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

- - -

Meeting held on Tuesday, April 15, 2003, at 2:00 p.m. at the Camp Perry Clubhouse, Oak Harbor, Ohio, taken by me, Marie B. Fresch, Registered Merit Reporter, and Notary Public in and for the State of Ohio.

- - -

PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

John "Jack" Grobe, Chair MC 0350 Panel
William Ruland, Vice Chair MC 0350 Panel,
Director of Directorate III NRR
Christine Lipa, Projects Branch Chief
Christopher Scott Thomas,
Senior Resident Inspector
U.S. NRC Office - Davis-Besse
Jon Hopkins, Project Manager Davis-Besse
Anthony Mendiola,
Section Chief PDIII-2, NRR

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 - Nuclear Maintenance
L. William Pearce,
Vice President FENOC Oversight
Clark Price, Owner - Restart Action Plan

- - -

MS. LIPA: Good afternoon. I would like to welcome everybody, FirstEnergy, and members of the public to this public meeting.

Folks sitting at the back, if you have trouble hearing, feel free to come on down a little bit closer.

This is a public meeting between the NRC's Davis-Besse Oversight Panel and the FirstEnergy Nuclear Operating Company. I'm Christine Lipa. I am the Branch Chief in Region III, who has responsibility for the NRC Inspection Program out here at Davis-Besse.

So, we'll go to the first slide, which is the purposes of the meeting. And, the purposes of this meeting are to allow the Licensee to present the status of the activities in the Restart Plan; and, secondly, to discuss the NRC Oversight Panel activities, and we want to focus on activities that the NRC has been doing since the last public meeting.

The next slide shows our agenda. And, first off, I would like to make the introductions. I'll start down at my far left is Jon Hopkins, and he's the NRR Project Manager for the Davis-Besse facility.

Next to Jon is Tony Mendiola, and he's the Section Chief in Projects in Headquarters.

Next to Tony is Bill Ruland and he's a new panel member. He replaces Bill Dean, who has been promoted and

moved on to another assignment in Headquarters. So, Bill Ruland is a Senior Manager located in our Headquarters Office in Rockville, Maryland. He's the new Vice Chairman of the Oversight Panel. And, Bill's position is the Project Director for the Project Directorate PD-3 in NRR, which is all Region III plants.

Next to me is Jack Grobe, and he's Senior Manager in the Region III Office in Lisle, Illinois. And he's the Chairman of the Davis-Besse Oversight Panel.

On my right is Scott Thomas. He's the Senior Resident Inspector, and he's located here at the Davis-Besse facility.

Also, we have Doug Simpkins operating the power point today, and he's the Resident Inspector. Currently, filling the Resident Inspector role for us. Although he has been reassigned to be the Hatch Senior Resident and he'll be leaving for that in May.

We also had earlier greeting was Nancy Keller, our Office Assistant.

And, also we have two new NRC employees in the audience, Francis Ramirez and Carla Roke.

And, Lew, I would like to offer you the opportunity to introduce your folks.

MR. MYERS: Thank you.

Good afternoon. We have a couple people from our

FirstEnergy Corporate Office with us. Leila Vespoli is with us. She's our Senior Vice President, Corporate Legal Counsel.

And, Maria Riley is with us today. She's FENOC Corporate Legal Counsel.

To my left is Bill Pearce. We talked about him on the agenda last time, VP of Quality Oversight.

Randy Fast is to my right. He's our Plant Manager.

Mike Stevens is the Outage Director and Maintenance Director. He's next to him.

Clark Price is the Manager of the 350 Process and Manager of Services. And, Clark will be giving us some of the performance indicators today.

Jim Powers, next to him, is the Director of Engineering at our site.

And, Bob Schrauder, next to him, is Director of Support, at the end of the table.

MS. LIPA: Okay. Thank you, Lew.

I would also like to offer public officials or representatives of public officials to introduce themselves?

MR. ARNDT: Steve Arndt, Ottawa County Commissioner.

MR. PAPCUN: John Papcun,

Ottawa County Commissioner.

MR. KOEBEL: Carl Koebel, Ottawa County Commissioner.

MS. LIPA: Okay, thank you.

Okay, this meeting is open to public observation, but I did want to remind everybody, this is a business meeting between the NRC and FirstEnergy. And at the conclusion of the business portion of the meeting, but before the meeting is adjourned, the NRC staff will be available to receive comments from members of the public and answer questions, and then we'll also be available after the meeting.

In the foyer on the way in today, there were copies of our April edition of our monthly newsletter. It looks like this. And copies of the slides, both the NRC slides and FirstEnergy slides are available.

And, one thing I wanted to point out about the NRC monthly newsletters, is on the back page there is a block that has some contact information for you and some reference information, for the phone numbers of our public affairs folks, and the email addresses and also the Davis-Besse Web page.

Another thing that we had in the foyer was the public meeting feedback forms. And we've been using these to shape our meetings since we started using those feedback

forms. So, any feedback that you have, you can provide it. It is important to us.

We're also having this meeting transcribed today by Marie Fresch, and that will maintain a record of the meeting. And transcription will be available on our Web page usually in about 3 to 4 weeks. It's important that the speakers use the microphones, so that the transcriber and the audience can hear.

So, the next slide is a summary of our March 11 public meeting that was held here. We discussed the status of ongoing plant and NRC activities. The NRC staff discussed the status of several Restart Checklist items.

We describe the inspections that we've done and those that are upcoming regarding the Adequacy of Safety Significant Structure, Systems, and Components.

We also discussed the status of ongoing System Health Review Inspections, which is primarily focused in the engineering area.

We highlighted some inspection activities that remain to be completed, including the Normal Operating Pressure Test, the Containment Vessel Integrated Leak Rate Test, the inspection of the emergency sump, inspections of various Licensee programs, and the Adequacy of Organizational Effectiveness in Human Performance.

