U.S. NUCLEAR REGULATORY COMMISSION
FIRST ENERGY NUCLEAR OPERATING COMPANY
PUBLIC MEETING

Meeting held on Tuesday, July 16, 2002, at 2:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio, taken by me Marie B. Fresch, Registered Merit Reporter, and Notary Public in and for the State of Ohio.

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

Mr. John Grobe, Chairman, MC 0350 Panel
William Dean, Vice Chairman, MC 0350 Panel
John Jacobson, Branch Chief,
Mechanical Engineering Branch, DRS
Anthony Mendiola,
Section Chief PDIII-2, NRR
Douglas Pickett, Project Manager, NRR
Christopher (Scott) Thomas,
Senior Resident Inspector - Davis Besse
Christine Lipa, Projects Branch Chief

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
Howard Bergendahl, Vice President-Nuclear
Michael J. Ross,
Manager - Operations Effectiveness
Michael J. Stevens, Director - Maintenance
Steve Loehlein

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MR. GROBE: Good afternoon. I was trying to set the tone by taking my coat off. Please feel free to. It's a bit warm today.

My name is Jack Grobe. I'm the Director of Reactor Safety for the Nuclear Regulatory Commission Office for Region 3 in Chicago. We have responsibility to the office for the safety of the nuclear power plants in the midwest.

We're here today for our third meeting, public meeting with the Licensee, First Energy, responsible for operation of Davis-Besse Nuclear Power Station. The focus of this meeting is what we refer to as the Manual Chapter 0350 Restart Oversight Panel. In a minute, I'll introduce the panel members and other NRC staff that are here today.

Our meeting today is being transcribed by Marie Fresch. And Marie was here last time and had some trouble hearing. I think Mr. Stocker has the microphones turned way up, so that should help, but please make sure when you're making comments today, so the public can hear in the audience, as well as Marie transcribing the meeting, that you use the microphone.

Let me start by introducing the NRC staff here today. On my far right, is John Jacobson. John is a Senior Mechanical Engineer in Region 3 Office and a member of the Restart Panel.

Right next to me on my immediate right is Christine

Lipa. Christine is a Projects Branch Chief. She's the Manager of Region 3 responsible for oversight at the Davis-Besse Plant on a day-to-day basis.

On my immediate left is Bill Dean. Bill is the Vice Chair of the Restart Panel and Senior Manager in our office, Nuclear Reactor Regulation, our office headquarters, and it's in the Washington, D. C. area.

Two of the, two other additional staff from the office of Nuclear Reactor Regulation. Tony Mendiola. Tony is the manager responsible for overseeing the licensing activities. And on his left is Doug Pickett. Doug is the Licensing Project Manager specifically for Davis-Besse.

Then at the end of the table is a very important person. That's Scott Thomas, Senior Resident Inspector that works at the Davis-Besse Plant every day. He works for the Region 3 Office of the NRC.

We have a couple of additional NRC staff I want to recognize. Helping out at Davis-Besse is the Resident Inspector from the Perry Plant, east of Cleveland, it's John Elgood; and John is operating the slide machine right now, but he's been inspecting the plant to help us out.

Nancy Keller was out front. Nancy is our Administrative Assistant. She's done an outstanding job. I appreciate her support. Nancy had out front a stack of handouts both from the NRC as well as the Licensee

available for you. If you didn't receive one, please feel free to obtain one of those handouts.

In addition out front, Nancy had what we refer to as feedback forms. They're preaddressed, no postage necessary forms that you can fill out and give us feedback on the quality of our meeting, and other aspects of the conduct of the meeting or content of the meeting; either one.

We would certainly appreciate and encourage you to fill out one of those forms and give us feedback, so we can continually improve the quality of our interface with the public.

At this time, Lew, I would like you to introduce your staff here today.

MR. MYERS: Okay. Thank you very much. We have some people out front of our audience that are our technical, some of our technical experts. We also have our Root Cause Team, that we'll introduce later on.

First with our technical experts, I would like to introduce Tim Chambers. Tim is in charge of the Containment.

Mark McLaughlin, also the Containment.

Dave Baker, Head Resolution.

Dave Eshelman -- is Dave here? Dave is in charge of helping us with Human Performance.

Clark Price is our Restart Action Plan Lead.

Tony Staller, Restart and Post Restart.

Neil Morrison. Neil comes to us from our Beaver Valley Plant, and he's helping us with program reviews.

Bill Rogers. He's doing our System Health Reviews.

So, for each one of these, we have a man at the table that has responsibility, and technical leads with us today.

Would you want me to go on to our desired outcomes now?

MR. GROBE: If you don't mind, introduce your staff at the table.

MR. MYERS: Okay. To my right is Howard Bergendahl.

Steve Loehlein is next. Steve is doing the Management in Human Performance and Root Cause.

Jim Powers is next to him. Jim is the Director of Engineering.

Bob Schrauder next to him. Bob is taking, a new employee taking the job as Service Director, is new with our company, new with that position.

Randy Fast is after him. Randy is our Plant Manager.

And, Mike Stevens is Director of Maintenance.

And, at the very end I think is Mike Ross. I can't

see. So, Mike Ross comes to us from, he's a new addition, comes to us from, from the Three Mile Island Plant. So, the Plant Manager there is really experienced, and is part of our discussions later on.

MR. GROBE: Okay, thank you.

At this time, if there is public officials or representatives of public officials here in the audience, I would like to give you an opportunity to introduce yourself. Please stand and up introduce yourself. Do we have any public officials with us today?

MR. KOEBEL: Carl Koebel, Ottawa County Commissioner.

MR. WITT: Jere Witt, Ottawa County Administrator.

MR. GROBE: Any others?

Okay, very good. Thanks, Carl and Jere.

John has a slide up on the overhead projector right now that describes the agenda, and each of you should have a copy of that.

