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 Tuesday, February 11, 2003, at 2:00 p.m. at the Camp Perry Clubhouse, Oak Harbor, Ohio, taken by me, Marie B. Fresch, Registered Merit Reporter, and Notary Public in and for the State of Ohio.

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

John "Jack" Grobe, Chairman, ~~MC 0350~~ Oversight Panel
Christine Lipa, Projects Branch Chief
Douglas Simpkins, NRC Resident Inspector
Jon Hopkins, Project Manager Davis-Besse
Anthony Mendiola,
Section Chief PDIII-2, NRR
Dave Passehl, Project Engineer Davis-Besse

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
Michael J. Stevens,
Director - Work Management
Steve Loehlein,
Manager - Quality Assurance

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MS. LIPA: Okay. Good afternoon. Can you hear me in the back? Good.

Okay. Well, welcome to FirstEnergy and to members of the public. I'm Christine Lipa and I'm in Region III of the NRC's Region III Office, and I have responsibility for the NRC's inspection program at Davis-Besse.

And, we'll go through introductions in a moment here, but let me just go to the next slide.

This is one of -- we've been having monthly public 0350 Meetings with FirstEnergy since last May. And, the purpose of this meeting is to inform the public of the NRC's Oversight Panel activities; and that's what we are up here, the NRC's Oversight Panel; and, then also allow the Licensee to present their status on their progress in implementing their Return to Service Plan. And then, we'll be discussing various parts of that plan.

We'll go through the rest of the -- you can go to the next slide, which has the agenda. We'll go through the rest of the introductions in a minute here.

Jon Hopkins is on my far left. He is the Project Manager in Headquarters for the Davis-Besse facility.

Next to Jon is Tony Mendiola, and he is the Section Chief at NRR.

Next to Tony is Jack Grobe. Jack is the Senior Manager in the Region III Office in Lisle, Illinois; and

he's the Chairman of the Oversight Panel.

Next to me is Dave Passehl, and he's the Project Engineer for the Davis-Besse Project in Region III.

And, next to Dave is Doug Simpkins, and Doug is the Resident Inspector at the Davis-Besse facility.

Also, in the audience today from NRC we have Ivy Netsell. She's is Resident Inspector at Cook, and she can also get you a handout if you didn't get one when you came in. Raise your hand, and Ivy will hand you one.

Also, we have Viktoria Mitlyng. She's our Public Affairs Officer in Region III.

Nancy Keller is the Office Assistant for the Resident Inspector Office at Davis-Besse, and she was in foyer with the handouts.

We have Jay Collins, who is a General Engineer on rotation from Headquarters.

I also saw Rolland Lickus. He's our State Liaison Representative. There he is.

And then our transcriber today is Marie Fresch.

And I'll turn it over to you, Lew, if you want to introduce your panel, then I have more to say.

MR. MYERS: Fine. At the end of table, Steve Loehlein. Steve is our Manager of Quality Assurance. And last time we discussed that we would like to have him here at the next public meeting, so

he's prepared to speak today on what quality assurance is seeing at our plant.

Bob Schrauder is our Director of Support Services. As you know, he's working in the Systems Area Building Block now.

To my right, is Randy Fast. Randy Fast is our Plant Manager.

Jim Powers next to him is the Director of Engineering.

And then Mike Stevens at the end is the Director of Maintenance; and as you know, he's also the Outage Director at the present time.

MS. LIPA: Okay, thank you Lew.

Also, before we get started, are there any public officials or representatives of public officials in the room?

MR. ARNDT: Steve Arndt, Ottawa County Commissioner.

MS. LIPA: Hi, Steve.

MR. PAPCIN: John Papcin, Ottawa County Commissioner.

MS. LIPA: Hello.

MR. WITT: Jere Witt, County Administrator.

MS. LIPA: Okay. Anybody else?

Okay, good, thank you.

Okay, next on the agenda is a summary of the last monthly public meeting we had here on January 14th. I'll turn it over to Tony Mendiola for that.

MR. MENDIOLA: Can you all see that slide back there?

Basically, to summarize the meeting on January 14th, that we had here, the discussion centered on two main areas; basically, the restart preparations on both the Licensee's part and actions that we have as a panel have performed to date; and, then basically, we broke further down to the bottom of that topics discussed area, Safety Conscious Work Environment.

Let me recap for a moment the discussion. The NRC Restart Checklist, which is basically the action matrix that we're working from, we provided the update on that, and then discussed the status of various inspections, most of which are ongoing or will be ongoing soon; and, various meetings that we were going to have in the month of January and early part of February associated with the Safety Culture, and other meetings that we had or supported, commission meetings, and congressional briefings and things like that.

The FirstEnergy presentation focused primarily on restart. They discussed the status of the physical plant; basically, the construction work and modification work that was ongoing on the site. And the, their working off of their condition reports and corrective actions. Basically, they use very similar to the charts you see there on the, I guess on your righthand side of the room there, discussing the various aspects of, of their programs to complete these corrective actions.

There is a discussion of the, the Reactor Coolant System Integrity Management Program, which you can see about halfway down from the top was discussed there; and, basically, a continued discussion on their readiness to reload the fuel and other issues associated with the fuel and fuel reliability.

In the interest of time, we did speed up the agenda and moved right into the topic of the day, which was the Safety Culture, Safety Conscious Work Environment topic. At this meeting, the Licensee introduced Doctor Haber, who is their consultant to help them implement the new safety methodology at FirstEnergy -- at Davis-Besse, excuse me.

There was a discussion, detailed discussion of the FirstEnergy model for Safety Culture. And, I don't see a version of it here, but the Licensee provided a four-pillared graphic, which discussed basic principles of

Safety Conscious Work Environment, and four pillars that they are focusing on to improve the Safety Conscious Work Environment at the site.

Upon completion of that conversation, which lasted I would say about half the meeting, we then moved on to closure.

For everybody's interest, the transcripts from that meeting are available on the website. And, if there is any other topic areas you would like to, need more information on, you can see me during one of the breaks or at the conclusion of this meeting. That's all I have.

MS. LIPA: Okay, thanks Tony.

Then, the next slide was the next meeting we had, which was on January 30th. And we had a pretty lengthy public meeting in the Region III Office, where we discussed with FirstEnergy their plans for assessing the status of Safety Culture and Safety Conscious Work Environment at the facility; and the various methods of surveys, interviews, and attributes that will be evaluated. This included activities that have already taken place at the facility; those that are continuing, and those that are planned over the coming weeks.

And the slides for that January 30th meeting are available on our website and the transcript will come out

after we finish processing it.

I did want to mention, I skipped over a few of my introduction remarks at the beginning, that this meeting is open to the public, and the public will have an opportunity before the end of the meeting to ask questions of the NRC. And this is what we consider to be a Category One Meeting in accordance with the NRC policy in conducting public meetings.

We're also having this meeting transcribed today to maintain a record of the meeting. And the transcription will be available on our web page. We usually have it available in about 3 to 4 weeks.

The agenda and the handouts are available in the foyer and on the NRC's Web site. We also have the February edition of the NRC monthly newsletter. This is a summary we put together that has background information as well as current activities.

We also have a public meeting feedback form. And, this is a really good tool for us to get feedback from people that are here, to let us know aspects of the meeting that we can improve on. And we've been doing that since these started back in May. And we have actually changed a few things, and I think we've made it a better meeting.

And then, also our handouts for today and the Licensee's handouts.

So, let me go on with the next slide then, which is the Restart Checklist. What I want to do here was give you an update on where we stand on the parts of the Restart Checklist.

The first items are the technical and nontechnical aspects of the Root Cause, and those are still under review by the inspectors and technical review of NRR.

The next area is the Adequacy of Safety Significant Structures, Systems and Components. And what we've done here is, we had several inspections that have been out, so let me go through a couple of highlights with you.

For Item 2A, the main item that is still outstanding for that is the Normal Operating Pressure Test that's scheduled after the first Mode 4. So, we'll be covering that with a special inspection.

For Item 2B, which is Containment Vessel Restoration, the remaining activity there is the ILRT, Integrated Leak Rate Test of containment.

For Item 2C, we have several unresolved items that came out of the inspection that was done, and exited in November.

For Item 2C-1, which is on the emergency sump, that inspection will be performed once the utility has completed their mod package, and we'll also be inspecting the actual sump that has been modified.

For Item 2D, the item that's remaining here is inspectors to follow the Licensee's resolution of problems that they've identified on boric acid containing systems that are on-site containment.

The next area that we have is the Programs area. And these are all programs that the Licensee is reviewing in detail, and coming up with plans to address deficiencies that they discovered. So, right now the inspectors are planning to come out when the Licensee's reviews have progressed sufficiently that there is something, a completed product that we can inspect.

The next area is Section 4, which is the Adequacy Organizational Effectiveness and Human Performance. And we actually have three phases to this inspection. Phase one has already been completed, and Jack will go through that in a few minutes and then we'll be continuing inspections to address those checklist items.

Section 5, which is Readiness for Restart, these areas are not really ready for inspection yet.

And then Section 6, which are several licensing actions. And for all of you, licensing actions, which is the first bullet there, the NRC has received the information that they were waiting for from the Licensee, and it's under NRC review, but there is no outstanding questions. We do plan to document closure of these many

systems in Inspection Report 0302.

And then the final item on the Restart Checklist is a meeting at the end of Confirmatory Action Letter Items Resolution to discuss restart when the utility is ready for that part of the process.

Okay. The next slide is, I'll turn it over to Jack, and he'll discuss some recent inspection activity and some upcoming inspection activity.

MR. GROBE: Thank you Christine.

Can you hear me okay? Excellent.

We've issued one Routine Resident Report and one Special Inspection Report since the last time we met. The Routine Resident Report covered a broad spectrum of areas as is characteristic of all of our Resident Reports. The Residents are on site every day and they inspect ongoing activities at the plant in the areas of maintenance and operations and testing.

The Special Report that was issued concerned the checklist items dealing with the adequacy of the Root Causes in the Human Performance area, as well as the adequacy of the Licensee's Improvement Initiatives. That's Checklist Item 1 and Checklist Item 4.

The report documented the results of inspections that covered the first two Root Causes. The very

substantive Root Cause that the Licensee submitted last August, that addressed what is commonly referred to as a barrier analysis. It was looking at barriers to failure in all aspects of operation of the plant.

And in addition to that, there was an additional analysis that was performed of the Quality Assurance aspects of the plant operations. It was specifically targeted in the QA Program and the implementation of that program.

The inspection team found that both those analysis-- analyses were comprehensive and the identified corrective actions to address the issues identified in the analysis appeared to be adequate, if they're properly implemented.

In addition, the inspectors identified a number of questions regarding the scope of the two remaining analyses that the company was planning, particularly questions regarding the impact of engineering on the problems that were discovered last February, and the impact of corporate support.

So, the Licensee has since that inspection completed its analyses in the area of Plant Operations, as well as the Safety Committee's function, and added to that analyses in the area of engineering and corporate support. Those four remaining analyses are now complete and we'll have inspectors that will be coming back to the facility this

month to continue that inspection.

As Christine mentioned, this inspection is being done in three phases. The first is ensuring that the root causes are sufficient. The second is to make sure that the corrective actions that the company has identified appear appropriate to address those problems that FirstEnergy identified. And third, looking at the implementation of those corrective actions and their effectiveness prior to restart.

So the, a portion of the first phase has been completed, and we'll be continuing with the rest of phase one of that inspection and moving into the second phase.

In addition on this slide, you'll see the second bullet concerns the System Health Reviews. I believe, I looked ahead in FirstEnergy's presentation and they're planning on having Bob Schrauder address some of those engineering areas in the System Health Reviews.

We have ongoing inspections, particularly focusing in the engineering areas, and the company has worked continuously in that area, so our inspections are tracking as they complete work activities, we send folks out to inspect those activities.

In the Program Effectiveness area, we had two programs that we need to complete our review of on the short run, and those are the Boric Acid Corrosion

Management Program, and the Reactor Coolant System Leakage Program. Then there is a number of other programs that our inspectors are tracking Licensee progress, and we'll be out to inspect when they're ready for inspection.

There are, as Christine mentioned, a couple of other inspections that are scheduled in the near term. Those include the Integrated Leak Rate Test and the Pressure Test of the Reactor Coolant System.

We expect to see those occurring in the next several weeks, as well as, hopefully, a specific targeted inspection in the radiation protection area. As you may recall at the last monthly meeting, we publicly discussed the results of resent inspections in the area with protection of workers on site as well as controlled materials that, radioactive materials that could potentially get off site. Identified a number of findings in those areas. And shortly our inspectors, our radiation safety inspectors will be back out to look at the corrective actions the company has implemented in the Radiation Protection Program.

I think that summarizes continuing inspections, Christine.

MS. LIPA: Okay. Thank you.

Then, if you could go back to slide 3.

This is just the agenda. And next on the item is

the fourth bullet, which is the Licensee's presentation, and then following that, we'll take a break, and then we'll have the public comments and questions period.

So, I'll turn it over to you, Lew.

MR. MYERS: Thank you.

We have four Desired Outcomes today. First, we thought we would take some time and update the NRC and the public on our efforts that we made toward restart in the past month. Specifically, Randy Fast will provide you some, a review of where we're at from a fuel load standpoint right now.

And then, Jim Powers is going to talk to you about the Integrated Containment Leak Test that's coming up, probably before our next meeting. And that test was designed, since we installed the reactor vessel head, we're going to go back and pressurize the containment and prove it's leak tight, designed pressure. So, Jim will talk to you about that.

From a System Health standpoint, Safety Function Validation Project is a project we took on after we did the initial reviews of our systems. We always said, after we did those, that we would increase our scope based on what we found. So, we took on another set of systems that we wanted to go look at. We call that program the Safety Functional Validation Project. Bob Schrauder will talk

about that.

Then from a Restart Readiness standpoint and Safety Culture, we had a meeting January the 30th, and spent six hours there. I'm going to try to recap that meeting in about six minutes. And then provide a review of what we've done as a Restart Readiness Review at the plant for fuel load.

So, we had Restart Readiness Review meetings, and finally at the end of those meetings graded our own Safety Culture, where we think we're at using our model. So, I thought I would spend some time on that today.

Then, Quality Assurance, Steve Loehlein, we talked about having him here the next time, this time, to discuss what the Quality Assurance Oversight Group is seeing at our station. They were brought up through Bill Pearce, our VP of Quality Oversight, and provide us an independent assessment.

Then, finally, Mike Stevens will spend some time to talk to you about our schedule, where we're at. We thought right now that we'd have fuel load, at the last meeting at this time. We haven't got there yet. Just spend some time on that, where we're going in the next few months, and few weeks, okay.

That's it.

With that, I'll turn it over to Randy.

Next slide.

MR. FAST: Thank you, Lew.

Good afternoon. Today, I would like to update us on our Restart Readiness. I'll provide discussion and focus in four key areas; those are fuel readiness, our plant status, our processes and finally an update on observations and the observation program.

Next slide.