Also at last month's meeting, FirstEnergy provided

updates in several areas, and I'll just list those briefly here. First, there was a status of milestones from both a hardware and management perspective. Second, there was an update on the work in the Safety Culture and Safety Conscious Work Environment areas. Third, an update on work on some of the Building Blocks, such as Containment Health, Restart Actions, and Program Compliance. And fourth, there was discussion about the Return to Service Schedule.

So, the next slide -- and I did want to mention that these transcripts will be available on our web page. I know we have one out so far, and the other one will be up shortly.

The next slide are significant activities that the NRC has performed since that March 11th meeting. On April 4, we held a meeting in Headquarters. I'll ask Tony Mendiola to summarize that meeting.

MR. MENDIOLA: Good afternoon. On Friday, April 4, FirstEnergy met with the NRC Headquarters staff personally and the NRC Regional staff via videotelephone to discuss some results of some Reactor Coolant Leakage Simulation Testing that was performed by one of their vendors.

The purpose of this testing, or if you will, the simulation, was to determine the, what was going to be seen at the, what could be seen by the instrumentation available

to FirstEnergy when they performed their Normal Operating Pressure Test here in the near future.

The concern was, after the degradation was found at Davis-Besse, there was some deposits found on the bottom side of the reactor vessel in the vicinity of the reactor vessel in-core monitoring instrumentation nozzles, which are on the bottom of the reactor.

And, they, FirstEnergy took samples and did some analysis of the samples. And, it was very in conclusive of the origin of these deposits, and raised enough questions that it was felt that they needed to do some testing to determine when the reactor was restored to power, that there would not be any, that these deposits weren't as a result of leakage from these bottom vessel nozzles.

In that, they asked their vendor, contractor, Framatone, to conduct testing at the Lynchburg facilities in Lynchburg, Virginia, to determine what was, what could be visibly seen by the equipment, which would be available at the conclusion of their Normal Operating Pressure Testing, and to make sure that they could see, if there was any leakage found.

Conversation with the staff discussed a lot of the testament, analogy, and some results, basically identifying what would be found at certain very, very small leak rates. And what would be found, of course, would be

deposits of Boron in the, in the sample area, or the leakage area.

Bottom line though, the conclusions came -- the contractor came to the conclusion, and FirstEnergy also came to the conclusion, that any reactor coolant leakage would be confidently, visually discernible by the equipment that would be used by the Licensee at the conclusion of the testing.

After that point, there was a discussion of the test itself, and the facility's inspection plan on how that test would be carried out and what samplings would be performed on any deposits that may be found, or if they were found in the bottom of the reactor vessel.

Additionally, there was additional information provided about the new Leakage Detection System to be placed in the reactor containment; basically, the FLUS System, which we've discussed in the past. And that was basically the meeting.

MS. LIPA: Okay, thank you, Tony.

Earlier today, we held a Public Exit at the Davis-Besse facility. I just wanted to mention what that was all about.

That was the preliminary findings and conclusion of a special inspection and a supplemental inspection to look

into utility's corrective actions for some white findings in the Radiation Protection Area. And, as a result of those two white findings associated with inadequate radiological controls during steam generator work last February, 2002, we performed a follow-up inspection to ensure that the root cause and contributing causes were understood. That they independently, that the utility independently assess the extended condition, and to ensure that the corrective actions were sufficient to address the root and contributing causes and to prevent recurrence.

And then we also, as a result of the Restart Checklist item that talks about the Radiation Protection Program, we also reviewed the scope, depth and quality of the Licensee's look at their very detailed review that they did of their Radiological Controls Program.

And, there were four inspectors involved in this inspection, and that report is scheduled to be out in 30 days.

Also, a couple of other things on this slide are some recent NRC inspection activities that are either started or completed since then. On April 7th, we initiated an inspection that we call our Phase 3 of the Organizational Effectiveness and Human Performance Inspection.

On the NRC's inspection in this area is reviewing

the Licensee's Management and Human Performance Excellence Building Block, which is part of their Return to Service Plan. It's also an NRC Restart Checklist item. And this inspection is being performed by us in three phrases.

The first phase was an examination of the root causes. The second is an examination of corrective actions for those root causes to ensure that FirstEnergy has identified the appropriate corrective actions. And the third is an examination of the corrective actions once they are placed to assess their effectiveness prior to restart.

Phase one of that inspection is complete and that report has been issued. Phase two is mostly complete. And Phase three was begun on April 7th, with a team of industry and NRC experts in this area. And the third phase is expected to be conducted as Licensee activities are completed in the upcoming weeks. Right now we have that scheduled for May 9.

Couple of other items. On April 11, we completed two important inspections. The first one was on the newly modified emergency sump in the containment. This inspection reviewed the design and installation of new screens and the greatly expanded surface area on the sump.

The second inspection we just completed was the Integrated Leak Rate Test on the Containment Building. The NRC had inspectors review the test procedures, monitor the

test, and evaluate the results to ensure that it meets the leak tightness requirements.

Both of these reports are expected to be issued in May.

The next slide talks about some of the Restart Checklist items, the status of those. We have several Restart Checklist items that will be closed, and those will be documented in Inspection Report 0304, which is due out on April 30.

The next slide is some upcoming NRC activities. We have, we're making preparation for the under-vessel head inspection. Tony talked a little about the meeting we had at Headquarters on April 4th to talk about the approach for this Normal Operating Pressure Test.

We also are making preparation for our Fire Protection Inspection in April. The Restart Assessment Team Inspection will be coming as thing get closer to restart, but still before restart.

And then also we're working with the utility to plan two additional public meetings; one, to discuss Design Issues, and another one to discuss the Licensee's assessment of Safety Culture.