In a moment, I'm going to allow Lew to make opening remarks, and then I'm going to briefly summarize the last meeting we had on June 12th. We'll then turn the meeting over to First Energy for presentation of the information that they have prepared for today.

Then the NRC is going to discuss the framework that

we're using for, what we refer to as our research checklist. I'll talk about that a little later, and a number of the staff will help describe the framework for our research; that is the NRC research. We'll conclude the business portion of the meeting at that time.

Following the business portion of the meeting between the NRC and First Energy, we'll open the meeting up for public questions and public feedback or inquires to the NRC staff. I certainly hope that we have a good participation by members of the public here today. At that time, we'll adjourn the meeting.

In addition to this afternoon meeting, there is going to be a meeting this evening at 7:00. Bill Dean will chair that meeting. And that meeting is specifically focused on receiving input from the public, as well as answering any questions members of the public have.

So, if you're here this afternoon, and you think of something, any additional questions or comments later this evening, please come back at 7. We're also making it available to other individuals who were unable to be here this afternoon.

I think that concludes the logistics for the meeting.

Oh, I do want to recognize Mr. Stucker. He's been here for each of our meetings. Oak Harbor High School

continues to make this fine facility available for our meetings, and we certainly appreciate that. And, Mr. Stucker works very hard to make sure that the sound system and lighting and everything is just right. And, I certainly appreciate his efforts and I want to thank Oak Harbor High School and Mr. Stucker for that.

Did you have some comments before we begin, Lew?

MR. MYERS: We're ready to get started. Is that okay?

MR. GROBE: Okay. Do you want me to just summarize the June 12th meeting first?

MR. MYERS: Yes.

MR. GROBE: Okay, very good.

Next slide, John.

I wanted to make you aware, particularly members of the public aware, of several documents First Energy has submitted over the past several months, and make you aware of our Web site where those can be obtained.

An Early Risk Assessment was provided by First Energy. That was received by the NRC on April 8th, 2002. We continue in our assessments of the risk plan and we're using the input that we receive from First Energy, evaluating the input and continuing to ask questions and do analyses to support the risk assessment that the NRC is conducting.

A Preliminary Root Cause Analysis Report was submitted on April 18th. That addressed in preliminary fashion both the technical side of root cause, what caused the cracking of the head penetrations, as well as the corrosion; and also to a certain extent addressed the contributing factors to that situation.

The Return to Service Plan; the first revision of that was submitted to us on May 21st, and it was recently revised last week July -- I'm sorry, yes, July 12, 2002.

All of these documents are available on the NRC Web site at www.nrc.gov. And you can get to the Davis-Besse link on that Web site, which contains just a tremendous compendium of information; that would be head degradation issue that occurred at Davis-Besse, NRC activities, Licensee activities in response to that. So, please feel free to gain access to that Web site to obtain that information.

Our last meeting of the Restart Oversight Panel was June 12th.

John, next slide.

The focus of that meeting was the Return to Service Plan that First Energy submitted to the NRC. Return to Service Plan had associated with it a number of what First Energy called Building Blocks. They're listed there on the slide.

We discussed in some detail their plans at that time, with the first five of the Building Blocks, and had a number of questions regarding those various Building Blocks.

First Energy's evaluation of what they were trying to accomplish as well as receiving input from the NRC resulted in a revision to their Restart Plan and Building Blocks, and I anticipate during today's meeting that we're going to get into several Building Blocks in more detail than we talked about last June, as well as get into a substantial amount of detail in the Management and Human Performance area.

So, we're going to continue with these meetings. At this point, to a large extent, we've been addressing and discussing the plans that First Energy is proceeding. And we'll continue to discuss those plans.

During this meeting, get into, I think, more progress that they're making; and, as these meetings continue over the summer months, we will be getting into greater and greater detail in the implementation of those plans, the results that the company is seeing, and corrective actions that they're taking.

We are transcribing this meeting this afternoon. We'll also be transcribing the meeting this evening. Those transcripts will be available on the Web site when they're

completed. As I'm sure you can appreciate, it takes a couple weeks to get a transcript typed up, reviewed and ready for posting on the Web site.

The transcript of the June 12th meeting is available on the Web site. And as I said, these transcripts will also be available within several weeks for those individuals who are unable to attend the meeting.

At this point, Lew, I would like to turn it over to you and your staff for the presentation that you prepared for us today.

MR. MYERS: Okay. Thank you very much.

It's our pleasure to be here today to discuss Return to Service Plan that we discussed last time. Our desired outcome today is to show that we're no longer in the planning phase. Typically, you go through a planning phase, a discovery phase, and implementation phase. Today we want to demonstrate that we're fully in the implementation phase towards safe, reliable and sustained operation for the Davis-Besse Plant.

We want to provide you with a status of several of our Building Blocks. We want to demonstrate the closure of several of the actions that were discussed at our last meeting, and also in our Restart Oversight Plan Meeting the day before.

We also want to introduce you to some of the Management and Human Performance elements in our Management and Human Performance Excellence Plan that we've laid out; some of the things that we know now, and we'll be prepared to discuss that in detail today.

Starting out, you remember the last time, I thought we had really seven Building Blocks, six of which are Building Blocks that feed into the Restart Action Plan.

The Reactor Head Resolution Plan was sponsored by Bob Schrauder, who is at the table. Our Program Compliance Plan was by Jim Powers, the Director of Engineering. The Containment Health Assurance Plan sponsored by Randy Fast, the Maintenance Director. And the System Health Assurance Plan is Jim Powers' responsibility. Restart and Post Restart Test Plan is Randy Fast. And finally, the Management and Human Performance Excellence Plan, I'm responsible for that.

As you see, our plans all feed into the Restart Action Plan, and that feed goes to what we call a Restart Overview Panel. That's a very important ingredient, and people are talking about it independent of oversight.

Let me share with you the Restart Overview Panel, if you will. This panel provides an independent oversight and review of all of our plant activities. You can see this of the FENOC Senior Executive Team.