First on the fuel. We worked with our fuel supplier in identifying why we had indications on fuel assemblies, damage on grid straps. I'll kind of show you right here is what we call a grid strap.

That area provides support for the fuel rods themselves. The fuel rods are the array that you see here, the vertical rods. What we found in the movement of fuel on some new assemblies in the spent fuel pool, we had damage on, specifically on the corners of those grid straps.

What we identified were three key areas; one of which was the design and material selection. These are a fairly soft metal, and prior to being irradiated, are actually fairly malleable. And that design is one that the industry is well aware of and there are actions being taken by Framatone to improve that grid strap design.

Secondly, we looked at our equipment to see, was it

operating the way we would expect it to. And we did find in the spent fuel pool the equipment had some alignment. We require vertical indexing over each assembly; and as well the indexing, that's the grid location were off a little bit. So, we did take the action to go back and reindex the spent fuel pool.

Lastly, we identified some of our handling techniques. We weren't using industry experience as well as we could, and we went back and evaluated that; got some help from the industry, and best practices for moving fuel. We believe that those corrective actions are effective and they will ensure that we can reliably move the fuel.

One of the things I want to point out is, these grid straps are really a structural mechanism and it's not a contributor to fuel failure. Although, we were concerned, and we want to make certain that we're handling the fuel properly, it did not result in the root cause analysis in actual fuel failure.

This assembly right here is actually an assembly that had grid strap damage and was sent back to the fuel supplier and remanufactured. This is one of our reactor engineers here performing an inspection of that assembly as it was returned to the site.

Additionally, as part of this outage, we've taken on

an opportunity to improve our main fuel handling equipment. And we have put in a state of the art fuel bridge modification, which includes improved controls and it will improve our reliability.

Now, part of this whole process of moving fuel takes a dedicated team of individuals. And we've partnered with our fuel supplier, Framatone, to move the fuel. And we actually have four senior advisors that are working with our Operations staff as part of that fuel movement. That compares with normally you will have one at a station in that senior advisory capacity. We have four. So, we can ensure that we have round-the-clock coverage and we have the best industry experience to help us in moving that fuel.

Lastly, we have completed all the training. So, each position associated with the movement of fuel have gone through an exhaustive training program and we've recertified all of our folks to ensure we can have safe and reliable transfer of fuel.

MS. LIPA: Randy, I have a couple of questions for you about the fuel. First of all, did you assess the design issue with the grid straps under part 21; and then second, what was the root cause of the fuel failures?

MR. FAST: Okay. Christine,

the first question on the part 21, we have not submitted that as a part 21. And, again, what I'll do is take an action to assess that, and see whether or not -- I believe from a reportability standpoint it wouldn't be, but it might be advisable to provide some, a report just to make sure you're on board with what we found.

This particular root cause was not in the fuel failures themselves. This was in the grid strap. So, we have another root cause. And I would have to think back, because that's really quite a few months ago that we had completed that review, and actually had a space there -- excuse me, grid rod threading, which is high frequency vibration of the fuel rod. And the threading is the actual rubbing of the spacer grid components against the fuel rod and actually wears a hole in the fuel rod.

And that's where the root cause was completed earlier. It was not part of this root cause and preparation. And all the corrective actions from that had been completed as well. Some of those are corrective actions where we provided some solid stainless steel rods in place of the actual fuel pelleted rods in locations where we saw that the grid-to-rod threading was more pronounced and that is actually adjacent to LOCA holes inside the core.

Those are areas where you have increased flow comes

in contact with the fuel rod, sets up a high frequency vibration, allows the fretting to occur. So, we stabilize that by providing some stainless steel rods in those locations.

MS. LIPA: Okay. Thank you.

MR. GROBE: Randy, before you go on, I understand one of the activities you need to complete prior to commencing fuel reload has to do with reactor vessel cleanliness, and I heard that some of the materials that were identified in the vessel were grid strap materials. Could you go into a little bit on the issue of reactor cleanliness and what you're doing about that?

MR. FAST: Certainly. As part of fuel load preparations, we do a thorough inspection of the reactor vessel and the area underneath the vessel. The fuel sits on a, what's called a core barrel. It's really an assembly in the bottom of the core that provides support for the 177 fuel assemblies.

During this period of time where the fuel has been offloaded in the spent fuel pool, we want to do a complete and thorough inspection of the reactor internals and of the core barrel and the lower portion of the vessel to ensure there was no foreign material or any debris.

What we found through that was a number of indistinguishable piece parts, I'll call it; some of which are most probably pieces of grid strap. We did, I think today, identified a ball bearing. Don't know exactly, it may have come from one of the tools that is used for fuel, but that's something we're going to have to evaluate.

As well, saw some foreign material, light debris, some of which was probably some paint, paint chips and the like. And we've gone through and vacuumed that. We redistributed it. We do a video. That's kind of, I'll use the word, Lew likes this, a cursive process. We actually go in, we clean, we go back inspect. We have to meet Class B Cleanliness Requirements for the Reactor Coolant System for stainless steel systems.

So, we'll continue to clean the vessel until we meet the Class B Requirements.

MR. GROBE: Okay, thank you.

MR. MENDIOLA: Randy, if I could ask a question. You mentioned there was an alignment problem in your spent fuel pool. Could you tell us a little more about that?

MR. FAST: Tony, what you have is a series of what I'll call X Y axes for each fuel location. And we had gone through in 2001, and then into 2002, a rerack project. What that is effectively, is we

needed to provide more storage location in our spent fuel pool for expended fuel.

As part of that rerack project, we had some of the locations off by as much as about a half an inch. When you look at the very close tolerances of the storage locations and the fuel and the mast, we found that we had an opportunity to set up, an opportunity to have grid strap the corners that come in contact with those storage locations.

So, we went through and reindexed the pool. And I know now we're within about an eighth of an inch, .125 inches, that's well within the design requirements for fuel identification.

Additionally, we had some compensatory measures where we used a camera to verify that we're on index. There was one other issue that is called out in the report, and that was the potential that the fuel mast itself was out of vertical. What we found is that it was in vertical; however, there are some spacer, spacer plates in there that provide very, very close tolerances. What we've asked Framatone to do is review that design and see whether we can open some of those tolerances that will provide a little more flexibility in handling fuel in the spent fuel pool.

MR. MENDIOLA: Okay. Basically,

it had to do with the position of the rack within the pool; meaning, if you will, in an appropriately indexed position.

MR. FAST: Yes, sir.

MR. MENDIOLA: Not the fuel in each of the locations, but the rack itself.

MR. FAST: Yes, and actually I asked that question. The fuel in the assembly could be at any one of the, it may be pushed over to any one of the north, south, east, west walls, and you should still be on index it at that point. That's where some of those tolerances, those stackup tolerances come from. That's well within the design, but the index in itself was off by as much as a half an inch.

MR. MENDIOLA: Thank you.

MR. FAST: Next slide, please.

We talked last time about reactor coolant pumps. Just to refresh, we did complete refurbishment on the 1-1 and 1-2 reactor coolant pump and reactor coolant pump motor. This is one of the reactor coolant pump motors that's being lowered down into the D ring inside of containment.

A question came up about, we did two out of the four reactor coolant pumps. You would say, why did you do two

and not do the other two. This was what I'll call elective maintenance. We were well within the normal preventative maintenance periodicity. However, we took this as an opportunity to open up and do inspections on the pump and motor.

And part of the issue here was, as well, going back to the extended condition, boric acid. We had some legacy issues in boric acid leaking from the flanges for the reactor coolant pumps themselves. That was an industry understood situation.

Framatone had come up or Byron Jackson, the supplier of the pump, has a new generation seal that provides better sealing and leak prevention; and it's much like a reactor vessel, it's a dual O-ring seal design. We went with new generation on these two.

The other two are well within their periodicity. The other two pumps that we did not go after, and motors, are well within their design for preventative maintenance. We didn't see any extended condition items from the analyses of these two pumps and motors that would drive us to go after the other two.

We will continue to monitor those and we'll implement corrective actions in accordance with our Preventative Maintenance Program.

Next slide, please.

This is about the best picture I can provide to-date on the upper portion of the containment emergency sump. And as we talked last meeting, I had one of the top hats here, which is the cylindrical filter assemblage that allows the 3/16 inch holes that are drilled, water during a design basis accident floods the containment and comes up.

And these, I'm going to use a term here that we kind of affectionately call, trash racks. This is a large filter on the outside. You'll see some of the top portions of those racks, which fit around the top of this. That provides a first barrier for the straining of any foreign material.

And then, inside this upper portion, about 400 square feet, about 15 square feet each of 27 top hats, provide that top level of the strainer.

This is now functional, the upper section. And we, after fuel load and recovery of the reactor coolant system fuel and vent we'll complete the lower portion of the containment emergency sump.

It's a pretty good picture of the area. It's at the 565 elevation of containment against the south wall.

MR. HOPKINS: I have a couple questions on that. In the Licensee event report that you submitted to us, especially Revision One dealing with the sump, you talked about part of the reason for the new sump

is the old sump had a gap that was too large, and that could potentially affect containment spray systems.

You also stated that besides that potential affect on containment spray systems from the too large gap which you had to fix one way or another, and your fix is with the new sump; that the new sump would also provide you extra margin with regards to amount of debris that might get on the screens.

Have you made any finding with regard to the amount of debris on the old screens, would have been too much?

MR. POWERS: Let me answer that one, Jon. On the old screens, they're about 50 square feet of screen material on the old sump. And, we have been preparing what we call a transport analysis that takes an assessment of the debris that can be generated during an accident in containment.

(Microphone problem)

Thank you, Mike. Let me start again.

The old sump had about 50 square feet of screen, screenage on it to allow water flow-through, and the new sump has about 12, 13 hundred square feet. So, we've improved that substantially.

Now, what we have done since we've been comparing this new design is doing a transport analysis, looking at debris sources within containment, and we're following some

of the latest industry guidance on that. The industry has learned quite a bit over the years from the original licensing and design basis of the containment emergency sumps up until today.

Originally, the sumps were designed back in the late 60's and through the mid 70's, to consider a 50 percent blockage. And that was relatively nonmechanistic, if you will. Assume it's 50 percent plugged and determine there's adequate MPSH to the pumps with that blockage.

As we gone on with time and incidents have occurred relative to sumps, we've assessed more accurately what kinds of debris can cause problems with the sump, how would debris get down to the sump. And the industry, as well as your organization, has done studies on that, modeling what we call transport debris generation and transport down to the sumps.

And we completed that ourselves. We determined that given what we refer to as a design basis condition, we get a large break of a reactor coolant pipe, a lot of steam, and pressure released; there can be, there can be a substantial amount of debris that is transported down to the sump area.

Of course, there is smaller type breaks, you would have a condition where not as much debris would get down there, and the sump generally is, is more functional when

you have smaller types of breaks.

So, what we said in our Licensee Event Report that you were referencing is related to design basis accidents, how much debris can get down there. What we determined is with our new sump, and new screenage, that we would have margin available, even under that condition, extreme conditions to our pumps.

MR. HOPKINS: All right. I'll just mention that the NRC is going to issue a draft generic letter on this issue, I think within the month. So, you want to read that, see what it says.

MR. POWERS: Okay, thanks. We'll be watching for that.

MR. GROBE: Jim, could you go into a little more detail on the transport analysis? Are you analyzing the as-found conditions in February of 2002?

MR. POWERS: No, what we really looked at, Jack, was design basis conditions; worst case, large break, LOCA accident conditions. And we're looking at it from the perspective of what was found to give a safety significant assessment. And, we've begun preparing that now.

Because, what was found in February with the degradation on the head would constitute a relatively smaller type of break in the reactor coolant pressure

boundary, and relatively contained within the service structure on top of the head. So, we wouldn't expect from that type of as-found condition to have a lot of debris generated that would transport down to the sump. It's a very tortuous path to get down to the sump from that location.

So, what we've been analyzing for a design basis and reporting in our LER, is large break design basis. We will provide however a safety significant assessment on what was found in February.

MR. GROBE: What are the major contributors to the debris that you're talking about?

MR. POWERS: Major contributors are insulation, and it can be either metallic, reflective metallic insulation or fibrous insulation that's wrapped around pipes and components; coatings, if they're not fully qualified, the temperature, pressure and radiation within containment that can exist after an accident.

Also, when you consider a large break, design basis break, we're talking about very violent discharge of jet, of reactor coolant, that can strip concrete and paint and insulation off adjacent structures; and that's what constitutes the debris. That's what the industry guidance in recent years has defined what the, what's the constituents of the debris. So, that's the type of thing

that we look for.

MR. GROBE: So, the design basis worse case design break is what you're analyzing. Are you looking at the as-found coatings with that analysis?

MR. POWERS: We, yes. And, as we've described over the, some of the last meetings, we've been looking very carefully at our coatings within containment; and as we go through some of the progressive slides here in Randy's presentation, you'll see the recoating project we're doing on the top of the containment dome. Where you can stand up on the refueling floor and look upwards. It's quite a height up there that we're up working with painters, stripping and recoating to assure we maintain a qualified coating system up there.

We've also recoated our core flood tanks. We're working on recoating service water piping. We found on a very thorough containment walkdown and assessment of coatings, that our conduit that some of our cable and wiring runs through has a coating system on it that's not fully qualified for the post-accident conditions.

So, we're very carefully looking at that to see to what extent that coating needs to be removed and replaced. And we're using our transport analysis to make a determination to what extent that needs to be removed and

what extent it can be allowed to stay, and very clearly defining in our inventory of unqualified coatings in containment, you know, what the as-left condition will be.

MR. GROBE: In the analysis that you performed, how significant a role did the unqualified coatings play?

MR. POWERS: The unqualified coatings is pretty significant overall. If you look at the square feet of coating within the large containment structure, there is quite a bit of coatings. So, to us, that was a significant part of the, the walkdown of containment under Containment Health, looking for coating qualification information, inspecting the condition of the coatings, and looking for repairs on the coatings, because there is a large amount of coatings; a significant contributor to potential debris for the sump.

MR. GROBE: Okay. If you could just summarize for me in a few words the conclusions of your analyses to-date with respect to whether or not the sump would have functioned given a design basis accident?

MR. POWERS: Given a design basis accident, there is a, there is a concern with the amount of debris that can be generated under design basis conditions, because of what I described as a very large break, a large amount of debris being transported. And, we

think the original sump, which was designed in accordance with the design regulation and criteria at that time, could have been blocked to a large extent by debris.

When I look though at the conditions that were found in February, with the head degradation, it's really, it's not in the same regime, I guess you would say, as a design basis large break. It's a smaller potential, potential for a smaller break there. So, we think under that case, the sump likely would remain functional.

But, the reason we reported our conditions under the LER, was for design basis condition, we did not feel that, that the original sump would have been satisfactory.

MR. GROBE: Thank you.

MR. FAST: Next slide, please.

I wanted to point out, what we have here, what we call the decay heat pit. We've actually renamed this. This is a decay heat tank. This is legacy issue that two decay heat valves that are in a vault in containment which are required to operate post accident any time from immediately following the accident up to about a week after the accident. And, those valves have been sealed traditionally with sealing RTV material.

