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

Meeting held on Wednesday, November 13, 2002 at 7:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio, taken by me, Marlene S. Rogers-Lewis, Stenotype Reporter, and Notary Public, in and for the State of Ohio.

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

John (Jack) Grobe, Chairman, MC 0350 Panel

Christine Lipa, Branch Chief, Region III

Anthony Mendiola, Section Chief PDIII-2, NRR

Christopher (Scott) Thomas,
Senior Resident Inspector - Davis-Besse

Douglas Simpkins,
Resident Inspector - Davis-Besse

Sam Collins, Director of Nuclear Reactor Regulation

MR. GROBE: It's about 7:00, why don't we go ahead and get started. Let me start by making some introductions of -- oh, thank you. Should I start again?

Let's get started. Why don't I start by making some introductions, and then we'll get into a little bit of ground rules for the meeting tonight and then receive public comment.

Our purpose for being here tonight is to hear what you're thinking, receive any input you have, try to answer any questions you might have. If we don't have the answers here, we can certainly get them.

My name is Jack Grobe. I'm an Executive in the NRC Region III office in Chicago, Illinois, and I've also been assigned for the last several months as the Chairman of the NRC's Oversight Panel for the Davis-Besse plant.

With me here tonight are quite a few NRC staff. Let's start with my immediate left is Christine Lipa. Christine is a Branch Chief in the Region III office. She has responsibility for the inspection program, the NRC's inspection program at Davis-Besse.

There's two fellows here that she supervises; Scott Thomas, sitting right here in front is the

Senior Resident Inspector. He works at the plant every day, and Doug Simpkins is the Resident Inspector. Doug also works at the plant, and out in the foyer was Nancy --

MS. LIPA: Keller.

MR. GROBE: -- Keller, thank you. Nancy is the Resident Office Assistant, and she has been a tremendous support for us for organizing these meetings and making sure that we have the handouts and getting you folks the information that you need that we bring with us.

There's a number of documents that are out there on the table. I hoped you picked them up. One is our monthly newsletter. This newsletter documents the results of several recently completed NRC inspections, and it also indicates ongoing inspections, provides a variety of background information on what happened at Davis-Besse and what the NRC is doing. Also there were slides from this afternoon's meeting, both from the NRC presentation as well as the First Energy presentation. In a minute, Tony Mendiola, who is sitting on Christine's immediate left, Tony is a Supervisor in our headquarter's office of Nuclear Reactor Regulation. He has responsibility for licensing of the

Davis-Besse facility, along with other facilities, and John Hopkins works for Tony. John's the Licensing Project Manager.

We also have one of our Senior Inspectors here from the Region 3 office, Marty Farber. Marty led a team of nine inspectors that were specifically looking at the adequacy of systems at the Davis-Besse plant.

Jay Collins is sitting back there. Jay is an Engineer from the office of Nuclear Reactor Regulation, who's working at the site with Scott and Doug currently.

Over here, we have Roland Lickus and Vika Mitlyng. Roland is our State and Government Affairs officer, and Vika is a Public Affairs officer out of the Region 3 office, and I think Vika is making a phone call, but she'll be in in a moment.

We have two inspectors from the Perry plant, I believe, Ray Powell. Ray, raise your hand. Ray is the Senior Resident Inspector at Perry, and he's over at the Davis-Besse plant helping out, and who am I missing --

MS. LIPA: (Indicating).

MR. GROBE: Oh, okay, the resident left, and on my immediate right is a very important

person, Sam Collins. Sam's the Director of the office of Nuclear Reactor Regulation in headquarters. Sam has overall responsibility for the safety of nuclear power plants in the United States, and with Sam tonight, Tony and John work in Sam's office, as well as Margie Kotzalas. Margie is an Engineer in NRR, and she works with Sam. She specializes in communications effectiveness. Communications and public confidence is one of our four primary goals. Our most important goal is the safety of nuclear power plants, but we also have goals on efficient effective utilization of NRC resources, making sure that our regulatory programs are well-founded, and we minimize any unnecessary burden, as well as making sure that we endeavor to communicate to the public so that we enhance your confidence in us as a strong regulator.

I think -- have I missed anybody? I think I've got all the NRC staff that are here tonight. We met this afternoon with FirstEnergy for about four hours -- three and a half hours or so, and then took public comments and questions after that meeting and we're here tonight.

Tony is going to summarize this afternoon's meeting, and before I turn it over to Tony, what I'd

like to do is ask Sam to make some comments.