That team consists of Bob Saunders, President; myself, Gary Leidich, and Bill Pearce. Gary is in charge of the, Executive in charge of Engineering. Bill Pearce is in charge of Oversight.

All of us may or may not be at any one meeting, because of other obligations. The majority of us are at each meeting. Let's talk about the panel members that we asked to give us input.

First, we looked for someone who had extended outage experience, and we picked Chris Bakken from the D.C. Cook Plant. D.C. Cook went through some very tough times a few years ago. And Chris Bakken was the Executive of the Restart Plan, and has good experience.

We wanted somebody from the industry. Somebody that communicates to us and to the industry. That person is Buzz Galbraith. Buzz works the Nuclear Operations, which is an industry oversight review group that has basic building blocks, one of which is, one of the cornerstones is operating experience. So, he shares that with us.

Finally, we wanted somebody on our Nuclear Review Board. We normally have a Nuclear Oversight Review Board, and we wanted somebody to feed into that Nuclear Review Board. That person is Jack Martin. Jack Martin is on our board and he's very involved with this panel and our routine activities going on at the plant.

Finally, we wanted somebody that had real raw based experience from a nuclear regulatory standpoint and a troubled plant standpoint that could help us through this. So, we went and got Joe Callan. Joe was the Executive Officer of the NRC at one time, and he's retired now; provides us raw base experience, many years of experience with other plants, extended shutdowns like this.

We wanted somebody from the community. Jere Witt supplies that for us, a community leader here in Ottawa County.

We wanted somebody that had a good history of the plant, so we brought back one of the previous executives at the Davis-Besse Plant that was here for the previous problems through good performance. We brought in Lou Storz to help us throughout whatever developments, what's changed at the time of good performance.

So, we believe, we believe today that we have an Oversight Review Panel. As that panel is made up today, it provides very good independent input to First Energy's Senior Team to help us ensure that we can not only restart Davis-Besse in a safe and reliable manner, but insure that we have safe performance.

We've also made several changes in our management structure since our last meeting that we'll talk about.

Howard, do you want to continue?

MR. GROBE: Lew, before you go on, who chairs the Restart Oversight Panel, or Restart Overview Panel, who is the chairman of that?

MR. MYERS: Right now, I've been chairing the panel. We've been talking to Joe Callan about the possibility of chairing that panel; and the reason for that is to give us a true balance, has more independence.

MR. GROBE: Okay. Thank you.

MR. MYERS: Okay, Howard.

MR. BERGENDAHL: Okay, I wanted to -- can you hear me?

I wanted to introduce some of the new members of our team. There is an organization chart there, which highlights basically the yellow blocks, are individuals that are new in positions since about the first of the year. So, there has been a lot of change at the site, and many of the oversight individuals, Lew has already mentioned across the top of the organizational chart, but we have some of the key senior managers from Davis-Besse sitting here at the table and I wanted to take an opportunity to introduce them.

We've put together a team of very experienced and qualified nuclear professionals that puts together the senior management team that I know can do a good job at

Davis-Besse.

I'm going to start with Jim Powers, two seats over to my right. Jim is the Director of Engineering. I think we introduced him last time. He joined us from the Perry Plant. He has an excellent reputation and a major asset to our organization.

Next to Jim is a new addition to the Davis-Besse organization. He's been with First Energy, but he's now joined Davis-Besse full time, Bob Schrauder will be our Director of Support Services. Bob has had experience as the Director of Engineering and also as a nuclear plant, Plant Manager. And so, he brings a wealth of experience to the team.

Next to Bob is Randy Fast. We've introduced Randy in the past. He's new to Davis-Besse in January. His background includes Beaver Valley and a long stretch at the South Texas Plant.

Next to Randy is Mike Stevens. Mike is brand new in the position of Director of Maintenance. And Mike has been with First Energy for about two years. He spent most of his career with the Cinergy Plants down in Southeastern United States and most recently he joined First Energy from the Excelon Corporation.

We've also hired in some experience from outside the company, from other power plants in the industry. Mike

Ross at the end of the table comes to us from another Babcocks and Wilcox designed plant at Three Mile Island Station. Mike led the Operations Department at Three Mile Island through their brief start through many years as an Operations Manager and Plant Manager. Mike has joined Davis-Besse to provide oversight to our operations activities to ensure we have high standards that we know Mike accomplished through Three Mile Island.

Also not at the table here today, joining our company July 30th, is Pete Roberts. We hired Pete from the sale of Oak Creek Station, New Jersey, to be our new Manager of Maintenance.

So, we put together quite a team here and I know we've got good things to come.

MR. MYERS: Bob Schrauder would like to take a few moments and discuss the Reactor Head Resolution Oversight Plan, if you will. We're going to the phase now where we're going to present the status of several of our plans.

Go ahead, Bob.

MR. SCHRAUDER: Thank you, Lew.

Thanks, Howard.

First, let me start out by saying, I'm very pleased to join the Davis-Besse team, after what seems like a short nine and a half year hiatus from the plant. I do

believe, as Howard does, that we have a good solid team in place, and that we will lead Davis-Besse back to a safe, reliable plant that shows sustained performance.

Since our last meeting, I have been really pleased on the progress that we have made on obtaining a new head for Davis-Besse. We have accomplished a great deal in a very short 30 days.

One of the things I'm really happy to report is that we've executed in excess of 30,000 person hours at the Midland site retrieving that head, under some significant challenging circumstances there.

As this slide indicates, we are on target with the head replacement to support safe, reliable plant return-to-service sometime during fourth quarter of this year.

I'll talk a little bit about our activities at Midland. We were able to successfully open the containment. We had to chip away about three and a half feet of concrete. We had to remove three layers of rebar, and we had to detension the pre-cement tensioning elements in this containment.

