UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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BRIEFING ON LESSONS LEARNED

DAVIS-BESSE REACTOR VESSEL HEAD DEGRADATION

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ROCKVILLE, MARYLAND

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TUESDAY, FEBRUARY 4, 2003

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The Commission met in open session at 2:00 p.m., at the Nuclear Regulatory Commission, One White Flint North, Rockville, Maryland, the Honorable Richard A. Meserve, Chairman of the Commission, presiding.

COMMISSIONERS PRESENT:

RICHARD A. MESERVE Chairman of the Commission
NILS DIAZ Member of the Commission
GRETA J. DICUS Member of the Commission
EDWARD McGAFFIGAN Member of the Commission
JEFFREY S. MERRIFIELD Member of the Commission

(This transcript produced from electronic caption media and audio and video media provided by the Nuclear Regulatory Commission.)

STAFF AND PRESENTERS:

H. PETER BURG Chairman & CEO, FirstEnergy

GARY LEIDICH Executive VP, FirstEnergy

LEW MYERS COO, FirstEnergy

L. WILLIAM PEARCE VP Oversight, FirstEnergy

ROBERT SAUNDERS Pres. & CNO, FirstEnergy

JOHN "JACK" GROBE NRC IMO 0350 Panel, Chairman

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WILLIAM KANE DEDO

WILLIAM TRAVERS EDO

PAUL GUNTER Director, Reactor Watchdog

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Nuclear Energy Institute

JERE WITT County Administrator,

Ottawa County, State of Ohio

P-R-O-C-E-E-D-I-N-G-S

(10:29 a.m.)

CHAIRMAN MESERVE: Good afternoon. The head corrosion at the Davis-Besse reactor in Ohio is one of the most serious recent events in the NRC's history. A few weeks ago the Commission heard from the NRC staff concerning the work of the NRC's own lessons learned task force.

The focus of that meeting was on the actions that the NRC should take as a result of this incident to improve its own processes and procedures. The Commission has endorsed the implementation of over 50 recommendations arising from the task force's work.

Today's meeting will focus on the actions by the licensee and the industry. The Commission will hear first from FirstEnergy, the licensed operator of Davis-Besse. The second panel will consist of staff involved in the inspection of Davis-Besse in connection with resumed operation. The third panel will consist of various stakeholders with an interest in the Davis-Besse incident.

We are not here today to address whether or when operation of the Davis-Besse reactor should be allowed to resume. That is a matter that is the subject of continuing work by the licensee and

inspection by the staff. Our aim is to examine the progress in the resolution of the various issues raised by the Davis-Besse event.

This meeting is part of the NRC's aggressive efforts to ensure that the Davis-Besse event is carefully evaluated and that the circumstances that gave cause to it are not repeated. This will be the second public Commission meeting on the subject, and, of course, all of the Commission have been actively following the efforts by the staff and the licensee very carefully.

The staff, in turn, has been actively engaged in examining every aspect of the event, and at last count has held over 40 public meetings to address the issues. The NRC is taking this event very seriously.

At the table as our first panel are various representatives of FirstEnergy. They include Mr. Peter Burg, Chairman and Chief Executive Officer; Mr. Robert Saunders, President and Chief Nuclear Officer of the FirstEnergy Nuclear Operating Company; Mr. Gary Leidich, Executive Vice President of FENOC; Mr. Lew Myers, Chief Operating Officer; and Mr. William Pearce, Vice President of Oversight.

We are interested in the actions that

FirstEnergy has taken since the identification of the vessel head degradation to restore the facility, to address the issues identified in the root cause evaluation, and to demonstrate compliance with NRC requirements.

Mr. Burg, you may proceed.

MR. BURG: Thank you, Chairman. Chairman Meserve and members of the Commission, as the Chairman already indicated, I am Pete Burg, Chairman and Chief Executive Officer of FirstEnergy, and we do want to thank you for the opportunity to be here today.

Obviously, we're disappointed by the problems that have occurred at Davis-Besse, but we're here to tell you that we're encouraged by the -- in the improvements that we have made that we believe will help ensure a safe and reliable return to service of the facility.

We've already introduced our senior management team in place, so I don't do that. We will try to share today with you some perspectives on the lessons that we think we've learned at Davis-Besse, as well as lessons that we think can help others in the industry. And we'll discuss the principal improvements that we've been making to address the technical and human performance issues at our plant.

As you may know, FirstEnergy gained full ownership and operational control of Davis-Besse, as well as Perry, in November of 1997 following the merger between Centurion Energy and Ohio Edison that formed our company. We had a number of challenges to overcome in our nuclear operations as we saw it, including making much needed improvements at the Beaver Valley facility after gaining full operational control of that unit in 1999.

We believed that Davis-Besse, from all indicators, was a strong performer. The plant's material condition and overall performance was solid on paper. Clearly, that turned out not to be the case.

While safety has always been a top priority at our company, the Davis-Besse situation underscored the fact that safe nuclear operations require an unrelenting, uncompromising commitment to safety throughout our nuclear program. The highest levels of productivity are meaningless if they're not achieved with a strong focus on safety.

And as our management root cause analysis report indicated on what happened -- concluded what happened at Davis-Besse, former management at the plant became complacent and isolated and were living

off past successes and did not have the right safety focus.

So what are we doing to help ensure that this does not happen again? I think you know we've made some fundamental changes in the personnel and key systems and programs. We added a new senior executive team, completed upgrades to safety-related systems, we'll be adding a new leak detection monitoring system prior to restart, and implemented extensive changes to policies and programs that affect operation of these systems.

As Bob Saunders will discuss in more detail in a minute, these changes include enhancements to the FENOC and site management structure and a revised safety policy and safety conscious work environment policy.

It was never our intent that performance goals set for Davis-Besse be achieved without a focus on safe operations. Now more than ever we recognize the critical role our safety culture plays in our nuclear program.

To ensure that we maintain priority of safety over production, we've learned that it is absolutely essential to have a thorough system of checks and balances, from the control room to the

board room. It is clear to us now that this was not the case when it came to Davis-Besse.

Under the original structure of FENOC, which was formed in 1998, site vice presidents reported directly to the President of FENOC, who was, in turn, the direct and really only link, you might say, to corporate, and to the FirstEnergy Board of Directors. Oversight and self-regulation standards at all of our plants must be consistent, and in hindsight the original structure of FENOC was not sufficient.

Obviously, we've made some significant changes. Among the most important I think is the addition of our Vice President of Oversight, Bill Pearce, who brings 35 years of experience from our Beaver Valley plant and other nuclear facilities around the country. Bill reports directly now to FENOC President Bob Saunders, and importantly I think, and maybe uniquely, to our Board's Nuclear Committee. So he meets directly with them.

The Board Committee, by the way, continues to be fully engaged in our efforts to prepare Davis-Besse for a return to service and in monitoring the performance of our other units, Perry and Beaver Valley. Nuclear committee members, including Bill Conway, who is with us today, are now meeting monthly

and have been onsite to meet with plant management and observe restoration efforts underway at Davis-Besse.

They are also continuing to closely monitor the changes that we're making throughout FENOC as we work to restore confidence in our nuclear program. And they're doing so with the full support of our Board of Directors, which has reiterated that safety is the top priority of the company's nuclear operations through passage of a recent formal board resolution.

However, we also recognize that actions are going to speak louder than words, and we've taken many steps to help ensure the safe and reliable operation of all of our nuclear units, including the restructuring of FENOC. Its new structure will play a key role in our future success.

In addition to our new oversight capabilities, FENOC has also named Lew Myers as Chief Operating Officer. As you know, Lew is a seasoned nuclear professional with more than 35 years of experience in the nuclear industry, including stints at Perry and Beaver Valley, as well as other facilities.

We've also added Gary Leidich as Executive Vice President, who brings a unique industry

perspective with him from his years at INPO. These and other new management positions have brought depth, experience, and talent that we need, and also provide the strong, centralized oversight of nuclear operations that was lacking before. And our new organizational structure is helping address the many management and human performance issues that contributed to the problems at Davis-Besse.

Davis-Besse management had become complacent and lost their sense of accountability and ownership. And with our imperfect system of checks and balances, we didn't really recognize the cultural issue or understand just how powerful a force it was in leading to the challenges that we're overcoming today, including instilling a keen sense of accountability and ownership in all of our nuclear plant employees.