MR. COLLINS: Thanks, Jack. Good evening. Thanks for being here tonight. I know some of you may have been here this afternoon also, but I did appreciate the opportunity to talk to other citizens of the area and workers at the plant and those stakeholders who are in the area because of the interest in the plant. I did acknowledge this afternoon, I'd like to do so also this evening that we're aware of the burden that the area is under as result of the tornadoes on Sunday in Oak Harbor and Catawba Island, and we appreciate the fact that some of you may be distracted or perhaps not even here tonight because of that, so it's a busy and important time for you, but we are here to answer questions. I'm here specifically to answer any questions that people may have on the program and the process that we use that resulted in the plant operating for the additional 45 days beyond December 31st, at which time they shut down in mid February and upon inspection discovered the corrosion on the head. I can go through the logic and the process and where we are with the reviews and how we have been self-critical under evaluation and how that took place and how we intend to move forward as hopefully

a better organization. We think we owe you that information and that clearly that was an unexpected result, and we missed an opportunity to discover it multiple times as a result of our regulatory processees, and we know that's important to you as a constituency not only in the plant area, but also relying on the NRC to be a strong credible regulator. Thank you.

MR. GROBE: Thanks, Sam. There's one additional document that's outside, and I hope you take advantage of the opportunity to provide us some feedback. It's called a feedback form, and it's self-addressed, so all you've got to do is fill it out and drop it in the mailbox, and it will get back to us. It asks you a number of questions regarding the effectiveness of these kinds of meetings and asks you for suggestions on how to improve the meetings, so please take a few minutes after the meeting and give us your thoughts because we're always looking for ways to improve in how we conduct our business, and we'd appreciate your feedback on that also.

Tony, why don't you summarize this afternoon's meeting?

MR. MENDIOLA: Easier said than done. I'm going to try to capture in a few minutes

here basically what we discussed in about three -- three and a half hours that we had with FirstEnergy this afternoon.

Speaking from a few documents here -- and I'll refer to them hopefully to help anyone who wasn't here negotiate through what we discussed.

The first document, of course, is the agenda from this meeting held as 2:00. I think there is still some copies in the lobby if you need some, but basically, we started, of course, with Introduction and Opening Remarks and moved on quickly to the NRC's part of the meeting, which was to discuss our restart action checklist and the status of some ongoing inspections that we have either completed or in the process of inspecting at the site. Rather than go through the long drawn-out list, I would prefer to refer you to the NRC Update, this handout in the lobby. It's basically -- well, it says NRC Update on it, and it has our logo on it, but it clearly defines the Findings of the Completed NRC Inspections, including some that we actually had an exit meeting on this morning at the site, and it gives you a summary of what the NRC found and what we still have left to do.

Additionally, on the front page, basically

where my thumb is here, there's a section which discusses the ongoing NRC inspections and their current status and as well as what we're inspecting on site for those three inspections that are ongoing. Rather than summarizing those for you, I'd prefer that you look at these, and if you have any questions or any -- need anymore information on that, we'll be happen by to address them here.

The update also -- by the way, also has a large amount of background information on the occurrence that happened at Davis-Besse, and, basically, if you refer to it, it will bring you up-to-date on where we stand after all the activities that has happened this year.

After summarizing that, we also had indicated a potential for -- not the potential, the actual scheduling of some future meetings. A week from today, in this location, the Lessons Learned Task Force, the NRC's Lessons Learned Task Force will be here -- I think at 7:00, yeah, 7:00, a public meeting to discuss their report with the public, and, I think, to get feedback from the public.

Additionally, I'm sorry, the follow week, on November 26th in headquarters, there will be a series of meetings with Davis-Besse as well to discuss

issues associated with the leakage that has been found on the bottom of the reactor vessel. That meeting will be a public meeting in the afternoon of November 26th, and it will be on the teleconference, so people can call in and listen to the meeting since it is back in Washington.

That basically wrapped up the NRC's portion of the meeting. From that point on, we moved into the Davis-Besse agenda and the -- their discussion of the return to service update. I believe there is still slides, copies of this out front. I'm only going to address the high points. This was the majority of the three -- three and a half hours that we had this afternoon.

Basically, there was several desired outcomes from this meeting which FirstEnergy set forth at the beginning. They wanted to discuss clearly their quality assurance organization, and the status of that organization as it works through an understanding of where quality assessment is at the plant, as well as to demonstrate that there is some value being added in their processees that they currently have in place. They also wanted to demonstrate where they were on some key Building Blocks associated with getting the plant back to

restart. They wanted to address the lower level penetrations and to address some emerging design questions that have come up as they have gone through their engineering analysis supporting their key Building Blocks, and then they also wanted to review the ongoing schedule for returning the plant to start-up.

The first discussion that had to do with the quality assessment, as I mentioned, the first key element of their presentation discussing the major responsibilities of their Quality Assessment Value-added organization on site, basically the fact that they had done a number of Plant and Staff Readiness Assessments and evaluated various portions of the Building Blocks looking for individual parts of quality assessments that had been made and evaluating the value-added and basically showing the strength of their organization, their quality assessment organization as issues emerged and were resolved. They provided -- and you'll see this if you have a copy of the slides, they provided individual issues in each of these Building Block areas and followed through with some simple discussions on how their organization, their quality assessment organization had improved or had helped

resolve these issues. This is a little awkward with one hand. Sorry.