The next slide on continuing NRC activities. These are some inspections that have already started and continue to be ongoing. We have several inspectors looking at

System Health Reviews and Design Issues. We also have a separate group of inspectors looking at the Safety Significant Program Effectiveness. Several of these programs have been reviewed, but there are still a couple more that need to be reviewed.

Then the Corrective Action Team Inspection was started. And that would be continuing. And this inspection is a pretty important inspection in our minds. It's to review the effectiveness of corrective action process at Davis-Besse to ensure that it's being effectively implemented and appropriate corrective action is taken to prevent the occurrence of problems.

That team is also looking at several key issues for the panel to make their assessment of the implementation of the Licensee's Corrective Action Process. That team has eight people on it, four of those are contractors. This is an extensive inspection, which is scheduled to be completed in May.

And then also we have the ongoing Resident Inspector. They're here, both of them, on the site all the time, day-to-day operations, watching day-to-day activities, and they issue reports every six or seven weeks.

So, this is my summary of the NRC activities that have been ongoing. And with that, I'll turn it over to

FirstEnergy.

MR. MYERS: Thank you. We have on the agenda a few things that demonstrate some of the issues that we have and also continued progress that we've made.

First, we'll talk about the Operations area. Randy Fast will provide you some input on the upcoming Mode 4 preparation, which is our next milestone.

Then, Bill Pearce will discuss the Operations leadership in our plant and the operability evaluations. And you requested that last month.

Bob Schrauder will discuss some of the emerging issues we have, specifically in the high head safety injection pump area.

One of the major milestones we just completed, we thought demonstrated a very good teamwork now, is the Integrated Leak Rate Test; and Jim Powers is going to brief you on that test. That's where we pressurized our containment building up to design specs and prove its leak-tight containment. So, Jim will discuss that.

Then finally, if you go look at the resolution of some of our significant issues, we'll provide you some, a list of those and some discussion there.

Then, in the Safety Culture area, what I thought we would do there, we provide our own Safety Culture

Assessment back in Mode 5, prior to going to Mode 5. That's something we did internally using our process.

We also finished the, Sonja Haber report that we received this week. I'm going to brief you on some of the issues there, prior to the official public meeting of that, to give us some idea of the things we saw.

And if time permits, and we're moving over there, then Mike Stevens will talk about some of the upcoming milestones, the modification of the resources that there are in place to complete those activities.

Then Clark, as usual, will give you some of the Restart Action's planned performance indicators. That's our game plan today.

Randy.

MR. FAST: Thank you.

Good afternoon. Today, I would like to take a few moments to discuss our Operation's staff preparation for Mode 4, as well as some actions that we're taking for restart.

Actions that we've taken; we did an analysis, an evaluation of the plant staffing; that's in the nonlicensed reactor operator and senior reactor operator positions; and we find that we are appropriately staffed to continue safe operation. That was in part because we didn't complete our annual requalification of all of our licensed individuals;

that's reactor operators and senior reactor operators, the latter part of 2002 successfully. All candidates passed their annual requalification.

During this period of time, throughout last year and into this year, we continued our licensed operator requalification training program. And that's really serving us well in being able to get our staff, the crews back in the classroom. We have done a lot of Just-In-Time Training. This is a training that we don't traditionally do, things that I'll cover a little bit of it, but we've actually been able to roll out new procedures that I'll talk about a bit.

We also still have two reactor operator and senior reactor operator pipelines. So, that will assure that going forward, we'll have adequate resources.

We did use those resources to help us. In fact, I've gotten very favorable feedback from the folks that were in the class. Their willingness and really desire to come over and help the plant during this time. As a matter of fact, our mode, whole resolution team, which I'll talk about, consists of principally licensed operator candidates.

So, this, has been an experience where they've actually been able to contribute to the success of the plant and take an active role in some of the activities

that we have ongoing. They will be going back into the classroom the latter part of the second quarter. That's about the June timeframe, to go back into licensed training.

We have developed and have approved our procedures and are ready for the test plan. These are newly developed procedures that encompass things like post modification, post maintenance testing, and as well, our inspection plans at the various hold points during the escalation of the plant.

During this period of time we have used the Institute of Nuclear Power Operations using industry experts that come in each week; and taken a look at how we're doing in the Operations arena. And, we've actually had pretty good feedback. We have some areas for improvement, but we've also had validation on some of the actions that we've taken. So, that's been a valuable process to our operations in looking at the things that we're doing.

We did complete, as part of those that requal cycle, Safety Conscious Work Environment Training. Certainly, we've talked about it for all of our leadership, our supervisors, but as well, we took this as an opportunity to teach all our Operations staff, and that was received very favorably. So, even down to the nonlicensed operators, the

equipment operators, have been trained in Safety Conscious Work Environment.

We did have a self-initiated plan, really our shift managers, I want to make sure I give them credit. They got together and said, here's the kinds of things we need to be doing to improve our leadership and oversight and set Operations up as the leaders of the plant.

That Phase One Action Plan had 92 individual elements associated with it. 82 of the 92 have been completed. And then, we'll be moving from that on to a Phase Two, the next generation of Operations Leadership Plan initiatives.

We have taken the initiative to train our key staff. That's all of our senior reactor operators, but as well, many of our key station engineers and critical people from various organizations throughout the plant; chemistry, health physics; in what we call Operability Determination. As you're aware, it's under Generic Letter 9118, really understanding the regulatory processes for determining equipment operability and nonconforming conditions.

That was done, in fact, Jim Powers and myself were in that first class. Very interesting. Very enlightening, and it also had a side bar or a side benefit of really allowing our folks to come together and work as a team, as we would expect them to do under the conditions where we've

got conditions not as we expect. And we're using the guideline of Operability Determination to resolve issues.

MR. THOMAS: Randy, to what extent will your equipment operators be trained as far as Operability Determinations are concerned.

