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

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

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

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

FIRST ENERGY NUCLEAR OPERATING COMPANY

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

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MS. LIPA: Good afternoon. I would like to extend a welcome to the public and to FirstEnergy for coming to this public meeting.

I'm Christine Lipa, and I'm a member of the NRC's Oversight Panel and I'm also Branch Chief in NRC's Region III Office; and I have overall responsibility for NRC's Inspection Program at Davis-Besse.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

And the transcriber is Marie Fresch from Norwalk, Ohio.

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

MR. WITT: Jere Witt, County Administrator.

MS. LIPA: Jere.

MR. ARNDT: Steve Arndt, County Commissioner.

MR. KOEBEL: Carl Koebel, County Commissioner.

MS. LIPA: Okay. Thanks.

And, if you would like to introduce your staff, Lew.

MR. MYERS: Yes, thank you.

We have some people in the audience. Bob Saunders, the President of FENOC. Also, Gary Leidich, our Executive VP is here. Bill Pearce is also in the audience, Vice President of Quality.

There is, our first slide, there has been some change. Remember when we first started on the public meetings, we talked about the senior management changes that were made at Davis-Besse, and also at FENOC. This first slide up here, I want to talk a little bit today.

We have a new position with Fred Glese. He's not with us today I don't think, but Fred is the Manager of Human Resources. And he's very much involved with, in our Leadership in Action Programs, the Management Programs that we use to develop our supervisors' management skills across our site. So, that position has been added.

Additionally -- next slide. And, Fred also reports to Debbie Sergi, our new Manager in FirstEnergy that I didn't show, that's called Talent Resource Manager. And that's a new position at FirstEnergy. We think it's very important.

Also some other people that I show on the next slide is, we have, I talked about Fred Glese.

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

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

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

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

And Jean ~~Riegle~~ Rinkle is next to him. Jean is our ~~field~~ fuel person, does all our nuclear ~~fields~~ fuels.

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

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

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

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

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

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

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

Mike Stevens is last on the schedule.

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

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

Let me get started with the desired outcomes.

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

MR. MYERS: Okay.

MS. LIPA: If that's all right.

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

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

MS. LIPA: Okay.

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

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

MS. LIPA: Okay, thank you.

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

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

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

areas.

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

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

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

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

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

complete picture, and improvement inititives are taking place in parallel with this work.

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

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

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

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

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

will be out about 30 days from the exit.

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

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

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

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

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

and implemented.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Health Assurance Program.

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

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

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

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

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

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

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

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

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

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

issues that they discovered.

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

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

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

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

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

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

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

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

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

That's all. Thank you.

MS. LIPA: Okay, great. Thanks, Marty.

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

The recent exit, and these occur approximately every

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

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

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

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

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

The second activity is the Program Effectiveness

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

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

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

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

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

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

MR. MYERS: Thank you.

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

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

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

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

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

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

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

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

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

it, that's okay also.

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

Steve.

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

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

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

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

Next slide, please.

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

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

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

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

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

Next slide, please.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. GROBE: Okay, thank you.

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

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

MR. GROBE: Okay, thanks, Randy.

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

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

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

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

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

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

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

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

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

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

MS. LIPA: Thank you.

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

Next slide, please.

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

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

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

Next slide.

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

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

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

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

aligned them when we went through the same process.

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

Next slide, please.

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

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

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

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

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

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

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

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

days.

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

Next slide.

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

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

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

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

My final slide.

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

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

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

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

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

right?

MR. LOEHLEIN: Right.

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

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

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

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

MR. COLLINS: Right.

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

it, and we'll look to improve.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. COLLINS: Thank you.

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

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

MR. LOEHLEIN: Next slide.

My final slide, to wrap up what we discuss today; Strengthening Quality Assessment. What we've done so far, as we've said at prior meetings, that we have done organizational changes. We comment today about management changes.

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

all those that needed to have that information.

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

MR. GROBE: Do you have questions?

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

MR. LOEHLEIN: Right.

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

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

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

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

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

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

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

It appears to me that the value here is, as

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

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

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

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

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

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

So, I agree with that a hundred percent.

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

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

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

MR. COLLINS: Thank you.

MR. LOEHLEIN: I'll turn it over

to Bob Schrauder.