Basically, though, in summary on their Quality Assessment Value-Added they indicated that they had made some organizational changes and some managerial changes associated with the quality assessment area. They were still in the taking action category, but one of the things they wanted to do was do a quality assessment program review, evaluate the program where they stand currently and to determine what future actions they were going to go on from this point on to make the quality assessment an even stronger program at the plant. Then they moved into the key Building Blocks, basically discussed the restoration of the reactor head, the current status of that, the engineering status. That discussion branched off into the under vessel area. You may be aware that there was some questions about basically some deposits that were found on the bottom of the reactor vessel, what are they, where are they from and what does that mean, what is the significance of those issues. The plant worked closely with their vendor and came up with some engineering evaluations and some chemical evaluations. Rather inconclusive were the results.

Some key was where to go from here and they developed -- basically, rudimentary developed a bottom head plan, which is basically how they were going to go about determining and evaluating what was the findings on the bottom of the head, and they gave basically a simple outline of the plan, which involves basically cleaning the bottom head, restoring the plant and taking it to what we call normal operating pressure, normal operating temperature, otherwise known as NOTOP, and then holding that pressure for a period of time, anywhere from three to seven days and then shutting the -- cooling the plant back down and going in and determining what -- what results in there. If there is a leak, of course, there would be some buildup of some boron, or if there is any other misting or any other spray characteristics down there, then they would be able to figure out, what, if any, there is leaking down there, and then obviously incorporate whatever repair activities would be necessary.

There was discussion about installing some on-line leak detection system currently or as soon as possible basically so that they could be evaluating this on a constant basis rather than, if you will, on an opportunity basis. This system would always be

on-line, the leak detection system, would always be on-line under there to see if there is any leakage. It's very similar to what they do overseas. The plan is still being drafted and future activities on this really will center on the meeting on November 26th in headquarters.

Moving on, they went through some of the other Building Blocks, a System Health Assurance, basically discussing the Significance Assessments of various systems and going through some issues and evaluating those issues to determine just basically how healthy and how ready these systems are in order to restore the plant to restart status. Basically most of the information gathered on System Health Assurance for the facility anyway is in the evaluation phase to determine what the significance is of these issues that they've discovered.

Design Issues Resolution, this is one of the other major issues that we discussed today. Design Issues, of course, as they have gone through various programs, they've determined that some of the fundamental design basis calculations, if you will, have some -- some -- uncertainty is probably a bad word, but it's a word I'll use, uncertainty on whether or not, you know, the calculations are still

valid, the methodology for calculations with the initial conditions in order to set up the calculations are still valid. They're going back to verifying to be sure that these calculations are valid, and they had a chart up on that wall -- it's gone now, but basically discussing how far they -- or what they've done so far and how much more they felt that they needed to do in order to perform what we call a design basis validation. They had this program which will be focused on validating the system descriptions and design criteria. Sorry.

The next area was the discussion, the next Building Block area discussed was the Management and Human Performance Actions. Basically there's been a large amount of work associated with the plant in order to complete an assessment, an evaluation, and improvement, I guess, of the safety conscious work environment, the ability, if you will, of the on site staff to conquer any issues that come at them, and there was some significant improvements which were pointed to, a large amount of safety conscious work environment training for most of the site contractor supervisors. There was some assessments of various -- at various levels of the staff on their ability to follow through on these issues. The

staff I'm talking about the executives, the managers, directors and supervisors, basically discussing with them, you know, the understanding -- make sure they have the understanding and training to be able to follow through on a safety conscious work environment.

There was a lot of discussion about the case study. This was a one day stand down at the plant where there was a large discussion of all the staff on the plant to discuss the case, to discuss what happened at Davis-Besse and the assessment of the feedback from that meeting, that day, from the staff and how -- how it is -- how those themes, if you want to call it that, are going to be reflected in future management styles and issues at the plant. Some of the concerns were, you know, were also discussed such as the management production versus quality, safety, priority concerns and that there was some skepticism about management's response for raising issues and concerns, fear of reprisal.

In the interest of -- oh, I'm sorry, not yet. One more major issue that was discussed was the Operations Leadership Plan. This is a plan which is going to seek to prepare the operations organization for restart and to ensure that once restarted that

they will sustain a higher level of performance. They were seeking to strengthen and prepare the operations staff for restart and seeking, if you will to make the operations staff the leader at the site and be recognized as the leader at the site among all the departments at the site and that continuous improvement would be expected of the operations personnel at the site.

In the interest of the time, we skipped the last bullet which was a discussion of the Schedule Review. Some of those Major Milestones are captured in the slides, and, if you like, you should take a look at these. These have to do with the major milestones in the future for the plant, and by that point we were well over the three hour point. We had a few closing remarks, which basically I've already captured. We did recap all the major plan activities, and we did indicate that the next meeting of this type would be December 10th, I want to say down the street -- that's probably the wrong word; over at Camp Perry at the clubhouse at Camp Perry.

That, in a nutshell, is everything that went on for the last -- well, for three and a half hours.