MR. FAST: Scott, we've taken no formal actions to train the nonlicensed operators in the Operability Determination; however, they are running point. And so, what we, really their view of the world is, they're out in the field monitoring plant conditions; and where plant conditions don't meet expectations, then we write a condition report, elevate that to the shift manager; and that's where you may get into a condition.

As an example, I'll give you a specific. So, we haven't trained them formally in the Generic Letter 9118 criteria, but we have trained them that is the first threshold of identification. So, if they saw something like pump seal leakage, we want to elevate that to the appropriate levels in the organization to say, is that a nonconforming condition or does that render that piece of equipment inoperable.

So, there is, what I'll say is, awareness by the operations of the nonlicensed staff and their responsibility to identify issues, or problems.

Does that answer your question?

MR. THOMAS: Yes, somewhat.
Same question with your ROs, not your SROs, but your ROs.
MR. FAST: Okay, the reactor operators did not, were not specifically targeted as part of the Generic Letter 9118 Operability Determination Training, but as well through the license requal, we have had discussions with our staff about the premise and the need to use that regulatory process for Operability Determination. So, they did not formally attend the two-day training for Operability Determination.
MR. THOMAS: So, I guess going forward, are there any plans to include them in that training or is that -- or some part of that training, maybe not the whole thing?
MR. FAST: The identification, and certainly what we're doing, we're folding back in Lessons Learned from the Operability Determination, so that we understand where we've done a good job and where there is areas for improvement. But, just from our own internal processes, as well as regulatory processes, our reactor operators do not make the call, so to speak. They're not the ones that actually sign off on Operability Determination. That is done by a senior licensed reactor operator.
MR. THOMAS: I understand that,

but I'm looking at it from an identification issue, or standpoint, you know. They're in the control room, they see the indications. I mean they would have -- I mean they're the front line of defense, I guess, if you will. So, if they were aware of the, I guess, complexities involved with the operability calls.

MR. MYERS: What we can do is, we can write a CR on this, and do a needs analysis for training, and determine what needs they need to have. We probably would not train them to the specific area that we would the shift manager, but apprise them of overall knowledge that we would look at in the training room.

MR. FAST: I'll take that action. We'll do, through our systematic approach to training, we'll do a needs analysis and determine if that's appropriate.

MR. THOMAS: Okay, thanks.

MR. FAST: Thanks, Scott.

Lastly, on this slide, we did implement new standards and expectations, and those have routinely been reviewed by industry experts as they look at our operating staff, and these standards meet or exceed industry best practices.

In fact, it's part of our turnover process, at each and every turnover, the operations crew used one of the

selected standards. And I went to Ops turnover yesterday; and we've actually driven that down to where our equipment operators are preselected to come in and be prepared to discuss an expectation or standard, and that generates crew discussion. That seems to be working well for us.

Next slide, please.

Okay, just to take a look at Mode 4 and Mode 3, the things that we have planned. There are really three specific plateaus for testing. The first is Reactor Coolant System pressure walkdown of 50 pounds per square inch gauge. That's a visual examination. All of these are done by a team approach, using Operations and qualified engineering staff to do the walkdowns.

Additionally, we have a test at 250 pounds. We'll call it Augmented Leakage Test for Reactor Coolant System Components. Those that had been, work had been conducted on those components, and we want to go verify their leakage condition at that intermediate pressure. And then when we get to full operating or normal operating pressure, conditionally, we'll do walkdowns of components for the Reactor Coolant System.

Next slide, please.

One of the big challenges is just the administration associated with closing mode hold restraints. And I have current data that's listed here. This principally is

compilation of issues required to be cleared or resolved prior to making the mode change. And those consist of condition reports, corrective actions, work orders, surveillances, which are license compliance tests to meet the regulatory requirements. And we're making steady progress towards Mode 4. And without going through some specifics, you see the rack up on this slide.

And, the last item is, as we get ready for going into routine, I'll call that routine operations, where we're pressurizing the plant, we'll start reactor coolant pumps, heat up the Reactor Coolant System. Operations staff is, certainly has not been operating the plant for quite sometime. And it's pretty much a normal industry practice that we would bring in external oversight, key individuals to be, monitor plant operations 24 hours a day, 7 days a week, to provide real time feedback for our operating crews, to ensure that we're meeting our own expectations and industry standards of excellence.

That's really all I had from Operations Readiness. Are there any questions?

With that, I'll turned it over to Bill Pearce.

MR. GROBE: Not quite. I was making sure nobody else had any questions before I asked mine.

MR. FAST: Yes, Jack.

MR. GROBE: The Operations approach to restart, is a very, very important area in my view. And it's one that I would like to see on the agenda each month going forward.

There were a couple of items that you talked about that I had a couple of questions on. The Just-In-Time License Requalification Training, you emphasized that a little bit on your actions and preparations. Could you give a little bit more detail on specifically what topics you've been training on now; then as we approach next month and the month after, how you're expanding that and building on it for approaching each mode as you move forward.

MR. FAST: Well, Jack, there is a whole number of actions and items that we've been doing. Let me be specific in telling you some of the activities that we've actually used our control room simulator.

The simulator is a real model of the plant. And we've gone through most of the evolutions of filling in reactor coolant system, starting the reactor coolant pumps, pressurizing the plant, heating up the plant, using the procedures that we've developed actually in the simulator. And that's given the crew the opportunity to practice plant operation before we actually conduct those evolutions.

Other training that we've had is the actual

classroom training associated with those procedures. So, typically, we would train in the classroom, go through a detailed discussion, and then the crew would go into the control room simulator and actually conduct those evolutions.

So, that's been one of the principle things that we've been able to do as part of licensed operator requal training.

MR. GROBE: Do you, are you accommodating this training in the normal requal cycle?

MR. FAST: Yes, we are, Jack.