We wanted to take a proactive approach at resolving that legacy issue by providing in this case the stainless

steel vault or tank. And this photograph is probably difficult for you to see, but what you see is a curved section right here, which actually is installed to allow for thermal expansion of that tank.

So, this design will ensure that integrity is maintained for these two important valves in containment. It will be completely sealed prior to our going to Mode 4, and that work is proceeding well, but I thought of interest would be this design feature that includes for thermal expansion within that tank.

Next, please.

Here we have the containment air coolers. We've talked about that quite a bit. There are three in a row. Again, it may be difficult for you to see, but there is the third one back here; the one most pronounced in the middle here; and then there is one in the foreground.

What I wanted to be able to point out is we're making excellent progress in returning these. These are completely refurbished. New cooling coils; as well, all the structural steel has been blasted and recoated. What you see right here is a foreign material exclusion cover on a service waterline. This is the line, the blue line that's coming in. You have an inlet pipe and an outlet pipe. Those distribute water into and then out of these heat exchangers.

What we have is a brand new design that again allows for thermal expansion under design basis accident conditions. It's actually conduit and stainless steel bellows assembly, and that will allow for some thermal growth. So, these are not installed yet. That's one of the last things that we have yet to do. And those are in fabrication.

So, that supply and return header will be attached to, in this case, the, there are three heat exchangers here, and three heat exchangers here. On the opposite corner you have as well the other, so there is a total of twelve heat exchangers, you have the other inlets and outlets. So, you can see that these have been completely refurbished.

The fan motors inside are all new and completely refurbished. We have brand new what's called dropdown dampers. The air flow comes from the area here in the general vicinity is pulled through the heat exchanger, comes down through a fan, and is exhausted through a plenum, which is our next picture. But under design basis accident, there is a drop down register. I'll point it out in the next photograph, but those actually open up to short cycle the redistribution of air within containment.

Here is, what's really like a boxcar or tractor/trailer. It's about 40 feet wide, and this is just

about completed. The drop down damper, difficult to see, but it's a damper that's right in this area here. And that damper would close, and there is an upper portion that opens. It's got fusible lengths that under heated conditions allows the damper to open and short cycle the air under design basis accident.

On the far side, on either end of this plenum, this is a common plenum for all three containment air coolers, you have some turning veins. It's a 90 degree turning vein comes exhausted out, has two separate sections of 90 degree turning vein; and then brings the air under normal recirculation back into the D ring.

So, that's a stainless steel, half inch stainless steel plate floor; stainless steel walls that have been bolted together; and we're working on the overhead in connecting everything together. So, making very good progress on our containment air coolers that will greatly improve environmental conditions and ensure reliability for basis design accident.

Next slide.

MR. GROBE: Randy, before you go on, could you or Jim or Bob, discuss a little bit of your analysis of the as-found condition of the containment air coolers and the, as far as whether or not they would have functioned as designed?

MR. POWERS: Yeah, we've been analyzing the containment air coolers. And, for those of you who haven't attended previous meetings, a description of those air coolers Randy described the air being drawn through them. Well, the air in the containment had boron mist in it, and those cooling coils were fouled somewhat with that boron precipitating out.

So, we needed to do an assessment on how that would affect our heat transfer capability. And we've also disassembled the cooling coils as we completely rebuilt them, and inspected them as part of that process; and found when we opened them up, there was some, inside some deposits from the water system that had built up over time. So, we took into consideration all of those factors in the performance of the containment air coolers.

Now, we did a thermal performance calculation, and from the design basis, licensing basis conditions of the plant, the containment air coolers work in conjunction with containment spray system to control the containment pressure and temperature conditions in a post accident environment. And, what we found is that working in conjunction with containment spray, the containment air coolers would be operable and perform their function to control containment conditions.

What we're going through now in the details is

assessing the functionality of the sump, which I just described; and on an integrated basis, if we had a, an accident in the containment, the function of containment spray, which takes suction on the sump, and the containment air coolers; and what the likelihood is, that the, you know, the performance and functionality of the sump would be affected.

And so what we're doing, what I refer to safety significance assessment, that's taking into consideration the total picture. Debris being generated during an accident. What's the likelihood that it would get down to the sump and block it, you know, from a design basis perspective. We consider by design rules that it might, practicality of it getting down there; functionality is probable.

And so, looking at containment spray, and the performance of the containment air coolers on an integrated basis is what we're working through now, Jack. I know there is still work to be done to answer your question completely, but our intention is to provide a report of that assessment to you for review.

MR. GROBE: Do you have an idea what the schedule will be for completing that?

MR. POWERS: We've just completed the assessment of the containment air coolers, so

now we're beginning the process of doing an integrated look at the plant response. And I would expect it's going to be in the range of two to four weeks to put that together.

MR. GROBE: And again, each of these analysis is looking at -- analyses are looking at a design basis worst case accident; is that right?

MR. POWERS: Well, in the case of the -- that's right. Containment air coolers, the answer is yes. We're also looking at it from the perspective of what is the more likely condition, both from a design basis condition, and then from a safety significance perspective.

MR. MYERS: I think there is a couple of interesting points. You know, one of the things is we went back, if you look at this thing as a whole. We think we'll be able to demonstrate functionality. For the first 30 minutes or so of an event, you really don't need the containment sump, because we're ejecting water from the boric acid tank, you know.

And then, the other thing that I think you mentioned is important, the technology has changed over the years. And we've talked about that in here a lot, in the analysis, like transport analysis. When we originally designed the plant, the design basis of the plant that was approved by the NRC and us, you know, that we assumed, we just

automatically assumed 50 percent of it got plugged up.

We met that design basis. We always have. Coming out where it is now, with some of the new models, we can theorize things that we haven't in the past, you know. We can keep theorizing, you know. But some of these theories, on the paint being blown off and things like that; we'll probably see something like that.

But we met the design basis of the plant initially. And functionality of the plant, we believe, right now we believe would still be intact based on that design basis. And, and then we're going back to this transport analysis, and looking at some other assumptions. Those assumptions weren't in the original design.

MR. GROBE: Okay, thanks Lew.

You brought a question up and I think you answered it already, Jim, but let me make sure I clearly understand. You're doing both a design basis analysis, but also probabilistic analysis; is that correct?

MR. POWERS: That's right, Jack. The design basis analysis would be reported in a Licensee event report related to the containment air cooler conditions, and capabilities. And then the safety significance assessment will be a separate assessment based on as-found conditions and significance.

MR. GROBE: Okay.

MR. FAST: Okay. Moving along. What we see here is the containment dome. Just to get a vantage point of where we are, we're at the 603 elevation looking straight up into the containment dome. And this is the polar crane, which has provided very good reliability after we have gone through our modification there. That rests on an outside ring, support ring here.

And I'll point out a couple of things. One is the spray headers. So, you see a circular header here. That's in the uppermost portion of the containment dome. And then a lower containment spray header, the circle that I'm identifying here.

What we've done, we've completed, as you can see, a significant amount of the containment dome in the refurbishment. You see the gray areas here where we actually removed the paint.

That's a pretty arduous process. Used what's called a rotopine; we also use needle guns. This is an air operated and vacuum drag the debris back into the containment system. And, that's where the paint's been removed. You can see then the line where the old paint -- here's the new paint, the white fresh paint. You can see the gray where the paint has been removed. And then on the outer ring, the paint that has yet to be removed here.

So, you can see the actual rigs, the spider rigs that the paint crews are working out of. You can see how they will actually rotate around to remove that paint, and then another crew will come back and reapply coatings to that surface area.

So, that's quite an effort, and continues to go pretty well. The surface area associated with that dome is about an acre, and all of that paint is hand removed. And so, you want to get an update of where we are, we're making good progress. We expect from a coating standpoint -- kind of back to this sump. This paint needs to be recovered in this area. Anyways, we do not have to remove the rest of the paint on the walls.

Now you see here below that support. That's a different style of paint. That's both a carboline, but a different type of paint and that paint is good. It meets design requirements.

MR. GROBE: Randy, there could be folks in the audience that, for those of us that stood there that actually makes sense; could you give dimensions?

MR. FAST: The building itself is about 2.8 million cubic feet and overall almost 300 feet tall. So, from the 603 elevation, which is the operating deck of containment, as we've talked about some

of these other areas; the sump, the top portion of the sump is at 565 feet. That's also where the plenum is. I showed the pictures of the containment air coolers. So, that's the lowest elevation of containment, 565 foot elevation.

The next is 585 feet. That's where the containment air coolers with the actual heat exchangers are located. The operating deck is at 603. The top of the D rings is 653 feet. That's 50 feet above that. It's about another 30 or so feet until you get to the support ring for the polar crane. And then it's about another 50 or 60 feet to get to the crown of the dome. So, overall, 300 feet from top to bottom.

MR. GROBE: So, from where that photograph is taken to the top of the dome, it sounds like it's about 130 feet up?

MR. FAST: Yes, sir. That's approximate. I would have to figure out the math. Don't hold me to the 130. It's pretty close though.

MR. POWERS: It's pretty special people that go up there and do that painting, I can tell you that. Randy, did you go up and experience that?

MR. FAST: It's kind of an interesting story. I really wanted to understand what was going on in the containment dome. A lot of hype and I wanted to see it up close and personal. We have a

qualification process that qualifies, just like a window washer on a building. These rigs have some specialized safety features for running the rigs up and down. I went through that training program; was qualified as a rig operator. Went up to the dome, and I actually removed paint for about an hour up in the top of the dome. It was quite exciting. I'll tell you.

MR. MYERS: Plus, it's an area we spend a lot of hours of inspection time, from that standpoint.

MR. FAST: So, really, my hat's off to the paint crew. It sounds kind of like, well, paint is not a big deal. I can tell you, these are engineered coatings. This is a very dedicated crew that are working this at heights.

And in fact, just an item, from an interest standpoint, you can say, well is that safe. Actually brought in a specialist in the industry, a Professional Registered Engineering to look at the design of these rigs and the application, and we got a good bill of health. And, we continue to work safely in this area.

MR. MYERS: But to go into the containment, to go up there; what's it take, like 30 minutes?

MR. FAST: It takes about 30

minutes, by the time you brief, you get in the basket. I went up with three other people. By the time you get up there, you have a series, actually had three tie-off lanyards to ensure that you're safe. You're tied off by double point at any one time. Then, you transition one lanyard to your next position, and go through a series to go from the basket to -- then we had, while we were doing that uppermost portion, we had two 35-foot sections that were in the very top and they were suspended by a central pivot point at the very top of the containment dome.

Interesting project and really quite a tribute to the folks that are doing this work.

MR. FAST: Next slide, please.

Next area I wanted to talk to you about is some of the processes we went through. Certainly, we looked at the plant and the plant's readiness to move fuel. But, one of the things that is very difficult to assess, but we actually use a business practice, this is much like a procedure, was developed at our other stations.

We went through and refined it specifically for our recovery here at Davis-Besse; and that involves a collegial review by about 40 key organizational folks, including supervisors, superintendents, managers, directors, and our more senior people. Lew was personally involved with

this. We brought over our Vice President from the Beaver Valley Station, and as well our Executive Vice President of Engineering attended the majority of these discussions.

This went through a very detailed review of our readiness. And we got started probably a little early, but we invested between 50 and 60 hours of discussion in going through this very detailed review.

It included the seven Building Blocks, and then as well, we went through each organization and looked at things like, do we have the proper staffing; are our folks qualified; have we completed corrective actions associated with problems in their areas; do we understand what their back logs and procedures were.

So, that review was a very intrusive review. And it added a significant amount of value, I would say, in our ability to assess our readiness to move forward.

One of the specific actions that came from this were the Refuel Director roles and responsibility here. The Refuel Director is a Senior Reactor Operator licensed individual that is overseeing the actual movement of the fuel to ensure that it's reliable and done safely.

What we found out, as we queried. This is really a tribute to having some new folks, use to maybe doing things a little differently. Being intrusive, asking questions about how do we do that. What we found out is the Senior

Reactor Operator was a little bit different than what we would say the traditional role of the Refuel Director was.

We had what was called a tag board which keeps track of the fuel itself, involved with some of the administrative processes. They did not meet our expectations. We subsequently changed that role and responsibility to provide direct oversight, no administrative duties, to ensure that we can safely move fuel. That was a direct output from this Readiness Review.

Another one, we put in place the Management Oversight. When I talk about Management Oversight, certainly myself and other senior managers have been involved in looking at our readiness and the support. I've made tours. I know Lew and myself and others made tours of containment most recently within the last few days in seeing how ready we are.

But we did put in place, a seven-day-a-week, 24-hour-a-day Oversight Management Team, which includes folks that were previously licensed and have refueling experience. And, they're sitting there with the sole purpose of overseeing the process of moving fuel.

Lastly, I want to talk about and we've had a lot of discussions about our Observation Program. And we've already gotten some good feedback on the observations that

have been conducted as part of our fuel readiness. One I would mention is foreign material exclusion. We put in place a housekeeping zone in the containment for the movement of fuel, and we have a single point of access to those areas to establish housekeeping boundaries.

We saw that we had some opportunities for improvement there. Those were documented on a Condition Report as well as an observation, so we have corrective actions to ensure that the role and responsibility of that foreign material exclusion monitor is, will meet our expectations.

Just a recap, and not to bore you with a lot of facts, but we did our totalization of management observation for the month of January. We did a total of 468; 364 included fuel observations, 46 a training. I think it's important, because training continues. We still have a lot of training that's going on, particularly in the operations area. And, then 58 that were specific to operations processes. 21 Condition Reports were generated based on those observations.

We had 90 percent schedule adherence, I'll call it. You know, Lew has talked to us about, it's not just a matter of just run out there when the time is right, we want to preschedule those important evolutions and make sure the people are scheduled to monitor it.

I was scheduled this last week to look at personal protective equipment. Part of the reason I was scheduled to do that is that was one of the shortfalls we saw as we pulled together the information from the January observations. We saw that there were opportunities in areas for room for improvement.

I made an observation. I actually took some specific action to get some additional safety equipment that was identified from my observation about personal protective equipment.

We feel like we've made some pretty good progress. We benchmarked and compared ourselves against our other FirstEnergy Nuclear Operating Company Stations and we are doing more observations. And, although, sometimes our staff say, we don't see our managers enough; we have assembled a pretty impressive amount of observations.

About 72 percent of the field observations focused on some element of safety, whether it be radiological, nuclear or industrial safety; and 28 percent of those field observations focused on improvements and standards and being able to coach our folks to new standards of excellence.

As part of the observation program, we have specific attributes that we look at. We had a total of 656 checks on procedures. That's verifications of procedures that are

in use, that they're being followed, that they're being place marked; and so we have 650 total checks on procedures. No alarming or no trends that we saw that would require us to take any immediate action in that area.