Today we're continually driving home the message that safety is our top priority and that the corporation never expects it to be compromised for the sake of production. I personally delivered this message at recent meetings with every one of our nuclear employees at all three sites, and we continue to reinforce that as nuclear operators we must remember the extraordinary responsibility that we have

and recognize that responsibility every single minute that we're on the job.

We now have a greater appreciation for the fact that we must get the job done right the first time to regain the confidence of our customers, regulators, employees, investors, neighbors, in our nuclear program.

That's an overview of what we're about to tell you, Chairman. Now I'd like to turn it over to Bob Saunders, who will give you, really, an update on our new safety policy and related procedures.

Thank you.

MR. SAUNDERS: Thank you, Pete.

Mr. Chairman, members of the Commission, I am Bob Saunders, President and Chief Nuclear Officer of FirstEnergy Nuclear Operating Company.

What I'd like to provide more detail on is the changes that we have made at the corporate level to make sure an event like this never happens again at any of our FENOC facilities.

First, as Pete has already mentioned, our new organization. Gary Leidich, as Executive Vice President, will develop and control all of the processes and programs we use to operate our plants. Gary will ensure that these programs and processes

meet high industry standards and that they are updated and maintained current as appropriate.

Lew Myers, as our Chief Operating Officer, will implement these programs and processes and drive improvements at our plants. Lew will also continually assess these programs to make sure they're effective and properly implemented, and that there is ownership at the facilities for these programs and processes.

Just one example of these programs, and a good one, is our much improved boric acid control program. We view this as being the best in the industry currently, and it is well implemented at both of our sites that use boric acid. And we recently successfully used it for a head inspection at Beaver Valley Unit 1.

Finally, Bill Pearce, our independent Vice President of Oversight, will ensure that all of this happens.

I also sponsored an independent root cause team to investigate the management issues, to be certain that they were properly identified and resolved. The report was completed last August, and it found that we had a less than adequate safety focus. To correct this we've issued a new nuclear safety policy, and we have trained all of our

employees on it.

The policy is focused on commitment of the corporation, of management, and the individuals at the facilities. Each of those levels has attributes which we can assess for effectiveness and sensitivity for nuclear safety.

As Pete said, the highest levels of productivity are meaningless if they are not achieved safely, and we're committed to never allowing productivity considerations to prevail over safety. In fact, we've revised our incentive compensation program for all nuclear employees, including myself, linking it directly to safety measures.

Now more than ever we recognize the importance of a strong safety conscious work environment. We have just recently completed training with all of our supervisors on this very important topic to help them ensure employees feel free to raise concern. And that's not to say our employees didn't raise concerns before, because they did. Through our corrective action program, our employees identified boric acid on the head.

However, the former plant management failed to recognize the significance of these reports, and, therefore, did not take appropriate corrective

actions. But I think the important thing here is to recognize that our employees have always raised safety concerns.

In the human resource area, we've named an experienced corporate human resource professional as our FENOC HR manager, with just a total focus towards the nuclear organization. We have strengthened our Leadership in Action training program, which develops all of our supervision, to have a much stronger focus on nuclear safety, including a profound respect for protecting the reactor core.

We've added two new competencies to our employee appraisal program -- nuclear professionalism and nuclear safety consciousness.

What does all of this mean for us today going forward? It means that every day when employees come to the plant they will have a clear vision in their minds of the unique nature of the technology and the special respect that it demands of the professionals who manage it. As long as we keep that vision in our minds, we will have the safety culture that we need.

Thank you for your attention. And with that, I would like to turn it over to Gary Leidich.

MR. LEIDICH: Thank you very much, Bob.

I'm Gary Leidich, Executive Vice President, FirstEnergy Nuclear Operating Company. Good afternoon.

As Bob indicated, FirstEnergy Nuclear, FENOC, is moving forward by examining how we do business in all areas. I'd like to specifically address how we're implementing changes that centralize and standardize our support functions at the FENOC corporate level, but first let's step back.

One of the first things that we did -- and this is late last summer -- was take a look at Davis-Besse engineering to ensure that we had strong technical rigor and ownership. These were issues that were contributors to the overall RPB head incident. And to ensure that our engineering personnel were approaching their work with the highest possible standards.

At about that time, we issued Principles and Expectations for Engineering, which is a handbook which applies to all FENOC engineering personnel at all three stations and the corporate office. And this establishes strong and rigorous standards for the work that we do every single day in the engineering organization.

We have also implemented a new standard

engineering organization; again, one that applies to all three of our facilities. We developed this organizational template by benchmarking the industry.

This benchmarking included a high-level review by industry engineering executives from the major nuclear utilities, and the result of this effort is essentially really an industry best practice composite organization for engineering. We were able to take the best practices from what we saw all over the United States, collect it into one standard template, and that's our approach for a common organization in a design area, system engineering, and plant support areas.

This standard template for organization for engineering is now in place at all three FENOC stations. And as we go forward, we're working towards standardizing other organizations in the fleet -- operations, maintenance, and so forth -- across our three stations. This approach ensures that we have well-defined responsibilities, very clear accountabilities, and really it facilitates a fleet-wide cohesiveness, an approach that we didn't have before.

In addition, as Bob indicated, we've established a central corporate organization at FENOC.

The new organization here centralizes activities, centralizes where it makes sense, areas such as equipment support, component expertise, fuel design, and so forth.

More importantly, this standardization also provides across our fleet a standard approach for programs and processes. Program managers in the corporate office will direct program development, and they will follow up -- again, part of the checks and balances -- to ensure that we're implementing our programs in the field.

A recent example of the company standard that's now in place across FENOC is our revised problem-solving process. In fact, we were in a meeting yesterday at Davis-Besse, and the operations manager indicated that this was a watershed event, to be able to rigorously approach problem-solving, to ensure that problems are adequately handled at the right level in the organization.

Like many nuclear utilities, we previously had in place a consensus process for establishing common processes across our fleet. We realized, as others have realized, that a consensus process doesn't always focus on the best industry practices. It has not provided us with sufficient checks and balances

for implementation; we're fixing that.

Industry best practices is our goal, and implementation will be verified now at the FENOC corporate level. An example of this approach is the Engineering Assessment Board, which provides an in-line independent review of engineering products at each of our facilities.

This board is really an industry recognized best practice from our own Perry plant, and we've now applied that practice to Davis-Besse and Beaver Valley. It helps us assure that our engineering products are the highest possible quality in all cases.

Overall, our centralized approach at the corporate FENOC level, which is well underway, will help us achieve and sustain strong, safe, and reliable operations at all of our facilities.

Thank you for your attention. I'd like to turn the program over to Lew Myers. Lew?

MR. MYERS: Thank you, Gary.

I'm Lew Myers, the FENOC Chief Operating Officer, and Acting Vice President of our Davis-Besse power station.

As you know, in May of last year, we initiated a seven-step return to service plan that was

designed to ensure safe, reliable return to service, and then safe and reliable operation of our plant.

Under that plan, we have made -- we have taken several key steps toward achievement of this goal, pending the NRC's approval of restart. Today, I would like to provide you several areas that we have taken actions in.

The first action is improvement in material condition. Next, actions to improve the management personnel performance. And, finally, actions that we have taken to improve the performance of several of our programs and procedures.

First, we focused on the material condition. We opened and then resealed our containment building to install our new reactor vessel head. A new reactor vessel head has been thoroughly examined, and subsequently we installed a new service structure on it. Finally, the reactor vessel head and assembly were aligned to the reactor vessel flange to ensure it is ready to operate.

Next, we performed a comprehensive inspection on our safety-related systems to address equipment problems and ensure that our systems will operate as designed. Additionally, beyond these requirements, we refurbished two of our reactor

coolant pumps, refurbished our high pressure feedwater heaters, defueled our reactor, and then drained down, so that we could perform preventive maintenance on the first valves off the reactor coolant system, and then inspected all of our fuel to ensure quality performance.

Now, with the new reactor vessel leak monitoring system, the containment sump strainer that's new, and our new leak rate monitoring program, Davis-Besse has safety margins that I believe are truly unique.

Second, we recognize that those safe and reliable operations of the Davis-Besse plant will depend much on unit performance as much as good equipment performance. To ensure that we have the highest standards of performance in both areas, we have taken a number of key steps, including implementation of fundamental changes to our organizational structure.

Obviously, the former Davis-Besse management was both isolated and did not have the proper safety focus. The new management team, the implementation of our management development program, and the oversight capabilities will ensure that we have confidence to move forward in the future.