MR. GROBE: And, how often does each crew rotate into a requal training week?

MR. FAST: Typically, we have six crew and they operate one week out of six. However, we have four, what we call, super crews. So, we've changed the periodicity a little bit, so we are on an abbreviated cycle. That's actually given us some more opportunity for training.

MR. GROBE: So, you're on a four crew rotation?

MR. FAST: Right, four crew rotation right now. And that has given us more of our folks available to support initiatives running through the

day shift.

MR. GROBE: Okay. As you approach major milestones, would you be doing additional Just-In-Time Training with crews that are actually going to be doing those evolutions?

MR. FAST: Yes, we will.

MR. GROBE: I think it would be useful to hear about your experiences in this area on a regular basis.

You've highlighted two areas where you're getting outside assessment; one is ~~IMPO~~ INPO and industry evaluations that are ongoing now, and the other is direct oversight of coaching or feedback of control operators. Would it be possible next month to get some details on feedback that you've received from these folks and opportunities that they've identified for continued growth?

MR. FAST: That would be great. I can give you some right now, if you want. I can give you a couple examples each of things we've seen that are working well for us, a couple items that we really need to improve in.

I'll start with a couple of areas for improvement. We've seen -- this is one of the these good/bad. On major evolutions, we've had good prejob briefs. I know Lew and myself and others as part of the staff have overseen some

of those briefs. At a higher level, more complex activities that had good briefs.

The shortfall though is more the routine day-to-day tasks, we've not done a good job of briefing that and setting standards and expectations. So, that's that mixed, got a lot of focus on prejob briefs, but at that routine level, we're not getting into the detail and challenging our equipment operators and reactor operators on what could go wrong, what are compensatory measures that we should be taking. So, that's an area of focus in getting a more broad spectrum of prejob briefing.

The other are, what I'll call, missed opportunities for coaching by our first line supervisors in the control room. That's the control room supervisor directly overseeing the licensed operator duties of the reactor operators, as well as equipment operators. And this is another one of these kind of good news/bad news stories.

The shift managers have received very good feedback about leadership and ownership and willingness to address issues with the plant staff. We need to drive that down lower into the organization. We need for our first line supervisors in the control room to be more comfortable in coaching opportunities with our plant staff.

So, those are, there is some of the, the highs and lows; and I have lots of other examples. But I think it's

important, particularly useful to us in that one of our industry peers comes in to make that observation, our staff is much more liable to accept that critical feedback, than if we provide it internally. We certainly provide it internally, but when an industry peer comes in and says, here's something we see, our Operations staff takes a notice of that.

And so, that's a good thing, I believe, really raising the standards for our staff.

MR. GROBE: Okay.

MR. MYERS: I'm able -- two of the Ops managers that were here; one of them, ops manager from ~~Mod~~ Mode three, that's pretty consistent with the message that I got also. They talked about routine evolutions, that we get ~~lacks~~ lax in communications, and also shift manager not comfortable coaching, I guess is the word, you know, in the field, and not getting in the field as much as they should. But they also compliment some of the standards of our shift managers as a whole, both people did. So, it's pretty good feedback from them --

MR. GROBE: Okay, good.

MR. MYERS: -- at this point.

MR. GROBE: You mentioned that the standards and expectations meet NRC's best

practices, and that you're encouraging feedback in team discussions during each shift turnover. Would it be your expectation then that some of these areas; communication during more routine evolutions, these are areas that you expect to see discussed during these shift turnovers.

MR. FAST: That is correct. Those are in the standards and expectations that are routinely discussed, so we use that as a platform to define our expectations.

MR. GROBE: Okay, good. The operability and determination training, when was that completed?

MR. FAST: It went for several, I think six weeks. So, there was a group that ran two days, for six weeks running; and it was completed about, I want to say about two months ago.

MR. GROBE: Okay, great. Thank you.

On slide five, you indicated several walkdowns of the Reactor Coolant System. The first one with 50 pounds per square inch gauge, that would be done at Mode 4; is that correct?

MR. FAST: That is correct.

MR. GROBE: And the other two at 250 pounds per square inch gauge and normal operating

pressure, those would be at Mode 3?

MR. FAST: 250 pounds could be done at Mode 4.

MR. GROBE: That's still Mode 4, okay.

MR. FAST: Yes. And we could actually do the 50 pound in our current mode. What we do is pressurize the plant using nitrogen. So, we're in a transition point, but we actually have that capability to pressurize the plant with nitrogen and perform that leak evaluation.

MR. GROBE: Is that what you're planning on doing?

MR. FAST: That will be the first step, yes.

MR. GROBE: Okay, good. When do you plan on doing that?

MR. FAST: Well, Mode 4 is currently targeted for the mid part of May.

MR. GROBE: I'm sorry, I misunderstood.

MR. FAST: I was going to back up from that.

MR. GROBE: Okay.

MR. FAST: So the activities

we're currently working toward is the full system restoration of the Reactor Coolant System. And so, Jack, it's about two weeks away. I don't have the specifics, unless, Mike, do you have something?

MR. STEVENS: I can get the specifics for that. Randy is right, it's about two weeks away.

MR. GROBE: About two weeks is fine.

MR. STEVENS: We're working through air-operated valve work currently, and Jim is going to talk about that.

MR. GROBE: Okay, very good.

MR. MYERS: One of the things, Jack, if you ever look at pressure temperature curves here, it's not desirable to get into Mode 3 and sit there, because the demand is very -- Mode 4, sit there in between Mode 4 and 3, so once you get to Mode 4, you want to continue to go up, because it's only like a 30 pound band in there. It's not comfortable operation time. So, the idea is we would not do that until right before Mode 4.

MR. GROBE: Okay. I have one additional question. It has to do with the weekly indicator that you folks sent us, and it is tracking modifications for restart.