I thought it was interesting, got a couple of facts here. The least observed focused area were observations, field observations of office safety. I think that's, that tells you that we're going where the action is. We're going out to the plant and seeing the activities that are actually ongoing. I think that's good, because sometimes in an observation program, we'll allow observations of something like office safety. While certainly that's important, it's not our focus area. And, when you do the rack up of information, it substantiated that.

So, that's really all I had to identify. Well, we did have some strengths, I just identified. We saw some good teamwork. That's good. As we're building this team, we want to be able to look at teamwork; we want to look at communications, some of our human performance tools, like a questioning attitude and peer checks were identified as commonly seen strengths as part of observation.

But as I mentioned, areas that we need to focus on, personal protective equipment; that's why I was personally scheduled and other managers last week to do those; tool

control, checks for hazards, and as identified foreign material exclusion.

MR. MENDIOLA: Can I ask a question about your observations? You said 460 management observation in the month of January. How many managers are involved, or better yet, how often does a specific manager make an observation?

MR. FAST: Tony, let me try to answer your question. The total population of folks that are involved in the observation program is somewhere around 125; includes from our First Line Supervisor to our Chief Operating Officer. So, if you kind of figure out, you say 125, that would represent about three per. We have some specific targets on how many people, but as well, as far as managers, we're actually scheduled approximately once per month. So, that's a scheduled observation. Our expectation is that we exceed the minimum.

So, I think the numbers are pretty defensive. They will illuminate at least the fact that you schedule each person for one, you might end up with 125. We end up with 468, pretty much demonstrates that we're exceeding the minimum expectations.

MR. MENDIOLA: That's almost three or four a month, I would say.

MR. FAST: That's correct.

MR. MENDIOLA: You say most of the observations are in the plant. Are you doing any observations, if you will, of meetings or, you know, engineers get together and discuss system characteristic?

MR. FAST: Yes, we do.

MR. MENDIOLA: Basically the soft stuff.

MR. FAST: Absolutely. When we developed this program, I worked with a team of folks from FirstEnergy Nuclear Operating Company. This is a common process we use at all our stations. We didn't want to put this, didn't want to put any over burdensome contraints on it, so we actually provide some examples. In a meeting, are personally done observations of operations turnover, maybe in observations, but I've also done observations of where I'm not directly involved with a meeting; sit back, walk it, watch the interaction, see what the communications are, and we have some specific attributes to that.

So, the answer is, yes we do.

MR. MENDIOLA: Okay, thank you.

MR. SCHRAUDER: I can tell you when NPR was doing the Safety Function Validation Project for us, I spent two days, two different Fridays, where I went down to Virginia and did some observations of their

process as they were going through it also.

MR. MYERS: Same thing closer.

MR. FAST: We would maybe provide an observation of a vendor out in the field or at their factory or their support headquarters.

Any other questions? With that, I'll turn it over to Jim Powers.

MR. POWERS: Okay, what I would like to talk about today is looking forward in Restart Readiness, the committee meeting that Randy described in the past slide was talking about Mode 6 readiness for reloading fuel into the reactor.

The next mode that we'll come upon as a milestone is Mode 5. We'll replace the replacement head that we have in containment on the reactor vessel with fuel in it. So, we will again assure that we're ready for that mode 5, and be prepared for that.

Then following that, we're going to do a containment integrated leak rate test. This is a test that's done periodically at nuclear plants, typically every ten years, where the containment building is pressurized up to the post accident pressure in containment, and leak tested to verify that it meets regulation and requirement per leak tight integrity.

We last did this test in 2000, and the results of that test were very good. We were very leak tight, two and a half percent of the allowed exceptions criteria. So, the engineers are quite proud of the containment systems performance. And we've got the same group preparing the test again.

Because it's such a large building, we pressurize it with seven large compressors, and that takes about ten hours to pressurize the building. We pressurize it a bit higher than 38 pounds to provide a demonstration that there is additional margin in the capability of containment. And, so we pressurize it up. We have a stabilization period that we hold pressure about 6 to 10 hours, let conditions stabilize in there.

Then, we do a drop test is what we refer to it; watching pressure instrumentation is very accurate, and temperature instrumentation is laid out throughout the containment to see any changes that would indicate that the pressure is dropping and that any leakage exists.

Following that first phase of the test, the second phase is to introduce a known leak out of the containment with a flow meter, so we know precisely how much air is coming out. Then, we watch our instruments to see if they would detect that, how accurately they detect that. And that validates phase one of the test, showing that the

instruments do pick up and read any small leaks.

We're looking at this test schedule now to be tested and complete in the early part of March, and it's a major milestone for us. It will demonstrate the robust containment. And the real intent of this is to demonstrate that the access openings that we created in the containment to bring in our replacement reactor head, which we have closed up and we did testing, for example, on the containment metallic vessel itself. We did radiography x-rays of all the welds to verify they met all acceptance criteria, which they did. This will be a substantial test of robustness of the containment for completion of that project.

MR. HOPKINS: I have a question, Jim. One of those lines up there says, local leak grade test to repair containment. Why do you have the word local there?

MR. POWERS: At the time we did that repair itself, we were looking at locally, the actual weld on the vessel to assure that it itself had high integrity. But, one of the questions is when you do such a large construction project on a structure like this, is to demonstrate overall structural integrity. That's one of the reasons why we're undertaking this integrated test.

When you do containment testing, you can do

integrated type tests, which is the whole building; or you can do local tests, which is individual valves or in this case welds, to demonstrate each one, one by one, that it has leak tight integrity. So, there is a couple different ways it's done.

Typically, every ten years you do an integrated test of the whole building, but each refueling outage, you'll do local leak rate tests of individual valves. Particularly if you do maintenance on a valve, you need to demonstrate as a post maintenance test that its leak tight integrity has been maintained.

MR. HOPKINS: So, in reality, the word local is an error though on the slide.

MR. SCHRAUDER: No, it's not an error, Jon, we've done both. When we completed that repair, we did a local test of that repair. We will now do an integrated test of the entire containment. We'll do both.

MR. HOPKINS: Okay. That's what I didn't understand.

MR. POWERS: Any other questions? Okay, if not, I will turn it over to Mr. Schrauder, and he'll talk about --

MS. LIPA: Well, actually, I was going to interrupt and suggest a 10 minute break at

this point. Okay? So, it's 2:19 by my clock, so 2:29.
(Off the record.)
MS. LIPA: Let's go ahead and get started. I'm sure Tony will join us shortly.
Go ahead, Bob.
MR. SCHRAUDER: Thank you, Christine.
As Lew said, for the last several months, I've been working with Jim, looking at some of the engineering issues that we're trying to resolve. In particular, over the last couple of months, I've been involved in the Safety Function Validation Project and that's the project I'm going to spend most of my time discussing the status of the results of that today.
Before I get to that, I want to very briefly build the background up to that and why we have the Safety Function Validation Project. So, by way of background, the System Health Assurance Plan is what this falls under and that plan consisted of the Readiness Operational Reviews that were done early in the outage; then the System Health Readiness Reviews, which were part of the Building Block; and then the Latent Issues Reviews.
We did a couple of other reviews that we looked at in this. We had done a couple of self-assessments on a couple of other systems; the High Pressure Injection System

and the 4160 Volt Electric Alternating Current System. And then we also looked at the results of the NRC inspections on several of the systems that we had also looked at.

As we went through that, all of the issues, potential issues that were documented, that came out of that were documented in our Corrective Action Program.

This next slide is kind of a mini version of an issue that we introduced I believe at the last meeting; then we had a more detailed discussion in Lisle regarding our path for resolution of the issues that Condition Reports that came up.

We described a three-path process, where Path A is, is our Corrective Action Program. And each individual CR that's written is evaluated through Path A, where we determine its impact on operability, where the RSRV identifies whether it's a restart issue or can be resolved post restart, look at whether we need to do an extent of condition for those. So, those are kind of the individual issue resolutions.

Then over on the far right you see Path C, which the topical issues, some of the, what the collective reviews looked at is there were certain issues that came up that we lumped together in topical issues. Those were the High Energy Line Break, Environmental Qualification, Seismic Qualification of Equipment, Plugging, Appendix R Issues.

And, I'll talk very briefly about how we're resolving those at the end of this.

Then Path B is where I want to spend most of my time is the Safety Function Validation Project. We've completed that project now, and we want to discuss the results of that.

Next slide shows how we got to the Safety Function Validation Project. As we worked through the System Health Readiness Reviews, Latent Issues Reviews, obviously, we generated quite a few condition reports out of that.

So, we did a Safety Consequence Review. Actually, we had NPR associates do that for us. They looked at the body of Condition Reports that had been identified by our Restart Station Review Board as required for restart. Looked at those, binned them together, tried to draw some conclusions from that, and recommend a plan for looking at the extent of condition from those.

You can see, we looked at about 600 Condition Reports in that process. Eight percent of them or about 51 Condition Reports identified a, it did have potential impact on the plant design basis. And again, this is on, I'm going to say, five systems in detail, and two systems that were not as detailed evaluated.

So, we had about 28 individual issues, when you bin them together. And again, had the potential for impact on

plant design bases. And, a lot of those potential issues did relate to our calculations supporting the design basis.

So what-- the project that we came up with or the extent of condition process, we named the Safety Function Validation Project.

MR. GROBE: Bob, before you get into that project, could you status us with where you are with resolving those 28 issues?

MR. SCHRAUDER: Those 28 issues are encompassed in the Safety Function Validation Project. I don't have the exact where each one is resolved, but they are working through those in the Corrective Action Program. And, I can status you the next time exactly where each of those are.

Some of them I know have been fundamentally resolved, and some of those are the issues I'll talk about in the results of the Safety Function Validation Project.

MR. GROBE: Actually, Lew, you and I had talked about possibly having another separate meeting just focusing on design engineering.

MR. MYERS: That's right.

MR. GROBE: I think that would be a good idea. I'm not sure when would be the best time for that, but maybe sometime over the next 4 to 6

weeks would be appropriate to have that second type of meeting.

MR. SCHRAUDER: That would work out well. I'll be going into detail in all those issues and where we are in resolving them.

MR. GROBE: Okay, thank you.

MR. SCHRAUDER: Again, NPR worked with us, and we developed the Safety Function Validation Project, whose purpose was to provide assurance given what we seen in the safety functions that provide a significant contribution to the core damage frequency as determined by our plant safety analysis, probabilistic safety analysis could be performed.

We looked at all those safety functions that contribute greater than one percent of the core damage frequency. Said another way, all those functions added up to covering 99 percent of the core damage frequency. And approximately 99 percent of what's known as the large early release also.

Those safety functions identified were comprised within 15 Safety Related Systems. Five of those, we had already evaluated in great detail in the Latent Issue Reviews. Two of them; the High Pressure Injection, and the 4160 Volt AC System, we had done a partial assessment of, but not as deep as the Latent Issues Reviews.

So, we took those two systems we'd done partially and added 8 additional systems we were going to look at in the Safety Function Validation Project for a total of, all total that would be 15 of our safety systems that again cover 99 percent of the core damage frequency for the plant.

The methodology that was used by NPR was to first find the safety functions and what attributes would be validated. So, the group went off, identified what the safety functions were, what attributes there were. They identified the available calculations and testing that demonstrate the system's capability to perform those functions, and then reviewed the calculations and testing to validate, to attempt to validate whether or not in fact that safety function or attribute could be fulfilled.

It was a two-step process that NPR employed; that is, they first had their groups go off the, the individual groups go off and identify the safety functions, the boundary of the system that they were going to look at. That then came into the board, and the board looked, an Oversight Panel, looked at and reviewed the level, the depth that they were going into and confirmed that, yes, that would capture all the safety functions that we intend to look at.

Then, the review teams went off, did their reviews,

did their looks at safety functions, calculations, testing that had been performed, all the design basis information that they could get. They then brought that back to the board, and then the board probed them, dug at the issues, did their review to make sure that they had done a comprehensive review of the safety functions that they were attempting to validate.

In line with that process, or as part of that process, there were oversight provided by FirstEnergy. I spent a couple of days down there, sat through several of the board presentations at the beginning -- well, actually toward the middle of the project and then at the end of the project.

Steve had his Quality Assurance Oversight people were down there for much of the time. Marty Farber from the NRC observed a large part of that. We also had at least one member of our Engineering Assessment Board present at nearly all of the Oversight Panel Reviews of those. So, we got a lot of review while that was in process.

I would tell you that I believe that it was a very thorough and comprehensive review. I think they did a good job. I think Marty and the inspector that he brought down with him felt like it was a pretty high quality review that was done.

So, that's all well and good. What's the results of it? Four of those systems -- I'm sorry. The additional thing that NPR was doing for us in that review was for functions that could not be fully validated, they did perform some of the preliminary technical evaluation to see the impact of that; to determine the effect on systems capability, and they helped us in operability determinations if required, if the systems were found to be degraded.

Then, of course, all the nonconformances that were identified during the course of that project were also entered into the Corrective Action Program, and they would then go back over to Path A and come down through the Corrective Action Program.

MR. GROBE: Bob, let me make sure I understand that. Oftentimes in engineering reviews, you come up with a lot of questions. And, it's a period of time until those questions are revolved to the point where you can conclude they're actually nonconforming conditions.

Do you still have a batch of questions that are still being evaluated, or have all of the issues been evaluated and dispositioned as either nonconforming conditions or adequately resolved?

MR. SCHRAUDER: All of the

evaluations have not been completed yet, Jack, out of the Safety Function Validation Project. In some cases, they were not able to, with the information they had available to them, validate for instance a safety function. That then comes back to us and we have to do further analysis, in some cases, and further research.

So, not all of those Condition Reports that came out of this are complete yet; and we have not yet completed the effort of attempting to validate those systems which NPR was not able to validate their safety function.

MR. GROBE: Okay. So, all of the questions have been turned into Condition Reports and you're continuing the evaluation under the Condition Reporting Process?

MR. SCHRAUDER: That's correct.

MR. GROBE: Thank you.

MR. MENDIOLA: I'm not sure I understand. This is a one-time project? In other words, you know, now that you finished it, now that you looked at these 15 systems, and you've come up with either being fully validated or those that need additional analysis; that's it, basically, everything gets handed over to the Corrective Action Program?

MR. SCHRAUDER: I'm not sure

I understand your question, but basically the answer is yes. It's a one-time project that covered 99 percent of the core damage frequency, but those issues that were identified need to be resolved and they are categorized as either needing to be resolved prior to restart, or whether they can be resolved post restart. Because every discrepancy that they found, we identified and put into the Corrective Action Program.

The ongoing process is, as we've talked about in the past for assuring continued system health and maintaining design basis, are the latent issue reviews, which we will incorporate into our ongoing processes.

MR. MENDIOLA: So, that, if you will, is the long term result of this project, is to institutionalize that kind of material into a constant everyday process that you have at the site?

MR. SCHRAUDER: Yes.

MR. MENDIOLA: So, it would show itself in a latent issue?

MR. SCHRAUDER: The Latent Issue Review Program will be the institutionalization of systematic reviews of systems to assure ourselves that we maintain them in full stead.