These two pictures up here show us the progress of opening that containment and then in the lower right-hand corner with the team that helped us open that containment. Again, the team worked very safely and very effectively for

us.

The service structure at Midland, service structure on these reactor vessel heads is in three parts. The lower two parts will remain on the Midland head and we will transfer the upper portion from the Davis-Besse head onto this service structure.

We have implemented the modification on the service structure, the lower portion of the service structure at Midland with ten large diameter openings that will allow us clear access to the bare head inspections that we will do on this head going forward in the future. That modification, as I said, is completed.

The last time we got together, we had indicated our inspection plan for this head. We had divided those inspections, and identified they have three purposes. The first was to supplement the original co-data package that went with this head. The second was to baseline this head for ongoing in-service inspection program. And the third was to provide supplementary exams to assure ourselves that no damage had occurred to the head during its storage period at the Midland Plant.

I'm pleased to tell you that all of those inspections have been completed satisfactorily on the Midland, on the replacement head for Davis-Besse, and we know now that we do have a very good compliment for use at

Davis-Besse.

One of the records that we also talked about last time associated with the co-data package was the radiographs; both for the dome, the flange weld on the head, and the radiographs on the flange to nozzle. The records that we were able to retrieve did not have either of those films, nor did they have the records of the inspections of those films, other than a signed-off log entry that indicated that the exams had been completed satisfactorily.

So, in order to resolve that, we reradiographed those major welds on this head, and they did confirm that we had good welds in all those locations. We were able to achieve a hundred percent coverage of the flange-to-nozzle weld and we achieved a 95 percent coverage of the dome-to-flange weld. And, the remaining part of that weld we were unable to get to, due to the lifting devices that were put on the head after the original manufacturing.

Again, though, we confirmed with those that we did have very good welds in all those locations. And that information, coupled with the previous records that we had that identified that the previous owner had accepted this head and had identified that it had all the appropriate records, and the signed off co-data form from the American Nuclear Insurer, we assured ourselves that we did have a

good head and good going forward records.

As a result of the 95 percent coverage, we will be submitting our results to the NRC for their concurrence approval that we do in fact have a high level of assurance and certainty that this weld is good.

MR. JACOBSON: Bob, let me just mention briefly some of the inspection activities we've done in this regard. We've dispatched one of our nondestructive examination experts out to the Midland site and he spent a few days out there observing some of the inspections that, that FENOC was doing on the head; also reviewed all the radiographs that were done on the head. And I did also, I reviewed a good portion of the radiographs. So, that's some of the work that we've done to date.

And the next phase is going to be to review all the documentation of the head that supports the code, code and stamp that needs to be on that head in order to use it.

MR. SCHRAUDER: Thanks, John.

That's a good point. I wanted to say our nuclear inspector was present during all of these examinations also, as well as our code experts and our departmental experts.

The picture you see up there with the lifting glove. That's Lew inspecting that lifting glove and those are the

attachments that are used to lift this head off and on the reactor during service.

MR. GROBE: John, before we go on, could you characterize the results of your inspections to-date?

MR. JACOBSON: Pardon?

MR. GROBE: Could you characterize the results of your inspections to-date?

MR. JACOBSON: The results of the radiographs that we've looked at to-date were, met all code requirements; and, in fact, the weld on the flange to the dome was extremely clean, extremely good. It's one of the best welds that I've personally seen in a long time. And, I've looked at a lot of them. So, we did get that done.

We've also looked at some of the welds up on the control rod drive penetrations, and those also meet all code requirements. So, to-date, all of the nondestructive examination that we've reviewed is acceptable.

MR. SCHRAUDER: Thank you. At Midland right now our activities are centering around final cleaning and preparation for shipment of the head. This picture that you see here, is the, now there is a cover on it. This is a cover on the reactor vessel head, but this is actually the reactor vessel head being lifted off the stand that it was sitting on at Midland.

Next picture, please.

This is our opening, and that is the head stand that we had to pull out in order to be able to retrieve the head.

And in the next picture, again, the head being readied to be lowered onto a temporary transportation system to get it out to its main transport.

This is a picture of the type of transporter that we'll be using to bring the head to Davis-Besse. That head weighs about 80 tons. And this small truck that you see is about 180 feet long. We will be transporting that head for arrival at Davis-Besse prior to the date we set earlier, which is August the 1st, which would be the latest date that we would expect to have that on the site.

Now let's talk about some of the activities under way at Davis-Besse. Our reactor pressure -- our head at Davis-Besse is being repaired for removal from the containment.

This is a picture of the service structure that I spoke of earlier. The upper portion of the service structure, which we will use on the new head when it arrives. We will lift that off, that's a 40,000 pound piece of equipment that's floating through the air to its temporary resting place where it would be repaired for installation on the Davis-Besse head. And, the head now at

Davis-Besse is being properly cleaned and prepared for removal from the containment building.

We have gotten our construction packages from our vendor and we are in the process of reviewing those now. We have got the engineering packages available, and these engineering packages are the packages that we put together to open the containment and subsequently restore the containment to its full design requirements.

We are making preparations for the containment building opening itself. Again, this is a shot of the back side of our containment where we will be making approximately a 20 foot by 20 foot opening into that containment, which happens to coincide with the original construction opening in this building.

The process again for opening this containment will not be the chipping or cutting techniques that we used at Midland. This is a very high pressure water wash system, which essentially separates the cement from the aggregate in the concrete, washes it off the rebar. Then the rebar is tagged, cut and removed and replaced in its original condition when we're ready to restore the container.

We did have to do some leveling of the ground in this area in order to get our transport mechanism that will go through the containment to move the old head out and new head in. We did some ground leveling in there.

And we are in the process of right outside this, just off to the righthand side out of your view on this picture is our start-up transformer at the plant. We will tag that transformer out, disconnect it, and put protection around it so there is no way to injure that transformer during the period of time that we're under construction.