I noticed over the last two weeks, that that indicator has gone up some 20 modifications.

MR. MYERS: 30.

MR. GROBE: 30. Thank you. That was a surprise to me, to see that number going up. And I was wondering if you could comment on that and give me an indication of how many of those modifications are Mode 4 restraints.

MR. STEVENS: Well, I don't know how many of them are Mode 4. That number of modifications includes set point changes, anything that has to do with an engineering change request.

MR. GROBE: Sure.

MR. STEVENS: And we're currently going through some part obsolescence issues as well as making modifications to the plant.

I can tell you there is 433 work orders. And in those 433 work orders, are the modifications to take us to Mode 4. And, I don't have the exact number here.

MR. MYERS: Jim, do you have that with you?

MR. POWERS: No, I don't have the exact number either, but while we're going through corrective actions, as we finish our condition report evaluations and corrective actions that are related to

modifications, that they were reviewed by the Restart Review Board and categorized as restart as appropriate and added to the schedule. So, we are preparing schedules that support the field work with modifications now, and we'll have to get you the precise number of those, Jack, to sort out which ones are Mode 4 restart group.

MR. MYERS: I looked at that just the other day. Just a handful of most of the mods work as we come back down, then we have all the mods for diesel, the air dryers. There is some relay work that we have to get done before Mode 4 to make the mode change. But if you go look at the total of those mods, there is not many of them associated with Mode 4 change.

MR. GROBE: That's interesting. Scott and I will have to get into some more detail on that. It just surprised me at this point in time to see the number of modifications going up. I recognize some of those might be simple, but any modification is a bit more complex than a routine corrective work order.

And the source of those, I think you said, Jim, was corrective actions from those Condition Reports that are just now being evaluated?

MR. POWERS: Right. As you, as we've talked about in the past meeting our performance indicators on the wall, back on the audience, we have been

working through Condition Report evaluations. And once a problem is identified, then the engineers, and other people at the plant, evaluate a problem; and if a resolution is indicated as a modification required, we perform the modification.

We are finishing off all those Condition Reports now. Some of the more complex ones are ones that still remain to be done, as we finish off the last small groups of them. So, some are a little more complex problems are being resolved, detailing modifications.

MR. MYERS: When we went into this outage, we did not have what I would call a robust ~~AOD~~ AOV program. And we looked at how many valves, Jim?

MR. POWERS: We looked at a total of 83 valves, air-operated valves in the plant. And we created a program to better design their design basis and provide analysis, calculations that have demonstrated their margin of safety, margin of capability. Out of those 83, there were six valves that needed to have field adjustments done, and twelve valves that needed to have some modification done to them; things as small as a spring change, but then as large in the case of one valve, makeup ~~free problem~~ three bravo valve, change in the actuator and the valve body itself. So, we have twelve modifications that came out, relatively recently, probably within the past month

that we've been engineering those.

MR. MYERS: Realize, those 12, they're in Mode 4, okay, you know, those kind of things. And it's make up -- is the long lead time on those. All those are in the schedule for Mode 4.

MR. GROBE: Okay, very good, thank you.

MR. PEARCE: Thank you, Jack.

What I'm going to talk about is the Quality Assurance Group's view of Operations. And, the operational activities that we've looked at are water level control, fuel load, specifically the SRO duties and the Operations interface with fuel load, maintenance support, which is a clearance, is all the support work that Operations does for maintenance activities, and the Integrated Leak Rate Test. And that, was a fairly complex evolution, and I'll talk some about that later.

First of all, on the shift turnovers, we think there is a good solid turnover process in place and being utilized, and that there is consistent focus by the Operations group on standards and expectations during these turnovers. That's, of course, what Randy said, it's going to have some redundancy to what Randy said.

One of the things we thought that was good with,

demonstrated some operations leadership in this area was the shift manager went to the work management turnover, and didn't get enough detail, he thought, to do an adequate job of informing his shift of what was going to go on in the next shift. So, he insisted that they go into more detail on all the turnovers and the work management area, so they could get the proper amount of detail.

He got some push-back on that, but he sustained his position and was able to get a change in the ongoing process, so that he got the right amount of detail out of that. And, we saw that as a good thing.

Under the area of clearance activities; you know, what we're doing now is mostly a maintenance support function in Operations, but they are hanging a lot of clearances, removing a lot of clearances. It takes attention to detail, following the clearance process, making sure we get the right thing done every time.

We have seen a few minor instances where we didn't get things done properly, but in the majority, vast majority of incidences, they did a very good job of hanging the clearances, maintain the proper control, removing the clearances and making a safe place for people to work.

Under standards and expectations, I talked about that earlier under shift turnovers. The new Operations standards are discussed daily. It's like I said, turnover

process, they go through them, Randy talked about that. The supervisors reinforce the standards frequently. And it's our view that the operators seem to be adapting the new standards.

Now, we do see lapse in three-way communication sometimes, and some minor instances like that, but in general, we think there is a good set of new standards in place, and, and Operations is striving to do those very consistent.

Another example in that area of standards and expectations, there were 403 Condition Reports written in the first quarter by the Operations Department. Give you some idea that they're focused. Even though the plant is not operating, they're out there focused on the details of the plant.

Some examples of conservative decisions and Operations leadership. Early this year, Ops was the station leader. In fact, Randy Fast represented them in that area. They wanted to have two decay heat pumps available for core load, even though the tech specs only required one at the time. And they sustained their position there. Randy supported them in that. And I thought that was a good thing. They were the ones that actually brought that forward.

During the reduced inventory operations that we

watched, they prohibited water transfers in the auxiliary building, because they knew their reduced inventory and they didn't want to do any evolutions that might risk that inventory; and we thought that was a conservative decision.

