weeks in							
23	August.							
24	The next item is Operations Readiness for Restart.							
25	Part of this is being evaluated by the Management and Human							

- 1 Performance Phase Three Inspection, which will be the work
- 2 next week to evaluate the Restart Readiness Meetings.
- 3 And also the Resident Inspectors have inspections
- 4 that they do at the mode changes. And we're also planning
- 5 a Restart Readiness Assessment Team Inspection when the
- 6 Utility is ready to go to Mode 4 for the second time. That
- 7 would be our inspection for that area.
- 8 Restart Checklist item 5d is Test Program
- 9 Development and Implementation. And the Licensee is
- 10 developing certain tests, such as the Normal Operating
- 11 Pressure Test and Control Rod Drive Tests, and several Post
- 12 Maintenance and Post Modification Tests. And the NRC
- 13 actions are to review those tests prior to evaluating this
- 14 Restart Checklist Item for closure.
- 15 The next slide shows some Licensing Issues. The
- 16 first bullet on the ASME Code Relief Requests, we had
- 17 closed Items 6a through 6f. That was documented in
- 18 Inspection Report 2003-04.
- 19 And then the second bullet is our new item that I
- 20 talked about earlier, which is 6g, which is relocating
- 21 those test requirements from the tech specs to the USAR.
- 22 And the NRC has that amendment request under review.
- 23 And the third bullet is Restart Checklist Item 7,
- 24 which is the Confirmatory Action Letter Resolution, and a
- 25 meeting to discuss restart.

1 So, right now, we're tracking the Confirmatory 2 Action Letter items, and we have documented the status of 3 those in a couple of letters that are available on our website. And once all the CAL items are closed, then we'll 4 5 be able to address this item. 6 So, that provides the NRC's Restart Checklist Item 7 Status, and what I plan to do going forward is just talk 8 about the ones that are open. And then, of course, the 9 records where they're closed will always be available. 10 So, that's all I have on the Restart Checklist Items. Unless there is any other comments from the NRC 11 12 folks, I'll turn it over to FirstEnergy. 13 MR. GROBE: Thanks. 14 Christine. We haven't done that in awhile. I appreciate 15 your patience going through it. We added, as Christine 16 indicated, in the monthly update, a complete list on the 17 Restart Checklist on which items are closed. This is such 18 a long-term complex project, it might be difficult for 19 folks to find where we addressed various issues. 20 I think what I'm going to ask is Viktoria, our 21 Public Affairs Officer, to do is put the referenced 22 Inspection Reports behind each checklist item and continue 23 providing this in our monthly updates, so that folks can understand what issues are closed and which reports, and if 24 25 they're particularly interested in a specific item, they

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1 can get that report directly off our website or call our Public Affairs Office and they'll provide a copy. 2 3 Thanks, Christine. MS. LIPA: Go ahead. 4 5 MR. MYERS: Okay. Our Desired 6 Outcomes today are first to provide you an update on the remaining Mode 4 and 3 activities and operational 7 8 readiness. 9 Now, what that really is for the public, is our 10 plans that we have in place, how we're progressing to heat 11 the plant up for the first seven-day test; not using reactor heat, but our pump heat that we described in some 12 13 of the other public meetings. So, to give you an update on 14 that today. 15 We'd also like to provide an understanding, if you 16 would, of the high pressure injection pump modification 17 status that we're making. Then, discuss the quality of the 18 performance of Operations, Engineering, and Maintenance, 19 is on the agenda today. That's one of the, those are the 20 items that we looked at as actions from the last public 21 meetings, so we have, each one of those areas will be 22 discussed. 23 I would like to provide information on numerous 24 actions taken to regain the safety margin. That gets back 25 into the actions we've taken from a people and plant

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1	standpoint, design standpoint, from a safety culture					
2	standpoint, if you will. What we'll do there is status you					
3	on the actions we've taken since the last meeting. And,					
4	finally, if time permits, we'll give you a status of our					
5	milestones and remaining activities that we see prior to					
6	restart.					
7	AUDIENCE MEMBER: Mr. Myers, this					
8	sound systems is atrocious. I think you should take a few					
9	minutes here and get it sorted out before we continue.					
10	(Off the record.)					
11	MR. MYERS: So, let me go					
12	through these again.					
13	The Desired Outcome today, Mode 3 and 4, that's the,					
14	the heat-up of the plant and the seven-day testing. Our					
15	Desired Outcome today is to provide an update on the status					
16	our Operational Readiness in this area.					
17	The second outcome is to provide an understanding,					
18	if you will, of the high pressure safety injection					
19	modification that we discussed and the status of that					
20	modification in our last meeting.					
21	Next was discussed the quality of the performance of					
22	Operations, Engineering and Maintenance. Those three areas					
23	were discussed in the last public meeting, and the NRC					
24	asked us to provide you with an update today, so we're					
25	prepared to do that.					
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- 1 Finally, to provide information on the numerous
- 2 actions taken to regain, regain and improve the safety
- 3 margins of the plant. We talked about Safety Culture last
- 4 time, and we gave you our plan going forward. We had
- 5 numerous activities that we've completed since the last
- 6 meeting and we're going to update you on those activities.
- 7 And, finally, if time permits, we'll provide you
- 8 with a status of our milestones and remaining restart
- 9 activities that we have, as we see them.
- 10 With that, our first presenter is Mark Bezilla.
- 11 Mark is going to provide you with Containment and remaining
- 12 activities for the heat-up using nonnuclear heat pump heat,
- 13 if you will; and really status you on our plant, the
- 14 overall plant status now, the way we see it.
- 15 With that, I'll turn it over to you Mark.
- 16 MR. BEZILLA: Thank you, Lew.
- 17 Next slide, please.
- 18 My Desired Outcome today is to provide you with an
- 19 update and leave you with a better understanding hopefully
- 20 with regard to the following; our Containment Activities
- 21 and our preparations for the first Mode 4 and 3.
- 22 As Lew said, that's the heat-up and pressurization
- 23 of the Reactor Coolant System to normal operating pressure
- 24 and near normal operating temperature using reactor pump
- 25 heat, and our Desired Outcomes for this first Mode 4/3.

1 Next slide, please.

2	First, I would like to provide you with an update on
3	our Containment Health Activities. In regard to our
4	Discovery Action Plans, 24 of 24 plans are complete. And
5	in regard to our Implementation Action Plans, 4 of 16 plans
6	are complete. The remaining 12 plans are drafted and are
7	expected to be complete within the next two weeks. We
8	continue to make progress on I'll say the closure of these
9	plans.
10	In regard to Containment Work, the major work in
11	Containment is complete. The equipment hatch has been
12	installed and ownership and responsibility for Containment
13	health has also been turned over.
14	Next slide.
15	We installed the equipment hatch on June 25th. This
16	is just a picture of our folks installing the hatch and it
17	being bolted up, if you will. This effectively closed
18	Containment.
19	We do have a few remaining activities to complete in
20	Containment, but they're either in progress and/or
21	scheduled. And these activities should complete in the
22	next few weeks and I believe will support our target for
23	the first Mode 4.
24	Next slide.
25	I'd just like to take an opportunity and reflect on

- 1 some of the major items that we've accomplished during this
- 2 outage. This first slide is just a picture of the new
- 3 reactor vessel head.
- 4 Next slide.
- 5 The next one here is a picture of our Containment
- 6 Sump Strainer. This is looking from almost underneath the
- 7 vessel towards the strainer, if you will.
- 8 Next slide.
- 9 This is a picture of the coatings that we, the
- 10 painting that we did on the Containment Dome, and this is
- 11 just a shot looking upwards from the operating deck.
- 12 Next slide.
- 13 This picture is a couple of our folks installing
- 14 additional reactor coolant leak detection equipment. This
- 15 is our FLUS monitor and this is underneath the vessel.
- 16 Next slide, please.
- 17 This is a picture of our new Containment Air
- 18 Coolers. This is a portrait of some of the piping that's
- 19 going into the actual cooler section, and additionally, we
- 20 refurbished and replaced a lot of the duct work and all of
- 21 the registers associated with the Containment Air Coolers.
- 22 (Off the record/microphone problems.)
- 23 MR. BEZILLA: Okay. Next slide,
- 24 please.
- 25 This is just a picture of I'll say our improved

1 closure for two of our important decay heat removal system	1	closure	for two of	our imp	ortant deca	v heat	removal	system
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- 2 valves located in the basement of Containment. We refer to
- 3 this as our decay heat valve tank, if you will.
- 4 Next slide.
- 5 From a Containment Ownership standpoint, we recently
- 6 on July 3rd, conducted a ceremony, a ceremonious turnover
- 7 of Containment Health Ownership. This was from our
- 8 Containment Health Project Manager, Tim Chambers, to our
- 9 Operations Manager -- actually it was his second, Scott
- 10 Rice, who is an Ops Superintendent. Mike was off when we
- 11 took this picture. This ceremony, I'll say, signified the
- 12 turnover of Ownership for Containment Health to the
- 13 Operations Staff, Operations Section.
- 14 In summary, from a Containment activity standpoint,
- 15 the activities are coming to a closure. The equipment
- 16 hatch is installed. Ownership of Containment Health has
- 17 returned to Operations, and I'll say we're making the final
- 18 preparations needed to support our first Mode 4 evolution.
- 19 Next slide.
- 20 I'd now like to just provide you with an update on
- 21 the key activities required to support this first Mode 4
- 22 evolution.
- 23 We will conduct our Restart Readiness Review
- 24 Meetings on July 10th and 11th and 14th and 15th. These
- 25 meetings provide us a forum to review our peoples, the

1 plants, and our processes readiness for the mode change. 2 As an example, on the 10th and part of the 11th, 3 we'll have a number of our system managers come in and report out on System Health and Readiness for this first 4 5 Mode 4 evolution. Then, we'll move into having our 6 managers report out on their departments readiness to support the first Mode 4 evolution. And then Monday and 7 8 Tuesday, we'll spend assessing the Safety Culture, and I'll 9 say our Culture Readiness to support this first Mode 4 10 evolution. 11 We have approximately 690 low hold restraints and these things can be anything from a work order to a 12 13 question, if you will. We have work orders. We have post 14 maintenance tests. We have surveillance tests. 15 I've reviewed these restraints. Actually it was a 16 couple weeks ago when I took a look at them. I believe 17 we'll be able to clear those items to support our target 18 for this first Mode 4 evolution. 19 Key activities remaining. We have our high pressure 20 injection pump installation. We have our high pressure 21 injection pump recirculation line modification; and this is 22 recirculation when we would be in the containment sump 23 supply mode through the LPI pumps to the AVI pumps. 24 We have our electrical transient analysis program 25 related modification, and there is six of those that I will

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- 1 say are pretty well on their way from a development
- 2 standpoint as well as from a beginning activities in the
- 3 field.
- 4 And we have our motor thermal overload protection
- 5 related modifications, and these are fairly simple mods.
- 6 There is 53 of these that will be installed at the breakers
- 7 for various components, and I believe we have a good handle
- 8 on those and what we need to do to complete that
- 9 modification, if you will.
- 10 In summary, I believe we know what needs to be done
- 11 to be ready for this first Mode 4; and I believe we'll be
- 12 ready to support our target.
- 13 Next slide, please.
- 14 Now, let me just talk briefly about our Desired
- 15 Outcomes for this first Mode 4. I believe this first Mode
- 16 4 evolution will provide us valuable insights into our
- 17 people's ability to perform, their behaviors and attitudes,
- 18 our plant's health, our equipment performance, our
- 19 capability, and our processes usability and effectiveness.
- 20 Through the use of our Corrective Action Program and
- 21 our Observation Program, we will be able to document
- 22 problems and opportunities for improvement and then use
- 23 this information to make changes to improve our people, our
- 24 plant, and our processes.
- 25 This first Mode 4 evolution will provide us valuable

1	insights,	opportunities	for	improvement,	and	confidence in
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- 2 our ability to safely operate the Plant.
- 3 That completes my presentation. Any questions?
- 4 MR. GROBE: No. Thank you.
- 5 MS. LIPA: No.
- 6 MR. BEZILLA: With that, I'll
- 7 turn it over to Bob Schrauder and he'll give you an update
- 8 on our high pressure injection modification.

9 MR. SCHRAUDER: Thank you, Mark.

10 Like Mark said, I'll give a brief update on where we

11 are at with the modification we have planned for the high

- 12 pressure injection pump. I'll provide the project status,
- 13 some preliminary findings that we found to-date and how
- 14 those findings may have deviated from what we expected to
- 15 find at this point.
- 16 Give us a little bit of an update and discussion
- 17 about what we learned. We had an opportunity to visit
- 18 people in France, the original manufacturer of this pump
- 19 line, if you will, and what we've learned from them and
- 20 their activities in modifying their pumps.
- 21 And then, finally, I'll talk about where do we go
- 22 from here with what we've learned and how do we bring this
- 23 to some conclusion.
- 24 Next slide, please.
- 25 So, in regard to where we're at; we did have the

1	original	modification	design	concept.	We com	pleted	that

- 2 concept, which came as a basic location and the shape of
- 3 the strainer that we intended to install in the high
- 4 pressure injection pumps. We've completed the stress and
- 5 hydraulic design analysis for that design concept. And we
- 6 have initiated the failure modes and effects analysis, and
- 7 that analysis in the review and approval cycle as we
- 8 speak.
- 9 Now, some of those analyses may in fact have to be
- 10 adjusted a bit as we finalize and refine our modification
- 11 in the final modification, then we'll go back into the
- 12 analyses and make sure they are appropriately covered in
- 13 these original analyses.
- 14 We have completed our in test -- our in-plant
- 15 testing, and that testing was a baseline test to measure
- 16 the vibrations of the rotor dynamics of the install high
- 17 pressure injection pump.
- 18 And then we did a second test that we called the 2X
- 19 Test, which essentially opened up the internal pump
- 20 clearances to twice the normal clearance in those, which is
- 21 actually more than what we would expect to see as a result
- 22 of debris enacting on those clearances in the internals of
- 23 the pump.
- 24 We had to verify that the pump with those expanding
- 25 clearances would continue to operate appropriately and we

1	confirmed	that; tha	t the	vibration	was	good	on th	e pump	o and
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- 2 the pump continued to deliver the flow required in those
- 3 scenarios.
- 4 We did set some initial assumptions for our testing
- 5 or our mockup. Those things included things like the
- 6 debris loading we would model, the tank size we would use,
- 7 reached the decision we needed to agitate, if you will, the
- 8 debris bend that we were using in order to keep it in
- 9 suspension so it wouldn't settle out; looked at what flow
- 10 rate we would model in the pump that we're using to simulate
- 11 what we expect would be the worse case conditions.
- 12 And, we have begun our mockup testing at our
- 13 laboratory facility. And the actual pumps from our
- 14 facility have been removed, the internals, the pump, the
- 15 rotating assembly have been removed from the plant and
- 16 shipped to our modification facility and have been
- 17 disassembled there and are waiting our final design to be
- 18 installed in those pumps.
- 19 Next slide, please.
- 20 This is a couple of pictures of our test facility.
- 21 This first one up here shows our, this is our tank back
- 22 here, and our bank of flow loops that simulate various
- 23 portions of the pump.
- 24 We have one loop that simulates a suction wear ring,
- 25 and how debris might impact that.

1 We have another loop that simulates the discharge

2 wear ring.

3 We have another loop that simulates the center

4 volute pushing in this pump, again for debris wear ring on

5 the internals there.

6 And then a fourth loop which is the loop that we've

7 installed, what I'll call a facsimile pump that has a very

8 close design to the impeller in the volute of our pump

9 where we actually install the various designs for the

10 screen that we were testing at this facility.