Our new senior team is strong, proven, and technically competent. The management team has over 450 years of nuclear experience, and, more importantly, they have proven leadership performance. Fifteen of these managers are new to Davis-Besse. All but one are new to their position. Nearly all have senior reactor operator licenses or certification.

We have improved the operability determination standards at our plant. More than 200 plant operators and engineers have completed our new operability qualifications to help ensure that operational issues are properly evaluated. We provide your staff with our approach to ensuring our safety culture commitments are being properly implemented.

We provided you with a management and human performance root cause in August of 2002. We have taken many actions there. We have revised our business plan to strengthen our focus on safety. We have revised our vision to show safety as the first cornerstone. We have prepared a policy on safety and trained all FENOC employees, not just Davis-Besse, all FENOC employees. We have developed attributes for our management team to assess our effectiveness.

Third, we have made fundamental improvements to our programs and procedures designed

to help with human performance and ensure that activities are performed as required. For example, we have strengthened our corrective action program to ensure an open line of communication with our employees. This is the line management program that allows employees to address their concerns on safety and reliability issues.

We now provide an e-mail feedback to employees that identifies a problem to ensure they understand our corrective actions. We allow, through our employee concerns program, anonymous condition reports as a method of confidentiality.

We've enhanced our corrective action review group, which now includes the plant manager, who serves as chairman, as well as the operations and engineering managers. This group is critical, because it monitors the programs to ensure that the condition reports are properly classified and then evaluated.

We have retrained and recertified all of our root cause evaluators -- every one. I believe that if this program had been properly utilized we would not be sitting here today.

A new nuclear operating procedure formalizes our approach to problem-solving, and we're using it. This procedure implements a consistent and

comprehensive approach to addressing plant issues such as degrade plant equipment.

We've revised our boric acid program. It now has the proper inspections, criteria for identification and evaluation of any signs of boric acid on plant equipment. We have implemented a stringent qualification program for boric acid inspectors -- our own program.

We have also completed the operations root cause and have an improvement plan. This plan is designed to ensure that operations is in a leadership role. We have approved a new command and control policy at all three of our plants that addresses the role of our shift manager.

We have implemented a restart readiness review program. Our managers formally sit down as a group to assess our readiness to move forward as we change plant operating conditions. We assessed the implementation of our safety policies, our management commitment to these policies, and the individual implementation -- individual's implementations of our programs and procedures. These are the basic commitments of the safety culture model that we provided your staff.

In summary, we've made solid progress to

return the plant to service. We are preparing now to reload our reactor core and then pressurize our reactor, to both test and inspect our equipment. As we move forward, we're benchmarking our efforts to the industry to ensure that our approach to operating, inspecting, and maintaining the plant meets high industry standards.

We are proud of the progress we've made to date, the actions we have taken to address plant equipment, the actions we have taken to improve our management and human performance. The actions we have taken to anchor our changes and standards in our procedures and programs will ensure that Davis-Besse station is returned to service with sustained and reliable operations. We wouldn't pursue its return to service otherwise.

Thank you for your attention, and I will turn it over to Bill Pearce, our Vice President of Oversight.

Thank you.

MR. PEARCE: Thank you, Lew.

Good afternoon. I would like to review some important initiatives in the area of oversight at FENOC. First, we established new standards and expectations for quality assurance. The objective was

to ensure that assessments are timely, intrusive, performance-based, and add value to the organization.

The requirements of 10 CFR 50, Appendix B, are at the heart of our work, of course, so our focus must always be on nuclear safety, particularly as it relates to fission product barrier control, reactivity management, and the control of radioactive material and radiation exposure.

In my newly-created position, I report directly to the FENOC President and the Nuclear Committee of the Board of Directors, assuring independence from such pressures as cost and schedule. While as a company we must pay attention to such issues, they must not interfere with matters related to nuclear safety.

So in terms of quality assurance, they are not relevant. Intrusive and rigorous quality assurance oversight is provided through our assessment process. The independence of the quality assurance organization allows quality assurance to reach independent conclusions without influence of the line organization.

We have reevaluated this process and are making the appropriate improvements. These actions validated our baseline activities, and we will anchor

them in our inspection processes. Like other departments in the company, all quality assurance personnel have been trained to establish, maintain, and promote a work environment where safety concerns are raised freely, without fear of retaliation.

Further, we have reaffirmed the authority and responsibility of quality assessment to stop unsatisfactory work, based on safety issues or other reasons, within the quality assurance purview.

The independent company Nuclear Review Board provides oversight of the quality assessment function. We have strengthened this board by adding new members with extensive experience in Babcock and Wilcox reactors, like the Davis-Besse reactor. Further, we refocused this board on reviewing elements of nuclear safety, such as fuel integrity, reactor coolant system integrity, and containment integrity.

Now I'd like to address the most important issue. That is, safety-conscious work environment. We recognize that this area is key to long-term safe operation of the plant. As part of our improvement effort, we completely overhauled our process for raising and addressing safety concerns.

Changes include bringing in an experienced employee concerns manager and independent professional

investigators to resolve safety concerns identified by our employees.

In summary, we have trained management on this new process, emphasizing the importance of recognizing and enforcing safety conscious work environment expectations throughout the organization.

Thank you. And now Mr. Burg will close.

MR. BURG: Just for a second or two, if I could, Mr. Chairman. I want to, again, thank you for the opportunity to be here and share what we think are lessons learned at Davis-Besse, and to discuss the fundamental changes and improvements that we think we've made to ensure return in a safe and reliable way of the unit to service.

We recognize that the safe and reliable operation of Davis-Besse will depend as much on human performance as it will on equipment performance, and we're committed to never failing in either one of these areas again. I will personally meet with all of our shift managers at each of our units before we restart to drive this point home.

As you've heard today, we're greatly enhancing our safety culture with the new safety policy and related programs and procedures, strengthening our management team and oversight

capability, and implementing key programs and system improvements. We are making solid progress.

In closing, let me stress that we will only return the plant to service when we are convinced that it will operate safely and reliably.

Thank you very much for your attention.

CHAIRMAN MESERVE: Thank you for a helpful presentation.

The Commission alternates how we do our questioning, and I think it's -- today is Commissioner McGaffigan's turn to go first.

COMMISSIONER McGAFFIGAN: I didn't realize that, Mr. Chairman, so I'll try to start out here.

Let me focus on the safety culture issue and try to get you to tell me a little bit more. I was not at the meeting last week where Dr. Haber, if I'm pronouncing her name right, presented what she was planning to do there. But I've seen some of the accounts of the meeting.

How is her effort going to factor into this -- your restart decisions?

MR. MYERS: Well, you know, we think it's up to our management to ensure that we have the right safety culture. So we're using her as an independent consultant. We have her reporting through our human

resources group, so she can maintain her independence.

Now, we have a model that we've adopted. It starts out with policy-level commitment, management-level commitment, and then employee commitment. And if you go look at the attributes we have for each one of those, they are somewhat subjective on the first two and very objective on the third one, where we can actually measure performance.

It's our intention to take the methodology that Dr. Haber provides us, look at that methodology to help strengthen our model, and then take the information that she provides us also, and what she will provide us is areas where she thinks that she is seeing improvements in safety culture and areas needing improvement. So we'll take that information and filter it into our plans for startup.

COMMISSIONER McGAFFIGAN: She has worked at other nuclear facilities and has a methodology that she is going to use at your facility that she has tried out in other places?

MR. MYERS: That's correct. Her methodology is a proven, we think, methodology. It's a five-step process. I believe it's called convergent validity. And what you do is there's -- you go through like interviews, you go through questioning,

you set in meeting, and you look for common attributes. And when you find those common attributes, you have convergence of an issue. So the model that she uses is the convergent validity approach.

COMMISSIONER McGAFFIGAN: And she's going to interview about 10 percent of your workforce. She's going to have surveys with the rest of the workforce. I think somebody -- and she has -- she has colors. Everybody has colors -- red, yellow, green, presumably, or some variation thereof.

If she has red findings, you're going to get her report in the March timeframe. How will you deal with that? You know, it's a hypothetical, but how do you -- it is conceivable that she will find some real problems.

That was the case at Millstone. We had a group there Little Harbor, that, you know, had some things in the red initially, and they were not red by the time restart occurred. So --

MR. MYERS: Well, you know, actually her findings -- that's -- the color code system is our color code system. And her findings -- she'll provide findings or issues and areas, and that may cause us to take one of the attributes, for instance in

maintenance or operations or chemistry or something, and term one of those attributes red or yellow.

