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

- - -

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

- - -

PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

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

FIRST ENERGY NUCLEAR OPERATING COMPANY

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

- - -

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

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

Next slide, please.

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

Next slide, please.

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

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

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

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

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

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

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

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

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

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

Our Region III Public Affairs Officer, Viktoria Mitlyng.

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

Lew, would you please introduce the FirstEnergy personnel?

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

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

Mark Bezilla is next to him. Sitting next to me on the left. Mark is going to be the new Site Vice President at the Davis-Besse Nuclear Plant. We'll talk about Mark later on in the presentations.

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

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

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

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

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

MR. PASSEHL: Thank you, Lew.

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

MR. ARNDT: Steve Arndt, Ottawa County Commissioner.

MR. WITT: Jere Witt, Ottawa County Administrator.

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

Now you have to stand up Doug.

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

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

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

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

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

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

(applause)

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

There are copies of the May edition of our monthly newsletters and copies of the slides for this meeting in the foyer. The newsletter provides background information and also discusses current plant and NRC activities. On the back page, there is some reference information on how to contact us, if you have additional questions or concerns.

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

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

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

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

Next slide, please.

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

We mentioned that we were prepared to close Restart

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

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

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

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

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

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

I want to mention that we are conducting another public meeting tomorrow to discuss engineering issues. Information on that meeting can be found in our monthly newsletter.

Next slide, please.

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

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

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

NRC's review of the report is complete, and the results of the review will be included as an attachment to the next Resident Inspection Report, which should be issued in the near term.

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

Next slide, please.

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

We are also evaluating the Licensee's process ~~in~~ and tools for monitoring improvements in the Safety Culture, Safety Conscious Work Environment and the effectiveness of the Employee Concerns Program. The inspection is in progress this week. On April 7, the NRC issued a press release and biographical information on the team members for that inspection.

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

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

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

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

Our Resident Inspection is ongoing. We have two Resident Inspectors stationed permanently at the site, who inspect a broad spectrum of activities, as is characteristic of all our sites, in the areas of Operations, Maintenance and Testing. And the Resident Inspectors issue reports every six to seven weeks.

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

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

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

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

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

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

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

To ensure that we did an excellent job assessing this area, as Dave mentioned, we brought in a team of experts. There is seven folks, who have a proven track record in the area of Safety Culture Assessment, Safety Conscious Work Environment Assessment; and two gentlemen who also have a proven track record in the industry of effectively managing safety culture at nuclear power plants.

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

Thanks, Dave.

MR. PASSEHL: Okay. Next slide, please.

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

This is the second public meeting focusing on the status of design reviews of Davis-Besse safety systems. The first meeting was held in the NRC's Region III Office in Lisle, Illinois on December 23rd of last year. Transcripts and presentation materials for that meeting are available, and for the meeting tomorrow, are available on the NRC's website.

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

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

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

Next slide, please.

The NRC is preparing to conduct a Restart Assessment Team Inspection when the utility nears the point where it will seek NRC authorization for restart. This inspection will review the readiness of the plant and the plant staff to resume plant operations safely and in compliance with NRC requirements. The inspection findings will be considered by the NRC Oversight Panel in making its recommendation to the Regional Administrator on possible restart.

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

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

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

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

MR. MYERS: Thank you.

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

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

MR. MYERS: Yes.

(laughter)

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

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

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

We also want to review the plant activities completed since the last meeting, and as it brings you up to our present status; and then, there's some near term activities for plant testing that we want to discuss; and then, finally, we want to provide you an update of several of our issues and their resolutions.

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

The Restart Test Plan. Mike Stevens will discuss that.

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

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

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

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

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

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

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

If you'll look at some of the actions we've taken, we talked about before, you know, Bob Saunders created a new position of Chief Operating Officer, which is my job, once we get the plant restarted.

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

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

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

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

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

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

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

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

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

That allowed us to take the next person, Mark Bezilla, who is sitting to my left, and move him to, that would be the Site VP at our Davis-Besse Plant. Mark comes to us with a, what we think is an outstanding background also. He has 26 years of experience in the nuclear program, including a position at Three Mile Island.

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

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

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

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

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

If you go look at Mark. Mark, once again, had an SRO in this plant. He has an Engineering degree and Associate degree in Nuclear Engineering Technology. We think that he knows the plant well. He's had good broad based experience and will do us an outstanding job here as the Site Vice President.

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

If you go look at the next slide, at our Davis-Besse station, we've worked pretty hard as a Senior Management Team over the last few weekends to figure out how to utilize the talents that we have here. You know, I'm basically located at the station full time, so between Mark and myself, we probably shouldn't be doing the same job. So, since I'm located at the station, I'm going to stay here until after startup. And, we tried to figure out ways to utilize our talents the best.

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

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

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

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

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

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

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

We need to really focus on the management issues that we have ahead of us. And, Randy is here to focus on the SAP Project, which is a management issue; the new computer project moving into our plant, that the plant is going to.

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

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

Communications at our site, trying to improve that.

Safety training, our Training Department will report to Randy. Human Performance person will report to Randy. And, finally, the Restart Building Block will continue to report to Randy also.

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

And what we feel right now, is that lays out and uses our talents to the best way we know how to use them. This has been a team effort to figure out, here's all the things we need to get done, and here's the way to approach it. So, those are the changes that we have in place at our plant.