MR. MENDIOLA: Okay, thank you.

MR. SCHRAUDER: Okay, the results of the project. Four of the systems that were looked at, NPR was able to fully validate their safety functions; that's the High Pressure Injection System, the Main Steam System -- Steam Generators and the Safety Features Actuation System.

You see there are additional systems that we still require, as Jack asked about before, additional analysis to confirm or identify that the safety system could not be, the safety function could not be validated. Those systems are listed there.

We have a fairly high competence level that when we're through with all the analysis, that we will be able to demonstrate that each of these systems was capable of performing its safety function. We have just not yet completed all those reviews, and some cases may have to do some recalculation, some reanalysis to show that.

Do you have a question, Jack?

MR. GROBE: I wanted to make sure I understood the totality of the results. These results on this slide, called Project Results; those are the results of the Validation Project. You had seven additional systems that you looked at under Latent Issue Review and Self-Assessments. How many of the systems from those additional seven fell into the fully validated

category and are requiring additional analysis category?

MR. SCHRAUDER: I would tell you from the Latent Issue Reviews, that none of those systems were fully validated when they went through their Latent Issue Reviews, and they would fall into the same category of some of those. Again, they were questions that were asked that the individuals could not either find the documentation, or in some cases there was conflicting information. I will tell you, none of the Latent Issue Reviews would result in what we would say their safety function was validated.

Many of those issues we have resolved along the way; have not yet reached the point where we have declared any one of those systems completely validated yet.

MR. GROBE: And the two systems that you did Self-Assessments on, those also were not fully validated?

MR. SCHRAUDER: Right. The ones that we did Self-Assessments on are included in the Safety Function Validation Project.

MR. GROBE: I see. So, the total then is 13 systems.

MR. SCHRAUDER: The total is 15 systems; 5 Latent Issues, 2 Self-Assessments that were redone in the Safety Function Validation Project, and then

8 additional systems. So, the total amount of systems we looked at in this level of detail was 15.

MR. GROBE: I think I understand. Thank you.

MR. SCHRAUDER: So, each of those additional analysis required, again are entered into the Corrective Action Program. And in many cases or several of the cases, for instance, Low Pressure Injection System, there is one function of that system that yet has to be validated. Then, we're working through those issues.

Any other questions on the Safety Function Validation Project?

MR. PASSEHL: So, I guess on your slide 22, you don't have all 15 systems listed on here; you have 8. And there is an extra 7?

MR. SCHRAUDER: Actually, all of them that were comprised within the Safety Function Validation Project are here. Where it's the Electrical Distribution Systems, that includes 125 Volt/250 Volt DC System, the 4160 Volt AC System and 480 Volt AC System.

One of the good things, I would say, that came out of it or one of the encouraging things, is we looked at the electrical distribution systems, we were not able to fully validate that, but all but one I believe of the issues that

came out of the Safety Function Validation Project had been previously identified in the System Health Readiness Reviews that we had done.

The process that NPR did, they didn't look at what had already been identified for those systems. They merely identified the safety function they were trying to validate, find what documentation they could have, created their questions or their issues, and then they looked to see if that issue was already addressed in the Corrective Action System.

And, for the Electrical Distribution System, like I said, with the exception of the battery issue that was raised, all of those conditions had been identified under the System Health Readiness Reviews, even though those reviews were not really targeted at a detailed analysis of the calculations and the design basis information for those systems.

So, I think it just, in my mind it adds some credibility, I would say, to the System Health Readiness Reviews. And, that was a comment that NPR made to us also.

MS. LIPA: The question I have -- excuse me, Jack. Maybe you're going to get to it later. At what point will you be at or where are you in the process of determining if any of these are passed

operability, past reportability, LER-type issues?

MR. SCHRAUDER: All of those issues still have to be evaluated and it will depend, obviously, that's what the evaluation is doing. Can we determine or demonstrate operability from a going forward prospective, and also we will have to look back and determine its past operability if, the function is in fact found to be not able to be validated.

That's all part of the normal condition reporting process. And we're working through those Condition Reports.

MS. LIPA: So, you haven't even gotten to the point where you've determined that it would be reportable to start the 60 day clock from any of these issues?

MR. SCHRAUDER: That's correct. The other thing that we did find -- sorry, Jack -- in this process, both in the Safety Function Validation Project and the, what I'll get to in just a minute, as we're looking at the topical issues; we did confirm what we suspected; that is, we have a lot of help in looking at these reviews and going through documentation for the plant calculation, with a lot of people that are not familiar with our design or licensing basis; they're not familiar with the calculational structures and where to find information.

And they, as we told them, don't spend a whole lot of time. If you can't find the information, generate the CR, get it into the system, and we'll turn people loose on going down it.

We did in fact, have in fact found numerous examples of where the information was in fact contained in calculations if you knew your way around it, could find it. You know, there are certain aspects of those Condition Reports that are attributed directly to what we are licensed to and what our design basis is. So, a lot of the issues are not issues. They're simply questions that were raised and are easily answered once you get the calculations out and can demonstrate it.

I have a percentage for you on that, but there are a lot of them in there that-- and that was done by intent. We wanted them to get the reviews done. If they had questions, don't stop the review, get them into the process, and we'll get to those as we can.

MR. GROBE: Just a comment, Bob, so that you and your licensing folks can anticipate our needs. Recognizing the number of design questions you're still in the process of resolving. We discussed this, this morning, and internally in a panel meeting; determined that it might be appropriate now to start weekly calls with your Regulatory Affairs Group to track the

resolution of these questions. I anticipate that there is a possibility there may be some licensing questions that come up in the course of resolution of these issues. And, early dialogue will help us be prepared to understand those issues, and help you understand our perspectives on them.

So, I've asked Tony and Jon to set up with your staff, your licensing staff, some weekly dialogues to go through the status of these issues and identify the ones that have the greatest risk of needing licensing work, so that we can be prepared to do that.

MR. SCHRAUDER: I think that's a good idea, Jack. I can tell you that there is one that came out of the Safety Function Validation Project that I know of, and that's on the differential pressure trip set point that the steam feedwater control system, where the tech spec value is nonconservative relative to the design basis calculations. In that case, we will have the procedure for that, looks like it was also nonconservative relative to the calculational base behind it.

What we have to do now is look at where do we actually have the trip set point set. And, also make sure that the procedure now aligns with the design basis, and then we'll have you come in with a license amendment request, to change the tech spec, because the tech spec

value is a nonconservative tech spec and follow NRC guidelines on how you handle those issues also.

There are some licensing issues that will come out of it.

MR. MENDIOLA: Bob, I'm going to ask the stupid question here. You started out on slide 20 with 15 safety systems. Okay. Slide 22 only has 8 listed. I can only assume from your response earlier that all the Electrical Distribution System systems, if you will, the 15, are listed at the bottom there. They're all compressed into one bullet?

MR. SCHRAUDER: Let me go through the 15 systems for you clearly.

MR. MENDIOLA: Basically, the very simple question is, where is the other 7?

MR. SCHRAUDER: Let me go walk through it for you. There were 15 total systems. Five of them were completed under the Latent Issue Review. They were not looked at in the Safety Function Validation Project. Okay. That leaves 10 systems.

If you look at the slide you're looking at, there are eight bullets there. The last bullet, the Electrical Distribution System is actually three systems; 125 Volt DC-- 125/250 Volt DC, the 4160 Volt AC, and 480 Volt AC.

So, that should be ten systems there and the five

from the Latent Issues Review.

MR. MENDIOLA: Okay. Thank you.

From the systems requiring additional analysis, was there any, for lack of better terminology, red flags or anything to cause, anything that we should, if you will, start focusing on?

MR. SCHRAUDER: The one that I don't have a very clear path to how it's going to be resolved yet I'll talk about; and that's the Low Pressure Injection System of the Decay Heat System. The safety function there that we're trying to validate yet or need to relook at is the, we have two methods of Boron precipitation control post LOCA.

Our secondary method for Boron precipitation control post LOCA is through the decay heat drop line, where you have one low pressure injection system taking suction from that for the purposes of precipitation control; you have the other LPI system injecting into the vessel.

Early tests for the plant identified that the net, to satisfy the net positive suction head requirements for that pump for Boron precipitation control required eleven inch height in the drop leg.

This review identified that the calculational basis identified that if you're injecting an LPI pump, were

running at runout, it could only supply seven inches of head in that drop line.

So, the analysis that we're going through right now is there is some questions on the validity of the test, because it was not really run, Boron precipitation control wasn't considered at the time the plant was licensed. It was a later addition. So, the test that was done was really not for the purposes of establishing precipitation control. So, once they got to a certain level, eleven inches, ran it there for a certain time; they said, okay, end the test, we'll draw a curve from that.

During the course of that test and looking at the data now, and the reason they stopped at eleven inches, was testers believed that they heard cavitation in the pump at that level. Going back and looking at the test data now, what's believed is what they were hearing was air entrapped in the system from the previous test; and that they're looking at pressure gauges and discharge pressure from the pump, you know, being able to show the pump couldn't have been cavitating with the kind of pressure indications that you had there.

And so, Framatone was working with us in resolving this. When I say I don't have a clear path to solution on this, we're either going to have to demonstrate analytically with the data we have available that the

required height is much less than eleven inches and you could have met that safety function; or we're going to have to take, we're going to have to test that under, in a mockup facility and reestablish what the actual height is.

So, that's one of them I would say, yeah, we don't have a clear answer on that one yet, but I believe there is two paths to pursue on that one.

MR. MENDIOLA: Okay, thank you. I'm just curious on the timetable for when this information might be more readily available to us? Will be a while off?

MR. SCHRAUDER: Which information, Tony?

MR. MENDIOLA: Well, things like you just brought up; your response and your reaction to how you're going to conclude that analysis, and conclude this issue?

MR. SCHRAUDER: It will be available to you as soon as we know which way we're going with it. Some of these issues just are being evaluated.

MR. MENDIOLA: Okay, I understand.

MR. SCHRAUDER: Okay, emergency core cooling system, HVAC system, that's another one that relates back to the ultimate heat sink temperature. That's

really an environmental qualification issue, where the room was originally, max temperatures was expected to be 125 degrees in that.

When you include two issues in there; the high pressure injection pump running in the room was not considered as a heat addition to the room, and it needed to be; also, when you looked at the impact of raising the temperature to 90 degrees, and the potential for separation from the lake, if you will, and the heatup of the forebay, the bottom line conclusion was that the actual maximum temperature in that room would rise above 125, and would peak somewhere around 133 degrees.

So, we had to go relook at all the equipment in the room and see, will it withstand 133 degrees. We have looked at that, and we have one relay that was qualified for 125. We don't have, I don't believe we have right now sufficient information to say it works at 133. So, we still have some more analysis to do with; if there is other facilities that have tested it higher, we'll probably take that relay out and qualify it to a higher temperature to verify that it would have functioned at 140 degrees. And we may have to go out and buy a replacement relay for that.

That's the type of issues that we're dealing with, on those unvalidated systems yet.

MR. MENDIOLA: Okay, thank you.

MR. PASSEHL: I would have an additional question. You mentioned on slide 18, your Safety Function Validation Project, you stated that you're completed with that. Yet on slide 22, you got all these systems requiring additional analysis. What did you mean by completed with that?

MR. SCHRAUDER: The Safety Function Validation Project was a defined scope of work that NPR did for us. They performed that issue for us. They have turned over the results of that and said, here are the things that we could not validate. So we then put them into the Corrective Action Program where we will have to resolve those, but the project itself is completed.

MR. PASSEHL: I understand. And, then your five systems you did on the Latent Issue Reviews; Reactor Coolant System, Aux. Feedwater --

MR. SCHRAUDER: Service Water.

MR. PASSEHL: Are those fully validated?

MR. SCHRAUDER: No, that's the question Jack asked before. None of those systems were fully validated in the Latent Issue Reviews either. So, the same process is ongoing for them; further analysis, further research.

MR. PASSEHL: Okay, thank you.

MR. SCHRAUDER: Okay. The other thing, Path C was the Topical Issues. And the Topical Issue Reviews are not done yet, not completed yet. Those, again, I have identified before is Seismic Qualification, High Energy Line Break, Environmental Qualification, Appendix R Safe Shutdown Analysis and the Station Flooding.

Described briefly here, the process we're going through to review those. We're doing Collective Significance Reviews on those topical areas. We're looking, we're using a Nuclear Operating Business Procedure that, it's a relatively new procedure that we've developed, across FENOC. It's specifically aimed at Collective Significance Reviews. It provides us with a consistent process and consistent format for the analysis of those systems.

We'll use the Condition Report Data Base to pull all the issues that have been identified relative to those. We would bin those Condition Reports, much like we did in the Safety Function Validation Project, into specific topical areas within that topic. And then, we'll look at those to see whether they have implication, problematic implications to those topical areas, and we'll also conduct an extended condition evaluation for the area where that's warranted.

Then, we'll determine, schedule again the Corrective Actions that come out of that, go into the system to determine whether they need to be done prior to or post restart and we'll schedule those Corrective Actions.

Then, when the report is written, it will go through our Engineering Assessment Board to review the results of that process also.

Those things, I'm going to say they're probably 75 to 80 percent complete right now, some in a more of a state of completion than others. I expect that they will be, the reviewers should be completed with their work this week and then they will be scheduled for AP Review within the next week or so.

MR. GROBE: Bob, are the reviews completed sufficiently that you can give us some insight on how many of the areas warranted further extended condition review?

MR. SCHRAUDER: I can speak to one, Jack, that I've looked at pretty much. That's the Seismic Category.

Seismic Category had identified several things. Two over one criteria. Much of that was a, restraints of some temporary equipment. We also looked at the impact of the Boron deposits that were in the containment. Did they impact the seismic capability of the systems they were on?

We found that they did not.

We had one issue that came out of this, was a relatively old issue though. Early in the plant's life, we got some of these relays, HFA relays that were identified under GE SIL. I can't recall what SIL stands for. Notification to industry from a vendor.

MR. POWERS: Service Information Letter.

MR. SCHRAUDER: Service Information Letter. Thanks, Jim.

We had bought these relays by way of a third party. We didn't get them directly from GE. We were not on their vendor list for them. So, we did not get the information in when they put it out, that these relays needed to have certain adjustments or checks to see if they needed adjustments periodically.

I think we had about five of those. We identified a few of those and we did do an extended condition to find out how many of these HFA relays do we have. We'll go out and perform the set point checks on that.

And then we did confirm that we plugged that gap in the process, a third party vendor, we would get information on their products. And this was, was found to be isolated in this case, with GE. I think we had gone through Westinghouse that that had been corrected in the past.

Another one we did find that we had to do an extended condition on the seismic was, our process a couple of years ago has had some discrepancies in the seismic and safety classification, where you might in the safety, safety/nonsafety boundary at say an open root valve, downstream up there, you might have a transmitter or something that needed to be qualified for seismic purposes.

Either was not reflected properly on the PNID's, or the data base that we use to track that; had it confusing to modification, if you're putting it in.