Another item that came up in our last meeting is the restoration of the pressure vessel. Again, the containment at Davis-Besse is a shield building made out of about three feet of concrete and a freestanding pressure vessel with annular space between them. Both of those obviously have to be cut to get access into the containment, moved ahead in and out. Then we have to restore that pressure vessel per code requirements.

We had indicated the last time we were here that we were contemplating doing a localized test around that restoration process, in that we had just completed an integrated test on this pressure vessel at previous outings.

Since that time, we have identified several other things that we'll be doing in containment, and we have reached the conclusion that the best thing to do is to perform an integrated leak grade test on this containment vessel when it is restored.

Those are our current plans that are incorporated

into our plan and process. Unless there are questions, that's all I have on the activities for replacing the head.

MS. LIPA: I do have one question. I walked down the area where this transformer is yesterday. What plans do you have for protection, what kinds of barrier?

MR. SCHRAUDER: The major plans are to disconnect it, and then there are coverings that will go over the bushings and the like on the transformer itself, and I believe there is going to be a scaffolding-type arrangement around it. Basically, we're protecting the major components on getting any kind of water spray or dust or aggregate into it. Make sure that -- we have to put up a large scaffolding and large platform in order to get into that. That opening is about 20 feet off the ground, 18 feet off the ground. We want to make sure that scaffolding we have up there also doesn't have, if it should happen to fall for any reason, it won't impact or harm the transformer.

MS. LIPA: Okay, thank you.

MR. GROBE: Bob, you said that you have construction procedures that have been submitted and engineering packages that are nearing completion. Could you describe in a little more detail the scope of

those construction procedures and engineering packages and what they address?

MR. SCHRAUDER: Well, the construction procedures are the procedures for opening up the containment, the detailed process on how do you go about opening up the containment.

We're looking at things in those packages, and I want to separate the construction package and the engineering package; these are each, have some element of the other.

We look at things, like the travel path for the vehicle that would bring the head in on. As you know, at a lot of nuclear plants or all the nuclear plants, there are underground piping, underground utilities there. We have to go through and assess all of those to make sure that this vehicle won't impact those.

Engineering packages includes things like the NCFR 5059 Evaluation to see if this could be done without formal approval of the NRC or whether it fits within the regulation, allows us basically to do those, if they don't change our updated safety analysis report.

Those are included in those; and the detailed engineering on, for instance, the pressure vessel itself, has equipment hanging on it as part of its design. We have to make sure that taking a 20 foot by 20 foot section out

of that pressure vessel doesn't impact its structural capabilities, and where we would need to put in reinforcing supports or the like for that. Also we analyze things like missle protection, while it's open.

MR. GROBE: Any other questions? Okay, very good. Thank you, Bob.

MR. MYERS: Thank you.

As you can see, we're making good progress on the placement head project, and we're well into the implementation phase. New head is being prepared for shipment. We've opened up our containment and the whole head has been dismounted, making good progress there.

The next area is Containment Health Plan. Jim Powers and Randy Fast would discuss that.

MR. FAST: Good afternoon. I too am excited about our new team. Today I will discuss the status of our Containment Health Plan Building Block. As you can see, the last time we met, we called this containment condition. It was focused principally on boric acid corrosion on mechanisms which encountered with our reactor vessel head; however, it became apparent that we wanted to expand the scope for all of containment to really talk about the health of everything that's within that building.

Part of that plan scope was increased to include

containment vessel, the liner evaluation. And, we have had ongoing work there. We have done an analysis. We have a team undergoing a review, a comprehensive review of the design requirements, but as well we did ultrasonic testing to ensure metal thickness and we have an interim disposition on that. However, we can do more exhaustive testing to ensure with every confidence that it meets design requirements.

We've also included environmental qualification of our equipment.

MR. GROBE: Randy, before you go on, I believe at our last meeting, one of our inspectors Mel Holmberg identified a question regarding a potential for corrosion below the concrete base mat on the inside of the, of the pressure vessel and also around the outside of the annular region. Have you done anything to evaluate that issue?

MR. FAST: That evaluation is ongoing. A team is assembled and we'll be doing comprehensive reviews, which will include all of the containment liner areas.

MR. MYERS: We have taken some action to-date.

MR. FAST: Yes. We did about 1700 ultrasonic examinations for metal thickness in the

areas that were adjacent to those areas that Mel had identified. That was our immediate corrective action; however, we're looking at all of the containment vessel for integrity.

MR. GROBE: Okay. I read in the paper this morning something that I think was already a focus of both the NRC and First Energy, that's the issue of what's referred to as MIC, or microbial induced corrosion. Could you comment on that a little bit?

MR. FAST: Well, that's something that has to be evaluated. Micrologically induced corrosion, MIC, as it's called, is a naturally occurring; and if we've had ground water in-seepage around the vessel area, that would potentially be susceptible. So, we'll have to do some evaluation and analysis to ensure that we do not have any MIC present.

MR. BERGENDAHL: We have, in fact have an individual working on that right now.

MR. POWERS: I'm taking water samples to physically look for that as well as corrosion problems.

MR. GROBE: Okay.

MR. FAST: We're aware as well it is an item that is under investigation and evaluation.

MR. GROBE: I don't believe that Mel has had a chance to come back and look at the results of your ultrasonic tests. Could you briefly summarize the results of what you found?

MR. FAST: What we did was an analysis that looked at minimum wall thickness. That vessel liner is about an inch and a half thick. We didn't see any significant degradation. There is some local surface pitting, which is just expected of a carbon steel component, but no deduction in the overall ability of the areas that we did evaluate; nothing that would require any additional remediation.

MR. GROBE: You indicated, you indicated that you were planning additional inspections. Could you characterize those?

MR. FAST: Well, I try to describe what this vessel liner looks like for our folks out in the public. If you've ever changed out a thermos bottle, the glass liner inside that bottle is effectively what our pressure vessel in the containment is like.