If you have any other questions, or you need anymore expedition on that, just let me know.

MS. LIPA: I also wanted to point out that in the monthly newsletter, there's a lot of key information. There's our web site address, and there's a lot of good information on the web site, inspection reports, transcripts from these meetings and other information that you can use, and also in there are the numbers for our Public Affairs officers, so if you don't want to come up and ask a question today, you can call either Viktoria Mitlyng or Jan Strasma and ask them questions about the Davis-Besse.

MR. GROBE: Before we get started with questions, let me just do an informal survey.

How many people are here for the first time, this is the first meeting that you have attend?

THEREUPON, a response was given by a show of hands.

MR. GROBE: Oh, excellent. Thank you very much for coming.

Given that, why don't I just take a few minutes and go over some background information so that you have a better understanding of what we're all about.

I think most of you know that earlier this year Davis-Besse shut down for a routine refueling

outage, as well as the performance of some unique examinations and tests of the reactor pressure vessel head. During the course of those activities they discovered a rather large cavity, some have described it as football shaped or as footprint shaped or --

MS. LIPA: Pineapple shaped.

MR. GROBE: What was that?

MS. LIPA: Pineapple shaped.

MR. GROBE: Pineapple shaped, about, you know, four inches by seven inches. The reactor pressure vessel is one of the barriers to the release radioactive materials. The first barrier is the fuel itself. The fuel pellets are ceramic, it's the uranium fuel pellets, and they contains the vast majority of the radioactive materials, the radioactive waste within the pellet itself. Some of the radioactive waste is in the gaseous form. It collects inside the fuel pin. The pin is about 12 feet long and about the size of your little finger in diameter, and there is half a gazillion of those inside the reactor. They are arranged in fuel elements, but that's the second barrier.

The next barrier is the reactor coolant system itself, and just to give you some context, there is some very good description in our newsletter

of this, so please take a copy of that, and if you can't get it tonight, we'll be glad to send you one, or if you can get on-line, all of this information is on-line at our web site, but the reactor pressure vessel is about a six inch thick steel vessel. It's kind of shaped like a hotdog. It's about 14 feet in diameter and about 25 or 30 feet long -- tall. It's got rounded heads on both ends. The upper head is where the degradation occurred. It was caused by a crack in a -- in a tube, a four inch diameter tube that goes through the head. There's quite a large number of those that go through the top of the reactor head and through these tubes are the control rod drive mechanisms. That's the equipment that drive the control rods in and out of the reactor itself. The control rods control the level of power by controlling neutrons in the reactor core, so these rods normally when the plant is shut down, all inserted in the core. When the plant operates they are removed from the core, pulled up out of the core, and these penetrations in the top of the reactor vessel are for the mechanisms that move these rods in and out.

Over the past number of years, there was an issue that was developing with the certain type of

materials that were used in the Davis-Besse reactor where some cracking in these penetrations have been discovered and the inspections that were being done during this outage were to confirm that, in fact, there were no cracking. What was identified was, in fact, that there had been cracking, that the cracks went through the wall of the penetration tubes such that the reactor coolant was leaking through these cracks. That reactor coolant contains boric acid and there is -- boric acid is an additive to the coolant that is also used to help control the nuclear reaction. It's a very, very mild solution of boric acid. When it's in the reactor coolant, it's not terribly corrosive, but when it becomes concentrated it can be corrosive, and what happened on the head of the reactor was that this boric acid became concentrated, became a corrosive material and actually corroded away six inches of steel. This was a situation that had never been experienced before in a nuclear power plant. It was completely unexpected.

The licensee during the course of our inspections immediately following the discovery of this, FirstEnergy -- it was revealed that FirstEnergy had a number of opportunities to discover this

earlier and they had performed unacceptably, and we have two reports that document our inspections in this area; one is an Augmented Inspection Team report that was issued, I believe May 3rd, and then a follow-up to that inspection, which was issued, I think in September -- August or September, but both of those are our on web site, and if you can't get on our web site, we'd be glad to get you copies of those. We identified a number of violations of our requirements.

When the NRC identifies a plant that has significance performance problems, we have unique aspects of our inspection program that we implement. Our baseline inspection program, which is our routine program, it's administered at every nuclear power plant in the United States is predicated upon certain assumptions, and several of those assumptions include the fact that the plant organization is performing well, that it's well run, that they have a robust corrective action program, and we use a lot of jargon, and I'll try to explain that jargon. If you have any questions, please ask me, but the corrective action program what that means is that you're always looking for problems. When you come across a problem, you're willing to bring it forward and deal

with it and solve that problem, and it's a very well structured program. In fact, at Davis-Besse their corrective action program was not effective. They had identified a number of issues that should have led them to conclude that there was a big problem going on in the reactor vessel head over a period of about four to six years, and they did not do that. In these kinds of situations where a plant is shut down and there's significance performance problems, we implement a procedure, we call it 0350. That means nothing to you, but let me tell you a little bit about it.