11 And when you look down this row, it looks like there

12 is a lot more than four pumps in there, and there are in

13 fact more than four pumps and more than four loops, because

14 we have installed a spare pump for all of these except the

15 pump that has the actual strainer in it.

16 So, each of these has an installed pump in the

17 process, so if something were to happen to the pumps that

18 are there, we have the ability to move on and continue in

19 another loop there.

20 The picture on the left over here is looking down

21 into our tank and it shows the agitators. Of course, you

22 might ask, that doesn't seem like it will agitate very much

23 being the amount of water there, but there is actually

24 another impeller that's down in the water. And this is if

25 the tank volume is higher. So, there is a rotating

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1 agitator here, and then there is another one down on this end of the tank that keeps the debris in suspension and 2 3 makes sure that it's a uniform distribution of the debris. 4 Okay. Next slide, please. 5 This then shows that the pump that I was talking 6 about here on the left, this simulates very closely our volute and impellers in our pumps. And this is where we 7 8 install our strainer design. And we have the capability of 9 installing two strainers in this thing and running two 10 simultaneously. 11 So, what happens, I have these pictures next to each 12 other. We run this debris water through this pump with the strainers installed, various size of the strainer we've 13 14 used. And we're testing in this mockup the self-cleaning 15 aspect of our strainer. That is, with the various size, 16 the flow will meet our assumption on being able to keep 17 that strainer self-cleaning. 18 And, then, we take what we would expect to get 19 through the strainer then, that would be able to find its way to the hydrostatic bearing. Would take debris of that 20 21 characteristic and insert it into this mockup, which is, 22 has a separate tank then that we take suction from, and 23 actually pump it through this rig, which is a mockup of the hydrostatic bearing itself. And this is actually a real 24

25 hydrostatic bearing that's installed in this. And it is

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- 1 the hydrostatic bearing from the spare rotating assembly
- 2 that we have at the plant. So, it's kind of the process of
- 3 how this flow loop and test facility was set up.
- 4 Next, I want to talk a little about what we found
- 5 to-date and how that deviates from what we expected to

6 find.

- 7 Before I go into this, I want to go one slide
- 8 forward, please, and talk about the -- this is the
- 9 hydrostatic bearing right here. And the hydrostatic
- 10 bearing, the purpose of the hydrostatic bearing, is it
- 11 basically supports the end of the shaft and keeps the shaft
- 12 rotating smoothly in the pump.
- 13 So, the shaft, a sleeve on the shaft actually fits
- 14 inside this; and this view here is just looking down in
- 15 side it.
- 16 When I talk about the bearing pads, that's this area
- 17 here. This is the area that water flows into this to
- 18 support the shaft. This over here, between these two, is
- 19 what I'll call a reservoir of water that feeds the pads.
- 20 And this port here is the outside of that port that comes
- 21 in.
- 22 And these columns here is where the water and any
- 23 debris that would be in the bearing is ejected from the
- 24 bearing itself.
- 25 Give you the next pictorial, please.

1 These are the areas of concern that we were looking 2 at from the hydrostatic bearing. Our major area of concern 3 essentially as we went into our testing was that this entryway, if you will, this supply line to the hydrostatic 4 5 bearing was a smaller diameter than the diameter of our 6 sump screen that we just installed. 7 So, what that means is debris could get through the 8 sump strainer and could make its way to this core and plug 9 that, robbing the hydrostatic bearing of the need of water 10 to support the shaft in the pump. 11 This area here is that area that I showed you that I called the reservoir. So, these two ports feed that 12 reservoir, which in turn feed the five ports around the 13 14 hydrostatic bearing into, this is the bearing pad. 15 Now, one of our, I told you that we achieved our, 16 and agreed upon an initial set of assumptions that we were 17 using. One of the assumptions or expectations that we had 18 was that, this was the primary concern; again, blocking 19 this supply line of water. And that any debris, small 20 debris that got into, found its way into the bearing pad 21 area, that this shaft spinning in here at 3600 rotations 22 per minute would simply grind up that debris and expel it 23 through these clearances and out the port with the water. 24 This clearance is a little misleading by way of, 25 it's not to scale. So, the clearance from this pad over to

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1 this ejection port is 6 mils. Okay. And that's important

- 2 to remember that clearance is a clearance that has some
- 3 findings that we're not expecting to see occur.
- 4 So, go back the two slides now to the word slide
- 5 that we have.
- 6 Our original strainer design concept again was a 90
- 7 mil strainer, which would provide sufficient straining of
- 8 the water to those inlet lines of the hydrostatic bearing
- 9 and would not clog them.
- 10 We tested that design, and that design tested
- 11 satisfactorily for us from the aspect of it was a
- 12 self-cleaning strainer, it stayed clear, it did not plug
- 13 for the duration of the time that we ran that strainer.
- 14 However, what we did see that was different than our
- 15 assumption going in, was that the debris that was in the
- 16 water that got to the hydrostatic bearing itself was not
- 17 ejected by the rotation of the shaft inside the bearing.
- 18 And, in fact, we saw the bearing pads fill up with the soft
- 19 debris. It was not ejected.
- 20 So, we had a good design by way of keeping the
- 21 strainer clean, but it did not get the expected results
- 22 inside the hydrostatic bearing itself.
- 23 So, at that point, recognizing that we were going to
- 24 need to reduce the size of the bearing, or the debris that
- 25 got into the bearing itself, we began to modify our tests

1 and debris for that, so we would sift the debris down to

- 2 smaller sizes.
- 3 What we found is when we got down to about 12 mils
- 4 for our debris size, the bearing did clear itself as we had
- 5 expected that it would with the 90 degree, or 90 mils.
- 6 However, the very hard debris in that loading, the harder
- 7 debris that we found in there, this would be things like,
- 8 that would represent small concrete chips or sand particles
- 9 in there, were actually scoring the shaft sleeve itself
- 10 more than we had anticipated that it would.
- 11 So, that kept it clear, but impacted the sleeve in a
- 12 manner we were not anticipating. So, what did that tell
- 13 us? One other point, I want to bring up, I guess.
- 14 The other thing that we saw that surprised us, I'll
- 15 say, was in testing our strainers, various size strainers
- 16 that we looked at, 90 mils, 30 mils, 12 mils, we saw a
- 17 phenomenon that, when you initially loaded debris into our
- 18 tank, these strainers would remain self-cleaning and did
- 19 not plug, but after about, in some cases 24 hours, they
- 20 would plug.
- 21 And in a couple of instances, they plugged, which we
- 22 weren't expecting; we took it out, cleaned it off,
- 23 reinstalled it, ran the loop again, and it plugged much
- 24 faster the second time. Took it out, looked at the debris
- 25 that was on it, cleaned it off, and put it back in, and it

1 plugged even faster.

I	plugged even laster.				
2	What we're seeing, we believe, we don't fully				
3	understand it, but we're continuing to look at, is the				
4	debris as it wears or ages or goes through our test loop,				
5	changes its characteristics and its ability to plug the				
6	screen. Like I said, we don't exactly know what that means				
7	yet, but we do know that that phenomenon is fundamentally				
8	related to fiber in the material, or in the debris.				
9	So, we are continuing to look at that, and we're not				
10	sure that we're not creating a test-induced issue, that				
11	it's not exactly what we would see in our actual				
12	containment environment. We're continuing to look at				
13	that. That's one of the things that we were not expecting				
14	to see in that.				
15	This next bullet on the debris fiber. These first				
16	few bullets that I was talking about were related to the				
17	hydrostatic bearing. This next one relates to the wear				
18	ring, suction in and discharge wear rings. And that,				
19	again, this was fiber, predominantly fiber in this became				
20	lodged part way through those clearances, forming a, what				
21	I'll call a debris pad, that wore those clearances in a				
22	nonuniform manner different than we expected the wear to				
23	occur on that.				
24	Again, that seems to be largely due to the fiber,				
25	and later in the cycle of that. So, we don't know about				

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1 that yet either, whether that's, you know, I showed you

2 those agitators. We're agitating this stuff a lot and it's

3 cycling through this loop a lot more frequently than it

4 would cycle through containment, and it is not refiltered

5 as it comes in.

6 So, in the actual containment, as you took suction

7 off the sump, discharge it through your system, and came

8 back out the system; it has to come back around the

9 transport theory and come back in through the stainer now

10 that we have other matting on it, and get back into the

11 pump.

12 Our system simply takes it, pumps it through, dumps

13 it right back into the tank. So, we're continually

14 recycling. So, it's another area that we have to continue

15 looking at, but it's impacting the clearances on the wear

16 rings also.

17 So what does all that tell us? It tells us that

18 our initial findings indicate that conditions more closely

19 modeling what we really expect to see in the containment

20 need to be looked at; and that would include potentially

21 changing the environment that we currently expect to see.

22 That is, again, the issue that we see predominantly is

23 fiber.

24 So, part of our analysis may indeed lead us down the

25 path of removing all remaining fiber and all known fiber

1	from the containment, so that we eliminate that as a source			
2	concern while we continue to investigate whether it's a			
3	test phenomenon that we see or something that's a real			
4	phenomenon.			
5	Did you have a question?			
6	MS. LIPA: Yeah, when you			
7	talk about you want to model truer conditions to what you			
8	expect, is that what you're talking about, fiber? Any			
9	other conditions that you're looking at?			
10	MR. SCHRAUDER: Well, we would			
11	relook at the entire setup assumption. We knew going in			
12	that we put in a debris loading, let's call it, that was			
13	clearly conservative. It's two things with that sump that			
14	we have installed. Two separate set of assumptions that we			
15	use. One is transport theory, when you're loading that			
16	strainer, I'll talk about the sump strainer now.			
17	When you're loading that, you make the assumption			
18	that nothing really gets through it. You load the entire			
19	thing and then you do an analysis that it would stand that			
20	load and then you still have sufficient net positive			
21	suction head to your pumps.			
22	Our assumption is just the opposite, and that is,			
23	all of the debris that's transported to the strainer that			
24	is of the size smaller than the strainer holes, all of that			
25	gets through the strainer and is now available for suction			

1 to the pump. And that is clearly the worst case that you can see there. But is it so much worse case as to not be 2 3 real? That is, and then to continue that hundred percent 4 5 loading through the system more times than it would really, 6 you know, that the sump volume is quite a bit larger than 7 the actual sump, on the order of five hundred thousand 8 gallons, where our tank is nine thousand gallons. So, 9 we're rotating that same water through the system quite a 10 bit more often. 11 And again, if it goes through containment, through the system out through containment, some of it cycle again, 12 13 some of it not get through containment. So, we need to 14 make sure we're not setting up a condition in the test that 15 you just can't meet. 16 So, that's what I meant by going back and relooking 17 at those assumptions that we're using, up to and including 18 just removing the fiber from the containment so we don't 19 have that. 20 MS. LIPA: Okay, thank you. 21 MR. SCHRAUDER: And we have run 22 tests at the facility without fiber in it. And we have had 23 very good performance where there is not fiber in the 24 debris. So, we're thinking that it's probably good to go

ahead and remove the fiber.

25

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1 MR. RULAND: This question may 2 be premature. Originally, you decided to put the fiber in 3 this, in your test mixture, because of course you saw there could be fiber in containment that would be transported. 4 5 Can you share with us a little bit about why you 6 think you're going to be able to say why you don't need 7 fiber in the test? 8 MR. SCHRAUDER: I would go into 9 the containment and remove all known fibrous installation 10 out of the containment. Replace it with mirror 11 assumption. 12 MR. RULAND: So, what you would 13 do is basically change your containment assumption? MR. SCHRAUDER: 14 That's right. 15 We had been removing over the years fibrous 16 insulation from containment anyway. We had been removing 17 over the years insulation out of containment and we would 18 just accelerate that process and get as much as we know 19 that's in there out today. We believe we know where all of 20 the fibrous insulation is at in containment. And that 21 we'll be looking at, and likely be doing that. 22 MR. RULAND: Thank you. 23 MR. GROBE: I have a couple 24 questions, Bob. The first bullet on this slide, "Strainer 25 design with 90 mil holes operated satisfactory, (no

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1 plugging)." How long was that test?

•	plugging). The long was that test:					
2	MR. SCHRAUDER: It was in excess					
3	of 24 hours, and we disassembled it and there was no sign					
4	of debris totally.					
5	MR. GROBE: Okay. For the					
6	smaller hole size screens that you ran, I think you ran 30					
7	mils and then some smaller than that. What other tests					
8	have you run so far?					
9	MR. SCHRAUDER: Okay, we have					
10	run that's a good question, Jack. Brings up something					
11	else I want to bring up anyway.					
12	We have run strainer designs down to 5 mils, so					
13	we've run 5 mil strainers, we've run 12 mil strainers,					
14	we've run 30 mil strainers and we've run these 90 mil					
15	strainers. Hole, okay?					
16	We are also looking at and have begun testing of					
17	strainers of other designs other than holes. There is					
18	slots. There are another type, it's still holes, but it's					
19	what we call a volcano strainer where you raise the surface					
20	in a microscopic volcano effect, if you will, with holes,					
21	then drill in there, which changes the flow velocity in the					
22	vicinity of the holes to help keep them clean.					
23	We're continuing to look at different strainer					
24	designs as we move forward.					
25	MR. GROBE: And, the results					

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1 of the smaller hole size strainer tests?

2	MR. SCHRAUDER: They are
3	plugging.
4	MR. GROBE: They are
5	plugging?
6	MR. SCHRAUDER: With the debris.
7	And they plug in as little as 15 minutes, as we age the
8	debris. So, the one strainer, for instance, we ran it the
9	first time in excess of twelve hours, and if memory serves
10	me right, it was close to 24 hours. And then, it plugged.
11	We cleaned it. Put the same strainer in, same debris
12	loading, without refreshing the debris. It plugged that
13	time, I believe, in like an hour and a half. And then
14	clean it again. And the same debris field, it plugged in
15	15 minutes.
16	MR. GROBE: So, do you
17	believe if you run the 90 mil strainer longer, that it
18	would have plugged?
19	MR. SCHRAUDER: We have been
20	asking that. Bob and I discussed that several times. We
21	ran it for 24 hours, and that other one I just talked
22	about, follow-up, we didn't run it for 24 hours, I think
23	the first one was 8 hours.
24	So, we ran this one for 24 hours. Took it apart and
25	saw no signs of plugging on it.

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1 Can I absolutely tell you it will never plug? Not 2 based on what we've seen subsequent. As the debris ages, 3 there may be testing and it caused it to plug, so. 4 We have, again, we're running a test right now as we 5 speak, with no fiber in a, one of our strainer designs, 6 actually it's a 30 mil strainer and a, I think it's a 7 mil 7 or 12 mil lead notched one, and that one has been running 8 now for about 36 hours with no signs of any plugging on it 9 at all. I believe that's the longest we've run one; and 10 again, no fiber in this debris mix. MR. HOPKINS: 11 Let me ask a question here. How big is your tank? What I'm interested 12 13 in is turnover time. MR. SCHRAUDER: 14 Right. The tank is nine thousand gallons. And the maximum turnover time, I 15 16 believe, is in the, or minimum is in the range of about 20 17 minutes if all the loops are running, depends of course on 18 how many of these loops are running, but I think we 19 estimated there was around 20 minutes, and I think that's around a third to a fourth turnover time of the, what you 20 21 would expect in containment with all our pumps running; 22 that's the area. MR. HOPKINS: 23 Okay. 24 MR. GROBE: I would like to ask a couple of questions on how you would define the 25

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1 debris that is in the water that you're circulating. What you're doing is you're trying to mimic the conditions that 2 3 will exist after an accident inside containment. Was that based on empirical data? 4 MR. SCHRAUDER: 5 It was based on, 6 I'll ask Bob Coward to help me with this, if I don't get it quite right. 7 8 We had a transport analysis performed for us, as a 9 result of a large break load scenario. And transported it 10 from the break around the sump, then through the sump. 11 And we took that, that was performed by one 12 consultant for us. For the purposes of this test, we then 13 took the transported debris that came to the sump, and then 14 assumed that all of the debris that got to the sump of a size smaller than the holes in our strainer got through the 15 16 sump and were available to the suction of the AVI pumps. 17 MR. GROBE: So, the 18 definition of the debris is strictly, is there any data, 19 any empirical data on tests that have been run? 20 MR. SCHRAUDER: I will let Bob 21 answer that. 22 MR. GROBE: That can support 23 that that's actually a valid analysis. 24 MR. SCHRAUDER: I will let Bob 25 Coward answer this.