We went back and did an extended condition on that, to see. We looked back to the point that that confusion was introduced into the system and looked back at all the mods done since that time. And I believe that resulted in identification of five transmitters that needed to be looked at. Two of those were original purchases, and they were, did have the proper qualification to them. We had to replace three transmitters. That's an example of an extended condition that came out.

One final one was a, I don't know if you recall this or not, but there was an issue again on the seismic classification in the service water pump bay, if you will. And the cooling tower makeup line went through there. And, it was supposed to be seismic. And it was not seismic. It

was not installed seismically.

So, we had to do an analysis to show. We used a methodology to determine the line would have withstood the frequency, the resonance frequency for the earthquake. We used that method to show it would have withstood the earthquake effects, but we are also going back and making that seismic now.

That resulted in an extended condition, so we had to go out and look at other systems where there were multiple trains or multiple systems in a single area that could be impacted by that event. And, by that situation, we found four or five other areas that we had to go look at. All of those turned out to be acceptable.

That's the kinds of things we're finding in the extended conditions that we're doing as a result of.

MR. GROBE: Okay, thank you.

MR. SCHRAUDER: That concludes my discussion, unless there's -- well, there is a summary slide here that says, as I said before, we did show good correlation with the System Health Readiness Reviews. We do have more analytical work ahead of us to be able to fully validate some of the safety functions. We have yet, we have not identified any major modifications necessary as a result of the Safety Function Validation; or so far, the

Topical Area Reviews.

And we did confirm, I think what we had already said, that there was some rigor in the calculations, clerical calculations that was lacking.

MR. GROBE: Thank you.

MR. SCHRAUDER: With that, I turn it over to --

MR. MYERS: Me.

MR. SCHRAUDER: Lew Myers.

MR. MYERS: Thank you.

I have to sort of shift gears now, talk about providing you some information in a few areas first, give you a snapshot of the January the 30th meeting that we had with the Nuclear Regulatory Commission in Chicago to discuss Safety Culture and Safety Conscious Work Environment.

Second, to status our Restart Readiness Review Meeting that we had, where we looked at -- once again, I want to make this clear, we only looked at fuel, because Restart Readiness Review Meeting was not prepared, designed to look at restart. We do various Restart Readiness Review Meetings as we change operating modes of the plant, so I'll provide you some observations of the one we did for fuel load.

And, finally, I'll provide you status of how we

addressed the safety, Safety Culture readiness for fuel load. That will be the first time we've done that.

First, I would like to give you a little background. The Root Cause Report for the Reactor Vessel Head was presented last August. In that report, there were basically five overall conclusions that we had.

First, we found that there was a production focus established by management combined with taking minimum actions to meet regulatory requirements and in some cases we did meet the minimum action, and that resulted in acceptance of degraded conditions. Item number one.

Second, we found that Davis-Besse had been operating a long time as basically an isolated plant. As you remember, FirstEnergy is a fairly new company. And then we took over the Beaver Valley Station. So, if you look at our Davis-Besse station, all our performance indicators were running along pretty well. So, from a FirstEnergy standpoint, it was still being operated sort of as a stand-alone plant.

Third, a large number of Condition Reports were identified by our employees. There was like over twenty Condition Reports written, but they weren't properly classified or evaluated. If they had been, we wouldn't be sitting here today. So, the employees were writing and identifying problems.

Fourth, our Quality Organization reported to the site staff for many years, and as a result their effectiveness was limited. In fact, they became part of the same culture, if you will. And when you read back on the reports, some of the conclusions that they drew based on the findings, it's hard to correlate those conclusions as being accurate.

Fifth, Operations was not actively involved in the role of improving the plant conditions. Somewhere along the line, over a long length of time, sort of have a different role with Randy and I, than others have seen traditionally in other nuclear stations.

With that, those are the areas that our Root Cause sort of focused on, and I would like to provide you with now the next slide. The definitions of what we've given our employees, as Safety Culture and Safety Conscious Work Environment.

We divide those things into two areas, and basically, two different definitions. Let me tell you why. From a Safety Culture standpoint, we define that as the "assembly of characteristics and attitudes", so both characteristics and attitudes, "in the organization", which is organization, you're looking at the organization; "and individuals", so, what they see from, "which establishes an overriding priority towards nuclear safety activities and

ensures that issues received the attention warranted by their significance."

Write a CR, properly classified. If you're out doing a job in the field, you get the right management oversight. That's what we're talking about here.

From a Safety Conscious Work Environment standpoint, it's "That part of a Safety Culture", if you will, "addressing employee willingness to raise issues and management's response to these issues." So, they have an environment that encourages them to identify problems.

Next slide.

At that meeting, we provided the NRC a management model. Once again, I want to stress this. This is a management model. It's not an employee model. And this, it's not designed to establish the perfect employee.

It can and should be used to help management and ensure that the correct standards are present in the organization, and that our standards are properly being understood by our employees, and then be implemented into the field. Are we sending the right message to our employees? That's the real question.

There are three commitment areas that we discussed with the NRC at that meeting, and 14 individual commitments that we also discussed that we monitor effectiveness in. Now, let me go through those.

First is the policy level commitment. That policy level commitment has to do with the message that we send from our corporate organization. Are our policies correct from a safety standpoint? The management value structure that we have. Do we understand our value and vision and are they being properly implemented in the field. The resources that we provide; the same thing from time, money to people.

And then, finally, the oversight that we provide, from not only a quality oversight point-- standpoint, but from a self-assessment standpoint. Those are the type of things we're talking about there.

Then you move on into the management commitment area, if you will. The commitments under there are emphasis on safety. Do we send the right messages daily, when we find issues? That we understand the responsibilities of the managers and the organizations and are we cohesive as a team. And that was an area that we really want to start focusing on. I would tell you that we were sort of in isolationism in our group.

Then finally, accountability of responsibility. Do we understand who is responsible? That accountability is clear. Qualifications in training is more than just maintenance or operator training; it's leadership training, it's management training, and supervisor skills training

also. Then, high organizational commitment to safety. Are we really committed to it? Do we send those messages?

And then, finally under the individual area, you can focus on the nuclear professionalism. You know, what do people, what do they understand technically when they're in the field. I mean, do you understand what you're dealing with and do you have the right sensitivity to those issues?

Open communications. That's the vertical communications within our organization. And then rigorous work control. That's more than just going out working a work package. Are the engineering documents that we prepare quality documents? And one that I know is close to our heart right now are the RWP's that we prepared, radiologic standpoint, thorough and accurate. So, it's across the board from a work control standpoint.

Questioning attitudes and overall drive for excellence, and maintain our plant, and improving safety margins from cycle to cycle, both from a personnel standpoint, but also from a material standpoint.

With that being said, let me go through some of the actions we're taking very quickly. These are just, you know, just a snapshot of the actions that we shared with you all guys in the January 30th meeting.

First from a policy standpoint, we started taking many of our actions back in the May time frame in 2002,

after we finished our Technical Review. The first action we took was create a management structure for oversight, and took the action to sponsor the Management/Human Performance Report that we shared with you in August.

And then, after that, our FirstEnergy Board of Directors issued a resolution on nuclear safety. That's what we think should be the genesis of the standing in our company. From that point on, Bob Saunders provided two new policies; one on Safety Culture and one on Safety Conscious Work Environment.

We've now met with all of our employees and trained all employees at FirstEnergy Nuclear Operating Company on those policies. We strengthened our Incentive Program, which we talked about with the root cause to focus on safety.

We've established and implemented an executive level organization, if you will. We now have the Quality Assurance Manager, the Executive VP of Engineering and Chief Operating Officer position at our corporation -- at our corporate offices. And if you go look at this alone, it would have prevented some of the isolationism and assured standardization of our processes, and it would have probably improved the quality, the quality of the oversight documents that we looked at and may have resulted in us not being here today.

We strengthened our Employee Concerns Program. We work hard to make sure that's an anonymous program and people feel free to come forward with that, into that program and address issues. And, we're seeing good improvement there.

From a management standpoint, you know, I talked at that meeting about our management team. Today up here, you know, I think it's our senior team. We're technically involved with things going on at the plant. Before we came here today, we took time looking at the videotape of our reactor vessel, so we could understand the cleanliness requirement, you know.

We talked somewhat about that, but the management team we have in place at our station has over 460 years of nuclear experience. Most of them are SRO, most of them are degreed individuals with advanced degrees. And what's more important than that, they're proven leaders in industry. A lot of us have worked other places, worked at our other plants and we're a pretty well known commodity. So, we really believe that we really strengthen the leadership team for the plant.

Additionally from a, a standpoint of what failed; Tony, you asked a question awhile ago about the Corrective Action Program. If we're going to restart our plant, we have to make sure that our Corrective Action Program is

working properly. I mean, it is the backbone of how we identify problems, where we put things. Once we stick them in there, they can't get lost. They might not get worked on, but they can't get lost.

So, it's imperative that we properly classify and then evaluate issues. And, what we've done to strengthen that is our Corrective Action Review Board. Now it's chaired by Randy Fast. On there we also have engineering managers and the Operations Manager. So, we really, really escalate the duties and responsibilities of that board, their performance indicators, and tried to strengthen the Corrective Action Program.

Additionally now, once we solve our problem that our employees had given us, we send each and every employee back an email telling them how we solved their problem. So, we think we're improving that program a lot.

We improved our leadership conferences. You know, one of the things we now have, we evaluate each and every one of our managers, supervisor yearly; and we're in the process of doing that right now. We've added two new conferences that focus on safety. So, that's new for us.

We've strengthened our problem solving and decision-making nuclear operating procedure. As I think Christine knows, we have a procedure that we used at Perry for decision-making; stop, analyze the problem, get the

right people involved, use the right techniques.

You know, we did not have that at the Davis-Besse Plant, so we've turned that into a nuclear operating procedure that's now used every day at all of our plants, called morning phone call. We have a morning phone call 7:30, just about every day you can hear somebody talking about an action plan they developed for one of the nuclear operating decision-making models. So, we think that's really strengthened the way we -- when we find problems, that we deal with them.

Then, Engineering Assessment Board is now in place at this station to look at the engineering products. And probably if they looked at some of the engineering products that were sent out in the past, we wouldn't be here today. So, we think we're seeing good improvement there.

Now let's move on to the individual. We've talked about the Reactor Vessel Head Group Training that we've done, if you will, where we sit down each and every group individually, and went through, in depth training on this event and how your particular group was involved with this event; how we should have found it earlier. Then we went through the group standards and we tested each and every person on site. So, that's complete.

The Town Hall Meetings are basically weekly. We may miss a week every now and then, but usually weekly. Randy

says we have a hundred people. Jim says we have 40. So, we typically have somewhere between 100, 140 people.

I don't know how I came up with that math, but sometimes they're very large groups and sometimes there are groups where I've attended meetings of about 40 people.

If you go look, I talked about our 4-C's Meetings. I try to have one of those meetings basically weekly with our employees. I've now met with over 500 of our employees. And, you know, it's really interesting. I think it's time for maybe one of you all to come in and sit in on one of those meetings. Our employees are brutally honest. That's one thing I'll say about them. I think those meetings are good.

The one thing that I see coming out of that, is a willingness of the employees. When we do these meetings, we have, we have the team meet together to identify their concerns and their compliments and everything. So, I want to know who wrote the question out. Then, when I come into the meeting and go over all those things, I prepare and try to be able to give them good responsive answers.

And what I'm finding now more and more at those meetings, as I bring up the questions, the employees will say, well, this was my question, which shows me it's the environment I'm looking for. So, I think those meetings have been very valuable.

There is something that I believe, they tell me in the years that they've been at Davis-Besse, they've never had an opportunity to sit down with a VP and be able to talk with him. I don't quite understand that, but that's something we should keep a permanent part of our system in the future; and we intend to.

Finally, we created -- we had operability training, as you know. And our Root Cause Report, our Operations Group was lax on, prove to me this is operable; come to me, engineering, show me why it's operable. And, we were doing some things by telephone that we shouldn't have. So, we reevaluated the operability process, provided training to all of our engineers, all of our operators. I think you'll find that very challenging, operability issues now.

And then finally, we went back and we requalified each and every one of our root cause evaluators. Those are just some of the actions we have taken. There may be more.

The next area, I want to talk about is --

MR. GROBE: Before you go on, I have a question on slide 30. I wanted to hear this slide 31 material before I asked it.

In the 3 areas; policy, management and individual, you have four to five assessment attributes, I guess.

MR. MYERS: Right.

MR. GROBE: In each of those assessment attributes, there is a number of data sources that goes into your assessment in that area. Have you developed that sufficiently that it's on paper, it's something that's ready for us?

MR. MYERS: We used it, Jack.

MR. GROBE: Pardon me?

MR. MYERS: We used it during the Restart Assessment. Now that we've used it, we're going back and modifying it some, but it's actually been used. I'm going to talk about that, as a matter of fact.

MR. GROBE: Okay, good.

MR. MYERS: In our Restart Readiness Review, let me tell you, the purpose of that meeting is not to justify why we should load fuel, the purpose of that meeting is to determine why we should load fuel. You know, do we have a consensus around the table that loading fuel, we're ready to load fuel. And, we'll do that for Mode 4 and other times.

As Randy said, the meetings, this meeting went on for five and a half days over a several week period. If nothing else, it was a good team building session. Start off not doing as well as I would have expected on presenting their areas, but ended up I thought fairly well.

What we do there is we bring each and every group in our station in, and the groups come in and explain why their organization is ready to load fuel. Do you have the -- and we have a list of questions that we go through; 3 or 4 page list that they need to be able to answer.

Do you have the people in place that you need? From a health physics standpoint, do we have all the areas locked that we need to go lock up now to load fuel? Do we have the organization in place? What is different now than it was before, you know? So, they need to be able to answer those questions.

We also have a group of questions they have to ask about Safety Culture in those areas. So, each and every group, we grade those groups on their Safety Culture, their readiness to move forward. And they would go through this question list on a group basis.

Additionally, we look and make sure that we feel the whole plant staff, at the end of the meeting, we sit around the table and go through those questions again. That's where we sit down and grade each of the areas as a total.

For example, suppose we have a manning problem in one group, which we did. But as a site, do we think we have a manning problem, we're working excessive hours or something. So, we analyze that and then grade that particular area based on what all we've heard.

The other thing we do is we look at several key programs. For now, we've looked at the groups; what are the key programs? Some of the programs we went through are Corrective Action Program, what's it tell us; the Management Observation Program, the Radiological Control Program, the Reactor Coolant System Leakage Program and the Employee Concerns Program, which is, what does the Employee Concerns Program tell us now? Are our people willing to bring issues forward?

Also, from an engineering standpoint, let's talk about the systems we need for, for fuel load. We actually bring the System Engineers in and go through the systems and let them convince us that their system is ready to support fuel load. And out of that we found a lot of interesting things. Also, at the end of the meeting then, we're ready to grade the overall assessment of Safety Culture, if you will.

Now, as we do that, what we've done, is the way we've done that at this meeting, we took each individual group and we graded either green, white, yellow or red. You can read the definitions, I won't read each one.