The reason I mention the number is a lot of times you'll see the newspapers or in other documents, the panel that I chair is referred to as the 0350 Panel. It's official title is the Davis-Besse Oversight Panel, but it's a unique activity in the agency where we bring together executives, managers, and staff from across the agency to bring focus on this unique problem, and the panel takes over -- the plant is removed from our normal inspection and oversight programs and it's placed under the panel itself. I chair that, I'm an Executive of Region 3. There's an executive that reports to Sam, a fellow by the name of Bill Dean.

He's Deputy Director of Engineering in headquarters, and he is the Vice Chairman of the panel, so we have executives both from Washington and Chicago, as well as the variety of staff, John and Tony, Christine and Doug are on the panel and a couple of other folks also from the Region 3 office, so the purpose of the panel is to provide additional oversight. We direct the inspection program instead of having a routine program implemented. We ensure that all of the agency assets that are necessary, both the people and any other sort of asset, research people, contractors are brought to bear, and the entire organization, NRC, is focused on this -- solving this problem at Davis-Besse, so the panel has been in existence since the end of April, and we've been actively involved in routine oversight, and what I mean routine, it's essentially continuous oversight at what's going on at the plant. There's a substantially large or greater number of inspections that are being performed than you would normally see go on at a nuclear power plant and in the United States. We also coordinate licensing activities. There's a number of licensing issues that are necessary for replacement of the reactor head, and those are under the coordination of the panel, so the panel brings

together all of the assets of the agency that are necessary to make sure that this plant is safe.

The plan -- FirstEnergy has developed a restart action plan, and Tony referred to Building Blocks. It's comprised of a number of different Building Blocks. Replacing the head is one of the Building Blocks. Making sure that equipment inside the containment structure is another Building Block. Making sure the equipment outside the containment structure is good equipment, it's safe equipment is another building block. Human Performance and Management Effectiveness is another Building Block, so there's a number of Building Blocks. That's how they've structured their restart activities. We structure our oversight along those same lines so that we can adequately evaluate what they're doing at the plant. One of the responsibilities of the panel is to develop what we call a restart checklist, and I believe that's attached to the handout from this afternoon so you should have a copy of that. It's three pages long, and those are key elements that the panel has determined are necessary for the plant to address before the panel would consider a recommendation for restart, and let me just talk a little bit about that process.

If the panel comes to the conclusion that FirstEnergy has done an adequate job of addressing all of the issues that need to be addressed prior to restart, those issues are captured in our checklist, the panel would make a determination and a recommendation to my boss, Jim Dyer, Regional Administrator, the top person in Chicago, the panel would believe that the panel was ready for restart. That decision would not occur until the panel is convinced that the plant can restart safely and then successfully operate safely long after restart. Jim would then discuss that recommendation with Sam, and Sam and Jim are the decision-makers on a restart decision, so in a nutshell, that's what we're all about.

Tony, highlighted a little bit larger nutshell, right, Tony?

MR. MENDIOLA: (Indicating).

MR. GROBE: Tony highlighted that our newsletter includes -- this monthly newsletter includes the results of some recent inspections. We've completed a couple of inspections that had some fairly positive results. One of the questions was, is this head that FirstEnergy purchased from Consumers Power in Michigan, is it an adequate head

for replacement at Davis-Besse, and the company concluded that it was. We did a number of inspection activities, both in Midland, Michigan as well as here at the plant and also in Virginia to confirm that, in fact, this reactor head is an adequate head for Davis-Besse and will perform safely in service, so that's a significant milestone.

There's a couple of outstanding issues, and they are discussed in the report that still need to be resolved, but that's a significant milestone. One of the activities that had to be undertaken was to put a rather large hole in the side of the containment building to get the old head out and the new head in. That's been done before. It's not the normal type of activity that occurs at a nuclear power plant, so it's one that we wanted to pay particular attention to and it's on our checklist, that that activity is accomplished well, and, in fact, we concluded that the plant did a good job of restoring the containment structure itself which is about a one inch thick large building, one inch thick steel, and then outside of that is about a three foot thick concrete structure. It's called a shield building. They had to cut holes in both of those structures and then restore that, and we concluded

that that was well performed. There is also some outstanding issues there. One of the most important is, what is referred to as the containment integrated leak rate test. What the company has to do is pump up the containment to about 40 pounds per square inch pressure inside and hold it there for a long period of time to make sure that it's leak tight because it's one of those barriers with multiple barriers to release radioactive material if there is an accident at the Davis-Besse plant, so that inspection went well.

Another inspection that was recently come completed, and we highlighted the results of this afternoon was what the company refers to as the Containment Health Building Block. Inside the containment, not only was the head damaged, but there was the potential because there was a variety of boric acid spread around inside containment, there was a potential that that could affect other equipment, and we performed an inspection of that activity very early on in the outage and found that the company actually had done a very poor job in that regard. There were a number of violations where people weren't trained properly. They weren't using procedures correctly. FirstEnergy stopped work,

started again, and rebuilt that effort from the ground up. Our findings in the second part of that inspection were fairly positive. There were, again, some outstanding issues that we need to circle back on, but that inspection we found that they had done an adequate job of evaluating equipment inside containment.