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

MR. STEVENS: Thank you, Lew.

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

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

Next slide, please.

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

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

250 pound test?

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

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

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

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

MR. THOMAS: That will do it.

Thanks.
MR. STEVENS: Okay. We'll be operating our reactor coolant pump test, all four of our reactor coolant pumps. Additionally, after we hold that pressure at 2,155 pounds for 7 days, we'll go in and perform baseline inspection on our reactor heads using our inspection program, both the new reactor head that was installed, as well as the bottom head region of the reactor vessel. Also, we plan to test our control rod drive system by performing our insertion time testing.
Next slide, please.
MR. HOPKINS: Wait a minute. Let me ask a question here. In the beginning, you talked about taking lessons learned from others to validate your program. Where and what you just discussed do you take lessons learned from that?
MR. STEVENS: What we learned from some of the other units that were down for a prolonged time, that when we, when they went to start up without having a system integrated test to ensure that all the components were ready to operate, they found they had multiple equipment problem and were not prepared.
So, some of the things we're doing is taking those lessons learned, tie in with this startup plan as we bring systems on; what most likely could be a problem, preparing

for it.

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

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

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

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

After we work on something, we do what we call post maintenance testing. We have all that post maintenance testing to do. So, as we get on up to 21, we do the pressure testing on the way up, and make sure we don't have any leaks and everything at the two pressures. Then we get up and do what we call integrated testing. We're going to test our steam pumps, condensating pumps, feed pumps, anything we can test during that NOP test, and try to make sure that equipment is ready to operate.

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

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

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

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

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

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

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

MR. HOPKINS: Okay. Thank you.

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

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

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

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

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

MR. MYERS: I think it is. Yes.

MR. THOMAS: Okay.

MR. STEVENS: Thank you, Randy.

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

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

On the secondary side, the secondary system readiness places a majority of the secondary plant components in service as required from startup and we'll be going from layup preservation to operational readiness.

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

Any additional questions?

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

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

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

Next slide.

There are approximately 1,172 Mode 4 restraints at this time. A breakdown of our progress for these items is listed on the screen. The major work remains in the area of CR closure, work order closure, and component testing.

Next slide.

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

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

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

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

MR. ROSS: That's absolutely correct.

MR. GROBE: Thank you.

MR. ROSS: Next slide. Looking to Mode 3, there are 509 restraints and we again show our work there.

We have maintained a list of issues affecting Mode

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

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

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

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

The Electrical Transcient Analysis Program issues are receiving additional focus. It appears to be one of our major issues for Mode 4. Our project team continues to work to improve delivery of this issue.

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

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

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

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

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

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

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

MR. ROSS: Yes. That's

correct.

MR. THOMAS: Okay, thank you.

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

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

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

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

Next slide.

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

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

I'm open to questions.

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

MR. MYERS: Thank you.

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

We've looked at a couple of options today. The first option was to replace the pump. As we stated earlier, we went out and we bought two pumps that we found in the industry that were from plants that were not, not ever completed. We have those two pumps. We own those two pumps as we speak. And, the second approach was to modify the existing pumps.

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

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

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

If you go look at today, we've got George Beam here. George is the Senior Vice President with Framatone, next to me. What we did is, we went into a contractual agreement for a sole source delivery of that pump, similar to what we did with the reactor vessel head, if we decide to replace the pump.

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

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

What's important, is that we've got to focus on what are the advantages and disadvantages of each approach. Every day we have different issues pop up, from anything from increases in temperature to the new pumps in our safety-related rooms, and would ~~root~~ room coolers take that, or changes in loading on our diesels. So, we've got to find the right technical issue, the right technical approach for the plant.

So, we're very confident these two approaches are both doable; and we've got to, in the next few weeks, decide exactly which one we're going to do, because after we do the NOP test, we have to get started on one of them. Okay?

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

MR. BEAM: Thank you, Lew.

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

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

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

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

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

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

Next slide.

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

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

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

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

Any questions?

MR. THOMAS: Is it too early to

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

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

MR. THOMAS: Okay, thanks.

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

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

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

MR. MYERS: You're welcome.

MR. GROBE: Last December, individuals in your engineering organization surveyed a number of folks regarding the at-risk change process. And, the question at that point was whether or not the extensive use of at-risk changes created a perception of production over safety. And there was a significant concern at that time that utilization of that process at the extent that was being done during this outage presented a challenge to the concept of production over safety and quality.

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

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

MR. MYERS: You know, an at-risk change for us, you know, doesn't mean that the engineering is not done. What it means is, some of the, I would say the last part of the validation. So, there is a risk, financial risk of doing the at-risk change approach, you know. It is a more expedient process, but it doesn't have all the rigor that a normal change process would have. And before you go to closure and use that, that component, you finalize that with normal mod process.

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

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

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

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

MR. VON AHN: The at-risk change process, Jack, as you know is a generally accepted process throughout the industry, and there are certain steps we take throughout that process that the product is not delivered and turned over and operationally accepted until all the I's or-- T's are crossed and the I's are dotted.

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

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

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

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

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

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

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

MR. MYERS: You know, we tried to strengthen our reviews in-house. We've also tried to strengthen our engineering oversight review board reviews, some additional criteria there, where we've gone back and tried to look at the mod calculation. We had owners acceptance. Owners acceptance is not a comprehensive review of the calculation. We're strengthening that also.

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

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

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

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

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

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