Now, our restart -- our process, you know, if you have red findings it requires immediate management attention with a plan to go look at that issue and try to fix it. So no, I wouldn't anticipate that we would start up with any areas that are red.

COMMISSIONER McGAFFIGAN: How do you prevent a focus on getting things done dominating safety? What incentives -- I mean, there has been concern in the past I know that people felt they had to get something done and didn't feel that they were being given the time to do it.

Now, my advice to you is to not do that because every one of these plants that have had problems, in our experience, any sort of schedule has proven to be optimistic. But, what incentives are you putting in place, so that people do not feel overly pressed to get a particular job done that particular day, to check off an item on a checklist?

MR. MYERS: You know, there is two or three things. Bob talked about our incentive programs that we've changed already. If you go look at -- we're stressing in our 4C's meetings, which I've now

met with over 500 employees at the plant.

And I meet with those employees for about two hours at a time, and we stress consistently, you know, just stop -- you know, really, the fastest way to get the job done and the best way to get the job done is do it correct the first time. And if it takes longer, then one of the attributes in our management model that we look at is the resources. The resources is the right people, right amount of time, and the right equipment. You know? You've got to have all of those things to get the job done right.

And, you know, recently, you know, we've been looking at fuel load. And as a management team, one of the things we have to do consistently is demonstrate our ability to stop and take corrective actions. And, you know, we made a decision to go and fix several things prior to this fuel load. We think there was defense in depth by having two trains of decay heat, so we waited to get two trains of decay heat.

So over and over again we have to be willing to demonstrate to our employees that we're willing to take the time to do the job right. And we think we've demonstrated that on several occasions.

We've talked about our refueling crane

that we have, and, you know, we didn't get the performance there that we wanted. So we delayed our activities for several weeks while we went back on the overhead crane and made sure it was in excellent material condition before we went forward.

COMMISSIONER McGAFFIGAN: That was actually an example, initially, of the opposite, though, wasn't it? There was some haste in that initially that led you to that stop work situation.

MR. MYERS: Well, it was actually an example of one of our employees that -- you know, in his mind he was trying to get the job done, he said, you know, and in our mind we want him to do it right. So we -- when we did a management walkdown -- one of the key things that we've implemented is a strong management observation program. And when we did the management walkdown of that job, it didn't meet our standards, so we just stopped and --

COMMISSIONER McGAFFIGAN: I think those are strong signals to send, and I urge you to continue to send them to all of your workforce. I know in turnaround situations you're -- it is hard to get the entire workforce, and you have contractors in addition to your permanent employees all on the same wavelength. And everything you can do to do that I

think is very important.

One last question, and it goes to the incentive structure that I think Mr. Burg or somebody talked to that put safety much more prominently in the incentives of the senior executives.

I won't name the executive, but one company that was in to see me recently had a safety gate for bonuses for various levels of the plant. And unless you met the safety goals, all of the other incentives, which tended to be production incentives -- and those are fair incentives, you're in a business -- but all of the other incentives weren't achievable if you didn't get through the safety gate first.

I don't know how you've structured your incentives at the current time, but do you have -- do you think you have enough focus? That sounded to me like a best practice, at least from the point of view of a safety regulator. And are you comfortable that you really do have enough safety focus in your incentive structure at all levels of the plant now that people will, you know, get the word through their paycheck as well as through whatever you say to them?

MR. BURG: Yes, Commissioner. I really believe that we do. I mean, there are certain goals, not significant really for most levels of management,

that are corporate-wide. But the --

COMMISSIONER McGAFFIGAN: Right.

MR. BURG: -- ones that are associated specifically with the plant we've done a lot of work to ensure ourselves that there's a significant amount of safety-related, people-related, human performance type issues embedded within those programs. And we're very confident that that's in place.

But I'll also tell you that as we go forward we'll -- it's not -- not cast in concrete either. If we find a better way to do it, it will evolve over time as well.

COMMISSIONER McGAFFIGAN: Thank you, Mr. Chairman.

MR. MYERS: You know, I'd like to add to that also, we're fairly unique as a company. So a lot of our goals and incentive programs go all the way down to our first-line employees. So, you know, they have exactly the same goals that I do. So if they're aligned properly, that's a good message.

COMMISSIONER McGAFFIGAN: That is a good way to do things. Thank you.

CHAIRMAN MESERVE: Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Mr. Chairman,

thank you. I've got some questions I want to ask. I would like to start off by making a couple of comments and observations.

Here for our part at the NRC, over the course of the last month, I think there has been a lot of interaction internally as well as a dialogue with some of our external stakeholders about the decisions that led -- the events that led to the decision as to allow FirstEnergy to have an additional 45-day extension of the inspections of the control rod drive mechanism.

I think some of the attention to that has -- takes us away from the underlying issue. And I think the underlying issue is, irrespective of that decision or not, it is my view that we would still be here today having a panel discussing the issues relative to the head and the head degradation. That degradation did not take place over 45 days. It took place over a long period of time.

The issues associated with that we've talked about a little bit already internally with the Commission, and I think we recognize we've got some changes to make here as well. And I need not go over those with the panel today.

I appreciate the comments made by Mr. Burg

and the recommitment of FirstEnergy to having a high level of safety consciousness in moving forward. I think that's the right signal in the right direction.

In terms of moving forward, obviously there are the mechanical issues -- getting the head fixed, making sure that the internals are where they need to be in meeting our requirements, and the notion of having an inspection team go in and be assured that that is, in fact, the case.

The second thing is more subtle and underlying and does go I think to some of the comments that you've made today, and that is the issue of a safety culture and having a recognition among your staff that, in fact, safety is first.

It also goes to an issue of trust. That is something that obviously is something once lost does take time to reestablish.

I want to go into -- you talked a little bit about the management changes that you have made relative to the site and to FENOC, and those have been extensive. Clearly, it brings with it a higher level of expectation of performance in terms of safety.

I'd like to have you go into a little bit more detail in terms of how these expectations, as well as the programmatic changes that you're making,

are going to become institutionalized in such a way as if we were to, in fact, move forward and allow the plant to be restarted that we're not slipping back into old routines. Is this change made more permanent within the company?

MR. SAUNDERS: Let me just lead off. We certainly plan to institutionalize our ability to monitor and measure our safety culture. Lew talked briefly about all of the indicators we have there in a program that -- it's in its infancy now. We're working our way through it, trying to understand it. It does have a very large subjective piece to it, but there are very good objective measures.

So this program will be institutionalized within FENOC across all three sites, and we'll do the things that other people do on a regular basis as well -- the safety culture surveys that are done, so we can see if we're progressing and we have the proper trend, and that kind of thing. So it's definitely in our plan to institutionalize it, and we think we're a little bit on the cutting edge with what we're developing here -- an ability to measure and monitor.

COMMISSIONER MERRIFIELD: Lew, do you want to add anything?

MR. MYERS: Well, I think there's two

parts, or maybe three. Gary talked about the corporate organization that we have now. Basically, he's going to own the programs. I'm going to make sure that we do good self-assessments and we implement them properly. And on top of that, we have the new oversight group that's looking over me.

So from a standpoint of isolationism, and Davis-Besse was pretty well ran as an isolated plant a few years ago, that won't happen again. And that way we can show that what we inspect is what we expect.

MR. PEARCE: Let me add one example to that. Commissioner McGaffigan asked about, you know, made some mention of Little Harbor. One of the people that we've just added to the company Nuclear Review Board, independent board overseeing what we're doing, was heavily involved in that. And they will go on in the future and make sure that we have a focus in both safety culture and safety conscious work environment and continue to give us feedback.

That's a program that will go forward, and we tried to go out and hire people that have expertise in that to ensure that that carries forward for a period of time, not just focused on restart, but actually this is focused after restart. So we want to

make sure that we are anchoring these changes so that they will continue post-restart.

COMMISSIONER MERRIFIELD: Identification of safety concerns and having a workforce that recognizes that those items need to get into the corrective action program is clearly vital, and you mentioned that today.

But I'm wondering -- obviously, the second key component to that is having a corrective action program that works. Are you -- can you talk to me a little bit about the changes that you've made in that program, in your equipment training program, to give you a better -- earlier indication of potential problems that may exist rather than relying on it to manifest itself in an operational circumstance.