An additional inspection, the one that Marty Farber led here, was looking at the design of equipment outside containment and the readiness of equipment outside containment to safely operate the plant. FirstEnergy had performed fairly extensive review of five very important systems at the plant, and then a less detailed review of 31, I think, systems, additional systems -- excuse me, and FirstEnergy had identified a number of problems with the control of the design of the plant. We came in and did independent inspection of that activity as well as our own review of three systems with a team of experts and design -- mechanical design, electrical design as well as operations and maintenance of systems and found additional problems. The Utility, FirstEnergy, is currently trying to evaluate -- doing what they call a collective significance review. Again, I'll try to avoid

jargon, but what they're doing is pulling together all of the issues that they identified, all of the issues that we identified, evaluating them, trying to determine what that means as far as additional actions that need to be taken prior to restart and then lay out a plan for accomplishing those actions. What FirstEnergy presented was that the significance of the individual findings for the evaluation to be completed by the end of November, and then some time early in December, they will have clearly in focus what additional work they're going to do, and then we plan on meeting with them as soon as they are ready to share that with us. There will be significance additional inspections in this area.

The other inspection we reported on the results of was -- I had mentioned Scott Thomas and Doug Simpkins here in the first row, they're here every day, at the plant, and doing inspection work, and they issue reports on a regular basis throughout the year, and they just completed one of their routine reports, had a number of observations of areas where work could have been better performed, so all those reports again are on our web site. They're summarized in our newsletter, and I encourage you to -- if you're interested to seek out that information.

If you can't find it, as Christine indicated, you can certainly call our Public Affairs folks. If they can't get the information, I'm always on the phone with folks. They're frequently searching me out to chat with folks like yourself to answer questions that you might have.

With that larger nutshell, to give you an idea of what we're all about and why we're here, I'd like to answer whatever questions you may have, and what I'd like to do is start with folks that are from the local community here around the Davis-Besse plant. If you could try to limit your questions to a three to five minute time frame, and we'll spend as much time as necessary to answer them. That will give everybody an opportunity to ask questions, so I'd invite anybody interested to come forward. If you could use the microphone, we'd appreciate it. They way, everyone can hear your question. We also have a Court Reporter here transcribing this meeting, and that transcription will be available on the web site, so please come forward. If you could sign in, we'd appreciate it. Tell us your name and then ask us your questions. We're here to answer them.

MS. LUEKE: Hi.

MR. COLLINS: Good evening.

MS. LUEKE: Good evening. This is nicer having you down here. I'm Donna Lueke, and I do have a few questions.

I have been trying to surf your web site and want to thank the people at the public information office when I couldn't get through, and I needed to get through some things.

The thing that concerns me the most is obviously we're working from a situation where things happened that in retrospect nobody wished had happened, either First Energy or NRC, that mistakes were made. Those are being explored now and fessed up to, and I think that's all really positive, but the thing that concerns me is, there are a lot of nuclear power plants and even if everything is fixed with Davis-Besse and we never have another problem, what can we do to help the NRC, what can the NRC do to make sure that these same things don't happen again?

Is it a matter -- I know I'm making this question a little longer than necessary, but is it a matter of funding? Is it a matter of needing more autonomy? Is it a matter of needing a different organization so that it's free of political appointees and just want -- to the people here, I

mean, I know that you don't speak for the whole organization and that there's another meeting coming up about lessons learned, but what would you say is the biggest problem?

MR. GROBE: Well, that's an excellent question. Thank you. Let me tell you a little bit about what is going on, and then I think I'm going to give Sam an opportunity to comment on this because he's much closer.

Our primary focus has been on Davis-Besse. Independent of the oversight panel, there's a group called the Lessons Learned Task Force, and what the head of the agency, we call them the Executive Director for Operations and Bill Travers, what he did was he chartered a group of folks across the agency, that were completely independent of Davis-Beese. It is chaired by an individual who is my counterpart in Region IV in our Texas office, and there were people from the office of research, from other regional offices, from the office of Nuclear Reactor Regulation who sat on that panel. I think it had about eight folks on it, and they spent a couple of months trying to answer that exact question. They published a report about a month ago, and it was -- received fairly wide coverage in the newspapers, and

it is also on the web site, but if you can't get it, we'd be glad to get you a copy. They made a number of recommendations in a variety of areas, inspection area, in the licensing area, how regulations were structured, and what Bill Travers did once he received that report, was he chartered a group of executives in the agency, and Sam is a member of this team, it's called the Senior Management Review Team to review that report and identify specific actions that the agency is going to take. Sam, why don't you comment on this?

MR. COLLINS: Yeah, thanks. You say you had three questions. Is that the first question?

MS. LUEKE: That's the first, yeah.

MR. COLLINS: Okay.