To be green, all major areas are acceptable with a few minor deviations. From a white standpoint, all the major areas are acceptable with a few indicators requiring management attention. Then, you get down in the red area,

and you would say it's just not acceptable. We have to take immediate management attention. So, that's sort of the grading process we went through.

Next slide.

Once again, what I tried to do here is to indicate that we just don't take one, one issue like, all the groups, do they feel like they have the right man. What we try to do is take our performance indicators, went and looked at our backlogs, we looked at our risk indicators, our management observation programs. What are they telling us?

For instance, we went through our management observations. We could tell that we had a high number of management observations requiring coaching, more than we typically see at our other plant.

We looked at how we've demonstrated our performance during recent plant critical evolutions. For example, one of the things we looked at in this issue was when we filled the reactor cavity for the first time. Then, feedback from our Independent Safety Culture Review Process, which is -- and Quality Assessments; they also provide us some input. And, then Doctor Haber will look at that process too. How do we need to use that process to help strengthen the one we have in place.

Now, let me go through what we found. You go look

at the way we graded ourselves for fuel load, and it sort of makes sense; from a policy level of commitment that area is graded white. From a management area commitment the grade is white. And then, from an individual commitment, we graded it yellow.

Now, what's interesting there is, this is a management model once again. It's used to help us monitor our standards, their implementation, and allow us to take corrective action to assure that we are in line with our employees.

It's not to say that our employees are yellow. Okay? So, but we think there is areas that we need to go focus on.

Let me go down to the policy level area. In that area, we graded the management value structures as yellow. Why did we do that? Well, when we go around and ask our employees and survey about our, we don't get a consistent reply from our employees when we talk about mission, vision, our values; we don't quite feel like they're clearly understood, even though we got them out there and everything else; we're not where we want to be.

We have worked on our business plan to ensure that we really focused our business plan on safety now, but we haven't wrote our business plan out to our employees. So, that was a hit that we took there from the policy level.

Then, we categorized the management value structure as yellow. And once again, it's just we don't get a consistent message. That was the area that we made yellow under policy levels.

Now, if you move on up into the management area of commitment, that's where you talk about the management staff at the plant. If you go look at the acceptance of responsibility, responsibilities commitment was classified as yellow in that area.

You know, one of the things we looked at there is our appraisal process. We then have these new competencies that we've installed and we're going through our appraisal process now. We won't finish it until next month. So, because we haven't finished it, we classified ourselves as yellow. That's only one of about 50 questions. But because we have not finished it, we classified ourselves as yellow.

And, there is a large number of management observations, once again, that I mentioned awhile ago, larger than what I want to see, that's requiring coaching. So, those two issues cause us to classify that, that indicator as yellow.

If you move up in the individual area, we talked about a drive for excellence. We classified that as yellow. We have a number of systems that still have

performance problems, you know. They're classified as A-1 systems, if you will. Now, each and every one of those have a plan to get them off the A-1 plan before startup, but we haven't had them implemented yet. So, because we haven't had them implemented we classified that as yellow.

Then, there is a large number of issues that's facing us from a corrective action standpoint. There is about three thousand issues facing us right now. That's a lot, and we know that's a big battle. So, we classified that as yellow.

Then, the number of Condition Reports in the engineering area, we actually classified that as red, because there is just answers, there is questions that you mentioned a while ago, that we just don't have the answer to right now. We made that red.

So, the overall area, the overall commitment was classified as yellow.

Now, under rigorous work control, we also classified that as yellow. The reason we classified that as yellow is, as we fill the reactor cavity, that's, this is only one example, but we didn't have a contingency plan in place to go look for leakage. You know, and we thought that should have been there. Then, once we got into the reactor cavity issue, we didn't pull the decision-making knob out and use it as effectively as we should have initially. It took us

several hours to do that. So, based on that performance, we classified that area as yellow also.

Then under nuclear professionalism, once again, we're taking a double hit here, but we haven't finished our ownership for excellence evaluations, and we've had several minor radiation protection CR's written, issues that we found recently. I think you all know some of those where the people didn't, they worked in areas maybe they shouldn't have, but those issues that we came up with there, we thought were enough to classify the nuclear professionalism area also as yellow.

So, if you look at us overall, we said, we're ready to load fuel. There is some actions we want to go take. We've already taken some of those actions.

But in the policy area, the overall area was white. Management area we classified as white. And then the individual commitment area was yellow; individual commitment areas.

MS. LIPA: Let me ask you a question before we go on. I'm looking at slide 33 with the definitions and trying to make sure I understand. If we use the individual's commitment area, for example, there are five attributes that fit into that. Your definition page, it would say yellow, all major areas are acceptable with several indicators requiring management attention.

What's an area and what's an indicator?

MR. MYERS: The area would be the individual commitment area, and then those indicators are the various blocks on the righthand side, which are -- so there is a commitment area and then individual commitments.

MS. LIPA: So, the page 33 then, when it defines yellow, it's talking about all three major areas, you only have three major areas.

MR. MYERS: That's correct.

MS. LIPA: Okay. Thank you.

Oh, let me do a time check too, real quick, because it's about 4:36, and we wanted to finish the presentation part by around 5. So, that will help you plan the rest of your discussions.

MR. MYERS: We're right on target.

In summary, this is a pretty new concept. We think this concept is pretty unique. We've never seen anybody as a management team spending days trying to evaluate their Safety Culture. I think it's pretty state-of-the-art, you know, the process that we went through.

The Safety Culture assessment is innovative, in that we think it's, once again, it's under refinement. You know, we think gave us good messages. Provides a fair

assessment of our status. I think some of your guys said in our meeting, it was fairly, it was very, very objective.

It contains areas that are both qualitative and quantitative for us to measure. We can go measure rework. We can go measure performance in the field. We can measure items rejected. But, you know, things that are hard to measure, or a little harder to measure is, do our employees understand and believe in our value system. You have to do that by ad hoc surveys and stuff, and just questioning our abilities. And, we found it to be a useful tool for us to focus on, to go take management actions that we need to, to correct the behaviors.

We think the assessment is a fair representation of where we're at right now and our results show it. For that, I thank you.

Steve.

MR. GROBE: Before you go on, Lew.

MR. MYERS: I knew I wouldn't get by with that.

MR. GROBE: The question I asked earlier, is this assessment process written down in a station procedure policy, so that we can take a look at it at the NRC?

MR. MYERS: We're doing that, as we said, we're turning it into a business policy, business guideline. It will be, you know how we do readiness restart reviews, we're adding to that process, then we're adding to our business plan, and it will be an area we assess every month in our business plan.

MR. GROBE: When do you think it will be in a final company document?

MR. MYERS: I believe before the next meeting.

MR. GROBE: Okay, the sooner the better.

MR. MYERS: It's going to be very soon.

MR. GROBE: Okay.

MR. MENDIOLA: I have a simple question. You indicated each group was interviewed for the readiness to load fuel I guess individually. I would assume then that each group has their own Safety Culture Assessment chart, if you would, at a group level.

MR. MYERS: What they have is a group of questions that they answered. Then, as they came in, we challenged them on those questions.

MR. MENDIOLA: I would assume that the answers, their answers to each of those, I think

you said 50 questions, right?

MR. MYERS: I don't know.

MR. MENDIOLA: Would be, if you will, pulled into each of these individual elements and then into each of the individual commitments. So, I would assume there would be a culture assessment on a group basis, at a group level, that would then roll up into this final overall culture assessment.

MR. MYERS: I think the answer, I don't know if the answer to that is exactly yes or not, but close to it. They came in with their charts filled out. And, to be real on he is with you, there were some people that came in and called things red, but after a lot of discussion, they were made yellow. There were some things people brought in they said were green, and by the time we got through with them, they ended up being yellow.

There were a lot of areas -- I've got the complete list here with me. There is a lot of individual areas that we classified as red, as a matter of fact, and some areas yellow. If you want to look at the overall results of the report, the questions we asked and everything else; what we do is, we took good notes for the entire meeting. We can share that with you.

I think the answer to your question is overall yes, but I'm not sure that we evaluated each and every area on a

Safety Culture standpoint.

MR. MENDIOLA: Okay, the interest in feedback obviously, that each individual group, if you will, has their grades, so to speak, their self-assessment policies.

MR. MYERS: Yes.

MR. MENDIOLA: And they take them back to see, to improve themselves.

MR. MYERS: If it requires management attention; for instance, there was one area, one group, that the overtime was in question right now. So, we've already met with that group, and gave some direction on where we want to see them reduce the overtime. So, a lot of things, we're already beginning to take action on those things. So, each group, you're right, walked away with feedback and actions.

MR. MENDIOLA: Okay, thank you.

MR. MYERS: Okay. Steve.

MR. LOEHLEIN: Thank you, Lew.

I'll try to be brief.

As you know, on the NRC Nuclear Quality Assessment, or NQA, it's our job to find problems, basically to find the problems that no one else in the organization has, and get them corrected. It's also our job, our value really is measured in the types of things we can find. If we can't

or don't find issues of value, then we can't be effective in improving the safety performance of the plant. So, that's our mission.

What I'm going to share with you today are some examples of activities that we do that really fall into two simple categories; one is observations. Now, on observations this is where we are trying to ensure that actions and decisions that are being made are appropriate. And if they're not, then we intervene if necessary to ensure the proper outcome. Examples of this would be participating in meeting settings, review boards, briefings, that sort of thing.

We also have the audit and assessment portion of our activities, which deals with measuring against the standard or acceptance criteria for a plant activity. And in those cases, we provide feedback, usually via conditional reports and audit records.

So, what I've done is I've separated slides into three parts, results from recent activities on the first slide that I'll go through, then the other two deal with ongoing assessments, and the last one for our plans for the future here, near future.

So, there's a number of items listed there. I'll try to pick some of the high points. First, fuel spacer grid damage and the associated stop work. I'm sure the NRC

is aware of the stop work that NQA imposed on us a few months ago on the movement of fuel.

Randy Fast talked to you about different types of grid strap damage that was being found. That had occurred in the past. Corrective actions had been taken, which when found new damage now, NQA was not satisfied that we had in place the necessary controls to make sure we would not have future damage, so that's why we imposed the stop work.

There was ultimately a formal Root Cause Evaluation done. And we have, we are satisfied here in the last few days that the compensatory measures and corrective actions necessary to make fuel movement safe was achieved.

I think that was a case, one of the cases where NQA didn't have to, thought they needed to impose stop work authority.

Restart Station Review Board Decision-making. This is an interesting area. It's a meeting that we observed with quite a bit of regularity, because this team, this review board team is evaluating which activities or which Condition Reports and Corrective Actions need to be performed prior to restart versus post restart.

So, naturally NQA, our main vision is to make sure that the decisions made there are made conservative. But, while in the process of observing that, or any activity, sometimes we find issues in related areas. And in one, in

a case that we're looking at, one of these review boards, the Restart Station Review Board, came to light that one of the Condition Reports that had been evaluated for post restart was done on the basis that an issue, the only issue that might be restarted was going to be handled on a different Condition Report.

Well, under the charter of the Restart Station Review Board, they don't question whether that translation actually happens. It's not part of their scope. In a particular case, we found that that transference of that issue to the other Condition Report had not actually occurred. So, we identified that on a Condition Report and aligned the evaluation to make sure we don't have more cases of that type of situation.

In other related type of looks, we found a few cases where Work Orders were deferred to post outage; whereas, the Corrective Actions that were associated were still properly shown as prerestart. So, the organization had not lost track of the item from a Corrective Action standpoint. There was this concern that perhaps something could, would be found in the way a work order had been retargeted post restart. This again, we identified on a Condition Report and underlined as to looking to what that means in terms of scope and we will monitor that.

Since we are on a time bind, there is a number of

them up there, I think there's a couple of key ones. If you have any questions on any of those in particular, please say so; otherwise, I'll move on to some of the ongoing things we're doing.

On the next slide, there is a list of the things that I have both past assessment activities and things we're doing right now.

In the System Health Readiness Review, that's an area that's been discussed at some length here. We know from past meetings with you, with the NRC and others here, that we had done five independent reviews of systems ourselves, and to do a comparison.

We had concluded that the System Health Readiness Reviews were successfully done. We did find some differences, and overall in that whole process, I had written about 60 Condition Reports identifying the differences in other enhancements that we at NQA recommended. None of those resulted in us identifying a significant condition or that we felt that the process had not worked properly.

Program Reviews is ongoing right now, because we have, in a similar fashion, we performed six independent program reviews, and we're right now gathering our delta comparison on these programs, what we found compared to what the line found.

The Program areas are the In-service Test Program, The TEP ODP, which is the Test Equipment Procurement Operability Determinations Process, Reliability Program, and Classification Process, which takes a look at how the organization decides whether something is or is not a safety related item, either materials area or in the work function area. And, we're compiling our data right now and we'll be initiating Condition Reports as appropriate for that.

We also reviewed six Phase I Reviews, or we observed six Phase I Reviews and looked at five Phase II Reviews that were performed by the line.

Another area here that's ongoing is the area that's probably of interest is Safety Culture and Safety Conscious Work Environment and Independent Survey. What we did in QA is we just last week completed a ten percent survey of the plant staff, face-to-face interview style survey.

Now, we're still digesting what all those results are telling us, but I thought I would share with you some of the initial impressions of the results.

First, in all the interviews we conducted, none of the individuals stated that they had personally experienced retaliation in response to identifying a concern. We had all but one individual indicate that they would personally use the Corrective Action Program to identify concerns as

their first, that's the first place they would go.

After those two items, the next few bullets I have for you have to do with their perceptions. A lot of these questions we asked them, and we have this in Safety Conscious Work Environment, is really about how do they feel about what they hear, and you know, even if they have not been personally involved in a situation.

Over 95 percent of the sampling told us that they believe that management wants employees to report problems. About 90 percent did not feel that the possibility -- I'm sorry. I'm trying to characterize this right.

The way we asked the question was, had they heard of issues with retaliation. They themselves had already told us they didn't experience. We asked them, do you believe retaliation is a possibility or an issue that you've heard of in the last three months, was not properly dealt with. From that perspective, there were 90 percent of those people identified that they felt this concern had been properly addressed. Ten percent of them felt they had heard something somewhere that it had not gone right.

And about 80 percent felt that the identified concerns had been completely and effectively resolved.

So, these numbers, we think, are improvements over the numbers that Bill Pearce had presented some months

back, but it's the kind of thing we're continuing to look at. These are just our early, the early data we've got based on what we completed late last week.

MS. LIPA: Steve, was that ten percent a random ten percent? I might have missed that part?

MR. LOEHLEIN: Yeah, the way we actually did it, Christine, is we took the organization chart of supervisors and below, so no one above supervisor was included in the sampling. Then, we went through the Org. charts and picked up, like every so many we picked a name, whoever that happened to be, and that's how we established the randomness of it.

MS. LIPA: Thank you.

MR. LOEHLEIN: Are there any more questions on the examples I put up here?