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

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

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

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

MR. GROBE: Go ahead.

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

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

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

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

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

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

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

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

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

MR. GROBE: Okay. Okay. Very good.

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

MR. LOEHLEIN: I'll switch spots here, so Bob can be well heard.

MR. SCHRAUDER: Thank you, Steve.

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

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

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

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

Then, that's the status of the head.

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

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

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

reactor vessel head.

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

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

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

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

Then, we're also continuing our investigation of our

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

The next --

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

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

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

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

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

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

MR. COLLINS: Excuse me.

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

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

MR. SCHRAUDER: Integrated leak test on containment?

MR. COLLINS: Correct.

MR. SCHRAUDER: Yes, sir.

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

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

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

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

MR. SCHRAUDER: We do believe

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

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

MR. SCHRAUDER: Right.

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

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

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

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

MR. GROBE: Okay, go ahead.

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

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

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

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

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

expect to see any leakage that might be there.

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

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

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

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

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

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

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

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

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

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

MR. HOPKINS: It will welded.
MR. SCHRAUDER: Yes. That will be where your pressure weld is.
MR. HOPKINS: Okay. So, by cutting, you're no longer tying the top and bottom.
MR. SCHRAUDER: That's correct.
MR. GROBE: I'm not sure how accurate this drawing is, but it appears that the new penetration inserting from the bottom is butted up against the one that you're cutting off. Is that going to be a gap there or --
MR. SCHRAUDER: It's essentially, it won't be flush up against it, but pretty close.
MR. GROBE: It will be a gap, okay.
MS. LIPA: And Bob, this is, as I understand what we were talking about, in more detail on the November 26th meeting?
MR. SCHRAUDER: That's correct.
MS. LIPA: Tentatively set up for 26th.
MR. MYERS: This is on the schedule though, what is it, three days, Bob?

MR. SCHRAUDER: Maybe seven days.

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

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

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

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

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

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

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

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

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

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

MR. MENDIOLA: Okay.

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

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

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

MS. LIPA: Any other questions for Bob?

MR. THOMAS: One other thing, Bob. If the flus monitoring system doesn't get installed on the vessel prior to the NOP/NOT check, are there any other temporary monitoring systems that you'll put between the insulation and the bottom vessel and monitor for leak during the ~~cold~~ hold period?

MR. SCHRAUDER: Not that we're aware of at this time. We're looking for potential for cameras and the like, but it is not looking very promising right now.

MR. GROBE: Fairly high temperature environment.

MR. MYERS: We're looking into having cameras --

MR. GROBE: Talk to the coal miner.

MR. SCHRAUDER: We are continuing to look for some cameras that will work. We're investigating that.

MS. LIPA: Any other questions for Bob, because this would be a good time for a break. So, we'll start back in ten minutes at 3:40.

(Off the record.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

So, we consistently groom configuration management

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

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

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

Appendix R is our fire protection program.

Seismic qualification of equipment.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. MENDIOLA: To your knowledge,

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

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

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

MR. MYERS: Can we go back --

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

MR. POWERS: The one that comes

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

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

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

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

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

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

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

MR. POWERS: That's correct.

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

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

If there is any issues that occur that, that merit

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

MR. MENDIOLA: Thank you.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

how to act.

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

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

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

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

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

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

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

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

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

MS. LIPA: Thank you.

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

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

MR. GRABNER: Design engineers.

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

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

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

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

MR. GRABNER: That's correct.

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

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

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

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

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

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

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

MR. COLLINS: Thank you.

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

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

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

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

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

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

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

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

MR. COLLINS: Thank you.

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

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

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

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

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

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

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

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

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

MR. GRABNER: That's correct.

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

MR. POWERS: We are not looking

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

MR. JOHNSON: All right.

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

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

MR. POWERS: Yes.

MR. MYERS: Are you ready for summary?

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

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

Next slide.

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

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

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

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

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

completed that.

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

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

Next slide.

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

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

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

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

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

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

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

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

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

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

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

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

MR. MYERS: Yes?

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

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

know, the confidentiality of our program, and the willingness of people to use that. What we've done is we brought Randy in. Randy established his plan already.