MS. LUEKE: It's a big one.

MR. COLLINS: That's okay, that's good. I think the answer to your question is really pretty straightforward. You can't be complacent and this industry has been around since the '70s, been operating with the sanctions of the United States Government. We're the ones who license the ability to use the nuclear material for power reactors in

this case. We have a lot of rules and regulations that power plants, all 103 units that are operating today, have to abide by, and you can't ever assume that you know it all, and on the industry's part, I think you can never stop questioning what's happening, why is it happening, do I understand it, and if it takes me the extra time, people, and money to pursue it, then we need to do it because there is very little margin of error. These plants are designed very well. They have multiple barriers and boundaries, as Jack explained. They have typically very good people, dedicated people operating them, but they are high risk -- it's a high risk industry, both in the business sense and in what I would call human capital sense and that there's a public constituency that needs to understand where these plants are built, that the plants are being operated safely and are being regulated well, and we lost confidence in that area. Now, there was no accident, but we found out something that we didn't suspect, and we never want to be in that position. We had multiple opportunities as an agency to discover it. We had a lot of indicators. We had people at the reactor vessel head looking at the head being cleaned. We had people there for inspections,

and we never went to the extent where we put those pieces of information together and asked the hard questions. Why? I don't know. You have to get the individuals to find that out and that answer probably has changed overtime. We are independent. We only have five political appointees. The rest of the agency, all 2,100 or so of them are career employees, so -- I am a career executive, Jack is, so we don't turn over every five years. The administration and our commission who are appointed by Congress and confirmed by the President, don't turn over every administration. They have four appointed terms, so every four to five years, one of those individuals is reappointed by the President Administrations, so we're fairly neutral, and we pride ourselves on being a technically focused agency.

The Lessons Learned Task Force was hard hitting. I can go into all that if you're interested in the details, but we're subjecting ourselves to the same types of reviews that we would expect the licensee to be under when there is a program failure, when you miss these opportunities to discover these types of issues. We did know about boron degradation. In fact, it did happen at the Davis-Besse plant before in a smaller sense to a

valve, a pressurizer spray valve, that had corrosion on the carbon steel parts, which were the valve stems and nuts or studs and nuts, and we knew about that firmly. It happened at the Calvert Cliff plant on the pressurizer. We thought we had a program to address it, we thought the licensees were inspecting it, we thought we were inspecting it, but we missed this opportunity.

MS. LUEKE: Do you feel that that's part of this complacency is because there's too much of the same structure and not enough new information or outside opinions or other independent people taking a look at it from the outside?

We discussed this last time that you spend all your time with the licensees and with each other, but the public input is fairly limited, and the input from -- I know there are people like the Union of Concerned Scientist and people that are the watchdog agencies, but both the public and watchdog agencies tend not to get involved until something goes wrong.

MR. COLLINS: Well, I think that's the tendencies of human nature.

MS. LUEKE: Yeah, but we don't have much margin for error.

MR. COLLINS: That is true. I

would say that our process is probably one of the more open processees, but is not local perhaps. In the formulation of the inspection program that we had today, which was in effect at the time that the degradation was discovered, this degradation took place over a long period of time, could be four to six to eight years depending on the possibility of the degradation rate. We've had about 30 meetings -- public meetings in the area here, if my recollection is right. We had five exchanges of correspondence with FirstEnergy when we were determining to what extent they had inspections. We had four public meetings where we had multiple phone lines where people could call in. That was all an open process. I would view this as more being technically astute as being able to step back, look at pieces of information, take operating experience, which there is a lot of, use International experience and focus on these areas that to some extent we have passed judgment on, and we think they are working well, so we move on to the next area, and the Lessons Learned Task Force would say we should reserve some resources, time, people, and money to go back and test what we think is working well.

MS. LUEKE: Yeah.

MR. COLLINS: And to re-baseline ourselves to be sure that those older issues -- even though they maybe understood, may have a program, are really being done well because we know that exist, and look for the issues, but don't forget what has been there, and that's what I mean when I say complacency.

MS. LUEKE: So that does sound like a key element. What about funding? From what I was able to understand from the web site, over 90 percent of the funding comes from the licensees, so this seems to me to be an inherent problem because the people that you're regulating -- say, for example, you found a plant you felt really needed to be shut down completely and forever.

MR. COLLINS: Uh huh.

MS. LUEKE: By doing that, that would cost you a great amount of money and a big chunk of funding, so there wouldn't be much motivation, I mean, other than your mission statements, which I'm sure is taken very seriously by everyone, but that seems to be an inherent problem.

MR. COLLINS: Yeah, I understand appearance of a conflict between that, we are a fee recovery agency. There are some details perhaps that

are important, and that is our budget does come from a Federal fund. We reimburse that by fees, and it's on off years, if you will. About 90 percent of our budget, as you indicate, comes from the industry; about 10 percent comes directly from the general fund, and that funds what we would call the International work and some other work that's generic. The way I'm going to respond to you is, my thinking, there is always going to be work for the Nuclear Regulatory Commission, whether a plant is shut down or whether it's operating. If it's shut down, it's going to go through decommissioning. Decommissioning takes an extended period of time. In some cases it might not be done four 20, 15 or 40 years, if it's put in a safe store type of situation. We're focused on the potential building of new facilities, the operating of existing facilities and a shut down of old facilities, so there's a lot of business lines that we have.