In terms of upcoming observations which are on the next slide, probably a good one to mention was the fuel movement activities. Assume that the plant conditions support fuel movement. That will be the next really important thing for QA to observe.

And we will be providing coverage on every shift to look at fuel movement activities. And, we're real interested in things like the preevolution briefs, command and control in the field, and proper application of the

compensatory measures that are being taken to prevent fuel damage.

Another important one that is taking place now is radiation protection activities, because now the plant will be moving fuel. We'll have changes in RWP Requirements, Radiation Worker Requirements, and that sort of thing.

We have already taken a look at the high red areas and having all those, were properly established.

MR. PASSEHL: Just a question. How do you, or what's your mechanism for capturing your observations in writing? Do you submit reports or?

MR. LOEHLEIN: Yeah, we had a data base known as the QFO, Quality Field Observation. It's a data base that's really not too dissimilar from what the management team uses for management observations to capture what we see in observations there. But, of course, it doesn't mean that we also don't have Condition Reports, quite of number of them actually, in areas that we write as we do observations and assessments. That's where we capture all our information and we share with line management and they result in the basis for our quarterly audits.

MR. PASSEHL: So, I guess, do you roll up your observations, say Program Reviews, System Health Readiness Reviews with a separate assessment report;

or, it sounds like you don't do that?

MR. LOEHLEIN: Well, we, in terms of, it's probably going to depend on what you're talking about. On System Health Readiness Reviews, we have talked about how we are going to do rollups when that whole process is completed, but in the interim we're using our Continuous Assessment Process, the parts of it that fit our Standard Master Assessment Plan, as we call it, get reported as part of the quarterly assessment. But you're right, there are some areas like that, that we are planning to write individual reports on the results at the end.

MR. PASSEHL: I see. And have you mapped out your assessment activities beyond fuel movement?

MR. LOEHLEIN: Well, what we do most of our, we have a plan we set up, we produce a quarterly assessment plan. And the whole thing is we have a number of things that we see or look at periodically. And what we do is we look ahead to what the station's schedule of activities is planned to be.

We look for those areas that, you know, key areas of perhaps vulnerability in terms of safety and that sort of thing, and we ensure that those elements and attributes that apply to those kinds of activities are included in our plans for that quarter. That's how we do it.

MR. PASSEHL: Okay, thank you.

MR. LOEHLEIN: I think the Resident receives a copy of our Quarterly Assessment Plan to share them with you. If you need a copy, we can get you one.

Overall, I think I would like to make a concluding statement really about how we feel at NQA in what we're seeing, and that is overall we're observing a lot of good performances in many areas, but we continue to provide the feedback that's necessary to ensure that improvements and corrections are made when appropriate.

MR. GROBE: Thanks, Steve. I appreciate that briefing. I actually have a question for Bill Pearce, and I was wondering if you might come up. I saw you back there.

One of the changes in the organizational structure, one of the Corrective Actions for the Root Cause was to separate Quality Assessment from the Line Organization at the site. You have a very unique reporting relationship in that new structure. You report both to the President of FirstEnergy as well as to the Nuclear Subcommittee Board of Directors.

I was wondering if you could talk a little bit about what sort of interface you have with the President of FirstEnergy, and the Subcommittee of the Board.

(Off the record.)

MR. MYERS: Can I ask a question real quick? Right now, I think, the charts are on the wall for the schedule part. I feel comfortable deleting that.

MR. GROBE: That would be great.

MR. MYERS: Okay.

MR. PEARCE: First part about meeting with the President, I actually talked with Bob Damon on the telephone, and we talked about what's going on at the three sites, and how I perceive it. And of course, we talked to the line organization also.

If I see something, and I've had several times where I did, where I called Bob about something that I saw going on, to give him what I thought was a different perspective of what we're doing, and provide some information or insight into what I think is going on. So, I think that demonstrates some amount of independence.

And I pretty well watch, I spent most of my time at Davis-Besse, and the majority of my time; and both working with the Quality Assurance Organization and Employee Concern Program, in trying to assess, get some feel of how things are going, and where the Quality Assurance Program may need some assistance or help.

In fact, every day when I'm there, which is like I said about 90 percent of the time, I go down in the mornings and get some update on what they're doing, what they're seeing, you know, what they're interaction with the staff is, and how they're feeling about things.

So, I guess that's really what I'm doing, Jack.

In regard to the Nuclear Committee of the Board, they meet monthly. I meet with them monthly, as does the Line Organization. And, I try to give some independent view as to, from a safety perspective of where we're going, not just how we're doing it, you know, getting work done, or how we're doing in the outage, but from a safety perspective; focus on issues that are relevant to, like fuel integrity, RCS integrity, containment integrity, health of the safety systems and provide some insight from a safety perspective to the board, to the different committees of the board.

So, that's some independence I think I provided. Other than the Line Organization, they of course give their reports and I give mine. And they don't always match exactly, but at least the Line, I think they know what the issues that I have are.

MR. GROBE: Could you just give one example of a situation where you had a differing perspective than what the Line Organization had on a

specific activity?

MR. PEARCE: Sure. I just gave, I think the last time I think it was, the Line reported about what was going on at Beaver Valley on the steam generators. And, I had some concern whether, whether the Nuclear Committee of the Board fully appreciated the condition of the steam generators at Beaver Valley. So, I tried to give some definition, technical definition of that, that they could understand, and to make them understand where we were.

It's, I think that's something, that level in the organization needs to understand, that they need to support what we're doing over there with those generators.

MR. GROBE: Okay. Let me just characterize what I think I understood you to say. You provided some additional context from your perspective, so that there would be a complete understanding of the situation in that one example. Is that correct?

MR. PEARCE: That's correct. I can give you some other examples, if you let me think of them.

MR. GROBE: No, I just wanted one, just to make sure I understood.

MR. PEARCE: Right.

MR. GROBE: Okay, thanks.

MR. PEARCE: You're welcome.

MR. GROBE: Any other questions?

At this point, Lew, do you have any closing remarks that you want to give?

MR. MYERS: Yes, I do. I would like to take a moment for that.

You know, backing up, before I get started, I can tell you there has been times from a schedule standpoint and all, that Bill give, or cost standpoint, that Bill give the board a different perspective than I did. I'm always giving the most aggressive perspective. So, I know there's been some differences there. So, I can assure you, he's brutally honest from his perspective. There is another example.

In closing, you know, I want to talk about fuel movement. We're not, we're not going to move fuel until we're comfortable with the clearance of the vessel. That may take longer than we expect, especially if we wind up having to review internals or something, but we'll do that if we need to.

We're sitting here today. We looked at the tapes before we came here. We're going to work it for the next twelve hours or so, but we're looking at other options also. So, fuel movement is eminent and we feel like we're

very ready for that when the time comes.

Containment testing will be completed in early March. We're looking forward to that. We already have the air compressors lined up, good owner of the program, and we feel of that project, feel like we're closing in on being ready to pressurize that containment.

System reviews showed good, good progress. We don't have all the questions answered. We know that. But we've got them in our data base, and we have people working on all of them. So, we're pleased with the progress we made there so far.

The one thing, I think it served us well that we haven't, we talked a lot about, is Safety Culture evaluation, that the Readiness Restart Review for fuel load that we did. We identified over a 170 issues that we took on as a management team before fuel load. One of them was to ensure that we wanted to have the other decay heat train functional. And that wasn't a requirement. We thought it gave us added value. So, we've got both decay heat trains available.

Additionally, once again, we think that serves us well. We think that Safety Culture did serve us well. Eventually, I have a prepared statement though that I wanted to provide you. And I'll do that now. I prepared this today.

At our January 30th meeting with NRC in Lisle, Illinois, we reported that we had recently, it was reported that we had recently been informed that several persons have been subject to retaliation for raising safety concerns at Davis-Besse.

The person claimed that within the past two weeks at least two employees who have raised safety concerns to their immediate supervisors or stopped work for safety reasons received letters of reprimand, verbal threats of harm by co-workers and/or experienced damage to their personal property while on site, specifically that tires were slashed.

When I got back, I requested our attorney to contact the individual, and obtain a more, obtain more specifically information, so that we could perform a meaningful investigation of these allegations. Our attorney called the individual on two occasions and left detailed messages requesting information. Neither call was returned.

We conducted a review of our records and concluded the allegations most likely corresponded to two separate events that we know of. One occurred more than six months ago, and the other within the last month. Our investigation of both events did not substantiate retaliation to raising safety concerns.

We are in the progress on actions for the second

event. Management received, management received the discipline for the employee in question and has retracted the issue at the time of the meeting on January the 30th. This issue had to do with the practice at Davis-Besse of employees leaving early without supervisor notification, not a safety issue.

Our message is clear. Bring us the allegation. We'll address that. We can not solve problems unless we have all the relevant information. We all share the responsibility to maintain a Safety Conscious Work Environment at Davis-Besse. I'm firmly committed to that.

We encourage interested members of the public to share in that responsibility with us. I thank you very much.

MR. GROBE: Okay. Thanks, Lew.

I think what we'll do right now is just move right into the question and answer session without taking a break. That way we'll get folks to dinner at a reasonable hour, if that's okay. Christine and I will just step down in front.

MS. LIPA: What we would like to do is have everybody sign in and state your name clearly. Just make sure we have a sheet up here.

Sign in, state your name clearly for the

transcriber, and then we're really going to keep people to 3 to 5 minutes. This is one of the feedbacks that we've gotten in the past is we haven't kept people to the time limit. So, we're going to be policing that a little bit better this time.

MR. GROBE: Before we get started, I just wanted to make two observations. One was we also received a lot of feedback regarding the quality of our sound system. I think this is an improvement. I think that the microphones have been working much better than they have in the past.

If you do have feedback though, we are continuing to respond. We have made several revisions to the sound system in the last couple of months, and this one seems to be effective. So, I want to thank the folks here at Camp Perry for this sound system.

I also wanted to comment on an action that the Agency took today that some of you may have heard about. In the continuing Agency response with all pressurized water reactors in the United States, the Agency has issued orders to each operating pressurized water reactor in the United States, specifying NRC expectations for future examinations of reactor head penetrations.

After the discovery of the situation at Davis-Besse, actually preceded Davis-Besse, the Agency had initiated a

number of what we call generic activities; that's activities that affect more than one Licensee. The inspections that Davis-Besse was doing during the outage in February of 2002 was in response to an NRC bulletin requesting certain examinations and inspections of head penetrations.

After Davis-Besse, that continued. There were two more bulletins issued. And, just today there were orders issued to every operating PWR in the United States. So, those are activities that really have little to do with what we're doing here; that is, assessing Davis-Besse's progress toward approaching restart, but I just wanted to make sure everybody was aware of that.

So, are there any, I think first local officials that have a question or a comment?

Okay, are there any members of the local area around the plant that have a question? Quiet, satisfied group or a very hungry group; one or the other.

Okay, are there any other members of the public that have a question or comment?

Excellent.

MR. RIDZON: Paul Ridzon with McDonald Investors.

Jack, at the close of every meeting, you always give an overview of the meeting, and your take on progress

made. That's what I always thought was the valuable part of the meetings. I wonder if you could provide that to us now.

MR. GROBE: I was afraid you were going to say a benediction.

I think my perspective and the panel's perspective hasn't changed over the last several months; that the plant continues to make progress in running their Return to Service Plan. We continue to have inspections and our inspections have not disclosed any significant issues in their activities.

Last month was a busy month. The meeting on January 30th was very meaningful. FirstEnergy has clearly articulated their plans for assessing Safety Culture, going forward, and the proof is in the pudding, of course. We need to see those plans fleshed out in paper, so that we can understand them and evaluate them; and then we need to see them implemented. So, progress is being made, and I think it's being made on every front.

MR. RIDZON: Could you give a sense as to what level of implementation is required for restart? Obviously, you can't get a hundred percent of the way, I guess Sonya at one point said that it takes three years for this to kick in. I expect we're not going to --

MR. GROBE: Oh, I understand

your question. Let me articulate it to make sure I understand it. Your question has to do with the level of Safety Culture that is necessary for restart.

What we're waiting for is for FirstEnergy's definition, so we can clearly understand the threshold that they've set. In broad terms, the threshold is that none of their areas of performance will be in the red category.

They've established colored categories for their performance. We need to see what's behind that. What goes into those assessments.

Lew presented in broad terms the assessment they did for fuel loading. Again, we need to see the details that's behind that before we can make a judgment as to whether or not we agree with their assessment scheme; and we'll do that as soon as they have it for us.

MR. RIDZON: Thank you.

MR. GROBE: Hello, Amy.

MS. RYDER: How are you?

My name is Amy Ryder. I'm with Ohio Citizen Action.

I have a question about this infamous red photo that was taken back in April of 2000. Apparently, this was reported in the Cleveland Plain Dealer, that a Condition Report was written about this photo in April of 2000; was given to a FirstEnergy supervisor, and then was turned over

to an NRC inspector. Now that it's clear that both the NRC and FirstEnergy knew that the condition of the reactor was -- or that it was corroding, that there was a significant amount of rust; does the NRC still stand by its decision that they should not have issued the immediate shutdown order?

MR. GROBE: I'm not sure --

MS. RYDER: Your agency --

MR. GROBE: I'm not sure what your question is, but let me step back and make sure that I understand it.

The photograph you're talking about is the one that showed rust materials coming out of the, what are called weep holes on the side of the reactor vessel.

First, to the best of my knowledge, the NRC did not see that photograph until the Augmented Inspection Team received that photograph as part of the background information that they reviewed. That was in March and April, early April of 2002.

This specific question is under review within the NRC, and I don't know the results of that review, but I think the second question that you asked was whether we're revisiting the issue of issuing -- or not issuing an order near the end of 2001. And I think the Chairman fairly clearly articulated the agency's position on that in his

letter to the Inspector General in response to the Inspector General's investigation of that matter.

So, I don't have anything more to add beyond what the Chairman stated.

MS. RYDER: My understanding was that Condition Report was turned over to an NRC inspector long before April of 2002.

MR. GROBE: That was information that I believe the Union of Concerned Scientists put out and I don't know what the foundation of that is, and it's under review. To the best of my knowledge, the first time we saw that photograph was March, middle of March, between the middle of March of 2002 and the first week in April of 2002.

MS. RYDER: So, their information is wrong?

MR. GROBE: That's, to my understanding it is. That's correct, but it's under review, and I'm not part of that review. So, it's being looked at.

MS. RYDER: Okay.

MR. GROBE: Other questions?

Okay, very good. I guess the rest of you are waiting for our meeting at 7:00 this evening, when we're going to have a general public meeting and receive

questions and comments from the public at that time.

Thank you very much.

(Off the record.)

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CERTIFICATE

I, Marie B. Fresch, Registered Merit Reporter and Notary Public in and for the State of Ohio, duly commissioned and qualified therein, do hereby certify that the foregoing is a true and correct transcript of the proceedings as taken by me and that I was present during all of said proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Norwalk, Ohio, on this 21st day of February, 2003.

Marie B. Fresch, RMR

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