And one of the things, another thing we've done is put independent investigators in there, so we're not going back to the line organization doing investigations. And what we're trying to do there is really show our employees this is a very confidential program. And go from a situation where it's a reactive program, Randy is trying to set a program where we're actually meeting, all the meetings have been more proactive, to go out and look for concerns now. And I think we're going to find that very successful.

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

MR. HUEY: I would just reinforce.

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

MS. FRESCH: Would you state your name?

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

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

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

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

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

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

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

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

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

MR. GROBE: Thank you.

MR. MYERS: Go ahead.

MR. GROBE: Just a question, Randy, now that you're standing in front of the microphone; two questions. When do you anticipate having this new more robust program in place?

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

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

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

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

MR. COLLINS: Thank you, Lew.

Randy, one question if I may, first grievance. Will this program be subject to independent auditing by QA or some oversight towards its effectiveness? Have you gotten that far yet in its implementation and how you would define success for its effectiveness?

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

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

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

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

MR. PEARCE: That is correct.

MR. COLLINS: Training, those types of things?

MR. PEARCE: That is correct.

MR. COLLINS: Thank you.

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

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

should be substantially in the other direction.

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

MR. HUEY: I agree.

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

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

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

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

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

Do you have any comments, Randy?

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

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

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

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

ask a question about an ongoing program.

MR. MYERS: Okay.

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

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

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

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

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

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

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

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

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

MR. MYERS: I don't think so,

no.

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

MR. PEARCE: No, we don't. Let me say something.

I think what we've worked on, what we prioritized first was this; it's more important that if there are issues out there, that our folks feel that they're able to raise the issue. So, that's what we prioritize is the first thing. That's why we did the Safety Conscious Work Environment training with the supervisors and made sure that there is no, that there is no harassment or intimidation issues and that kind of thing.

So, that, you know, what we really want is safety issues to make sure we get those captured. And whether it's captured in your program or our program is, I guess, somewhat of it's more painful to collect it in your program, but as long as they get captured, that's the main issue in what we focused on first.

And we brought Randy in and the group of contractors in to do independent investigation, because when we did the survey, one of the issues as you might remember that was brought up in the survey, was the fact that the management when somebody brought up an issue, before they do it, the management folks were hearing about it and going and doing an investigation.

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

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

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

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

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

MR. PEARCE: Yes.

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

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

And, I think you like it.

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

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

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

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

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

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

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

MR. GROBE: That would be great.

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

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

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

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

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

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

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

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

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

technical factors versus nontechnical factors. Uniform population.

Here's some of the things we got out of that. First, to be successful in the future, they liked what we did here, but we have to walk our talk and be effective.

This is just a beginning. We must follow through. It's nice we gave them all this stuff, but we have to follow through at every level.

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

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

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

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

We have done that on the feedwater heater.

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

Fuel movement stop work.

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

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

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

On the test results --

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

MR. MYERS: I suggest we skip Schedule.

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

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

MR. GROBE: Good.

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

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

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

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

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

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

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

Next slide.

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

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

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

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

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

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

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

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

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

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

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

knowledge and logical approach to doing business.

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

Next slide.

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

Next slide.

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

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

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

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

Operation management communicates, demonstrates and

reinforces desired performance standards.

Shift management consistently demonstrates leadership.

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

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

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

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

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

MR. THOMAS: Okay.

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

MR. FAST: It's in review.

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

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

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

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

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

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

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

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

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

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

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

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

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

MR. MYERS: Okay, Mike.

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

MR. FAST: Let me tell you. You know, we're not the lead right now. What's happened is, I will use the term that there has been a dilution over time of operations having that leadership responsibility. It's a two-fold responsibility. Organizationally, we need to focus on that, but also we need to stand up and take responsibility. That ~~delusion~~ dilution has occurred over many years, just as the head degradation occurred over many years.

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

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

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

MR. THOMAS: Okay.

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

MR. ROSS: Okay.

Next slide.

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

Next slide.

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

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

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

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

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

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

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

We did additional training on Operability Determinations.

Next slide.

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

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

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

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

That concludes what I was going to say about the

Operations Leadership Plan.

MS. LIPA: Okay, thank you.

Do you have any closing remarks, Lew?

MR. MYERS: Well, we had some Desired Outcomes today. That was to demonstrate that we're making progress.