So, you see the concrete structure outside that extends about 240 feet above the grade elevation; 2.4 million cubic feet of volume, but within that is a steel structure much like this thermos bottle. And that's the structural integrity that ensures that under a design basis

accident, that peak pressures that would be held during that event are being contained within the containment; that is the barrier that protects the environment from a design basis accident.

So, that thermos bottle with its steel structure, the integrity of that has to be evaluated to make sure it meets design requirements.

So, part of those inspections is in the annular space. That's about a four foot wide space outside the steel liner, but inside of the concrete, the external concrete structure. We'll be building scaffolding and doing hand-over-hand reviews of the structural integrity, as well as put together some additional ultrasonic tests to make sure we meet the minimum wall requirements for pressure retention. That will extend all the way to the top of the vessel.

MR. GROBE: Okay. And, are you doing similar inspections on the inside of the containment?

MR. FAST: Yes, we are.

MR. GROBE: What sort of inspections are you planning, for lack of a better phrase, for the subterranean section of the vessel?

MR. POWERS: I'll handle that one. We did inspections on the inside where there was a

gap identified between the concrete at the base of this containment thermos bottle Randy described. Concrete was originally poured at the base on the inside and interfaced right up against the steel vessel structure.

With time that concrete has shrunk a bit and there is a narrow gap formed there, and there was concern about whether water could have gotten down into that gap. So, we went in and we did stick feeler gauges down to as much as 42 inches into that gap and found no moisture.

So, that was positive result from those initial tests, and we're going to continue further to characterize all the way down to the bottom areas what the situation is, whether there is any moisture down there, and characterize what the wall thickness is and integrity at the lower elevations.

MR. GROBE: Okay.

MR. FAST: Just to try to clarify the ultrasonic tests that we've done so far. In the area adjacent, in the lower elevation of containment where Mel identified the small annular space where the concrete had shrunk and there is some gap between the concrete and steel liner, where Jim just identified we dip sticked. On the exterior side, there is a section about a couple, three feet on the outside where there is no concrete; and we were able from the annular space to do

ultrasonic testing to be sure we had full integrity.

That would tell us if there were degradation in areas that could not be seen by the naked eye, that you would be able to tell we had full depth and integrity on the steel liner.

MR. GROBE: Okay.

MR. FAST: The other areas that we've incorporated as part of our Containment Health Environmental Qualification is we're concerned about such things as electrical equipment, such as air operated or motor operated valves. We'll be going through a comprehensive review of that equipment and other environmental qualified, to ensure that the conditions in containment, that all of that equipment is operated in or as fine a condition within its design requirements.

One of the areas that we're focusing on, this is really an industry lesson learned is the containment sump; and we're looking from a design perspective at ensuring that the emergency sump is intact and that it meets requirements. As a matter of fact, our vision of success is to improve margin.

We think there is opportunities to actually extend and improve the isolation from around the containment emergency sump. So, we have a team in place that will be looking at that as well. Looking at, where we're moving

fibrous insulation, we could impact clogging that sump. So, that will be removed from containment. We will have all metal insulation.

The other things that we're looking at is, the Decay Heat Valve Pit, which is, I'm going to call it a legacy issue. There are two motor operated valves, which are located in a pit adjacent to the emergency sump. And we have traditionally sealed those plates and done a pressure test, what we call a drop test, to ensure in a design basis condition those valves are not environmentally qualified, so we have to keep them from the flooded conditions when it exists. And we've traditionally gone in and sealed those and verified their integrity from this drop test.

But that's not a standard that we continue to operate to. So, we have a design team looking at that and we have several options under evaluation, which would include extending the operators outside of the flooded region, putting valves outside of containment, or qualifying operators that could operate under the harsh environments that would exist on design basis access.

So, all of those are being evaluated and again, our intent is to improve our margin of safety in this area.

Containment air coolers.

MR. GROBE: Tony is clearing his throat. I wanted to make sure.

MR. MENDIOLA: I did have a question.

MR. GROBE: Okay. Go ahead.

MR. MENDIOLA: I want to retreat a second. Going back to the liner for a second. Two questions I have.

MR. FAST: Yes.

MR. MENDIOLA: When you mentioned that you evaluated the inside gap between, I guess, the concrete and the inside of the liner, going down with a feeler gauge and you found no moisture, but is there any plans on sealing that gap or, or leaving the gap as found?

MR. POWERS: We're still in evaluation on that one, Tony. We're working on an overall plan about surveiling the lower elevations even below that gap area and restoring that as necessary. So, it's a detail we haven't finalized yet, but it's part of our evaluation.

MR. MENDIOLA: Okay. Then similarly, is there a similar gap on the outside of the liner, something like that's on the inside.

MR. POWERS: On the outside, there is ground water that has seeped through the concrete. It's not unusual for this to happen with any type of concrete, has small cracks in it. And what Randy

described earlier with surveiling the outside, yes, there is, there is an area or space where water can migrate alongside of the liner.

In fact, in the past, originally we did modifications in that area injecting the ground to work on sealing that, sealing that gap. And then we're going to be evaluating that as part of the overall integrity assessment of the vessel; that's going to be included.

MR. MENDIOLA: Okay, thank you.

MR. GROBE: Just feel free to clear your throat at any time.

I had just a couple of questions. Some of these activities appear to be directly related to the boric acid issue. Some of these activities appear to be unrelated.

You mentioned that the containment emergency sump, there have been questions in operating experience from other plants as well as you yourself have identified the decay heat valve pit as something that you want to look at.

Why weren't these issues identified and corrected earlier? Why are they being identified and corrected now?

MR. BERGENDAHL: Let me take a shot at that. As we're going to discuss later, the management issues, according to one of the things we're looking at is the standards of the oversight and ownership

of the power plant and programs. And as part of our new initiatives to raise the standards and clarify that we're meeting requirements is not our standard. Our standard is to exceed and do things the best.