MS. LUEKE: Okay.

MR. COLLINS: We do not do accounting like you might think a consultant would where when one of Jack's people leaves the site, he presents a bill, collects a check, and leaves, if you will.

MS. LUEKE: Uh huh.

MR. COLLINS: Perhaps that connotation could be envisioned, so we stay as far away from that as possible, and budgeting is done really at a program office level. The budget that the region receives is allocated by the office of Nuclear Reactor Regulation. We go in for that budget. We analyze that budget. We defend that budget. We receive it. We analyze any cuts. We allocate those resources to the regions. The regions are not a direct part of that process, so they do not have the view or the influence perhaps that you might believe.

MS. LUEKE: Okay.

MR. COLLINS: I don't know, is that understandable to you?

MS. LUEKE: Yeah, that was. One area that seems to be -- and this may be a very naive thought, but it appeared to me that, I don't know how heavily you use fines, but it seems like that would be an area where a lot could be accomplished by using -- by using the fine approach, then you're not only punishing the Utility for violations in a way that they, as a business understand, but it's also helping to fund more proactive NRC. I mean, so -- -

it just seems to me -- and perhaps even an award system for companies that don't have problems. I mean, I don't know, I'm just taking this from a business perspective and what I know of business and motivation, and it appears -- it's just something that I had and I don't know if it's incorporated into what -- how you do business or not.

MR. COLLINS: Good question.

MR. GROBE: It is. We have an enforcement policy that includes civil sanctions, which would include fines as well as orders to do things. We use fines for very significant violations. Most of the violations that we identify day in and day out at nuclear plants that are not that significant. There are some violations of safety requirements, but they're handled through a different process where we assess the significance of a specific finding, ensure that the company is taking corrective action, and as the significance goes up the level of additional inspection goes up, but for the most significant violations that occur as well as those that don't lend themselves to risk evaluation, we do use civil penalties, fines. An example of a violation that doesn't lend itself to a risk characterization would be a violation of our

requirements that prohibit a company from taking retribution against somebody who raises a safety concern. It's a whistle blower concept. If they violate those requirements they go directly into the traditional enforcement policy which includes fines. If there's a significant overexposure or a significant accident or event, we would consider fines, but for the vast majority of the violations, we don't use fines. That is part of our process.

MS. LUEKE: I realize that, it just seems to me if you would use fines for lesser offenses also, you might minimize them becoming larger offenses.

MR. GROBE: If you go back 10 or so years, we used to use fines to a much greater extent, and what we found was that they were not a significant motivating factor, so we elevated the level of issues that we would use fines and I think became more effective in the way we motivate improved performance, and one of the things that's important to keep in mind is that -- and this is not talking about Davis-Besse, this is talking about the industry as a whole, the safety performance of the industry over the last 10 to 15 years has been steadily improving, and if you take a snapshot today as

contrasted with a snapshot from 15 years ago, there is a substantive improvement, very clearly measurable by all indicators, that the plants in the United States are operating safer today than they ever have. Now, that's, like I said, separate from Davis-Besse. The situation that occurred at Davis-Besse, I think Sam indicated, an accident didn't occur, but essentially all safety margin on the reactor pressure vessel was eliminated because of failures to properly implement required programs, and we didn't identify that the company was failing to do that, so that's -- those are issues that we're dealing with.

MS. LUEKE: I guess we find that less comforting because it happened here, No. 1, because it was so close; No. 2, and because there are so many of the plants that are aging, so I think it's -- makes it even more important that these things do happen.

MR. GROBE: Yeah, I think those are concerns what we also share. We have requirements that address aging issues. We have requirements for making sure that the plants are well maintained. There's a variety of requirements that address the concerns that you have, but I understand your comment.

Do you have any final comments before we go to somebody else?

MS. LUEKE: Yeah, I realize I need to go on. There were just a couple quotes that I wanted to ask about that have been in the press lately. One was that Mr. Sheron said that our lawyer said if you issue an order you must have an immediate safety concern and that was one of the reasons that it wasn't shut down in November, and do you need to go through lawyers every time you do a shut down notice, and are the lawyers sort of wagging -- the tail wagging the dog here? I mean, we all know that lawyers are everywhere and they do protect us.

MR. GROBE: We'll collect lawyer jokes after the meeting.

(Laughter).

MR. COLLINS: Any lawyers in the house?

(Indicating).

MS. LUEKE: Yeah, and so we want to be respectful to the lawyers in the house.

MR. COLLINS: Yeah, very good.

MS. LUEKE: But I found that comment unnerving, that you would have to go ask the