MR. MYERS: The corrective action program is really our line management program. On top of that we have the employee concerns program. Several changes we've made -- basically, the old program was being managed at a very low level, and we found that our employees -- they identified over 20 CRs, condition reports, that should have led us to the right answer along the way that we had some leakage.

They didn't get properly characterized, and they didn't get properly evaluated. We've now --

the charter has completely changed at all of our plants, so that our plant manager is the chair now. It's not at a low level. The operations manager is there, and the engineering manager is there. And then we have our corrective action review group that's also monitoring the owners of the corrective action program, our implementation of properly classifying CRs.

Now, we've strengthened our evaluation process also. All of our evaluators have been requalified. Now, we would expect that the program that we have now -- we're also giving feedback to the individuals when they identify a problem how we resolve it. They need to know that. That wasn't there before. So they would identify the problem, and they never got feedback on what we did with it.

So we believe that we've put some changes in this process that's going to help our employees help us do a better job. And it will also assure that we have the right ownership as a management team to ensure that our problems get -- that are identified get properly characterized, evaluated, and then fixed.

MR. PEARCE: Let me add about the indicators that when you asked earlier about the red and green windows and --

COMMISSIONER MERRIFIELD: Right.

MR. PEARCE: -- those indicators about how the corrective action program is working, and how effective it is, are the inputs into -- some of the inputs into some areas in the red and green indicators. So, you know, we see those as very important, and I want to make sure that those -- that that program is well implemented, well understood, and well used by the employees prior to restart.

MR. MYERS: Let me give you one other thing that you asked about culture a while ago and the corrective action program. We have an employee of the month program. It has not been as effective as I'd like. We now have that -- we're changing that as we speak to be based on condition reports.

So people -- we're going to take good catches on condition reports that are safety issues and collect those over the month. And then us, as the senior management team, will make the employee of the month a -- we'll pick those from good condition reports, which is a completely different message than we used to say -- send.

COMMISSIONER MERRIFIELD: Noteworthy condition reports?

MR. MYERS: Noteworthy condition reports.

The margin of safety --

(Laughter.)

COMMISSIONER MERRIFIELD: You want to set up a system that rewards people that are going to find your most significant problems.

MR. MYERS: That's right. That's exactly right.

COMMISSIONER MERRIFIELD: As we dealt with the issues at plants in the past, the issues that frequently come up are sufficient review of the -- during the operational readiness review to make sure that there was an understanding that -- as to the condition of the plant and identify issues, like the sump issue which you have mentioned, to make sure that those can be corrected appropriately.

There is the parallel issue of making sure the items aren't deferred, that items are, in fact, addressed so the plant is in the appropriate operation and safety condition. How are you dealing with those twin issues -- problem identification and problem resolution?

MR. BURG: Gary, go ahead.

MR. LEIDICH: My turn? Okay. The problem identification was one where we really have -- and I won't say overnight, but over the past several months

-- substantially lowered the threshold for identification problems.

So what that really looks like and what I've seen elsewhere in the industry is that there is a low threshold, so that people identify very minor issues. Those go into this system and they're properly evaluated, properly coded, so we really understand, you know, what those are.

So that's the first thing is ensuring that there's the right threshold that's out there. We substantially lowered that, particularly at Davis-Besse. Other stations were fairly low, but we've improved it across the fleet.

The issue on deferrals is really aback to what actions we take, not what words we have. And the actions that we've taken in conjunction with this restart are to go after many issues at Davis-Besse that, quite frankly, we wouldn't have to tackle, but that we are tackling -- issues such as the redesign of the containment sump. We have made modifications to valves at the station. We are making modifications to diesel generators.

So many of the modifications that we're doing are "optional," but we felt it was very important to send a strong message not only internally

but externally that we're going to make changes to this plant that sends the right message in terms of what does and does not get deferred. So whether it's maintenance, modification work, we've tackled a tremendous amount of work during this particular outage at Davis-Besse, and it's not our intent to push things off into tomorrow.

So that's a matter of actions, and that's a matter of involvement at the management level to send those signals. And I will tell you, this management team, as well as the management team at the station, is very much involved in day to day.

And regarding your earlier question about what makes a difference, what makes a big difference is management engagement, management involvement. In fact, Bill Pearce has some buttons he says -- a button that says, "I know because I looked."

(Laughter.)

And that's a motto that we've got in all levels of the organization. I don't think that's a motto that, really, many plants have, but particularly Davis-Besse didn't have it before.

There was a reliance on the process. And what this really takes in this industry -- and what I have seen and the rest of us have seen -- is a

tremendous amount of involvement by management at all levels in operational issues, those that get identified, what you're going to solve now, if you are going to defer something why, and challenge that at the right level in the organization.

COMMISSIONER MERRIFIELD: Thanks, Mr. Chairman.

CHAIRMAN MESERVE: I think that from your presentation you have made clear that you face the challenge of really reinventing as part of your business, and you obviously have some very severe challenges in accomplishing that effectively and you've done a lot of work to do that already.

Some of Mr. Leidich's comments presented me with an issue I think that you no doubt have thought about, but maybe you could help me. You've indicated that one of the things that you're doing is to strengthen the corporate level organization that -- I can appreciate that that gives you a capacity for standardization, gives you bench strength and skills, but that is sometimes a danger -- that the people who are at the plants, then, have lost their skills because they've now been centralized.

And you made the point just now that "I know because I looked" and --

MR. LEIDICH: Right.

CHAIRMAN MESERVE: -- for the people who are at distant corporate headquarters, they may not have the opportunity to look. There's got to be some balance between the skills which are centralized and those -- and the capacities you have at the plant. How would you assess that? And are you sure you haven't overreacted?

MR. LEIDICH: Well, certainly, within the last four and a half years at the Institute of Nuclear Power, I've seen a lot of examples of a variety of different utilities' approaches to this centralization, whether it's a strong central organizational approach or whether it's a very strong autonomous approach at the individual station.

So as we look from our perspective at our experience of trying to find the right spot, we're really adopting some fundamental principles. The first of those is you centralize what makes sense, and you provide corporate oversight, where necessary, for appropriate level of checks and balances. I think the key phrase there is checks and balances.

And if an organization is on its own in terms of -- again, to your point -- identification of issues and resolution of issues, and there's no checks

and balances there, there's no questioning, this industry requires a questioning attitude.

And if there's no questioning of that, either at the station or from an independent organization such as oversight, which is corporate, or a corporate program office, then those checks and balances may lead to the wrong conclusions and the wrong answers.

So it's centralize what makes sense, and I will tell you we are approaching it one issue at a time. We're not setting up a large organization at corporate. Right now we've got about a dozen folks in the corporate office, strong program management, leadership-type folks, as opposed to a lot of individual contributors and implementers. They'll be there to provide leadership and oversight.

So we're taking it one step at a time as well, to make sure that we don't take the pendulum too far over in the centralization, if you will. It's important that the site recognize that they have the responsibility for the day-to-day operation of the facility. It's critical.

MR. SAUNDERS: When it comes to human resources -- excuse me, Pete -- we started with a very strong bench when we entered into this Davis-Besse

situation. Since then, Beaver Valley just recently graduated a class of 26 licenses. Our Perry facility graduated a class with over 10 licenses. And we're also actively recruiting from outside the organization. Gary is a fine example of that.

So we recognize the need to have a senior management team well experienced. So we develop within, and we're recruiting from outside as well.

MR. BURG: Mr. Chairman, also, just in terms of lessons learned, I mean, I asked myself this many times. I was -- after we took over operations of the nuclear facilities, I was always very reluctant to have a "centralized staff." In my mind, it was going to create a bureaucracy that wasn't needed in my view, that I thought that the people at the plant, you know, would really know best.

You know, honestly, in hindsight, I think that is one of the lessons that I have learned, that you find the right balance in terms of some things that make sense, like probably oversight, that you centralize, and maybe some engineering functions that you centralize. But you still want the plant to operate -- you know, they're going to operate the plant, but there is a balance and we're -- I think we're finding that balance now. But it is a lesson I

think I've learned.

MR. MYERS: Which you can't have. I want to add to this, too. We had a corrective action program that we would have told you was identical to all three of our sites. And I've worked at all three of them now. I want to tell you, the corrective action program was not the same at Davis-Besse as it was at Perry and Beaver Valley.

And one good example of that is the operability determinations. The program that we've worked so hard on now at Davis-Besse was called operability justifications. That's not the case at our other two sites.