I think that the reactor vessel head, we're ready for testing there. The containment sump, we're done. We removed the old covering and putting new bolts in now, and have the sump being manufactured. I think the painting is going well, and paint removal.

Decon efforts also are doing well in containment. We've taken one reactor coolant pump apart, already removed the rotating assembly. Working on the second as we speak. System readiness reviews are being completed.

We status on some of the actions that we've taken; very timely, time consuming and timely; and Management Human Performance Plan.

We are getting ready now to prepare for what we call deep drain. That's a place that a plant very seldom goes, couple times in the lifetime of the plant. There is no fuel in the vessel now. So, we're going to drain it down below the nozzles. And it's tight; it's 11 inches, or something.

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

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

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

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

That's all I have. Thank you.

MS. LIPA: Okay, thanks, Lew.

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

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

And then, do you have any comments?

MR. GROBE: Any final questions?

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

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

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

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

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

Why don't we take a very short break?

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

MR. GROBE: Sure.

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

MR. GROBE: Okay, good.

MR. MYERS: Thank you.

MR. GROBE: Thank you.

Let's take a very short break and reconvene in three minutes. So, stand up and then sit down. Don't walk out.

(Off the record.)

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

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

MR. COLLINS: You made it too big.

MR. GROBE: Sam wants to make

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

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

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

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

Thank you, Jack.

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

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

HOWARD WHITCOMB: My name is Howard Whitcomb.

Welcome, Mr. Collins.

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

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

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

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

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

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

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

MR. GROBE: Thanks.

Other questions or comments from the local community?

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

AMY RYDER: Amy Ryder. Like the truck.

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

like there is an alternative way to do it.

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

MR. GROBE: What alternative were you thinking of?

AMY RYDER: Well --

MR. COLLINS: Without fuel.

AMY RYDER: Without fuel.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

AMY RYDER: Can't they just make them?

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

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

MR. GROBE: I understand.

AMY RYDER: But let's skip that.

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

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

AMY RYDER: Okay.

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

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

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

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

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

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

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

AMY RYDER: Right.

MR. COLLINS: Some plants did

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

AMY RYDER: Okay.

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

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

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

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

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

schedule?

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

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

Those are resources, is time, people and money. Is that financial, yes? Does it deal with maintaining safety, yes. So, the optimum date that was determined to be, halfway between, if you will, December 3st, and the end of the cycle. That was the earliest date by which we determined the risk of doing an outage on a short term basis is negated by the risk of continuing to operate. And, FirstEnergy would be prepared to perform an efficient and effective outage.

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

AMY RYDER: Okay.

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

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

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

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

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

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

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

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

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

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

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

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

AMY RYDER: Thank you.

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

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

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

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

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

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

they met with us on August 15th, and submitted what they believed was their root cause, and there was no justification or, I guess there was no justification of how it would have been acceptable for this to have occurred. There was a lot of reasons that it occurred. No justification. And --

JAMES DOUGLAS: Okay.

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

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

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

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

Sam, do you want --

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

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

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

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

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

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

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

MR. COLLINS: Sure.

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

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

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

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

MR. COLLINS: Mouse holes.

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

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

JAMES DOUGLAS: Engineering never stands still, sir.

MR. COLLINS: There is a new type of mouse holes and doghouse, as you refer to them, called access ports, which other plants have done, other ports have modified that access house, so they could visually see what was going on. That's been done.

They're proposing also in addition to the more frequent inspections new types of leak detection systems, which I'm not sure if you were here on the presentation, but that would be a first of a kind in this country. They

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

Other plants are doing these types of things too. There are a number of plants that are replacing their reactor vessel heads. Eventually all plants that want to continue to operate under this condition, not because of Boron degradation, but because of the stress corrosion cracking of the Alloy 600 stainless steel.

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

MR. COLLINS: They have it now.

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

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

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

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

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

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

JAMES DOUGLAS: The whole thing?

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

JAMES DOUGLAS: Oh, okay. All right.

MR. GROBE: And at the same time, they would be installing the redesigned head. That head is on order, and I know of no reason it wouldn't be received. Each plant has to order their head if they desire a new one. And again --

JAMES DOUGLAS: Okay. Let me finish my scenario just for a second, because my point is a little different than you think.

MR. GROBE: Okay.