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1	MR. COWARD: Thank you. Can				
2	you hear me?				
3	MS. LIPA: Yes.				
4	MR. COWARD: What we did,				
5	Jack, is last year when FirstEnergy modified and replaced				
6	the containment sump at Davis-Besse, a good deal of				
7	analysis was done in terms of what I'll call a debris				
8	source term, what kind of debris could be generated within				
9	containment following an accident and then also transport				
10	analyses of what could be transported to the sump.				
11	As Bob said earlier, the real focus of those				
12	analyses was to maximize the amount of debris that could				
13	set up, that could accumulate on the strainers and maximize				
14	the BP across the strainer to confirm that the stainer had				
15	structural adequacy and you could maintain adequate flow				
16	and indicate safe release of disk pumps.				
17	Since we wanted a slightly different focus, which				
18	was more along the lines of what could get through, we sort				
19	of took those analyses, along with the results of all the				
20	NRC responsive research from the last 20 years, primarily				
21	stuff from the BWR suction screener days. Most of those,				
22	were your experts providing results of the NRC testing.				
23	And we sort of took all that together, adjusted to				
24	some extent the results of the analyses from the sump				
25	modification to include the effects, what we call important				

1 effects from the NRC research, and then put all that together into a final debris characterization, which 2 3 considered what could be generated, what could be 4 transported. 5 And we actually, as a confirmatory step, the 6 organization contracted had done the initial debris 7 transport studies for the containment sump strainer 8 modification. We had them review the final 9 characterization we came up with to make sure they 10 concurred based on their studies and their understanding of the NRC's research. 11 MR. GROBE: 12 Has this type of 13 an analysis for this purpose been done before that you're 14 aware of? 15 MR. SCHRAUDER: There are debris 16 transport analyses done for, for instance, the point one 17 reactor sump strainers. There are transport analyses that 18 have been done. 19 MR. GROBE: Those are all done to identify large debris that could clog the strainer? 20 21 MR. SCHRAUDER: Yes. 22 MR. GROBE: Not to define 23 what might get through the strainer. 24 MR. COWARD: We haven't done 25 what I would consider an exhaustive search and study, but

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1	to the best	of our	knowledge, no,	we could not	find anyone
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- 2 who had done an equivalent analysis, which was trying to
- 3 maximize what actually gets through. All the other
- 4 analyses we could identify were for the other purpose.

## 5 MR. GROBE: This is an area

- 6 where we need to focus a little attention on. I'm
- 7 certainly not an expert in this area, but we do have some
- 8 folks in Washington that are more expert. One of them is
- 9 now visiting your test facilities for a period of time and
- 10 observing your activities.
- 11 But, when you get into refining this analysis to
- 12 more closely model suspected containment environment, as
- 13 you start to take margin out of this design of the test
- 14 that you're developing, I think we need to become more
- 15 closely involved in what your basis is for taking that
- 16 margin out.
- 17 I know you're defining this, you're doing some
- 18 pretty impressive work here that I don't believe there is a
- 19 lot of empirical data to validate these various models. I
- 20 think we need to look at that.
- 21 This question on fiber pads. You're developing
- 22 debris pads. Have you checked with the folks at Three Mile
- 23 Island? They were in a recirculation mode for quite an
- 24 extended period of time, to see if they observed any
- 25 degradation, associated with debris pad formation?

1 MR. SCHRAUDER: No, I have not, 2 but my understanding is they did not disassemble those 3 pumps. They were highly contaminated at the end of that event. So, I don't believe they did any disassembly of 4 5 those pumps. 6 MR. GROBE: Given the wear 7 rate that you're seeing here though, one would expect after 8 months of recirculation that the pumps would degrade and 9 fail; unlikely hours, that you're running these tests. 10 MR. SCHRAUDER: Right. 11 MR. GROBE: That might be an 12 interesting source of data. I don't know if there is 13 anything valuable or not. 14 Any other questions before Bob goes on? 15 MR. COWARD: If I could add one 16 thing just to follow up on what Bob was explaining. 17 We sort of anticipated a question along the lines of 18 what you just, the comment you just made. When the last 19 bullet up there, part of that is also intended to address 20 is; since going in, there was this presumption on pretty 21 much everyone's part; we're not afraid to acknowledge that; 22 that we were going to be successful. Everyone felt 23 comfortable with our key assumptions. 24 We felt it was okay to include a number of 25 conservatisms, sort of a common effect. And some of the

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- 1 conservatisms we had were that from a debris loading
- 2 perspective, we went with what I'll call a
- 3 full-founding bounding-no-one-would-argue-large-break LOCA radar
- 4 position.
- 5 And then we turned around and when it came to, how
- 6 would we operate the pumps, what would the conditions be
- 7 within the pump, within these loops as it relates to how
- 8 this debris could degrade a pump; it turns out that the
- 9 limiting operating condition for the pump is actually on
- 10 midflow, essentially a small break LOCA operating
- 11 condition.
- 12 And since there was a presumption of everything
- 13 would work out okay, we actually set our initial test up
- 14 where we had a small break LOCA pump operating condition
- 15 with a large break LOCA debris loading.
- 16 Now, you know, we did that knowing it was bounding,
- 17 knowing it was conservative, but what we're, our concern is
- 18 whether we create a test that was overly conservative. So,
- 19 when we talk about more closely modeling what was actually
- 20 going on in the plan, it's not our intent to eliminate
- 21 conservatisms, it's our intent to come up with the more
- 22 appropriate conservative test.
- 23 MR. GROBE: I appreciate
- 24 that, Bob.
- 25 The thing that I would like to see is any empirical

1 data that supports the validly of these models.

2	MR. SCHRAUDER: Okay.
3	MR. GROBE: Not for some
4	clogging, but for through go of debris, because I think
5	you're on some cutting edge work here.
6	MR. SCHRAUDER: Okay.
7	Move forward a couple of slides, please.
8	Okay. Talk a little, just a little about what we've
9	found from the French. I'll go through this rather quickly
10	in the sake of time.
11	There are differences, more differences than we had
12	originally believed between our pumps and the French pumps,
13	particularly after the French did some modifications to
14	their pumps.
15	They spin at a faster rate, which we believe helps
16	expel the debris from the hydrostatic bearing. Ours is
17	like I said before at about 600 rotations per minute. The
18	French designs are 4500.
19	They have hard face in that bearing and the shaft
20	sleeve, I talked about some scoring on the shaft sleeve.
21	That's hard face in the French design. We're looking at
22	that. Those are the two big physical differences.
23	Then the modifications. They have, our take-off for
24	the supply lines for the hydrostatic bearing is on the
25	suction side of the impeller. They have moved it to the

1 discharge side of the impeller.

2 And they actually, the center volute bushing in our 3 pumps were replaced in the French pump with a second hydrostatic bearing. They also did a modification to their 4 5 hydrostatic bearing that assists that bearing in the event 6 of no flow to it, being able to continue to support the pump shaft. 7 8 So, that's the fundamentals of what we learned from 9 the French. We'll particularly be looking at two of those 10 things; that is the hard facing of the, particularly the 11 shaft sleeve. We believe that the bearing itself is quite hard, but then the sleeve is a softer material. We'll be 12 13 looking at potentially hardening that. We're also looking 14 closely at this location of the take-off, whether it might 15 be more beneficial to have it on the discharge side of the 16 impeller. 17 So, where do we go from here is the next discussion? 18 We believe strongly yet that pump modification remains our 19 primary success path. We believe we will be successful, 20 particularly if we combine the modification with the 21 removal of the remaining known fiber in our containment. 22 We will look at revising our initial assumption 23 again to more closely model actual containment 24 environment.

25 We will continue our testing of various strainer

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- 1 designs, and debris impact on the hydrostatic bearing.
- 2 We will refine the modifications to the strainer as
- 3 we see coming out of the test are necessary.
- 4 And then, we will make a final resolution decision
- 5 on this issue, whether we have a success on the
- 6 modification as we've planned for the pumps or whether we
- 7 need to go back to our original replacement option. But,
- 8 our preferred path and our expected success path remains on
- 9 modification to our existing pumps.
- 10 MR. HOPKINS: I have another
- 11 question here. Just back to tolerance and about break
- 12 size. Are you running tests for certain break size, like
- 13 .05 square feet, because then I'm left with wouldn't you
- 14 need multiple tests of a spectrum of break sizes?
- 15 MR. SCHRAUDER: Well, actually, I
- 16 think what Bob says is we have maximized the conservatism
- 17 by taking a pump running under small break LOCA scenarios,
- 18 which is the worst for keeping the strainer clean, because
- 19 it's the smallest flow across the stainer. We've coupled
- 20 that with the worse case debris loading, which is the large
- 21 debris loading. In a small break loading, you don't get
- 22 nearly the debris generation as you get in a large break
- 23 loading.
- 24 So, we believe we have overmaximized, if you will,
- 25 the, the duty of the pump.

1 MR. HOPKINS: Okay. I would be 2 interested in what the flow differences are, if you're 3 trying to pick the smallest break to essentially bound larger breaks that you have larger flow with larger 4 5 breaks. 6 MR. SCHRAUDER: We'll get to that, 7 but the smallest break, actually the smallest flow is when 8 the pump is on midrecirc. 9 MR. HOPKINS: I would like to 10 see that. 11 MR. SCHRAUDER: Sure. MR. GROBE: 12 John, when is the 13 last time we had a briefing of the NRR staff on this testing? 14 15 MR. SCHRAUDER: Between our last 16 meeting and this meeting. So, it's been within the last 17 couple of weeks; June, shortly after our last meeting here, 18 Jack. 19 MR. GROBE: Maybe it's a good 20 time now to talk to you folks with the reactor regulation, 21 and give them a brief update on what we've heard today, and 22 determine whether or not we want a more detailed briefing, 23 and get back with Kevin Straus and set that up if it's 24 necessary. 25 MR. HOPKINS: Yeah, that's

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1 fine.

2	MR. SCHRAUDER: Okay.
3	MR. GROBE: I have one other
4	question. To determine final resolution, do you have a
5	schedule for that, do you have an anticipated time when
6	you're going to determine final resolution?
7	MR. SCHRAUDER: Not an exact
8	date. We would expect, again, by the end of this week,
9	through the weekend, we continue to run the two strainer
10	designs that we have right now that have no fiber in there,
11	coupled with the decision to go in and remove existing
12	fiber; we might be in a position that we know how
13	successful modification is put into these pumps. I'm going
14	to say within the next week or so, at which point we can
15	make a decision.
16	What we have, we watch where we're at, at the plant,
17	and based on how long it takes us to get the pumps in, get
18	the modification done, back that up, and know where we have
19	to make that decision.
20	MR. GROBE: Okay. Any
21	questions?
22	MR. SCHRAUDER: Thank you.
23	MR. GROBE: I would like to go
24	backwards, if we could. I thought of a question for Mark.
25	I didn't want you to get off too easy there.

1	On slide 15, it talks about conducting normal
2	operating pressure check of the upper head and lower head.
3	And, I know that we had a meeting last November on the
4	Normal Operating Pressure Test and we had another meeting
5	in April I believe on that test, and then there is a
6	conference call or two on some details of that testing.
7	I believe the outcome of that conference call
8	I'm sorry.
9	(Microphone problem)
10	MR. GROBE: What I was saying
11	was, the normal operating pressure tests, we've had two
12	public meetings on that test, last November and April. And
13	then we had a conference call or two to discuss some
14	details of that test. And I believe that you folks owe us
15	a letter that answers a number of questions, provide some
16	additional information on the test parameters and
17	acceptance criteria; is that correct?
18	MR. SCHRAUDER: Yes, Jack, that
19	letter is under development and will be submitted.
20	MR. GROBE: When will we
21	expect to get that?
22	MR. SCHRAUDER: I suspect we'll
23	get that out this week or next week.
24	MR. GROBE: Okay. And we may

25 have a need for another discussion on that test, yes, on

1 the Normal Operating Pressure Test after we get that

2 additional information. Okay. Thank you.

- 3 MR. GROBE: Okay, Mike.
- 4 MR. RODER: My objective this
- 5 afternoon is to discuss Operations Performance,
- 6 Improvements and also Readiness for Modes 4 and 3.
- 7 First, I'll give you an overview of our Continuous
- 8 Improvement Business Practice. Then how we use Performance
- 9 Indicators.
- 10 (Microphone problem.)
- 11 MR. RODER: I'll start over.
- 12 Thank you. Four items to be discussed. First, I'll
- 13 give you an overview of our Continuous Improvement Business
- 14 Practice. Then I'll discuss how we use Performance
- 15 Indicators to monitor our performance. Some of our
- 16 improvement plans captured in our 2003 Operational
- 17 Excellence Plan. And then finally our Readiness for Modes
- 18 4 and 3.
- 19 Next slide, please.
- 20 Our Continuous Improvement Business Practice is the
- 21 process we use to evaluate existing standards of
- 22 performance, cost change, and improve those standards of
- 23 performance.
- 24 Inputs in the processes include Condition Report
- 25 data, Observation Program data, operating experience,

- 1 benchmarking, self-assessments and performance indicators.
- 2 Outputs from this business practice include
- 3 training, operating crew, and individual development plans
- 4 and monthly focus centers.
- 5 The Assessment Process includes an aggregate review
- 6 of all the inputs and management process to determine the
- 7 actions necessary to effect improvement on a quarterly
- 8 basis.
- 9 Next slide, please.
- 10 At Davis-Besse, we use a Windows format for
- 11 performance indicators. The colors represent the relative
- 12 health of the indicator. You see four colors. There is
- 13 green, white, yellow and red. And they indicate the
- 14 relevant strength; green being strength, white being
- 15 satisfactory result, yellow indicating improvement is
- 16 needed, and red indicating a weakness.
- 17 For the month of June, Operations has four improving
- 18 windows, seven stable and three declining areas.
- 19 Next slide, please.
- 20 The clearance process is the key process for FENOC.
- 21 This is a process we use to remove equipment from service
- 22 and set up safe maintenance conditions and then reestablish
- 23 the condition back to service.
- 24 Here's the result of personnel injury, equipment
- 25 damage or plant practices. Therefore this process is zero

- 1 tolerance process, we have low thresholds. The trend of
- 2 this indicator in 2002 was a slow decline. Actions were
- 3 taken earlier this year to improve the procedure,
- 4 strengthen the clearance preparation activities, and
- 5 increase field observations and improve prejob briefs prior
- 6 to hanging clearances. Although recently inadequate
- 7 clearance in June, the overall performance has improved.
- 8 Next slide please.
- 9 Configure Control Indicator is our way of monitoring
- 10 how well we're maintaining plant configurations. This is
- 11 another key process of FENOC to ensure equipment
- 12 readiness. This particular indicator was used for early
- 13 identification of the negative trend. The plan has been
- 14 developed and implemented to improve performance through
- 15 the use of our self-check simulator, increased field
- 16 observations, and additional verification of components in
- 17 the field. Improvements of the implementation of these
- 18 actions has already prevented one configuration control
- 19 issue.
- 20 Next slide, please.
- 21 Operations Self-Identification Rate is used to
- 22 monitor our level of being self-critical in the initiation
- 23 of Condition Reports. Again, at the end of last year, we
- 24 showed a steady decline in this performance indicator.
- 25 We took actions by establishing expectations for

- 1 initiating these reports, trained all the operators in
- 2 these expectations, and we continue to reenforce positive
- 3 behaviors.
- 4 And as you see, results have been steadily increased
- 5 that has exceeded the previously established goal. And, in
- 6 fact, last month we increased our goal to make sure we
- 7 challenge ourselves for continued performance.
- 8 And next slide, please.
- 9 The last three indicators I'd like to talk about are
- 10 control room deficiencies, operator workarounds, and
- 11 temporary modifications. Each one of these, we set
- 12 challenge goals for startup and all these equipment issues
- 13 are scheduled and on track resolution.
- 14 Next slide.
- 15 Let me briefly talk about Operations Readiness for
- 16 Modes 4 and 3. We've recently completed our Just-In-Time
- 17 Simulator Training, which included Reactor Coolant System
- 18 heatup and preparation modes, as well as equipment
- 19 malfunctions and use of abnormal and emergency procedures.
- 20 We're up-to-date on modification training of
- 21 installed equipment. We're currently performing our crew
- 22 evaluations on the simulator to ensure crew readiness. As
- 23 we observed these evaluations, we find opportunities to
- 24 improve, those are discussed, and we recheck on the
- 25 simulator.