So even though the program we thought was the same, it wasn't. My new job -- and through self-assessment and oversight, we're going to make sure they're implemented the same.

CHAIRMAN MESERVE: One of the outcomes of the root -- your root cause evaluation and of our own lessons learned was that there was not an adequate integration of operating experience with basically significance evaluation. As you know, the corrosion products were clogging filters, and, for whatever reason, nobody was asking why, saying, "They'll be corroding. What could it be?"

It seems sort of self-evident after the fact, but obviously there was a problem there. How are you addressing that problem?

MR. SAUNDERS: I think fundamentally it begins with the right sensitivity in the workforce for exactly what our industry is all about and what sets us apart, and that's the reactor core, and the right sensitivity to the reactor core.

We didn't have that. And to me, that's like fundamental in the nuclear safety policy. The new policy is driving at that. So I think that's a good entry-level step.

And then, as we said here I guess a number of times, how does management demonstrate it's interested in safe operation? And that's by the things we do. We've got to walk the talk, and we were not doing that before at Davis-Besse. But I think we are today, and I think we're doing it quite well.

So I don't think it's complicated. I just think it takes total commitment, and that commitment is here.

MR. PEARCE: And maybe another way to address it with another level is from oversight. We've made oversight independent, and the purpose of that is so that we don't get involved with the same

issues and rationalize to ourselves over time like the plant can get into when they're trying to get a lot of things done.

And I truly believe that we can stay independent enough and questioning enough to bring those issues to the plant when they have -- if we see things that don't seem to make sense to us, and we don't believe they're handling them properly.

And if they still refuse to acknowledge the issue that we -- you know, we now report all the way up through the top of the company, and we will take that route if we have disagreement -- I'm perfectly willing to go there if we think we're right about it.

MR. MYERS: There's really three parts to your question, I think. One is the corrective action program. If we had properly classified and then properly evaluated the issues that we had, then we would have taken the right actions. We didn't do that. I think we fixed that with our new charters, with our evaluation process, and our performance monitoring tools we have in place.

And then, with the oversight that we have, and self-assessment, they should also catch those things. So we have barriers now to keep that from

happening.

So, you know, if we would have done the right evaluations, or quality oversight had said, "You didn't do the right evaluations, come to the right conclusions," we wouldn't be sitting here.

CHAIRMAN MESERVE: Thank you.

Commissioner Dicus?

COMMISSIONER DICUS: Thank you, Mr. Chairman. I've got three questions, and hopefully they can be answered rather quickly.

I go to slide 15, and you mention that you brought in a strong and technically competent management team, a new team. And I think if I heard you correctly, you said you have 15 people in new positions --

MR. MYERS: Right.

COMMISSIONER DICUS: -- or a certain number in new positions.

MR. MYERS: All but one are in new positions.

COMMISSIONER DICUS: Okay. My question goes to sometimes when you bring people in to new -- I mean were they -- did they come from they outside or were they promoted from within? And sometimes when you have a whole new team that comes in to new

positions, they have a learning curve. So what are we doing?

MR. MYERS: This is an excellent question. Well, two things. When we developed our return to service plan we had some options. Fortunately, for us, we had the ability to go to our other plants and bring in some managers that we know that are good performers and bring them over to our Davis-Besse plant. If you look at our engineering manager, he came from Perry. So a large portion of those managers came from other plants. There's about three that came from outside.

COMMISSIONER DICUS: Mr. Saunders knows where the next question is going because of that, because he and I have discussed this. So what's going to happen to Perry? I mean if you're grabbing people from another plant and bringing them in, what might happen at these other plants?

MR. MYERS: Okay. Do you want to answer that?

MR. SAUNDERS: Yes, I do.

MR. MYERS: Go ahead.

MR. SAUNDERS: The luxury that we had is that as we uncovered the Davis-Besse situation, we had tremendous bench strength at the other two sites. And

as Lew just told you, we were able to draw heavily on that. We still have more than adequate resources at the other sites, but we also recognize the need to build the bench strength back up, and we are actively doing that. I think I mentioned 26 new licenses at Beaver Valley, over ten new licenses at Perry. We're getting ready to put in place a new license class at Davis-Besse. And then also we have a very active recruiting program going on, looking at trying to attract some senior management down into the organization. And we have actually added a couple of people very recently here.

MR. BURG: But, Commissioner, it's also just right on point with respect to some of the directives that we put out on day one that were more than, and have been more than, reinforced by the Nuclear Committee of our board, including Mr. Conway, as well as our full board, and that is while we're in this situation, do not take your eyes off of Perry or Beaver Valley. And believe me, we are working very diligently to do that.

COMMISSIONER DICUS: That's exactly where I'm going. You can't rob Peter to pay Paul.

MR. MYERS: Can I add on to that a little bit?

COMMISSIONER DICUS: Yes, please.

MR. MYERS: We've got the SOR classes going on. Through our succession planning program, and that's I think what's helped us at our other two plants, the bench strength that we have, we don't just promote people up through Operations to get a license. The people's that's in those licensing classes, the 26 and the 11, are people that a lot of them are hand picked to be our managers in the future. And a lot of the shift managers we have now we put them in as shift managers to move them out into the organization. So it's real bench strength.

COMMISSIONER DICUS: Okay. Second question: You said you've met with 500 employees for two hours. Was that one big group meeting or, surely, it's not individual meetings.

MR. MYERS: Yes. There's individual meetings of -- there's two or three kinds of meetings. We have all-hands meetings, we do those once a month. I have a weekly, and I might miss a week every now and then, but what I call four C's meeting, and they're designed to sit down with employees and look at compliments, complaints, concerns and changes and get their feedback. We openly talk about managers or whatever they want to talk about. And that's where

I've met with about 500 employees now at --

CHAIRMAN MESERVE: What's the size of each of those?

MR. MYERS: About 20 to 15 people in a meeting.

COMMISSIONER DICUS: Okay. Where I'm going with this is questions that you've already been hearing to be sure if an employee really wants to talk about something, they're comfortable with doing it, because some people won't speak out if it's a large group of people, and they speak out more in a smaller group. And that's where I was going.

MR. BURG: Yes. I think that's totally true, but I'll also tell you that, you know, I have also held myself all-hands meetings at each of our three plants to go over all the things that I've talked about here today. And I want to tell you, in the question and answer sessions even there they haven't been shy about asking some of the kinds of questions that you've been asking, honestly. So that's been encouraging, actually.

COMMISSIONER DICUS: Good. That's good.

MR. MYERS: I have an indicator that I use on that. At the four C's meetings, the first thing we do is we pull the independent contractor initially --

now we use one of our communications people -- to sit down with the employees and they develop all the questions and concerns. So it's independent. So I don't know who came up with those. And what's interesting is what I measure in that meeting is who says this is my question. I write that down each and every time. And almost every question and concern that we've had on the list recently somebody in the meetings will say, "I wrote that." And that's a real good indicator.

MR. PEARCE: Let me explain that some, and he knows what he's talking about.

COMMISSIONER DICUS: Well, maybe not if you need to explain it.

MR. PEARCE: All right. What he does is there's an independent group that meets with employees first, and they get their questions down, and if the employee chooses to have a question and not be identified --

MR. MYERS: That's fine.

MR. PEARCE: -- to get over the issue exactly that you brought up, then they may do so. And what he's saying is one of the things he looks at is how many of them are willing to say, "That's the question I asked" and get further explanation.

COMMISSIONER DICUS: Okay. Well, that's good. Final question, and I think it should be answered yes or no simply. Of all of the lessons learned in the get well issues that you've been dealing with, had all of this been in place and effective and being utilized, would we be sitting here today?

MR. BURG: No.

MR. MYERS: No.

COMMISSIONER DICUS: Okay. That's it. Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner Diaz.

COMMISSIONER DIAZ: Thank you, Mr. Chairman. You know, sitting here and looking back, I realize that we all have gotten used to performing against a very high or maybe the highest standards of performance regarding safety. The industry always faces that, we face that, and the point is that this highest standard of performance against safety is not only on things that have happened or release already activity, but we also have to abide by the fact that we are being confronted with what could happen, and this is essentially what happened with you. It's this idea that we are really in this industry, in this regulatory agency held to a higher standard, is that

permeated through your facilities, to your people, the fact that people have to realize that we have to perform on a higher level than what you normally perform in any normal type of industry, because that's the nature of where we are?