JAMES DOUGLAS: Suppose they don't get the head. It gets delayed. They have to wait ten more years to get the head. They have to make this head last, because it will only be seven years old then. They at

least got 25 years or so out of the first head, okay. So, they are not in dire need of that new head. Whereas, some other plants might and the government may just take it away from them. Okay.

Now, what can they do?

MR. GROBE: We issued a bulletin, recently, which described augmented testing for reactor pressure vessel heads. And, that testing is, increases in its comprehensiveness, based on the age of the head, and the amount of degradation that might be present in the parts of the head.

Given the fact that the head that Davis-Besse is installing is not used, it's not been exposed to service conditions, there are very well little inspection requirements, other than visual inspections. As this head gets older, based on our current bulletin to all pressurized water reactors, there would be augmented inspections requiring required nondestructive examination of the penetrations.

JAMES DOUGLAS: Okay, my point is this. If you assume and think about that they are not going to get the head, and they have to make the head go, wouldn't it be a marvelous scenario if they had a whole series, thousands of photographs of all of the square inches of weld on that head that they have? This is what

it looked like before our last, right after our last annual refueling. And, there it is, a nice smooth bald head, clean as can be.

Wouldn't that make them, the Board of Directors happy? Wouldn't that make John Q. Public happy? Wouldn't that make their employees happy?

MR. COLLINS: Mr. Douglas, I think you're on to something.

JAMES DOUGLAS: Well, I wish to hell they would listen.

MR. COLLINS: Let me clarify a few things and then agree with you.

The government, meaning me, doesn't decide whether FirstEnergy procures a new head for Davis-Besse or not. They have one on order. They can decide to trade it, which they might and I agree with that.

JAMES DOUGLAS: Mr. Bush might disagree with you, I don't know. (laughing)

MR. COLLINS: Well, I'll take that.

This head is Alloy 600, so it is the old type of material.

JAMES DOUGLAS: Yes, it is.

MR. COLLINS: The new heads are a different type of alloy that are perhaps less

susceptible. The amount of age on the head is really effective full power years. It's not the age in dog years, so to speak, it's the age that the plant has been operating at full power. So, that will be tracked.

This plant will remain a high susceptibility plant, so it will have enhanced inspections. We're also going back as a lessons learned at the NRC to the National Codes and Standards, and working with the National Codes and Standards Group to create generic as-need type of standards for the inspection of the head. Those will continue at this plant for this type of head and potentially even for the new upgraded type of head.

In fact, the inspections you've been asking for, they've been done.

JAMES DOUGLAS: Okay. I'm very happy about it. I'm talking about a photographic preventative maintenance program. They keep the photographs on file; and any, they can of course leave it open to the public, but certainly any of your people that want to look at them, and they can see they are in good shape; and this is exactly what we need is a good strong head to operate that bloody machine.

MR. COLLINS: In addition to that, it's also what you would know as nondestructive examination of the head, which means that they have done a

mapping of the head and metallurgy. The heads are forged. So, there are welds in the area of the CRDN I believe on the old style heads, and that's susceptibility area, but the majority of the head is forged.

JAMES DOUGLAS: But I sure wish as long as you guys stayed, I sure wish you would think about a good photographic PM program and keep it on file.

MR. MYERS: That will do it.

JAMES DOUGLAS: Everybody. It would make everybody in the whole damned place happy as can be. And I would sleep much better at night, I'll tell you.

MR. COLLINS: I'm hearing there is a videotape that exists of the head.

JAMES DOUGLAS: I thank you for staying and listening. Okay.

MR. COLLINS: Thank you for your comments.

MR. MYERS: We'll show it to you, if you want to see it.

JAMES DOUGLAS: I would love to see it.

MR. MYERS: We'll show it to you.

MR. COLLINS: Maybe we can link

you up with Mr. Myers here.

MR. GROBE: When they're showing you the videotape of the head, why don't you ask them also to bring the case study, and they can share that with you too.

JAMES DOUGLAS: I'll listen to your advice, thank you.

MR. GROBE: Any other questions?

Okay. I think that's it. We'll be back here at 7:00. If any of you want to rejoin us, you're welcome. Thank you very much.

(Off the record.)

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 23rd day of November, 2002.

Marie B. Fresch, RMR

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