1 We've also been performing several plant 2 activities. Numerous system alignments have been 3 performed. We've had some challenges with alignments and we're addressing those on a case by case basis; however, I 4 5 would characterize overall performance as being good. 6 Containment has been turned over to Operations after 7 we have steps of proper housekeeping. And we're continuing 8 to monitor housekeeping of maintenance after activities are 9 completed. 10 Reactor Coolant System was pressurized at 50 pounds 11 and then 250 pounds performance of testing. This required multiple systems to be placed in service and operated. 12 13 These evolutions were done safely and successfully. 14 Currently, we're performing startup of the secondary 15 plant for testing and assessing of our personnel. Again, 16 this evolution has been performed safely and successfully. 17 Finally, we will be completing the Restart Readiness 18 Review Meetings to ensure our readiness. Based on my 19 preparation for these meetings, I believe Operations is 20 ready for restart. 21 That is my prepared presentation. Are there any 22 questions? 23 MR. THOMAS: Mike, one of the indicators, and I believe it was in the area of safety was 24 red. I can't read the handout. What --25

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1	MR. RODER: There were two
2	areas there were red. One was safety, one was budget. In
3	the area of safety, it has been green for numerous months.
4	We just recently had an operator that had a back screen
5	after attempting to operate a valve. And that immediately,
6	it was an OSHA recordable event. Immediately turned the
7	window over to a red color.
8	Any other questions?
9	MR. GROBE: Personnel safety.
10	MR. RODER: Personnel safety?
11	MR. GROBE: First off, I want
12	to thank you for this. This is very helpful. I believe
13	we've requested copies of these monthly indicators. I
14	haven't been in the office a whole lot lately, but I'm not
15	sure we received them yet. Is that in process?
16	MR. PRICE: We sent you the
17	May, but June are just being updated right now.
18	MR. GROBE: So, it's just in
19	my mailbox then. Okay, great.
20	I appreciate you sharing these with us, and sharing
21	with us both the positive and the negative, you know.
22	It's, you've clearly chosen very important topics. And, I
23	believe Operations was one of the very earliest departments
24	to establish expectations, and to communicate those with
25	their staff.

1	And, through the observations we've seen, although
2	you are having some continuing challenges, there appears to
3	be an appreciation, maybe even a passion for achieving
4	those expectations. And nobody is expecting you to be
5	perfect, but I appreciate both the additional information
6	we're getting from these kinds of indicators as well as
7	what we've been observing in Operations.
8	Any other questions or comments?
9	MR. MYERS: There are some of
10	us that are expecting it to be perfect.
11	MR. GROBE: Okay.
12	MR. RODER: After that, I
13	would like to turn it over to Jim Powers.
14	MS. LIPA: Before we take
15	your turn, Jim, I would like to take a quick break for
16	everybody. So, ten minutes. I show 3:31, so that's 3:41.
17	Thank you.
18	(Off the record.)
19	MR. GROBE: Why don't we go
20	ahead and get started. We have Jim Powers next.
21	Today is a special day for Jim Powers. He's nearly
22	half a century. Happy Birthday, Jim.
23	MR. POWERS: Thank you. I have
24	a lot of activities today on my birthday.
25	This afternoon I would like to talk about

- 1 Engineering Performance, and my desired outcome is to
- 2 provide a focus on three of the major areas that we've been
- 3 working at; that is our people, the quality of our
- 4 products, and our processes that we do with engineering
- 5 activities.
- 6 Some of the actions that we've taken over the course
- 7 of the outage include Design Reviews that we've conducted
- 8 and we talked about these in past meetings, but a quick
- 9 summary of them.
- 10 Our System Health Assurance Plan Reviews, Latent
- 11 Issues Reviews; both of those focused on our safety systems
- 12 at the plant and were very in depth. We had a lot of
- 13 outside expert help going through our systems.
- 14 We also did a Safety Function Validation Project
- 15 looking in more detail at design attributes of our safety
- 16 systems. These reviews resulted in topical areas, which we
- 17 collectively looked at, things like high energy line break,
- 18 seismic design of the plant, our fire protection system
- 19 program at the plant.
- 20 And, all in all, a quick count that I asked for this
- 21 week from our safety analysis engineers to summarize how
- 22 many calculations did we look at, and assess during the
- 23 course of an outage. It's approximately 1500. In fact,
- 24 it's likely much more than that when you talk about all the
- 25 ones we evaluated.

1	There were over 1100 of those calculations actually
2	issued either as revisions or new calculations, so those
3	form the backbone of our design basis of the plant for
4	safety significant systems and so a major effort out
5	there, major actions on improving the health of our design
6	basis.
7	In the program area, we've talked in the past about
8	the programs that we reviewed as a building block
9	activity. There were more than 60 of our key programs that
10	we put through a process of having the owners defined,
11	having them give a statement of the health of their
12	program, and including the benchmarking of other industry
13	programs that was similar, what kind of self-assessments
14	they had done, what their qualifications were to be the
15	program owner, and what sort of support they were getting
16	for their program from management.
17	All those programs were reviewed by a subcommittee
18	of our Engineering Assessment Board, and we think this puts
19	us on the cutting edge of program health at the site and
20	we'll be carrying that forward in our quarterly reports for
21	System Health and Design Basis Health. We'll include the
22	programs that support those and indicators for those.
23	From an oversight perspective, we had an Engineering
24	Assessment Board assembled at the site during the outage to
25	review our engineering work, and they reviewed over 700

1 engineering products over the course of the outage, looking	1	engineering	products	over the	course of	the outage.	looking
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- 2 for quality, particularly looking that we got appropriately
- 3 into the design basis of the questions that we were
- 4 answering, both in modifications as well as the 50.59's
- 5 that go with those and programs as I've mentioned.

6 So, many products are being graded. Overall what

- 7 we'll show on the indicators, that we're driving a pretty
- 8 good level of quality of engineering incisiveness in
- 9 getting to the design issues and the reviews.

10 Then, finally, on the slide, we had an INPO

- 11 sponsored senior review team look at engineering for
- 12 capabilities. This was a team that was assembled of vice
- 13 president level, peer engineering leadership from several
- 14 major other utilities that were in the nuclear industry, as
- 15 well as INPO Engineering and what we refer to as architect
- 16 engineer companies, which are large engineering companies
- 17 which design and constructed the plants and now service
- 18 them.
- 19 We had representatives from all those on the team in
- 20 the December timeframe to give us insights in improvement
- 21 areas, which we're carrying forward through our Corrective
- 22 Action Program and the change in management plans.
- 23 All of those actions were geared towards improving
- 24 engineering rigor. On the next slide, we have some of the
- 25 improvements just listed briefly. There has been many,

- 1 but these are some of the principle ones I touched on.
- 2 Engineering Principles and Expectations Handbook
- 3 that we issued to all the engineers, not only at
- 4 Davis-Besse site, but the other two FENOC sites laying
- 5 forth the groundwork for the professionalism that we expect
- 6 from our engineers with the principles and expectations on
- 7 how they perform their work and how they function as the
- 8 conscious -- safety conscious of the station.
- 9 It's our job as engineers to interpret and work with
- 10 our design basis of the site and the programs, technical
- 11 programs of the site; how it works, how we maintain it for
- 12 operations, how we give information to maintenance to
- 13 maintain it. So, that was an important step forward for
- 14 us. And there is a lot of industry experience in those
- 15 principles and expectations.
- 16 The 50.59 Program, when we changed things at the
- 17 site, how we go through our review of the license basis and
- 18 our Operability Determination Program, both had
- 19 enhancements. Our 50.59 going through the Engineering
- 20 Assessment Board. We see continued improvement there.
- 21 And, a large improvement in Operability
- 22 Determinations. When we started out at the beginning of
- 23 this outage last year, this was an area that was identified
- 24 as a weakness in Engineering. Engineering not having a lot
- 25 of rigor in the Operability Determinations and Operations

1 not having a questioning attitude. I can tell you that has turned around. 2 3 We have driven the quality of Op Determinations up through very focused training. We brought in a training 4 5 specialist, two-day training classes for combined groups of 6 operators and engineers to work together to understand what 7 the expectations were for technical rigor and questioning 8 of Op Determinations. 9 Root Cause Training, we brought in TapRoot, that's a 10 company to train us. Not only our root cause evaluators in the Correction Action Program, but also management and 11 12 senior leadership at the site attended, so we all 13 understood --14 (The lights went out.) 15 MS. LIPA: Okay, we're ready 16 to continue, Jim. 17 MR. POWERS: I'll start again. 18 Program Ownership, clarification of Program 19 Ownership, and I talked about that as part of our actions 20 with review of our program owners. I think we made some 21 real strides forward there with ownership or things like 22 Corrosion Control Program and Eyesight Program, which are 23 principle in this outage. The Corrective Action Program 24 was part of it as well. We prompted many, many engineering 25 programs in the process as well, so good improvement

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1 there.

2	Our Engineering Assessment Board that we created is
3	going to be transitioning into an ongoing employee-based
4	program. And, one of the major accomplishments that we've
5	done is one of our external senior consultants that had
6	been chairing our Program Review Board, has joined our
7	organization, effective this week, is going to continue as
8	Chairman of our Engineering Assessment Board and that
9	ensures continuity of the oversight and the standards
10	enforced by that board, as well as mentoring for our staff
11	going into the future.
12	Contractor Oversight has been strengthened. We have
13	had many, many contractors and consultants helping us
14	during the outage to do all the engineering activities that
15	needed to get down. And we created procedural steps for
16	our employee engineers to oversight and check all their
17	work, what we call owners acceptance.
18	Everything that's done for us needs to be accepted
19	by us, reviewed in detail, and the expectations for what we
20	review is provided now in detail checklists that are
21	proceduralized. And that provides us with good
22	expectations and guidance for our engineers to do that
23	oversight.
24	And, finally, modification to recapture/gain safety
25	margins at the plant. Mark showed photographs of some

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1 of th	e maior	ones in	the	containment.	Lew is	aoina to	talk
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- 2 about some of the other ones later in the presentation.
- 3 The Performance Indicators that we're showing in
- 4 Engineering are shown on the screen here. And again,
- 5 they're formatted similar to the Operations in the areas of
- 6 Safety, People, Reliability and Costs.
- 7 And the selected ones that I'm going to talk about
- 8 follow on the next slide with Quality of Engineering Work
- 9 Products. This is a gauge by our Engineering Assessment
- 10 Board reviewing the products that we perform. I think
- 11 that's ongoing basis as products are prepared. They get
- 12 involved and review it and score it and they report the
- 13 scores out.
- 14 In this case, the good score is a lower score. I
- 15 think they score a number of significant comments or issues
- 16 with the Engineering products. You prefer to have zero
- 17 issues. So, our threshold goal is a score of one.
- 18 And, as you can see from the, the scoring, fluctuate
- 19 around that, a bit below that, which is good; and currently
- 20 on an improving trend down with a number of comments,
- 21 slightly.
- 22 The next slide is a subset of that review. This is
- 23 the Engineering Vendor Performance. As you can see on this
- 24 one, we have a slight up tick there, we've been trending
- 25 for the past three months. Slightly above our desired goal

1 one. And it emphasizes the need for our engineers to do

- 2 thorough owners acceptance reviews of contract repaired
- 3 engineering products, and emphasizes that need.
- 4 So, we track it and trend it. Of course, the
- 5 contract people who do these get feedback as well on our
- 6 expectations.
- 7 The next Performance Indicator is Condition Report
- 8 Workload. This is the one, this is an assessment of the
- 9 timeliness of completion of our Condition Reports. When a
- 10 question is asked on a Condition Report, then we go and
- 11 investigate it and answer that question.
- 12 And, as you know, from watching the Performance
- 13 Indicators, during the course of the outage, we had quite a
- 14 few Condition Reports to evaluate, and the organization was
- 15 challenged to do those as quickly as we would normally
- 16 like. We've been working through that, with some process
- 17 changes, resource applications.
- 18 We're still showing a yellow in this area in terms
- 19 of our timeliness of completing. This is a measurement of
- 20 Latent Condition Report Evaluations versus the number that
- 21 were scheduled to get done in a month. So, this is in the
- 22 approximately 93 percent range of completion. To get out
- 23 of the yellow, you need to improve into the mid 90's.
- 24 Green is 98 percent. So, we have some improvement to do
- 25 there. And, that's important to us.

1 Then, the next one is Corrective Action Reports.

2 MR. GROBE: Jim, before you go on 3 from this slide; the last time I looked at the indicators, 4 you folks had been focusing to a large extent on activities 5 necessary for restart, but also working off as you can post 6 restart activities. 7 I think there was on the order of 1500 Condition 8 Reports between Plant Engineering and Design Engineering; 9 about 1500 Condition Reports that need to be evaluated for 10 post restart activities. 11 MR. POWERS: Right. 12 MR. GROBE: Have you looked at 13 that workload and focused on it and assessed the impact on 14 your organization? 15 MR. POWERS: What we're doing 16 there is, a major tool that's going to respond to the 17 workload is what we're calling, what we refer to our Engineering Work Management System or BWMS EWMS. It's an 18 19 electronic work management system that gives each engineer 20 on their desktop computer their assigned workload, both for 21 corrective actions as well as modifications or 22 calculations. 23 This is all the activities that are assigned to 24 individual engineers. And, it scrolls up those activities

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through the supervisors level and the managers level and up

25

1 to department level and myself.