MR. BURG: I really believe it is, Commissioner. I mean, again, hopefully people believe many of the things that we tell them in the plants. For example, at our all-hands meetings, I mean we talk about the fact that Chairman Meserve is going to an INPO CEO forum and telling every single CEO in the country that has a nuclear power plant what has happened here and what are the lessons learned and what we all should have done. I think that kind of information going back to employees it's helpful to them.

Or they are sometimes astounded that the investment community wants to know every single thing there is about the Davis-Besse facility. Well, in the past, that's been kind of a non-event for them, that's never entered their mind that someone outside of Oak Harbor, Ohio had some interest in this facility.

Again, hopefully something we can draw from all this in a positive is that that very lesson that you're talking about has come home to our

employees in the sense that this is a global event, if you will, and a global kind of community that we operate in.

COMMISSIONER DIAZ: Because this high level of safety performance is not going to go away; it's a fact. You guys might have contributed to make it higher, you realize that.

PARTICIPANT: We understand that, sir.

MR. MYERS: I hope we have.

COMMISSIONER DIAZ: All right.

COMMISSIONER MERRIFIELD: But we're not seeking any more contributions like that in the future, just so that's clear.

(Laughter.)

COMMISSIONER DIAZ: Thank you, Commissioner Merrifield, your contribution is appreciated.

When we went through another facility, which everybody knows what I'm talking about, and had a lot of problems, safety cultures, and we went through a long process, there was a Commission meeting here that I clearly remember. They were going through the list of things that they have done to improve the plant, and then I asked a question, and what other safety issues have you found during your reviews and

your processes? What other things that were not related to the hole in the head at Davis-Besse, what other things have you found out, and has there been disposition? And so now that I have this opportunity, and commissioners are infamous for using this opportunity, did you find out any other safety significant issue that you corrected or disposition?

MR. MYERS: The containment sumps would be a good example.

COMMISSIONER DIAZ: All right.

MR. MYERS: Additionally, when we come out of this outage, we will come out of the outage in a situation where we had seven A1 systems, maintenance related A1 systems requiring monitoring. We plan to come out with all of that fixed. So we've built that into the outage over and above what the issues were. We'll come out with new dryers on our diesel and some of the line has been stainless steeled for the air start system. There's a lot of issues, design basis improvements, we'll have some of those. I think our system notebooks that we have now -- outside of my office I've got about 36 system notebooks, and from a future standpoint we've walked all of our systems down, and we have a really good list of all the things we might want to work on in systems in the future.

I'll give you one example. We have a relief valve, I think it's one of our cooling water systems, and evidently the design was fixed, and so at 7:30, eight o'clock the night I came back to my office from the Plant, and it was one of our engineers over there, and he says, "You know, we have the design, but it's not a restart item. I would like to get this added to a restart item, and it's only $40,000 and would you approve that?" "Absolutely." I said, "It's been a long-standing problem." You know, we've got the engineer coming forward wanting me to sign a TA to fix that valve. It was a no-brainer.

COMMISSIONER DIAZ: Let me then go forward. Will you say at this time that you are reasonably confident that there are no other safety issues that is pending fixing at Davis-Besse at the present time?

MR. MYERS: Yes.

COMMISSIONER DIAZ: All right. I think the Chairman -- thank you very much -- the Chairman alluded something that I caught my eye, the issue of centralized oversight versus decentralized oversight. Of course, we are worried about that. I think you explained that, Mr. Leidich, that in a certain way you centralize some of the oversights and you distribute

the implementation. I turned out to read that Mr. Myers is between a rock and a hard place, and I appreciate that. I also believe that we constitute another rock and a hard place in the process, and we intend to fulfill that.

As you do this and continue to look at how you come up with oversight and come up with some implementations, when we had the other meetings I had this comment that I don't know whether it's -- I didn't express it right. But when you have problems, any time that a problem occurs, say, corrosion on a head, and the problem is of a very large magnitude, nobody misses it. You have a significant valve that is malfunctioning and it's leaking, it's there. I mean all of these things when they have the right magnitude there are no issues. Of course, they might attract attention but in fact those are less insidious and easier to fix than the smaller problems that have the frequency, that are repeated or that are continued.

What are your efforts to make sure that a slow developing, small magnitude problem that continues with time or is repeated in time, because it might not be continuous, it might just repeat itself, will actually be able to be dispositioned and properly

put in the Corrective Action Program and taken care of?

MR. LEIDICH: Obviously, the key is the Corrective Action Program that has, first of all, the right level of threshold, and then, secondly, that we've got, as I indicated earlier, enough checks and balances around that Corrective Action Program. So it isn't just a matter of one item being identified and being dealt with, it's a matter of what scrutiny does that item or accumulation of items related to it get from other perspectives?

If it's part of a program, for example, then the program management in the corporate office would be involved in understanding that issue and helping deal with the disposition of that issue. And then, again, as you noted, the oversight organization looks at all of that. If it's an operational issue, then, for example, we are involved in day-to-day operating status phone call every morning where we understand what the key operational issues for the station are, and we provide oversight from our level on that.

COMMISSIONER DIAZ: It's small, I mean it's there.

MR. SAUNDERS: The repeats get trapped in

the Corrective Action Program.

MR. MYERS: Let me give you something that I'm proud of, though, and that is at our Perry and our Beaver Valley plants, we didn't have this have this at our Davis-Besse plants, but we think we've gained substantial improvements in performance with what we call our Latent Issues Program. And what we do every year is we pick a couple systems, two, three, and continuously every year go to a different system and bring in an entire management team with engineers, operators, whatever we need, EHC experts, and we walk those systems down and we look for aging materials, we look for improvements that people have done in the industry, and we get a report, and that report's presented to the senior management team.

And Bill was at our Beaver Valley Plant. I mean if you go say what have we done to improve the material condition at that Plant, that's how we've identified, for instance, EHC problems at the Beaver Valley Station that we've fixed now. So we're constantly looking for those.

MR. PEARCE: That's exactly what that program is all about is to delve into a specific system with all the history, with a look at design basis, physical condition, walk it down looking for

problems, bring all that together, and we named that the latent issues, and I think latent issues kind of describes what it's about and probably what your concern is about too.

COMMISSIONER DIAZ: All right. Okay. Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Thank you. I'd like to thank the panel. This has been very helpful. We've obviously been spending a lot of time, all of us, in dealing with Davis-Besse issues and it's good for us to hear firsthand from you.

Our next panel is the NRC staff. We have our Inspection Manual Chapter 0350 effort, and they're coming to the table now. We have Bill Travers, Bill Kane, Jim Dyer, the Regional III Administrator, Jack Grobe and Bill Dean who are the Chairman and Vice Chairman of the Inspection Manual Chapter 0350 Panel. Dr. Travers?

DR. TRAVERS: Thank you, Chairman, and good afternoon. Since the shutdown of Davis-Besse in February of 2002, problem discovery and resolution activities on site are ongoing and are being carefully evaluated by the NRC staff. As you've mentioned Jack Grobe and Bill Dean have been leading the Agency's response at Davis-Besse, as Chairman and Deputy

Chairman of the Davis-Besse Oversight Panel.

Although we have been keeping each member of the Commission regularly informed about NRC staff activities, this is the second time we have had an opportunity to formally meet with you to discuss Davis-Besse related activities. On January 14, we discussed the results of the NRC's own self-evaluation, the Lessons Learned Task Force and described our plans to address the Lessons Learned Task Force recommendations.

Davis-Besse remains the only nuclear facility warranting the staff's use of its procedures for oversight of a plant in a prolonged shutdown with performance problems. These procedures are detailed in NRC Manual Chapter 0350. Under Manual Chapter 0350, the NRC's routine reactor oversight process is suspended, and the Oversight Panel defines and directs the NRC's activities regarding the facility.

The Oversight Panel process has been used successfully by the NRC to assess the performance of other plants which have had lengthy shutdowns because of performance problems. The Panel for Davis-Besse is composed of experienced managers and staff, including some with considerable experience on earlier oversight panels at other nuclear facilities. At this time, I'd

like to turn over our presentation to Jim Dyer.

MR. DYER: Thank you, Dr. Travers. Good afternoon, Chairman, Commissioners. The agenda for the staff's presentation today is outlined in Slides 2 and 3. First, I will present a brief discussion of the activities leading up to the formation of the Manual Chapter 0350 Oversight Panel and then turn the presentation over to the Panel Chairs for their discussion of the specific activities of the Panel.

Slide 4, please.