The fresh outlook has exposed some areas where we have performed to meet requirements, and that's it. So, although that pit may have met the requirements, it doesn't meet our new standards of robust safety way.

MR. MYERS: I've been on the Davis-Besse Oversight Review Board Meetings several times over the years. We've been looking at those two issues and they're not new issues to us. So, while we're in this extended outage, why not go and take them up. Perfect opportunity to do that. That's what we're going to do. And it will give us an opportunity to gain knowledge.

MR. GROBE: Okay.

MR. FAST: Next item, our containment air coolers, and we're going through complete remediation. This is another example where our intention is to improve margin.

We've investigated the opportunity to get some coolers of higher efficiency, better thermoconductivity and we'll be doing a complete remediation of those containment air coolers. So, they will be brought up to better than as new condition; all three of those containment air coolers.

That's the comprehensive plan. We'll actually start the disassembling of those coolers next week.

MR. MYERS: Where are those?

MR. FAST: Those are the original coolers that were installed at the plant. It's like a radiator in your car, the way I would describe it for the public, obviously. And it has deteriorated over time.

It's a normal phenomenon for equipment and it's time now to go in and replace it and renew it and bring it up to standards. And in this case, we can gain, because of improvements in technology over the years, should have an opportunity to actually improve their thermo performance.

MR. DEAN: Randy, are you talking about replacing them or just refurbishing them by replacing the tubes or innards?

MR. FAST: Primarily, the design of the containment air cooler is a series of heat exchangers. And those heat exchangers were replaceable individually as a maintenance function. However, over the years they degrade, so we're going to be replacing probably 90 plus percent of those coolers. I'm trying to think how many coolers there actually are, but there are a few that have been replaced recently as part of the normal maintenance process, the old coolers were galvanized

steel. The newer ones are stainless steel. They have improved in design and improved thermoconductivity.

So, effectively when you look at it now, there are other elements of the containment air coolers. We did receive notification of motor problems and we have two brand new motors, two of the three will receive brand new motors and as well the register, the duct work have been completely reworked and will be remediated to, to as-new condition, so principally, that heat exchange will be replaced.

MR. GROBE: Okay. So, this wasn't necessarily an artifact of the boric acid situation, this was just an aging, normal aging, equipment aging?

MR. FAST: Well, there are really two factors, Jack. First is the aging, the normal aging process of equipment, but the other is, that through the trailing of boric acid, those would collect on the fins and those have been cleaned numerous times by our staff, that did take their toll, the boric acid that collected on the, on those cooling fins could be cleaned. But, that repetitive action did degrade the equipment.

MR. GROBE: It sounds like modification, not replacement for the component limit. Will there be a substantive test program, heat transfer testing program, following the replacement?

MR. FAST: One of the things we're not going into a lot of detail today is restart, post restart test plan, but all modifications for the plant will undergo an extensive testing prior to restart of the plant. So, that is, when you look at the chart or for the Restart and Post-Restart Test Plan, that comprehensive test or plan extends beyond the reactor coolant system and all the support systems, and in this case that would be tested extensively.

MR. MYERS: Jack, you asked the question, one of the things we can tell you, we could probably go out and clean these coolers up, work on them and meet the minimum requirements. We have, we have an opportunity to replacement and gain on the margin, so that's what we're going to do.

MR. GROBE: Okay.

MR. FAST: Okay, there were questions as we met last time about our inspections for systems that contained borated water outside of the containment. We talked about that, and said, where do we want to do those reviews to ensure that we have a good comprehensive review of systems outside of containment.

I mentioned here that we did roll that into our System Health Assurance Plan to insure that any systems that contain borated water are thoroughly evaluated for

their functional requirements and design capability. So, it's not part of the Containment Health Plan, however that element has been rolled into the System Health Assurance Plan.

Since we met last, we have gone through a review of our Inspector Training Program, and we actually saw opportunities to improve. As we had talked previously about inspection criteria, inspection requirements, we went back and used our systematic approach to training to review, to insure that our engineers were qualified to the right standards for the inspections that had been done.

We saw opportunities to improve it by using the systematic approach to training. Did incorporate it then, lessons learned and being able to then apply inspection techniques to civil, structural, electrical, mechanical and our Alloy 600 reviews.

So, subsequently, we revamped our training program for our engineers, and we have trained them. We have job familiarization guides that are implemented and we are in the process of reestablishing our baseline inspections and verifying inspections that were done previously were, would meet our standards of excellence.

We'll be detailing any differences between the initial inspections and the subsequent inspections. And using condition reports to identify those differences, and

they'll go into the engineering evaluation process.

MR. GROBE: I think I have two things there I want to make sure I understand it. I think I hear that you're going to reperform inspections and if you identify any deficiencies, those deficiencies will go into corrective action guidelines, condition reports, but in addition, I think I heard you say that when you identify deficiencies between your first inspection and the reinspection for the improved training that you're going to identify that difference as something to learn from, from the standpoint of the systematic approach to training. Is that, help me understand?

MR. FAST: We want to make sure that we understand that the inspections that were done, we want to see what differences there are. We see improvements in the training. In fact, the previous training program, we brought some industry experts in and tested them, and we identified shortfalls with even industry experts in their understanding and knowledge of inspection techniques. So, we've incorporated that.

We think we have an excellent training program. And we expect to see that through this reinspection, there will be some differences. And what we want to do is document those differences. Now, if we saw something that were generic in nature, we want to certainly apply that across

the board, but we will be documenting many of those differences and doing evaluation and inspection.

MR. DEAN: Randy, you characterized what it was that drove you to revise the field inspection training program?

MR. FAST: Yeah, I'll try to digress a little bit. As we originally identified our extended condition, we were focused on extended condition principally in the area of boric acid degradation through a threat of Alloy 600 components.