2	We have been in the process of employing that work
3	management system at the site over the past month. Mark
4	Pearson, who is a Director from our Beaver Valley Station
5	has been assigned to Davis-Besse to assist with that.
6	That's how important it is to us for work management.
7	And, as we come out of the, out of the outage and
8	move forward to the online and resolving the remaining
9	nonrestart CR's, that tool is going to help us a lot with
10	resource, organization, making sure we schedule things.
11	And we understand when things are not getting done, that's
12	flagged. So, that's a major initiative. It's very
13	important to our workload effective organization.
14	MR. GROBE: Thanks, Jim.
14 15	MR. GROBE: Thanks, Jim. Lew, this is an area, the panel has to make a
15	Lew, this is an area, the panel has to make a
15 16	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is
15 16 17	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart
15 16 17 18	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart safely, but whether it can be operated safely. And, part
15 16 17 18 19	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart safely, but whether it can be operated safely. And, part of our deliberation in that regard would be evaluating post
15 16 17 18 19 20	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart safely, but whether it can be operated safely. And, part of our deliberation in that regard would be evaluating post restart workload. And, obviously, the Engineering
15 16 17 18 19 20 21	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart safely, but whether it can be operated safely. And, part of our deliberation in that regard would be evaluating post restart workload. And, obviously, the Engineering Organization is going to be needed to support restart and
15 16 17 18 19 20 21 22	Lew, this is an area, the panel has to make a decision at whatever point in time you believe the plant is ready to restart, not only whether the plant can restart safely, but whether it can be operated safely. And, part of our deliberation in that regard would be evaluating post restart workload. And, obviously, the Engineering Organization is going to be needed to support restart and operation, plus there will be some level of backlog. So,

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1 post restart activities, but it's an area of focus we're

2 going to be looking at.

3 MR. MYERS: That's a good point, Jack. One of the things we mentioned before was, 4 5 we've never stopped working our normal workload. In fact, 6 if you'll look, about 60 percent of the CRs that we work on every day are routine. They're not just restart. 7 8 So, you know it's our intention, we have goals 9 already set up for the number of CRs and CAs, the work 10 order process. I think Mike Stevens will cover that in a 11 few minutes. But, you know, I really believe based on the history of the extended outages that we'll probably have 12 13 lower workloads when we start up, if not the lowest of any 14 of the plants that we know of; if we meet our goals, which we intend to meet our goals. So, we don't anticipate a 15 16 large backlog of work after restart. 17 MR. GROBE: Okay, good. MR. POWERS: 18 This next slide 19 talks about the Corrective Actions which result from 20 Condition Reports. Here you can see the current rate for 21 the June performances, white. We made some progress over 22 the past three months through our, having an 8:00 meeting 23 at the site every day that is Chaired by Mark Bezilla. 24 That goes over the status of Corrective Actions as 25 well as Condition Reports, but particularly Corrective

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1 Actions, working those off the schedule. We've made

- 2 improvements in that area, and intend to continue making
- 3 improvement in timeliness.
- 4 The next indicator is our Operability Evaluation

5 Tracking Performance Indicator; and this measures the

- 6 number of outstanding items or actions that are related to
- 7 operability evaluations.
- 8 When we provide an operability evaluation to
- 9 Operations, there may be actions that are required
- 10 associated with it, such as a calculation engineering
- 11 needs to be finalized, modification of the plant may need
- 12 to be done, or a procedure may need to be changed, for
- 13 example. And, that work needs to get done before the
- 14 operability evaluation can be closed out and taken off the
- 15 books.
- 16 So, this tracks the number of activities currently
- 17 in the 29 range. We expect that at the time of startup, we
- 18 will have much less than that. Our goal is to minimize the
- 19 number of operability evaluations outstanding. We're
- 20 currently talking in the range of about four would be in
- 21 place at that time.
- 22 I show it as yellow, because one of the grading
- 23 criteria is we want to make continuing progress on reducing
- 24 the number of outstanding actions. In this case, there has
- 25 been three months without substantial reduction. Many of

1	these are geared towards completing Mode 4 and Mode 3
2	activities, and some are related to Mode 2. So, we will be
3	expecting we'll be working those off in the coming months.
4	Next one is Design Change Development. This one
5	tracks all the design changes that are being processed
6	through the Engineering organization. And, that could be a
7	range of very small things, what we call equivalent
8	changes, you're changing out one part for a slightly
9	different one. It's not a substantial design change up to
10	major modifications like our containment emergency sump
11	modification, or containment air cooler refurbishment
12	modification.
13	This tracks them all through the process and shows
14	what we have for workload in those areas. It's currently
15	showing red, largely, well, for two reasons. One is
16	timeliness, stick to schedules delivering our packages to
17	the field for implementation, so the Maintenance
18	organization can implement them; and the number of
19	modifications that are currently on the books at the site,
20	which we run all our modifications through our Restart
21	Station Review Board Process during the course of the
22	outage to determine those that need to get done during the
23	outage, which currently we're tracking 139 headed towards
24	completion.
25	Those are shown over on the indicators on the wall,

2	others of these need to be evaluated as post restart
3	actions to determine the need for the modification, the
4	reasoning for it, and get those that are required to be
5	done. So, that's, that's a major process indicator for
6	Engineering.
7	The next one is Human Performance and Process
8	Program Errors that we track. This is our Performance
9	Improvement Unit, tracks CRs every day looking for issues
10	that come out that are individual errors or program in
11	process problems which result in errors, and track these on
12	an ongoing basis.
13	And, as you can see from this one, our results in
14	the current month are white, April and May were green. And
15	something we track on an ongoing basis for individual
16	errors.
17	These are an important subset of our performance
18	indicators that I wanted to display.
19	Next slide. The Actions to Sustain Improved
20	Performance. The major one is Organizational Development.
21	This is the people part of the equation that I started
22	with.
23	The FENOC Organization, we reorganized Engineering,
24	to be the same structure common at all three sites. And it
25	will strengthen that and it's been selected as the best

1 what we refer to as Go Green Chart, or that subset. But

1 process we could find in the industry, and we implement
---

- 2 it at FENOC and it will be the same at every site.
- 3 The roles of responsibilities have been definitized
- 4 in a procedure, a nuclear operating policy. So, such that
- 5 we do the same roles and responsibilities at each site, and
- 6 understand those roles and responsibilities clearly.
- 7 And also, New Hires. I mentioned Chairman of our
- 8 Engineering Assessment Board being brought in from the
- 9 outside. We've also brought in outside engineering
- 10 expertise in the supervisory area, both in the Design
- 11 Engineering Section and the Plant Engineering Section, as
- 12 well as the project, Projects Management Section. So,
- 13 we've made strides there, as well as new hire engineers,
- 14 and we're continuing to recruit, actively recruiting to
- 15 bring fresh blood into Engineering, is ongoing now.
- 16 Opportunities for improvement are captured in the
- 17 Corrective Action Program. That's the quality part of the
- 18 calculation. We do that every day. There will be
- 19 Condition Reports issued where things do not meet
- 20 expectations with the process or performance of our own
- 21 staff, the quality of products. We write that down;
- 22 capture image report to correct it.
- 23 And Engineering Management System that I mentioned,
- 24 this is a major part of our process improvements. So, we
- 25 track our work and make sure we understand which work is

1 getting done, when is it getting done, is it meeting all our customers' expectations. And specifically if work is 2 3 not getting done, what is it, and what's the significance of that. And this tools provides the basis for dialogue 4 5 between the engineers and the supervision to be sure the 6 right things gets done at the right time. 7 In summary, Engineering continues to improve and 8 we're ready to support the Mode 4 and 3 upcoming 9 milestones. 10 MR. HOPKINS: I have a couple of questions. Back where you talked about the Engineering 11 Principles Expectations Handbook; is that in all FENOC 12 13 plants? MR. POWERS: 14 Yes, it is. That 15 handbook, which here's a copy of it. It is utilized at all 16 three plants, and it really forms a basis of the 17 professionalism that we expect for engineering. 18 It covers just briefly such things as safety, 19 nuclear safety knowledge of the design basis and 20 maintenance of it, how important that is; and tolerance for 21 critical -- for failures of critical equipment. We have 22 equipment reliability aspect built in. 23 Corrective actions. Rigorous approach to problem 24 solving. We prepared a procedure we use for problem solving at the plant. You may have heard that discussed as 25

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- 1 you heard various issues being dealt with there.
- 2 Rigorous application of engineering procedures and
- 3 methods. We do our work in writing. We check our work.
- 4 Independent check it.
- 5 Strict compliance with technical programs and
- 6 procedures. One of the things that got us into the mess to
- 7 begin with. Strict compliance with our expectation.
- 8 Ownership for engineering programs. Result
- 9 orientation. Fix what's broke. Our intention is to
- 10 effectively fix problems at the site. And demonstrate
- 11 professionalism.
- 12 And, one may think some of these things, you know,
- 13 it's like the Hippocratic Oath for doctors. Engineers,
- 14 it's, some of them will say, yeah, it's understood, you
- 15 don't really need to write it down. But for others, it's
- 16 been a real benefit to get these principles written down on
- 17 paper and have a continuing dialogue and use them in the
- 18 course.
- 19 MR. HOPKINS: Along that line,
- 20 Root Cause Training. Again, is that, is that root cause
- 21 process the same at all FirstEnergy plants?
- 22 MR. POWERS: Yes, we are going
- 23 to use the TapRoot approach to Corrective Action Problem,
- 24 root, root cause analysis.
- 25 Now, we will accept training and certification in

1 other types of root cause analysis, like Kepner-Tregor or MORT, for example, because there are several different 2 3 approaches available in the industry, but we selected TapRoot, is what we believe is the best application and 4 5 common for our Corrective Action Programs. 6 MR. HOPKINS: Okay, that's all. 7 MR. THOMAS: Jim, recently 8 you've had a number of challenges in getting, I guess, 9 workable engineering change documentation into the field. 10 Has anything been done specifically to address that, short 11 term, to correct that? 12 MR. POWERS: Yes. One of the, 13 one of the issues we dealt with in the past weeks 14 particularly concern the engineering packages that are 15 assembled and as they process through the organization, go 16 through a document control and records management process, 17 and ensuring administratively that all the I's are dotted and the T's are crossed. That means page numbers are 18 19 correct, drawing numbers and revisions are correct, work 20 order numbers, account numbers. It's just a lot of 21 information. 22 And we had a, collectively an issue with the 23 attention to detail in that level of administration with 24 engineering packages. We made a business policy change 25 over the past week to raise the expectation, both with the

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1 engineers to get the quality into that level of their

2 packages to the administrative packages, as well as

3 engaging our engineering records, document control staff

4 reviews those packages, earlier in the process to make sure

5 we work together effectively as a team to improve all the,

6 right off the start.

7 Because, you're right, we don't have the quality

8 there. That's a delay of a package getting reviewed. And

9 potentially problems, if you reference the wrong document,

10 that is, could be a human error. So, we don't have that

11 level of detail.

12 So, that's something we had all the engineers to get

13 up Monday morning, as a matter of fact, a department

14 meeting and reinforce the expectation that we've got to

15 have our documentation right, right down to the spelling of

16 words. It needs to be correct. That's what our

17 expectation is.

18 MR. THOMAS: I was more curious

19 about issues that some engineering change packages require

20 multiple revisions, you know, whether it's due to

21 communication between the Maintenance folks and Engineering

22 folks or whatever the cause. That was more I guess what I

23 was interested in those types of issues.

24 MR. POWERS: Right, that is an

25 issue that we've worked on as well. Be sure that when we

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1 issue a package, and the field gets it, that we don't find

- 2 problems with, let's say, interference between a tube
- 3 that's being routed, pipe support that's nearby. One of
- 4 the major processes that we have in place to prevent that
- 5 is walkdown packages. And, we reinforced it.
- 6 The Engineering Team needs to go out with
- 7 Maintenance and both the crafts that are doing the
- 8 installation as well as supervision. And the engineer,
- 9 Plant Engineer needs to get out there as well. And with
- 10 that, possibly get Operations involved too from an
- 11 operability perspective of changes to components.
- 12 But the expectation is to get out there, walk it
- 13 down, and make sure we get the comments early, part of the
- 14 original package, so we don't have to go through a revision
- 15 process. So, that's an area that we have improved,
- 16 increased our expectation on walkdown packages to improve
- 17 quality.
- 18 MR. THOMAS: Okay, thank you.
- 19 MR. GROBE: Thanks, Jim.
- 20 MR. STEVENS: Can you hear me
- 21 okay with this microphone?
- 22 MR. GROBE: Yep.
- 23 MR. STEVENS: Okay. Next
- 24 slide, please.
- 25 From analysis of our Performance Indicators,

industry feedback from INPO, our corporate input review
board member and self-assessments, Maintenance is improving
in three areas; work preparations, field implementation and
plant equipment return-to-service condition.
We developed a comprehensive plan. The plan was
reviewed by industry peers as well as Operations
Department.
The plan contains more than 50 actions designed to
strategically lead the Maintenance section to improve in
five visions.
The next slide, please.
Vision 1. Operations is the number 1 customer.
Vision 2. Maintenance embraces continuous
improvement.
Vision 3. Maintenance has ownership of equipment
deficiencies.
Vision 4. Maintenance values performance feedback.
Vision 5. Maintenance leadership is consistent.
First, we recognize the need to focus on
fundamentals. By this I mean, safety, job briefings,
procedure use and adherence, verbal and written
communication, quality of parts use, tool usage, walkdowns,
schedule adherence and human performance, Event Free
Tools.
This will continue to be our primary focus

- 1 throughout 2003. We benchmarked the industry and captured
- 2 24, approximately 24 distinct fundamentals that are common
- 3 to every technician performing maintenance in the nuclear
- 4 industry.
- 5 We assembled a team comprised of craftsmen,
- 6 supervisors, superintendents, and work control personnel to
- 7 review these fundamental and develop our conduct of
- 8 excellence handling, which delineates the Maintenance
- 9 Standard for excellence, and standards and expectations for
- 10 performance.
- 11 I'll be discussing how we monitor our performance by
- 12 reviewing the overall maintenance Performance Indicators.
- 13 Additionally, I have these indicators broken down in each
- 14 of the disciplines; Mechanical, Electrical, INC and
- 15 Maintenance Services, and I'll have them available for you
- 16 at your review if you wish. But today, I'll be presenting
- 17 the overall Department Performance Indicators.
- 18 Earlier this year, I can tell you that most of the
- 19 Performance Indicators in Maintenance were green. And
- 20 performance has improved. That's primarily the result of
- 21 changing some of the goals to be more in line with where
- 22 we're headed to operational excellence in Maintenance, as
- 23 well we lowered the threshold for identification of some of
- 24 our issues.
- 25 Here we have a summary of the Maintenance

- 1 Performance Indicators, and they're depicted in enunciated
- 2 window format, as well across the top of each of the
- 3 windows, you can see last month and year-end project. So,
- 4 the big window is the current month.
- 5 Each of these Performance Indicators areas align to
- 6 our format to improve in the area of safety, people,
- 7 reliability, and cost. And, this way, each employee of
- 8 Maintenance can see how his contribution contributes to the
- 9 overall station performance.
- 10 Next slide, please.
- 11 This is our Performance Indicator for Industrial
- 12 Safety. It depicts the number of first aid injuries, as
- 13 well as OSHA reportable injuries. The objective is to
- 14 prevent industrial accidents by careful work planning,
- 15 supervisory involvement, and employee attention to detail,
- 16 and helpful work practices. We're proud of achieving eight
- 17 million man hours without a lost time accident at
- 18 Davis-Besse.
- 19 If you look at the left graph, this is the number of
- 20 minor first aid injuries. The graph on the right are the
- 21 OSHA reportables. The difference between the two is an
- 22 OSHA reportable injury is one that requires medical
- 23 attention.
- 24 If we have two first aid injuries, our performance
- 25 is red. And, that, you can't see it very well on the