Ops, and this was not too long ago, Ops generated a Condition Report to perform a collective significance review of emergency diesel generator reliability. There has been a lot of small individual things with the diesel, and they wanted to look at it from a collective significance perspective; and they got that done. And we thought that was good.

And the procedure here, one of the things that we witnessed recently was the Integrated Leak Rate Test. It is a complex test, a lot of valve lineups, and each one of them has to be done correctly so that you don't get leakage through there as you pressurize the entire containment vessel.

The procedures were followed well. Complex set of operations were done. And they did accomplish the required configuration control. And I think we're going to talk a little later about the success of the Integrated Leak Rate Test. Well, they had a big piece of that, and they did a very professional job of accomplishing that.

MR. THOMAS: Outside of Ops,

what's your assessment of procedure usage within the other departments, engineering maintenance, or are you prepared to talk about that?

MR. PEARCE: Well, I think in the work order process, Scott, it would be my opinion, is where I think we're the weakest still; as we get into work orders and our adherence to the specific requirements in the work orders. And those are a maintenance procedure, so to speak.

And that, we put a lot of focus in that area, both in the Construction Department and the Maintenance Department out of the Quality Assurance Department, and we've seen some issues. In fact, the feedwater heater that we struggled with there for awhile, a lot of that, in my opinion, was driven by the lack of adherence to the process.

So, we tried to intervene and get some attention on those things, and we're still seeing instances of those.

MR. MYERS: Feedwater heater was a problem.

MR. PEARCE: Right. We didn't hold the right temperature, didn't get the right weld, had to grind them back out again; things like that. Those are some examples of where we've seen not so good procedure here.

MR. THOMAS: What have you done to prevent that from recurring in the future?

MR. STEVENS: I can answer that. We took the crew that was working on the feedwater heaters, and sat them down with the maintenance folks at the station and interviewed them, and then put them back to work and did some observations.

And, what we found was, some of these folks, even though they went through the training at the plant, and specific, specifically to our administrative procedures, they didn't fully understand how to work at the facility and use the work order and what the expectation was.

We stopped the job. We set up training. We used our SAT Process for Systematic Approach to Training. Did a needs analysis, and involved the Maintenance Services Superintendent to ensure the training was adequate. I involved the Safety Department.

Because it was more than just in the welding procedure, we found that they didn't understand fully our compliance base procedure. They were trying to read it and understand it, but they didn't understand some of the terminology.

And through training, we've improved performance of that group. Put them back to work, after face-to-face discussions. And then I used our Quality Control

Organization to periodically go out, through hole points and without ~~hole~~ hold points, just to show up at my request, and do some on-the-spot inspections.

When we came to nondestructive examination of the feedwater heater, I had our qualified nondestructive personnel go out and take a look at how we were performing that. We found in that instance, where the nondestructive examiner for the vendor wasn't complying with his own procedure. And we challenged him on that, and ended up reaching a resolution and rewriting his procedure. Actually, we used our procedure to finish out the nondestructive examination.

MR. PEARCE: Okay, and --

MR. GROBE: Bill, if I could, just one more question for Mike.

MR. PEARCE: Go ahead.

MR. GROBE: The feedwater heater welding issue is somewhat self-revealing as you went to do some testing. Is there some reason that this training effectiveness question was isolated to that group, or are there other groups of maintenance folks out there that are using the same procedures and went through the same training?

MR. MYERS: These are contractors, Jack.

MR. GROBE: Yeah, I know.

MR. STEVENS: We took a look at that, and interviewed our nonnuclear plant services folks. Did some observations on some of the field work they were performing, and we didn't see the same thing, as far as procedure and work package usage. However, what we did find was the quality of the work package was not up to standard. In other words, it was hard to follow the work package as we were making some of the modifications to the containment air coolers.

So, what we did was sat down with maintenance managers, put together a multi-group team, if you will. We had Operations, some Engineering and some of the Maintenance folks, sit down and categorize the types of problems we were having, roll them all together and take a look at where the performance shortcomings were.

And the actions we're putting in place, let me share with you some of the things we saw there. Primarily, it was focused in the Mechanical Department some performance issues, but it wasn't only the Mechanical Department. It was some minor issues in some of the other departments as well.

But the primary cause was lack of preparation, as we're trying to get work ready and get it into the field, we're not able to do Just-In-Time Training on some of the

activities we're less proficient at. In performance, like reactor pump seals, and we identified that as a potential cause. It had the most weight, about 60 to 70 percent of the problem.

The next was, we didn't have adequate supervisory involvement. What I mean by that, we had supervisors sporadically observing and involved with the field activities, not strategically; at the critical point in time, the supervisor is there providing the oversight to make sure the work activities are performed correctly.

We also, the next one, that was the quality of our work documents. As we went through planning work orders, we'd get them to the field, what we found were some of the work packages weren't being returned to the planning to be revised. What was happening was, we were issuing supplement work orders to the work already existed in the field, and that make two work documents you have to work together with. And it was, we found that to be confusing to the workers and the supervisors in trying to manage it.

And those are some of the things we found, the actions were put in place, and have taken some action in four major areas; organize, clarify, monitor and control. We put our maintenance organization back together, and we were spread out a little bit as we tried to do all these activities and get the schedule ready. We used some of our

more talented folks in some key areas, and I think we saw a result of their lack of involvement in maintenance, and it showed up in some work performance issues.

We got them back in, in the departments, and that settled things down. We're clarifying rules and responsibilities.

Am I giving you enough?

MR. GROBE: Yes, thank you very much.

MR. THOMAS: Let me just clarify, so I make sure I understand what you, I understand what you just said. That it's not just limited to work that's primarily done by contractors. That there are some issues with the craft at Davis-Besse as well in the maintenance area that still need resolution.

MR. STEVENS: That's right.

MR. PEARCE: We don't disagree with that. In fact, let me tell you something that we are doing in that bigger picture regard, is we're moving the, the QC Organization back under Quality Assurance. And Lew and I have agreed to do that. He just signed a letter here the other day, and we'll be doing that over the next week or so.