We adopted a standard, which was set by the American Society of Mechanical Engineers called a VT-2 Inspection. We applied that VT-2 Inspection. We had some problems, problematic problems in our inspection program. We went back, rebaseline, redeveloped that program. And as we raised standards, we self-identified that there were shortfalls, that although this would be good for credible Alloy 600 Inspections, it did not meet our inspection in other areas, such as electrical components or other structural components within the containment. So, we took on a more, I would say, full body inspection program with better criteria.

Okay, the other thing that we originally, in our original plan had inspection plans that were developed by engineering. We have subsequently rolled all of our

inspection plans into plant procedures.

Plant procedures are in hand. Have specific criteria requirements for the entry and exit from those procedures. And so part of our training program as well is on these new procedures and the use of these procedures.

As identified the validation of inspections is in progress. As well, we have now a group of independent inspectors that are as well going through, using the same criteria inspection programs that we'll be doing validation of our inspected areas.

MR. GROBE: Help me understand the word independent. Independent of what?

MR. FAST: It's not the same folks we're using principally; our engineers from design engineering and from our performance engineering, plant engineering. These are individuals that we brought into the organization with experience outside of Davis-Besse; and they were trained to our same program and they will be looking independently at the inspections and checking and verifying and validating that we've done a good job on those inspections.

MR. GROBE: I just want to make sure I understand this. When I think of the different kinds of assessments of work that's done on nuclear plants, which is what I refer to as line assessments; those were

assessments by the organization responsible for conducting the work. And then there is independent assessments that we've recently established, Vice President of Oversight, and that's a second level of independence. What kind of independence are we talking about?

MR. FAST: We actually have two pieces of independence. One is our First Energy's quality assessment and that is ongoing. So, our quality organization under Bill Pearce, the Vice President of Quality, has also been training or doing assessments, but we also brought in an external assessment organization. So, we have both internal oversight and external oversight.

MR. GROBE: Okay. The external oversight reports to the containment health team as part of that team's activities?

MR. POWERS: That's correct, yes.

MR. GROBE: Yes.

MR. POWERS: Containment health organization has a new kind of review and oversight organization, and that's part of our engineering assessment board that we've assembled consisting of outside industry experts, you know, providing oversight of all of our activities.

MR. GROBE: Okay.

MR. FAST: Since we met previously, we made significant progress in containment. As an example, we have off-loaded all of our nuclear fuels, 177 bundles have been transferred to spent fuel pool. This has allowed us now to make the record cool system more available for other inspections.

We have installed nozzle dams. We are in the process this week. We will refill the cavity. We will reinsert the import thimbles, then drain down, remove the sealing plate, remove the insulation adjacent to the reactor vessel flange, and we'll be doing thorough inspections of the tops of the nozzles adjacent to the reactor vessel itself.

After that is completed, we will also then be able to do cleaning, and as well, we are going to be installing a permanent cavity seal, which is something many plants across the country have been able to install a permanent, it's a stainless steel plate that joins the liner from the cavity to the vessel to insure that there is no leakage path, which is one of the items.

If you have a temporary seal, then you have some temporary, some minimal amount of leakage, leak path that comes down the vessel. With the permanent cavity seal, there is no leakage. Subsequently, we have no opportunity

then for any additional degradation under the vessel. So, that is part of our going forward plans.

The other things we're doing is we have mobilized a significant number of painters, went through a qualification program. We've got some pictures, some slides here that show. We currently have 20 fully qualified painters, effective in containment right now.

If you go in, you'll see these four foot by four foot squares where each painter actually went through a qualification process. That was the in-field exercise to insure that they met standards of excellence for coating. And you can see their names and Social Security numbers on the wall where we did this. And we go back subsequently and test and verify the paint is applied properly.

We have an additional 20 painters that are in the pipeline in training, and they'll be reporting to the station to help as well, and with coatings in the containment. And another 14 will come this week.

So, we have a significant number of painters, and they'll be painting the entire containment dome, and as well all of the surface areas from 603 elevation, that's the operating deck, up to the polar crane.

So, it's a nice bright white and we are in the process of prepping it right now. As a matter of fact, I was in yesterday and you can see where, you can see over

the years, many years of operation and training, just dirt and normal dust, oils and thing that have collected on the walls. Just like in your home, that can be cleaned and those areas are brighter significantly.

That's part of the preparation for the surface prep. And that's going to brighten the containment significantly, but that will demonstrate our standards and our expectations for the quality of condition of the containment. So, I'm particularly excited about that.

Additionally, we've decontaminated a significant amount of areas in containment. All of the containment air cooler duct work, which we've had people inside doing that work. We do have the containment air recirc fan running, which is redistributing air throughout the containment.

We also have a temporary cooling package, which is connected to our containment purge supply, and that is providing cooler air, so that we get better environmental conditions for the folks working inside containment.

That's made environmental conditions more favorable and really putting a lot better situation for the work that we're doing. So, we have a significant measurable progress in cleaning and housekeeping remediation in our containment.

That concludes my presentation. Any questions?

MR. THOMAS: I have one, Randy.

When they scope the evaluation for the containment air coolers --

(Requested speaker to repeat.)

MR. THOMAS: I asked if the evaluation of the grade containment, potentially degraded air coolers would include a past operability evaluation and scope of their inspection?

MR. FAST: The simple answer, Scott, is we are doing a past operability determination.

MR. THOMAS: Thank you.

MR. DEAN: Randy, I have a question about where, can you give us a sense of where you gauge the percentage of which you have completed, at least, the evaluation phase in terms of impact for the boric acid disposition containment.

MR. FAST: I try to use numbers. I believe these are accurate. Mark, if I'm wrong, you can correct me. But we have about 280 condition reports, which is actually about over 2000 individual line items that have to be dispositioned. About 30 of those have been dispositioned and turned into work orders for work that's going to occur. The rest are in some phase of evaluation and will be forthcoming.

I see a nod there, so it looks like I was pretty close.