- 1 slide, but this is the performance goals from green to
- 2 white to yellow to red performance. And we can see in the
- 3 month of June, we had two first aid incidents. And you can
- 4 tell that they're in the Maintenance Services Section,
- 5 because Maintenance Services is blue. And if this was
- 6 larger, you could see that. Okay.
- 7 We report all injuries, no matter how minor they
- 8 seem. And we use the OSHA reportable injury rate for two
- 9 hundred thousand man hours worked. That's a standard we
- 10 use in the industry, and we can then compare our
- 11 performance to industry performance.
- 12 Each of the indicators I had are in this format,
- 13 but because it's so hard to see them, I've just shown the
- 14 graph on the rest of my presentation.
- 15 Next slide, please.
- 16 This is a Performance Indicator we use to identify
- 17 the raw number of Condition Reports that are being
- 18 generated by Maintenance personnel. We can see that by
- 19 looking at the graph, each color represents a different
- 20 discipline in Maintenance, and we can see that more people
- 21 are writing Condition Reports as well. More Condition
- 22 Reports are being written.
- 23 This allows me to determine how willing my people
- 24 are in raising issues and getting them documented. And
- 25 goes to one indication of safety consciousness in the,

- 1 within the work force in Maintenance.
- 2 Next slide, please.
- 3 This Performance Indicator identifies the number of
- 4 human performance errors we've had in Maintenance. A human
- 5 performance error is defined as inappropriate action
- 6 specific to an individual or group of individuals due to
- 7 the failure in using our Event Free Tools.
- 8 Our Event Free Tools are training, application,
- 9 stop, think, act, review, peer checking, and as such. The
- 10 objective is to minimize human performance errors, and
- 11 errors aggravated by programs and processes.
- 12 We've lowered the threshold in Maintenance and
- 13 raised the standard for identifying errors, and we're
- 14 identifying more opportunities for improvement as a
- 15 result. That's one of the primary reasons that there is
- 16 such a step change between April and May -- or March and
- 17 April.
- 18 We use this in our Corrective Action Program to
- 19 analyze the situation, make recommendations for training
- 20 improvement, communication opportunities, and as well, any
- 21 procedure process changes we need to make.
- 22 Next slide.
- 23 Additionally, we track in Maintenance the percent of
- 24 Condition Reports that we self-identify. It's our desire
- 25 to find and fix our own problems in Maintenance prior to

1 them being identified by others. The objective is to have a rolling average goal of greater than 60 percent, which we 2 3 have 63 percent. You can see here the performance is mixed. It's 4 5 some -- like last month, we're at 63 percent. We're not 6 quite to our goal of 90 percent. So, our focus is to find and fix the problems and get them identified on Condition 7 8 Reports; and that's a current focus of Maintenance, this 9 month. 10 Next slide. 11 This Performance Indicator tracks the number of training observations that are performed by second line 12 13 management, and that's the superintendent level that 14 reports to me. The objective is to ensure that section 15 management is engaged and directs our training programs. 16 And, for an example in June, we focused training on 17 poor material exclusion. We had identified a knowledge 18 deficiency there and put a training program together. That 19 training was given by a maintenance supervisor with the 20 guidance of training instructor. We received very positive 21 feedback. And additionally, the program owner who 22 performed material exclusion participated in addressing any 23 additional questions. 24 As we move forward, we'll be moving the training

25 instructors into the shops, partnered with our training

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1 organization, so that we could more effectively provide

- 2 Just-In-Time Training for some of the equipment that we
- 3 have coming to work on, and as well, roll in some of the
- 4 actions we are learning from some of the Condition Reports
- 5 directed at improving some of our people performance.
- 6 Next slide.
- 7 This indicator identifies the number of reworks they
- 8 have in Maintenance. A rework is defined as any
- 9 reperformance of any maintenance task which results in a
- 10 loss of time or money prior to returning the equipment to
- 11 service. This includes, but is not limited to failure
- 12 during testing, or a corrective action for identical
- 13 problem that occurred within the last twelve months.
- 14 Our goal is to be less than two and a half percent.
- 15 Recently, we changed the indicator on rework. We would
- 16 take a Condition Report, evaluate it, and based on that
- 17 evaluation, we would code it whether it was reworked or
- 18 not.
- 19 We've changed that. And in my staff meeting every
- 20 Friday, the superintendents and I go through the Condition
- 21 Reports that have been generated for that week. And we
- 22 code them; human performance, rework, and
- 23 organizational-type errors or communication error. So,
- 24 we're front-end coding them to give us a more real time
- 25 indication of performance. We think we're about 90 percent

- 1 accurate with that. And we would rather have the
- 2 Performance Indicator be more timely than waiting for the
- 3 exact accuracy.
- 4 So you can see, we had a pretty high, higher than
- 5 normal rework in mechanical here, here and here. And as a
- 6 result of the actions that we took, have turned that
- 7 around. Now, I'll tell you, that's good, but I'm skeptical
- 8 and there is more actions we need to take to maintain that
- 9 level of performance. That's what we're looking for, going
- 10 forward.
- 11 Next slide, please.
- 12 On this Performance Indicator, we keep and monitor
- 13 our Corrective Action Work Orders that are nonoutage, so to
- 14 speak. Currently, we have a goal for 200, to be less than
- 15 250; and to be less than 175 by year end. I've
- 16 communicated the stretch goal to be less than 150 by year
- 17 end as a challenge to the organization.
- 18 I believe that this positions us to achieve a
- 19 corrective maintenance workload that will be commensurate
- 20 with top core, top performance at Davis-Besse by the year
- 21 2005.
- 22 Currently, top core, top performing plant single
- 23 unit has about 125.
- 24 MR. GROBE: I'm not quite
- 25 sure I understand this indicator. The last time I looked

1 at your post restart Corrective Actions and Condition

- 2 Reports, I think you had somewhere on the order of 3000
- 3 Condition Reports and about 8000 Corrective Actions. And I
- 4 got to have a significant number of those corrective
- 5 actions, some percentage are Maintenance work, field work;
- 6 and there is 8000 of them.
- 7 So, it doesn't seem consistent. There must be
- 8 something I'm missing where you say you only have 250
- 9 roughly nonoutage work orders in the backlog, if there is
- 10 8000 corrective actions out there. Could you help me
- 11 understand that?

MR. STEVENS: 12 Yeah, we've got all of the work orders identified as part of Corrective 13 14 Actions in the schedule that supports the startup. If 15 they're not there and they're corrective maintenance, 16 they're here. So, they're either in the schedule and we're 17 working them or they're here. MR. GROBE: 18 Okay. 19 MR. STEVENS: Since the first of 20 the year, we talked about a schedule and projecting where

- 21 we were going with the plan. We had 20, it was like 23, 24
- 22 thousand activities in our schedule. And since January, we
- 23 added and completed another 10,000. And we weren't quite
- 24 projecting that many, but we've been, we've been steadily
- 25 working them off. It's part of our plans going forward.

1	I don't intend to start up with a whole pile of	
2	corrective work orders in backlog. And, as I communicated,	
3	I know, and my team knows, where we need to be to position	
4	ourselves for top performance.	
5	MS. LIPA: Mike, are	
6	nonoutage engineering change requests, are those a separate	
7	category or do those become part of the work order backlog?	
8	MR. STEVENS: They could become	
9	a part of these work orders, if for example a component is	
10	broken and fixed, which changes its design, that would be	
11	part of this. It's a modification issue. It wouldn't	
12	necessarily be coded a Corrective Action, or corrective	
13	work order.	
14	Next slide.	
15	In summary, I believe we have improved alignment in	
16	Maintenance. We've improved identification of issues.	
17	Morale is improved as well as teamwork. My team and I	
18	believe we are ready to support Operations to Mode 4/3	
19	testing. And I guess that's the end of my presentation.	
20	MR. THOMAS: Mike, I have a	
21	question.	
22	We discussed three Maintenance/Workmanship issues at	
23	the resident exit this morning.	
24	MR. STEVENS: That's correct.	
25	MR. THOMAS: How will you	

- 1 assess what these performance deficiencies mean with regard
- 2 to that end score, 4/3 testing?
- 3 MR. STEVENS: The performance
- 4 deficiencies and the use of procedure expectations, I think
- 5 that's what we were talking about this morning, Scott.
- 6 That performance, that level of performance is
- 7 unacceptable. There is accountability for that level of
- 8 performance, and I wouldn't say that all of the
- 9 Maintenance, or I would say, that is not representative of
- 10 the majority of the Maintenance Organization at this point
- 11 in time.
- 12 But I will, I do recognize we've got performance
- 13 shortfalls and we are taking demonstrative and real action
- 14 when they occur. As well, we're stepping back and looking
- 15 at why they're occurring and what is leading up to them.
- 16 And that's why we have the three focus areas, primarily,
- 17 and I discussed this a couple times in here, and be happy
- 18 to go through the ownership plan with you back at the
- 19 plant. That's why we're focusing on work preparation,
- 20 field execution and the quality of the equipment return
- 21 back to operation.
- 22 There is things that in our effort to take the work
- 23 on, for example, I found that the Maintenance Department
- 24 needed a part, had it identified, for example, and then for
- 25 one reason or another, the part wasn't available, so we

1	decided to go into the maintenance activity without it.	
2	That's led to some additional decisions being made while we	
3	were in that maintenance activity, and that's caused,	
4	that's caused some events.	
5	MR. THOMAS: So, your	
6	assessment, well, you have an upcoming restart assessment	
7	for Mode 4/3, I believe starting tomorrow; am I right?	
8	MR. STEVENS: That's correct.	
9	MR. THOMAS: How will you, will	
10	these issues be characterized as outlayers individual type	
11	anomalies in that assessment, or will they be characterized	
12	as a broader perspective?	
13	MR. STEVENS: I'll take these	
14	events, along with the other events, and aggregate a	
15	performance of Maintenance and I'll try and articulate it	
16	as clearly and correctly as I can with my, the rest of my	
17	management team, using our business.	
18	Where they're sitting right now, Scott, I don't	
19	expect that level of performance, most of the folks in	
20	Maintenance dosn't expect that level of performance. It	
21	occurs. We're understanding why that occurred, and we're	
22	taking actions to correct it.	
23	I don't know what else to tell you about that	
24	without going into more specific detail that I really don't	
25	want to do in a public forum because it involves some	

1 individuals.

2	MR. THOMAS: I'm not asking for
3	your, how you're dealing with the personnel individually.
4	My question stems from a lot of, the three issues deal with
5	fundamental-type concepts, practices and procedure
6	compliance, those sort of issues. And I want to make sure
7	that you're confident in the Maintenance Department, the
8	performance of the folks in your Maintenance Department,
9	that they're, they're aware of the importance of adhering
10	to those basic safe operating principles that these three
11	issues showed some weakness.
12	So that's, that's the, I guess where my question is
13	coming from, is how you're going to show your confidence.
14	MR. STEVENS: In my opinion, if
15	you'd asked me that question four or five months ago, I
16	would say I'm not probably very confident or even sure, but
17	from the actions I've taken in Maintenance and the focus
18	areas and the number of issues and the kinds of issues that
19	are being identified, I think my confidence is much
20	increased and my folks in Maintenance understand and are
21	identifying issues when it's not in accordance with the
22	standards and expectations.
23	We're writing more Condition Reports, we're
24	addressing more issues, bringing more issues forward, more
25	

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That's the most real time indicator I have of 1 2 whether or not we're aligned in Maintenance, do we 3 understand the level of performance. 4 MR. MYERS: I think the way to 5 answer your question, we do look at that aggregate as a 6 whole. If you look at performance of Maintenance as a 7 whole, do we think that our, our use of procedures is up? 8 We would say no. But we have to look at the whole 9 organization to make sure that we, we improve our standards 10 in that area, across the board. 11 MR. THOMAS: Okay. 12 MR. GROBE: Mark, you just 13 came from, you just came from Beaver Valley. In the past 14 12 months, do you have a sense of how many plant 15 performance situations occur where you needed to have a stand-down, talk to an entire organization? 16 17 MR. BEZILLA: Looking back over 18 the last year at Beaver Valley before I came here, what 19 I'll do is, I'll look into clock resets, all right. From a clock reset standpoint, Davis-Besse is not out of line with 20 21 Beaver Valley and some other plants that I've been with 22 prior to that. 23 And from a stand-down of the organization, I'll say 24 department standpoint, all right, we strive to improve. We have a pretty low threshold. And we will have stand-downs 25

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- 2 have stand-downs for significant issues.
- 3 But, as Mike said, we try to capture all our lessons
- 4 learned, and what we do is we share that with the
- 5 organization, with the desired outcome, so it doesn't get
- 6 repeated by someone else's department. So, we're pretty
- 7 free about sharing our mistakes and the lessons learned
- 8 from those performance errors or miscues.
- 9 MR. GROBE: Okay, thank you.
- 10 MR. STEVENS: Since there no
- 11 other questions, I turn it over to Lew.
- 12 MR. MYERS: Thank you.
- 13 We're ready to go forward?
- 14 I would like to take a few moments and discuss from
- 15 our last meeting, we talked about the Safety Culture,
- 16 Safety Conscious Work Environment.
- 17 I have a good microphone now.
- 18 And, at that meeting, I shared with you our
- 19 definition and our plan on Safety Culture. Today, I would
- 20 like to take a few moments and just continue to go over how
- 21 we're updating that plan on some of the key activities
- 22 we've taken since the last meeting.
- 23 As you recall, we have a definition of Safety
- 24 Cultures. That assembly, if you will, of characteristics
- 25 and attitudes, both characters and attitudes, both in the

- 1 organization and individuals, which establishes an
- 2 overriding priority towards nuclear safety activities and
- 3 that we give the attention warranted to their
- 4 significance.
- 5 Looking at that, since last month, I've discussed
- 6 Safety Culture, had the opportunity to discuss Safety
- 7 Culture. You were there, Jack, at the Advisory Committee
- 8 on Nuclear Safety, the committee that advises the
- 9 commissioners.
- 10 At that meeting, I indicated that our only assets in
- 11 our plant are people and our plant itself. You know,
- 12 that's the only two assets that we have.
- 13 With that being said, I would like to spend some
- 14 time discussing some of the actions we've taken recently in
- 15 the area of people, plant, and design improvement, as all
- 16 part of the plant.
- 17 If you go look at our Safety Culture model, the
- 18 first area is policy level commitment. We've had what I
- 19 think was maybe the best executive leadership team strategy
- 20 meeting that I've been involved with since I've been in
- 21 FirstEnergy ever, in the past few weeks since the last
- 22 meeting.
- 23 At that meeting, we sat down with Bob Saunders and
- 24 the Executive Leadership Team. And, we decided it was time
- 25 to go back and refocus on our vision and missions, and our

1 strategic objectives, if you will.