And what we're trying to accomplish there, Scott, is exactly, I think what you're talking about, is we want to

get more field time with the people that we have, and not have them -- make them more independent and less tied to the work organization. Elevate, simply elevate the standards some, and give some help to Mike and his group. You know, give him some feedback on how we're doing in that area.

So, we're moving toward that presently. In fact, we're going to do it at all three sites, because of our experience here, it's a better thing to do.

Okay, in the area of operability determinations, as Randy said, the operators were trained on 9118. Steve Loehlein actually attended the training on that with them, one session of it, to see what, our view of it was. And we thought it was a very good training. And, I think that the Operations guys, a few that I talked to about it, seemed to get a lot out of it, they really enjoyed that perspective.

In the area of Operability Determinations, last year in QA we had a concern about the operators documenting the logic for how they made operability calls based on determination from engineering, or evaluation from engineering. And we've seen an improvement over the past few months in the log books and the entries and how they're documenting their logic for making what calls they're making.

We still see periodically something that doesn't

seem as good as we would like there, but we get feedback on it, and, but we've definitely seen some improvement there.

In conclusion, I guess what I would say, Ops has performed adequately for the functions we have watched them. We're anxious to see the Mode 3 and 4 operational activity. We're going to provide independent 24-hour, 7-day-a-week coverage of that activity in Operations, so we can get some good insight on how we're doing for these improvements that they've been trying to make. And, we've seen some improvement in the area of Operability Determination and how they've documented their logic.

That's it for me.

MR. GROBE: I just had two questions, Bill. You talked about conservative decision-making, and one of the examples was a decision on water transfers during reduced inventory, and that's an excellent example. I was just curious if that occurred in the planning stage or that occurred in the control room?

MR. PEARCE: It actually occurred in the control room. And, they did talk about it in the planning, but where they actually put it in place was in their control room activities. And it was a contingency issue. In fact, several of the things that they've done, I think they had pretty good contingency plans.

That's one of the things, when Randy talked about the prejob briefs, I think they've done a pretty good job of putting, getting the expected conditions well communicated among the shift organization, and making sure that complies to the plans as things varied, and I have some examples in our review of that area.

MR. GROBE: I think that's excellent that the shift, the control room shift made that decision. But I was just curious, is that something that you would want to see moved out into the planning area, where the shift wouldn't be challenged with that kind of decision?

MR. PEARCE: Well, yeah, no question about that. I mean, we would like to standardize that. I don't, none of the Operations guys -- well, Mike is here, but I don't know if that has been standardized. I can find out.

MR. GROBE: Okay. And, regarding Operability Determinations, I think it was just a week or two ago, Scott identified an issue involving the low pressure injection pumps, which also serve the function in Mode 5 as decay heat pumps. This had to do with the ~~cycle~~ cyclone and separator.

There was an issue that appears to only have been a documentation issue there. It's not apparent that the

operators concluded in their operability evaluation that the decay heat pumps were operable for the mode that they were currently in and that they were only talking about a future mode. Is this consistent with the kind of things that you've been seeing as far as documentation problems?

MR. PEARCE: Yes. In fact, that's the kind of things we have been working on to get some improvement, making sure they get that done well. And it's really important. You know, they know why. The guy that makes that, knows why they come to that conclusion. But for the rest of us, and for the oncoming shifts and all, they need to understand that, because if there is some departure from those conditions, then they need to understand what the basis of the decision was.

MR. GROBE: Okay.

MR. PEARCE: Yes, we do see that periodically, Jack.

MR. GROBE: Okay. Was this part of the training? I realize concept 9118 Operability Evaluation is a fairly broad area, but was this documentation issue part of the training that they received?

MR. STEVENS: Yes, it was.

MR. GROBE: So, that's just a matter of reinforcement?

MR. FAST: Not the log books, but the process of documenting the rationale.

MR. GROBE: Okay. So, it's just a reinforcement issue of examples to make sure that expectations are reinforced?

MR. PEARCE: Right.

MR. SCHRAUDER: Okay, thank you.

I'm going to talk about a few of the design issues, relatively important design issues that we are facing. First one I would like to talk about is the high pressure injection pump. This is I believe a new issue since we last met, came out of some of our Condition Report evaluations and resolution.

What we found is that very fine debris that would make its way to the sump in the event of an accident could result in damage to the high pressure injection pumps during the recirculation mode.

Now, our sump strainer has about, has 3/16 inch openings that allow the water to get into sump to the injection for these pumps, the suction to them.

There are two concerns with the high pressure injection pump. One is what's called the hydrostatic bearing, which is a bearing internal to the pump or in the pump that supports the shaft during its rotation. And the, this is a water supported cool bearing. And the ports that

supply water to that bearing have a 1/10 inch opening that goes to it. So, if there is a 3/16 inch opening in the sump that goes to the suction, there is a potential that you could clog the inlets for the hydrostatic bearing, and therefore cause the pump problems and potentially failure.

The other pump, just other internal clearances within the pump itself, bearings and the like, these pumps have a natural harmonic frequency to them. If you open up the clearance by way of debris getting in and causing some of the clearances to open up, you can cause certain rotodynamics that will oppose the natural frequency of the pump and cause the pump some problems in that regard also.

Listed here, the resolution options that we looked at for that. We looked at providing some additional filtration, whether that be finer mesh on the sump screen itself, or whether we put in a subsequent filter for the high pressure injection pump. That would be basically a backwash filtration system that would be able to backwash itself and send the potential debris back into the containment to the sump.

We looked at modifying our existing pumps. Testing our existing pumps under the conditions that they would see or some combination of those two. And finally we looked at replacing those pumps.

The path that we are on currently is to replace the