2	If you go look at the outcome, we are changing our
3	vision as we speak. You know, you used to hear operational
4	excellence. I think that needed some clarification, based
5	on some of the performance we've had in the recent years.
6	We've changed that to be people with a strong safety
7	focus delivering tough lead operative performance. So, we
8	went back to work at our vision. We also worked on the
9	strategic objectives, where the first objective is safe
10	plant operation, and we've got that indicator up here.
11	Improve safety is an area we're focusing on.
12	Excellence of material condition is something that
13	we need to look at across our plant. Not only do we think
14	that we need to make some changes at our Davis-Besse plant,
15	but some of the things we've learned here, we need to take
16	over to our other two plants.
17	And then finally, fleet efficiency and effectiveness
18	is an area we're looking at. And each one of these areas
19	we have specific monitoring tools and goals that we
20	developed during that off-site meeting.
21	Once again, I thought that was the, one of the most
22	productive executive leadership meetings that I've been
23	involved with since I've been with FirstEnergy.
24	From a management standpoint, Davis-Besse management
25	standpoint, we've had several Saturdays. We all had off a

1	few days a month, seems like, so the only time we had was
2	Saturday. So, we took our Saturdays and we sat down as a
3	senior team, with a facilitator, if you will, and looked at
4	our management commitment at the Davis-Besse plant.
5	We think we've what are we doing from a Safety
6	Culture standpoint? I shared with you before some of the
7	key changes we've made in the senior team, that senior
8	leadership team; directives, if you will.
9	You know, we just recently brought Mark Bezilla
10	over. Mark has got a strong backgrounds in Operations, and
11	brings a lot to this team. He was an SRO at this plant.
12	He worked at our Perry Plant. Worked at Salem. Has a BS
13	in Nuclear Technology and about 26 years of experience.
14	If you go down another level now, we've also made
15	some organizational changes in that area. If you look
16	today from a management standpoint, we have a total of 19
17	managers, all but three are SROs or SRO certs. All have
18	broad based experience. All have technical degrees, except
19	our Human Performance Manager, our HR man, Human Resources
20	man, he probably doesn't need a technical degree. But all
21	the others have a good engineering technical degree,
22	chemistry degree, etc.
23	We recently made some changes since our last
24	meeting. Pat McCloskey has moved over to Chemistry. Pat
25	was our Licensing Manager. Pat's real background, he has a

1	Master Degree in	Environmental Engineering,	Certification
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- 2 at Davis-Besse. He's a certified wastewater operator. Has
- 3 18 years of experience. We think he'll do us a great job
- 4 in the chemistry area.
- 5 Since we moved him out of Licensing, we had to fill
- 6 our Regulatory Affairs Manager. I think Kevin Strausky is
- 7 sitting back in the back. There he is. Kevin is there.
- 8 And stand up, Kevin.
- 9 Kevin is new in our management team at Davis-Besse.
- 10 Kevin has a Bachelor of Science Degree in Engineering and
- 11 Physics also. So, he has a very strong technical
- 12 background. He also has Senior Reactor Operator License,
- 13 and has over 23 years experience. We think Kevin's broad
- 14 based experience will bring us a lot in the Licensing
- 15 area.
- 16 So, and the message, these are a couple moves we've
- 17 made, but the message is we're continuing to focus on the
- 18 technical competence, the strong line ownership-type people
- 19 that we need to put in not only the senior levels, but in
- 20 the manager levels to improve the overall safety culture of
- 21 our Davis-Besse plant.
- 22 Another thing we did as a senior manage team, we met
- 23 for a couple days. We developed a, a set of behaviors and
- 24 also a set of activities. What we hear from our people is
- 25 that they're really concerned about the workload that we

1 have, what it looks like over the next couple of years.

2 Where are we going?

3 So, we need to develop and we have developed a list

4 of activities, a picture, if you will, of now to 2004, the

5 summer of 2004, that we're getting ready to roll out to our

6 employees in the alignment meetings that we discussed with

7 you.

8 So, our intention is to sit down with each and every

9 employee for a couple days and, and we're using a vendor

10 that helps us with some root learning, if you will. It's a

11 process that several large companies like Pepsi-Cola has

12 used to help align people. We're utilizing that process.

13 And after we did that as a senior team, we had to

14 meet with the management team and make sure we were aligned

15 with them. Alignment, we learned a new definition of

16 alignment also. The definition we're using of alignment is

17 it means you own something as if it were your own.

18 So, when we walk away with the word alignment, that

19 means we are aligned that these are the things that we need

20 to get done over the next two years.

21 We've accomplished that. Now we have pretty much

22 the census of alignment of all our managers, and we'll be

23 rolling that out at the end of this month, through the

24 group learning process through our employees, before we

25 start on that.

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1 In the next area, people. Go look at people. You 2 know, we talked awhile ago about, we've just talked about a 3 meeting, one of the people from FirstEnergy, how they thought industrial safety was really important from a 4 5 Safety Culture standpoint. We've just crossed eight 6 million man hours worked without a lost time. That's not 7 only our best course, but probably the best in the 8 industry. 9 We continue to communicate alignment at our Town 10 Hall Meetings, Stand Down Meetings. Those are, those meetings continue on. I would like to stop and give you 11 12 some results. To-date in the 4C's Meetings, I first had 13 and Mark conducted one for me, and with over 700 employees, 14 at our plant. 15 And at the end of each meeting I have a survey I 16 pass out. There is no names on the survey. I walk out of 17 the room. They fill it out. I just collect the data. 18 If you go look and ask the question, "Would you write a CR to identify a plant problem?" We're getting 19 20 approximately a hundred percent positive responses if you 21 ask. 22 "Do you believe that our Employee Concerns Program 23 is confidential?" We're up to a response of 86 percent. 24 That was not so positive a year or so ago. So, that's a 25 pretty good turn.

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1 "Would you bring a concern to the Employees Concern 2 Program?" We got fairly low marks on that. And then marks 3 I'm getting now is like 93 percent. 4 "Is communications from employees to management 5 good, fair, or poor?" 93 percent of our people now are 6 saying fair to good, you know. So, that's -- used to be poor. So, we think it's improved in that area. 7 8 And here's a key thing that I'm really pleased with 9 it. "Do you believe that management wants work done 10 correctly the first time?" 97 percent of our people are 11 saying yes now. 12 And, "Do you believe that management wants you to 13 stop if you find problems during the work process?" 97 14 percent of those people are also saying yes in that area. 15 So, you know, I don't know how scientific this 16 survey is, but at least I can tell you, you know, that a 17 couple hundred people. I did it -- when I first started 18 the 4-C's, I didn't have a survey. So, I can't tell you 19 all 700 have taken it, but there is a large population of 20 people that supplied that end of the survey. 21 Also from a people standpoint, you heard Mike talk 22 about the Operations Leadership Plan. We think it's 23 working well for us. We just, even though we're in this outage, you know, one of the hard things we have to make a 24

decision on is our future. And we, it would have been easy

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- 2 that.
- 3 We went ahead and reinstated the license, the Senior
- 4 Operator License Class and we're back in class now. We've,
- 5 we think we're strengthened in ownership and
- 6 accountability.
- 7 One of the thing we were just very pleased with
- 8 recently, I'm going to ask Jim Powers to talk about that,
- 9 is this chart over here. We took our engineers off site
- 10 and, and had a retreat to talk about what we've learned
- 11 with the Davis-Besse event. And the results of it is so
- 12 shown on this pictorial chart that we've developed over
- 13 time. So, we'll talk about that one moment.
- 14 MR. POWERS: We took all the
- 15 engineers and some of our customer representatives from
- 16 Operations and Maintenance, Regulatory Affairs, for
- 17 example, to the Maumee Bay State Park Conference Facility
- 18 for a full day's activities, away from the site, to get
- 19 together and reflect on where we came from with the issues
- 20 at the site.
- 21 One of the transformational changes that we made as
- 22 a consequence of that, with the new tools we created and
- 23 what do we do about it, and where will we see ourselves
- 24 going, how will our customers see us in the future.
- 25 So, I encourage you and ask you to take a look at

1 the data scroll, is what we refer to it as, over on the

- 2 wall. These are the thoughts of the engineers drawn out by
- 3 a caricaturist for us capturing what we've done, what got
- 4 us into the situation, what we've done to improve, where
- 5 we're going to continue with improvement, etc.
- 6 Just another tool that we use beyond the regular
- 7 procedures, training, the hard day-to-day type things we do
- 8 at the site. Inside look at the people aspects of things,
- 9 and a different tool for learning; everybody to pause and
- 10 reflect on what we've done and where we're going.
- 11 MR. MYERS: The comment I want
- 12 to make on that; when they rolled this out and saw it, the
- 13 question is always, did all the staff in stand downs, do
- 14 they understand. And the way they developed this and you
- 15 look at, it's obvious they understand. You know, so,
- 16 that's what I see when I saw this.
- 17 That being said, I can move on to the plant area.
- 18 From a plant standpoint, we've done a lot of things to
- 19 improve the safety margin or regain the margins, you know.
- 20 I want to cover just a few of those.
- 21 Everybody knows we replaced our head. We installed
- 22 a permanent cavity seal, you know that. Reworked our
- 23 Containment sump. Containment dome, we talked about.
- 24 What I'm really pleased with is this FLUS Monitoring
- 25 System. I think it sets the standard that no one else in

very early. It's a, I think it's going to be a good tool. 2 3 And also our Leak Rate Program that we put in place. That, 4 it's combined with that, I think certainly will make us a 5 leader of the industry when we start back up. 6 We replaced our containment coolers, we worked the 7 decay heat tank, a long problem. Not guite sure on that leak check yet, but we'll get there. It's been a good 8 9 effort. 10 The fuel inspection and cleaning was a major 11 effort. We have a, we completed our integrated testing of our containment. ETAP, you know, if you go, that's been a 12 13 major improvement that we'll have at that plant. There is 14 a lot of things out there. In fact, I was talking to some very good plants the other day about ETAP and they're just 15 16 beginning now to start the ETAP process at their plants. 17 That's a pretty big piece of technology that we'll have in 18 place. 19 The diesel air start system is something I know 20 you're interested in, not only the air start, but to fix 21 the leaks too. So, we're going to our diesel room, so I 22 think our diesels, when we come out of this outage, will 23 be, at least meet the standards of the industry, you know. 24 In my mind, they didn't the first time I saw them. 25 So, that's been a major effort. And, finally, this

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the country has right now. We'll be able to identify leaks

1 high pressure safety injection pump mod. I believe when we

- 2 finish, we'll know more about debris and wear rings And, I
- 3 was down looking at the documentation that we're keeping

4 and the pictures and all, make sure that when we come out

5 of this, I think we'll have something maybe we can submit

6 for another Tip award next year.

7 So, I believe we'll have some data maybe too that

- 8 nobody else in our industry has. I really do think that's
- 9 a good effort.

10 From a Design Improvement standpoint, go back and

11 look at the Building Blocks and then the Design Reviews in

12 System Health, Latent Issues, Function Validation, Topical

13 Area Reviews, and Calculations.

14 You know, as Jim said, we've touched 1500 of our

15 calculations. And we redid over 250 of them, just based on

- 16 the Latent Issues Review. So, our calculations would
- 17 probably be in pretty good stead. Jim was already, came in
- 18 this week, and putting a task operation together to bring
- 19 the Atlas Process over here.

20 You know, we walked the six systems down, so we're

- 21 going to capture that data while it's good and make sure
- 22 that we upgrade that into the Atlas Process, which is a
- 23 database that we use to make it very easy for engineers to
- 24 find design information. We think it's a very good data

25 base.

1	Plan on implementing that on these six systems and
2	then as we do Latent Reviews in the future, we can add
3	those on. When we get, I think it's 15 systems, we have
4	about 99 percent of the core damage in the system, in that
5	process. So, that won't take us too long. So, I think
6	that's a good effort also.
7	You go look at our procedures and programs. Our air
8	operated valve program basically didn't exist. People
9	would say, but we didn't have the design calcs. Well, now
10	we have the design calcs.
11	Boric acid control program is new. Reactor Coolant
12	Leak Rate Program is new. Once again will make us a leader
13	in the industry. And Operating Experience Program, I think
14	that's closed out. We have an excellent effort, in our
15	Operating Experience Program.
16	And, as Jim said earlier, if you go back and you
17	look through this, he discussed engineering standards and
18	where we're going. If you go back and look at this effort,
19	we generated since we've been shut down, over 15,000 CRs.
20	And, where we're at today, that's quite a work-off.
21	In my mind, all this put together, go back and look
22	at the definition of Safety Culture; are we improving our
23	assets and gaining safety margin? And the answer is,
24	people, and plant, and design; all three areas, I think the

25 answer is yes.

1 Go ahead, Christine.

1	Go ahead, Christine.
2	MS. LIPA: Lew,
3	under procedures and programs, you have four bullets. The
4	bottom three, we are on our Restart Checklist. So, we're
5	looking at those in detail. The first one, Air Operated
6	Valve Program. You talk about how it's improved, but
7	what's your assessment of the current state of that
8	program?
9	MR. MYERS: My assessment
10	probably the best person to give the assessment would be
11	Jim, but my assessment is that program is making good
12	progress. We've looked at all the valves. We have design
13	calcs. We didn't have the design calcs, which is the
14	backup. I don't know how that starts back up, but Jim.
15	MR. POWERS: I would agree with
16	that. We have the industry calculations prepared now, so
17	we have a firm design basis for it. We're doing
18	modifications to the valves at the plant that require more
19	margin, and those modifications will be effective.
20	We've had to work through some technical issues in
21	that process, but the bottom line is we're going to have
22	hardware changes upgrade to give us the margin we need and
23	program requires for the valves, and so I think we're

- 24 making good progress on this. I think we're being
- 25 effective in effectively going after change work

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1 requirements.

2	MS. LIPA: So, from a program
3	as far as program ownership, and goals, and state of the
4	program, you have a good feeling about that?
5	MR. POWERS: Yes.
6	MS. LIPA: Thank you.
7	MR. MYERS: Once again in
8	summary, I've been through a couple of the extended
9	shutdown plants myself. I know several of you all have,
10	but if I go look at the amount of improvement and people
11	issues, management issues, management teams, strengthen the
12	management team, the overall improvement in the plant
13	design margin, material condition. You know, this has been
14	a pretty, pretty impressive step change. That's all I
15	have.
16	MR. HOPKINS: I have a question.
17	(microphone problem.)
18	MR. HOPKINS: One of the
19	improvements that you mentioned, higher containment nuclear
20	leak rate tests. I don't understand what the higher means?
21	MR. MYERS: We tested the
22	containment, and I don't remember the number. If you go
23	look though, containment margin, each tenth of a pound is
24	worth about 24 degrees in RCS. So, we actually moved the
25	test pressure up a couple tenths of a pound, so that we

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1 really gain an operational margin if we leave it that way.

- 2 We were testing at a lower test pressure before. Did that
- 3 intentionally.

4	MR. HOPKINS:	All right, thank				
5	you.					
6	MR. GROBE:	Okay. Clark.				
7	MR. PRICE:	Thank you, Lew.				
8	MR. GROBE:	He's surprised.				
9	He's not used to be being able	to speak at these meetings.				
10	MR. PRICE:	Okay, I would like				
11	to conclude our presentation t	oday with a recap of the				
12	final activities that we need to	complete to support moving				
13	to our next milestones of Mode	e 4 and Mode 3 and full				
14	pressure test of the Reactor Coolant System.					
15	Then, I'll provide a summa	ary status of our progress				
16	on the 0350 Restart Checklist	, and I'll try not to be				
17	redundant to Christine's excel	lent presentation earlier.				
18	Finally, I'll go over two of	our management				
19	indicators that we look at for n	nonitoring overall restart				
20	for our actions.					
21	On this slide here, we're o	currently focused at the				
22	activities required to place the	plant in a condition for				
23	the full pressure test of the rea	actor coolant system. And				
24	we have four activities that are	e currently sharing critical				
25	path for Modes 4 and 3; those	being the high pressure				

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1 injection pump installation that Bob Schrauder addressed

- 2 earlier.
- 3 We have a plant modification to install minimum
- 4 recirculation of the high pressure injection pumps. We
- 5 have six modifications to make the plant, to make to the
- 6 plant as a result of the electrical transient assessment
- 7 program that Mark also addressed earlier. And we're also
- 8 installing thermal overload heaters to a number of motors
- 9 in the plant. All four of these projects are within days
- 10 of each other as far as critical path.
- 11 In addition to these projects, we are completing
- 12 modification to several air operated valves that we just
- 13 discussed from the Air Operated Valve Program reviews that
- 14 we did. We will be testing our Safety Features Actuation
- 15 System. And be holding our Restart Readiness Review
- 16 Meetings to affirm that we are ready to proceed to Mode 4,
- 17 which we'll be starting tomorrow.
- 18 The next three slides provide a summary of our
- 19 status on the 350 Checklist Items. Davis-Besse established
- 20 Building Blocks through the Return to Service Plan that
- 21 produce discovery implementation action plans, where
- 22 applicable to address the 350 checklist items. And these
- 23 charts here are color-coded to show our progress in those
- 24 plans for each of the checklist items.
- 25 Now, again I'm going to try not to be overredundant

1 with Christine's presentation on the status, but there are

2 some things I want to address here.

3 Overall, there is 31 Restart Checklist Items, as

4 Christine mentioned. We do have 33 that would show on

5 here. We actually break out two of them in a little bit

6 further detail for tracking. And, I'll address those real

7 briefly.

8 We have a couple items, and I'll also try to focus

9 on the ones where the, where we're showing complete on

10 here, and the NRC has not yet closed the checklist item.

11 So, as we go through here, first two items, as

12 mentioned before, are complete. We move on to Checklist

13 Item 2a and 2b, which is our reactor vessel replacement and

14 restoration containment vessel. We're waiting on Mode 3

15 full pressure test for final test on the reactor vessel

16 head.

17 And our containment restoration is complete. That's

18 shown in green on this chart. And we are currently working

19 with the NRC inspector to resolve a couple issues, and the

20 exit is planned I believe for July 18th for the containment

21 vessel restoration checklist item.

22 The Checklist Item 2c deals with restoration of

23 Containment Systems and Structures. And, as Mark Bezilla

24 talked about earlier in his presentation, we closed

25 Containment, and turned, the Containment Building Block

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1 Owner turned over the Containment building to Operations. We have a few corrective actions in this area, so we're not 2 3 completely done, and we have about 50 Corrective Actions that actually require Mode 4 conditions to complete. 4 5 In the area of Containment Emergency Sump, on the 6 chart we're showing that is complete. Again, that is not a close-out yet by the 0350 Panel, but we are working on the 7 8 final closure of that checklist and addressing a few 9 follow-up questions with the NRC inspector, and hopefully 10 we'll have that complete by next week; or at least our 11 resolution of those questions. 12 On 2d, again, we're showing we're 98 percent 13 complete. That's for the systems containing boric acid 14 outside of containment building. Again, in that area, 15 we're working on Corrective Actions as we speak, but we 16 have 30 Corrective Actions approximately that should 17 require Mode 4 conditions also to complete in that area. 18 And, as we discussed, perhaps as Christine 19 discussed earlier, then we have our 2e, our high pressure 20 injection pump is a new issue that is now on the 21 checklist. And we currently are not reporting percent 22 complete, as we're working to try to develop how we're 23 going to progress that particular checklist item. 24 If we move to the next slide, the next slide shows 25 our Safety Significant Programs. And as you can see, we've

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1 completed the first eight of those programs. The first one, the Corrective Action Program, is not closed yet by 2 3 the NRC. We currently have the Corrective Action Team Inspections going on, reviewing the implementation side of 4 5 our Corrective Action Program, and we're waiting for the 6 results of those inspections. They'll be occurring in both July and August. 7 8 And, another area, an area where we have actually 9 broken out a Checklist Item, the 3c and 3c1 items, which is 10 Quality Audits and Self-Assessment Programs. We're showing 11 both a hundred percent complete in that, in both of those. Quality Audits is actually complete. The inspection is 12 complete. But the Self-Assessment Program still has an 13 14 inspection or two that needs to occur on that, and because 15 that is one checklist item for the NRC, that Quality Audits 16 or Self-Assessment Program is still an open checklist 17 item. 18 Radiation Protection Program, which is the first one 19 that showed blue, down towards the bottom, is currently 20 working to finish the final corrective actions on that 21 program. And there is an inspection starting next Monday 22 that will hopefully close out that checklist, that 23 inspection checklist item. 24 And then we have 3i, which is our completeness and 25 accuracy of required records and submittals to the NRC. We

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- 1 have a number of activities that are ongoing with that
- 2 right now. We've completed our validation of procedures,
- 3 or completed -- excuse me. Completed procedures that are
- 4 established for validation of NRC correspondence going
- 5 forward.
- 6 We're currently having slight site training on 50.9
- 7 training for all site employees. I should say all down to
- 8 the supervisor level is currently going on. And we have an
- 9 extensive Extent of Condition Review going on looking at
- 10 past documents that is submitted to the NRC and ensuring
- 11 that they are complete and accurate. And we're about 48
- 12 percent complete overall. I think we're just a little over
- 13 30 percent complete on the Extent of Condition Review, and
- 14 then the other two activities I mentioned earlier, make the
- 15 total of 48 percent complete right now.
- 16 Move on to the next slide.
- 17 The 4a and 4b, this is in our Management and Human
- 18 Performance and Corrective Actions Plan we have, the 4a;
- 19 and the effectiveness of those corrective actions; in the
- 20 4b side.
- 21 The NRC has actually closed Checklist Item 4a, but
- 22 we do have a couple Corrective Actions that we're still
- 23 working on in that area, so we are not showing it one
- 24 hundred percent complete at this time.
- 25 And, in the area of 4b we're continuing to work on

1 items that Christine mentioned earlier. We have some

2 longer term actions to establish how we're going to measure

3 safety assessment or safety culture assessments, restart

4 readiness review meetings. We have established that the

5 NRC wants to observe and some other actions in that area

6 that we still have yet to complete.

7 In the Readiness for Restart area, again, we're

8 making progress, good progress there. We have 90 percent

9 of the Condition Reports/Corrective Actions that came out

10 of the System Health Readiness Reviews. And the Latent

11 Issue Reviews are, I think we're 95 percent complete on

12 that right now.

13 On the Design Calculation Resolution, this is

14 another checklist item, that if you look on the NRC's list

15 is just one item. We break it out here for tracking. In

16 the Design Calculation Resolution, we actually have

17 completed the, all the Corrective Actions -- Condition

18 Reports and Corrective Actions that came out of the

19 Collective Significance Reviews and Safety Function

20 Validation Projects, so we're showing that a hundred

21 percent complete; and the remaining activities we still

22 have to complete in the System Health area.

23 And then Christine mentioned what we have going on

24 with the two -- or excuse me the 5c Operations Readiness

25 for Restart, which is primarily made up for us of the

1 Restart Readiness Reviews, but also we have a couple NRC

2 inspections that will be monitoring operations as we move

3 through modes for restart.

4 And then our test program, 5d, we're currently right

5 now showing 72 percent complete after our 250 pound test

6 that we ran. And that checklist item is also waiting for

7 the full pressure test to continue its progress.

8 In the licensing issue resolution area, we've added

9 now on here, the 6g, which is the license amendment

10 requests that was mentioned earlier. It's a new checklist

11 item, which is for the emergency core cooling system flow

12 balance testing that we need to do with the high pressure

13 injection pumps once they're modified.

14 And then we have our confirmatory action letter

15 resolution, which we are continuing to make progress on in

16 the areas applicable for that. And, as a matter of fact,

17 we do have one of the items that deals with the, providing

18 the specimens for, of the full reactor vessel head to the

19 NRC. And that project is currently going on, on the site,

20 removing those specimens to be shipped off to our

21 laboratories.

22 That's, that's the status on the checklist items.

23 The last two charts are how we really monitor our,

24 kind of our overall bulk restart actions, and this is the

25 total chart for Condition Reports. The next one is the

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1 Corrective Actions. And these charts are also, show in more detail on the wall over here, broken down by the 2 3 Building Blocks. 4 But, as you can see, we're working off our Condition 5 Report Evaluations. The Restart Station Review Board 6 continues to review on a daily basis Condition Reports that are being generated; however, the number of restart 7 8 conditions are dropping off now. We're making good 9 progress. We're down to 163 Condition Reports that remain 10 open, or that have been classified as restart. And we're down to less than 60 of those that are required now for 11 Mode 4 and 3 of that population. 12 13 And the next chart is on Corrective Actions. Again, 14 also this shows what's open and what we closed. We've had over 7,000 Corrective Actions that have been identified for 15 16 restart. There are 737 remaining. That's the number at 17 the end of Sunday. 18 And, again the incoming here, we do get, as we're 19 working off these Condition Reports and they're producing 20 Corrective Actions, they do continue to come into this 21 Performance Indicator, as required for restart. But we are 22 now down to a little over 300 of these Corrective Actions 23 that are required for Mode 4 and 3. 24 So, we were getting down, all these Corrective 25 Actions and the Condition Reports are scheduled. They're

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1 monitored every day at the 8:00 meeting. And, we're making good progress. And they all meet the milestones. We're 2 3 making good progress towards meeting the necessary dates that we need to do this support of Mode 4 through Milestone 4 3. 5 6 If there is no questions, I guess I would like to 7 say in conclusion, I would like to say we're continuing to 8 make good progress, and we have confidence in both our 350 9 restart actions and our remaining restart actions that are 10 not 350 complete, and we'll support the next restart 11 milestones. 12 With that, I'll turn it back over to Lew for final 13 comments. MR. GROBE: 14 Okay, thanks. 15 MR. MYERS: Well, I started 16 talking about the near, the Normal Operating Pressure Test 17 and Near Temperature Test. I think that's very imminent. 18 You can look at all the issues that we have, and count on 19 your hands almost. 20 We have some ETAP miles to get through, and we've 21 got HPI Mod to get through, and Some AOV we need to 22 install, stuff like that. But that's, we know that we're 23 going very well on management. 24 The HPI pump was another area we wanted to talk 25 about. I'm not pleased with the progress that we've made;

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- 1 however, I am extremely pleased with the questioning
- 2 attitude that we had on that. And whenever you get one of
- 3 these tests that are at issue, you're going to find
- 4 questions. And we found some of those. We had to go back,
- 5 and I think Bob characterized our situation very well.
- 6 I believe this Mod still will be very successful.
- 7 At the end, I think we have some data, like no one else has
- 8 got, on the effects of our material on some of the rotating
- 9 parts in the pumps.
- 10 We look forward to the, to the NOP test, once again,
- 11 from an Operations standpoint, Engineering and Maintenance
- 12 standpoint. We're going to be doing our readiness reviews
- 13 for Mode 4 starting tomorrow.
- 14 We shared some of the thoughts with you today, but
- 15 we'll be doing that assessment as a management team. We
- 16 look forward to that.
- 17 And then, once again, if I go back, I look at the
- 18 plant, and I think it's good to look at the people progress
- 19 you've made, the material condition progress and the
- 20 design. That margin, if you're not gaining margins in the
- 21 plant, and improve the material condition, then, and
- 22 working on your people, you're probably going backward from
- 23 a safety culture standpoint.
- 24 And if I looked at each and every one of those right
- 25 now, I would give us a check mark. Not that we're the best

1 in the industry, but the trend is definitely correct. 2 That's all we had to share with you today. Thank 3 you for letting us discuss this, these issues. Thank you. 4 MS. LIPA: Okay. Thank you. 5 Any comments or questions at the table here? 6 MR. GROBE: Lew, I appreciate 7 your presentation today. I think it was very helpful. You 8 gave us a very broad perspective of where you're at, where 9 you're going. 10 I think we need to contemplate what the focus of next months's meeting, and I'm not quite sure how we want 11 12 to focus. We'll be discussing that over the next couple of 13 weeks. MR. MYERS: 14 Okay. 15 MS. LIPA: Okay. So, what 16 we're going to do is take a ten minute break and we'll be 17 ready for our questions and answer period. And, I just 18 want to remind everybody that next month's meeting is 19 August 12th. Thank you. 20 (Off the record.) 21 MS. LIPA: Okay, if everybody 22 would find their seats. What we're going to do is open up 23 the microphone for anybody who has a question or comment or 24 the NRC. And we'll start with local members of the public, 25 and what we have is a sign in sheet at the podium and

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1	Mr.	Steckel	has	assured	me	that	that	mic	rop	hone	will	work.
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- 2 And we would limit each person to five minutes for comments
- 3 or questions. And, then just state your name clearly for

4 the transcriber.

- 5 And also we have, there is a block on the form where
- 6 you can fill in your phone number in case you want, have
- 7 any questions you have and we can contact you.
- 8 So, let's go ahead. Who is first? Who has a
- 9 comment or question for us?
- 10 Anybody have any comments or questions about some of
- 11 the items we talked about today, or about the information
- 12 in our newsletter?
- 13 MS. RYDER: Hi, my name is Amy
- 14 Ryder. I'm with Ohio Citizens Action. I have a quick
- 15 question, just as far as scheduling goes.
- 16 Does the, do the HPI pumps have to be fixed and in
- 17 place before the pressure test is done, or can that be done
- 18 first?
- 19 MS. LIPA: The answer to
- 20 that, Amy, is the tech specs require that the high pressure
- 21 injection system be operable for Mode 4 or 3 -- for Mode
- 22 3. So, the Licensee plans before they plan to do the NOP
- 23 test, they need to go to Mode 3 for that test. Before they
- 24 go to Mode 4, they need to get ready for Mode 3. They need
- 25 to have the high pressure injection system operable for

1 tech specs.

	-
2	MS. RYDER: Okay.
3	MS. LIPA: Before they can do
4	the pressure test. That's correct.
5	MS. RYDER: And I have some
6	letters that I want to give to you.
7	MS. LIPA: We need to
8	clarify.
9	MR. GROBE: Yeah, let's add a
10	little more detail to that.
11	MS. RYDER: Okay.
12	MR. GROBE: There is a license
13	amendment request in-house with the NRC. It was posted
14	last month, I believe, to the Federal Register. That would
15	authorize a one time kind of exception to the tech specs as
16	they exist today, to permit the performance of the high
17	pressure or the Normal Operating Pressure Test with the
18	high pressure injection pumps as they are today, but not
19	permit the plant to go to Modes 2 or 1.
20	So, there is several different options that the
21	Licensee has. They can reinstall the old pumps and use
22	that license amendment request, which is in the process of
23	being reviewed, or they can have a successful modification
24	of the pumps, or they can successfully replace the pumps.
25	But the pumps have to be operable in accordance with the

1 tech specs. Currently, they're not operable in accordance

2 to the tech specs.

3	MS. RYDER: Okay. All right.					
4	Also, I wanted to deliver to you today, I have 450					
5	letters written from residents across the northern part of					
6	the state who are asking the NRC to keep this reactor					
7	closed permanently. This reflects the large number of					
8	people that we've talked to when we go door to door, who					
9	are very concerned about their safety and believe that					
10	their safety would be jeopardized if this plant were					
11	returned to service.					
12	So, if someone could go get these.					
13	MR. GROBE: I appreciate you					
14	bringing them. We appreciate it. We've also received					
15	about a hundred emails over about the last several days,					
16	that we appreciate receiving, because that's why we're					
17	here. We're here to receive and hear from the public, and					
18	understand concerns and respond to those. So, thank you					
19	very much, Amy.					
20	MS. LIPA: Okay. Does					
21	anybody else have comments or questions for us? Are you					
22	sure?					
23	Okay. Well, we'll resume again at 7. And, so, if					
24	you want to come back then, and ask your question then, or					
25	you can come up after the meeting is over if you want to					

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1 try to catch one of us. Thank you all for coming. Good night. (Off the record.) - - -

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CERTIFICATE I, Marie B. Fresch, Registered Merit Reporter and Notary Public in and for the State of Ohio, duly commissioned and qualified therein, do hereby certify that the foregoing is a true and correct transcript of the proceedings as taken by me and that I was present during all of said proceedings. IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Norwalk, Ohio, on this 19th day of July, 2003. Marie B. Fresch, RMR NOTARY PUBLIC, STATE OF OHIO My Commission Expires 10-9-03. 

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