The NRC was first informed of the cavity in the reactor vessel at Davis-Besse on March 6, 2002. The discovery was made by the Licensee during repair activities on Nozzle 3 for cracks found during inspections, pursuant to NRC Bulletin 2001-01.

Based on the initial reports from the site, we really weren't sure of the corrosion rate or mechanism, the extent of condition or its generic applicability. NRR took the lead for coordination with the industry's Material Reliability Program and issued NRC Bulletin 2002-01 to gather information on the material condition, inspection and maintenance programs for the vessel heads throughout the industry.

Region III took the lead for an Augmented Inspection Team inspection, or AIT inspection, to

gather additional facts and technical information concerning the Davis-Besse head degradation and issued a confirmatory action letter to ensure effective communications with the Licensee on our expectations for resolution of this problem.

The specific expectations agreed to by the Licensee and confirmed by our letter included their quarantining of the vessel head materials and control rod drive components for NRC review, determining the root cause, extent of condition and safety significance of the degradation around the vessel head penetrations and obtaining NRC approval for any repairs or modifications to the vessel head and restart of the reactor.

On April 5, we conducted an AIT public exit near the site. The AIT conclusions were that the cavity was not the result of the new corrosion mechanism but rather had occurred over several years, and the Licensee had missed several opportunities to identify the nozzle leakage and resultant wastage.

Slide 5, please.

The week following the AIT exit, I briefed the NRC senior managers on the results of the AIT. Continuing dialogue led to the initiation of enhanced oversight under NRC Manual Chapter 0350. Manual

Chapter 0350 provides for a focused, centralized and structured approach to the NRC regulatory oversight of a plant and communication activities for shutdown plants. After consultation with the Deputy EDO for Reactor Programs and the Director of NRR, I appointed Jack Grobe as the Chairman of the Oversight Panel and directed him to form a team to manage the regulatory oversight activities associated with the Davis-Besse shutdown.

The Reactor Oversight Program was suspended at the Site in favor of the Panel's directed activities, but I encouraged the use of the significance determination process and action matrix to determine the extent of follow-up of issues and the use of existing inspection procedures to the maximum extent practicable. Let me now turn the presentation over to Mr. Grobe and the Manual Chapter 0350 Panel Chairman.

MR. GROBE: Thanks, Jim. Slide 6, please. I'd like to start -- we have three additional members of the Panel here in addition to Bill and myself. Christine Lipa over here on the left is Branch Chief in the Regional Office responsible for inspection oversight; Tony Mendiola -- raise your hand, Tony -- is Section Chief in NRR, responsible for overseeing

licensing activities, and you can't see John Hopkins, he's in the booth turning the slides, but he's the Licensing Project Manager. That's five of the eight members of the Oversight Panel.

By the end of April, the NRC had sufficient information to conclude that there was significant performance deficiencies at the Davis-Besse facility. The depth and breadth of those performance issues as well as the necessary extended shutdown to repair the reactor pressure vessel head necessitated the use of a different tool to provide safety oversight than the routine reactor oversight process.

Pursuant to Manual Chapter 0350, a charter was established on May 3 for the Davis-Besse Oversight Panel. The Panel supplants the routine reactor oversight process and guides Agency activities regarding the Davis-Besse facility. The Panel includes experienced executives, managers and staff from the NRC offices here in headquarters, in Region III and at the Davis-Besse site. As was mentioned, Bill Dean and I lead the Panel. Several of the Panel members have prior experience with successful implementation of the Manual Chapter 0350 process.

The Panel charter defines the goals and

responsibilities of the Panel. First, the Panel is expected to establish a restart checklist containing those issues that must be addressed before the Panel can consider the question of restarting the facility. In addition, a process plan has to be established which guides the internal operation of the Panel and a communications plan delineating the tools the Panel will use to interface with our internal and external stakeholders. Slide 7, please.

The Panel continually assesses Licensee performance and establishes the scope and depth of necessary NRC activities during the extended shutdown. In addition, the Panel will continue to assess Licensee performance and make restart recommendation to John Dyer when it feels that the Licensee has demonstrated it can restart and operate the Plant safely.

The Panel will continue to provide oversight and guide Agency actions following facility restart until such time as the Panel makes a determination and recommendation that NRC activities at Davis-Besse can be effectively accomplished under the routine reactor oversight process. And, finally, the Panel is expected to establish a complete and scrutable record of the activities of the NRC at

Davis-Besse. Slide 8, please.

The Oversight Panel issued a restart checklist documenting those activities necessary to be completed before the NRC could consider restart of the facility. The checklist includes the adequacy of the technical and organizational root cause assessments that the Licensee has performed, the adequacy of safety significant structures, systems and components, of safety significant programs, the adequacy of organizational and human performance, and this area includes the reestablishment of an adequate safety culture and safety conscious work environment, the readiness of systems programs and the organization for restart, resolution of licensing issues and the completion of the confirmatory action letter commitments. Slide 9, please.

In response to the Panel's continuing assessment of activities at Davis-Besse, the Panel determined that there were additional necessary areas of focus before restart and revised the restart checklist appropriately. The Panel added an evaluation of the design and installation of the containment sump modification, a review of the Radiation Protection Program and inspection of First Energy's process to assure complete and accurate

records of NRC submittals. Slide 10, please.

The Panel guided inspections early last summer of Licensee activities to evaluate the effects of the boric acid laden atmosphere inside containment on equipment. Those NRC inspections identified deficiencies in the training and qualifications of Licensee staff, the procedures and processes being used to accomplish those activities and the adequacy of the Licensee's evaluations of equipment.

First Energy stopped work, reestablished the qualifications of its staff and improved its processes and procedures before recommencing. Continuing NRC inspections of these activities and implementation of other aspects of the Licensee's return to service plan addressing the restart checklist items have confirmed that the Licensee is adequately implementing its plans.

The Oversight Panel continues to plan, implement and oversee inspection activities, tracking the Licensee's progress in implementing its return to service plan. At this point, I'd like to turn it over to Bill Dean. Bill will provide additional detail regarding NRC's licensing activities and the Oversight Panel's initiatives to interface with our varied stakeholders and provide public access to information

regarding the NRC's activities at Davis-Besse.

MR. DEAN: Thank you, Jack. Good afternoon, Chairman, Commissioners. Slide 11, please. Initially, Davis-Besse had considered repairing the vessel head degradation instead of replacing it but eventually came to the conclusion that replacing the vessel head was the appropriate approach to take, and they were able to obtain the vessel head from the canceled Midland plant. While this eliminated a potentially challenging review effort on the part of our technical staff to evaluate the adequacy of a repair methodology, it still caused both the staff and the Licensee to assess the adequacy of the Midland head for appropriate use at Davis-Besse.

During this effort, there were several issues that were identified which required the Licensee to seek relief from the ASME code requirements. These reliefs dealt with the unavailability of some of the original radiographic tests that were done in the '60s and also the inability of the Licensee because of some lifting lugs that were on the vessel head to complete 100 percent examination of the vessel head flange weld. So each of these issues were evaluated by the staff and were appropriately dispositioned. So at this point, there

are no other licensing issues that remain to be resolved at Davis-Besse. Slide 12, please.

With respect to public access and stakeholder involvement, over the past 11 months we've made a substantial effort to provide access to the public in our efforts to facilitate stakeholder involvement. To date, we have conducted approximately 40 public meetings. At the centerpiece of these meetings is our monthly meetings with the Licensee where the 0350 Panel in the afternoon meets with Davis-Besse Licensee Management to discuss current issues, to discuss status on the return to service plan, and those are publicly observed meetings, and we provide opportunity at the end of those meetings for public questions and answers.

In addition, that evening we have a meeting with the public where we spend time explaining to the public that could not attend the afternoon meeting what transpired and then also to engage in a question and answer session with the public in order to establish a continuing dialogue with the local community. So we've been quite proactive in that regard.

In addition to conducting these frequent public meetings, we've established a very informative

web page that's been devoted to Davis-Besse and related issues, which has served as both a valuable resource to the staff as well as to the public and interested stakeholders. Slide 13, please.

While most of the meetings that we've had -- public meetings that we have had have been at the local vicinity in Oak Harbor, there have been several meetings that have been conducted here in headquarters as well as in the Region III Office. For these meetings, we've established both phone and video access, conferencing access to allow those stakeholders who could not attend the meeting to be able to participate, and that's after some initial technical issues at some of the early meetings, and I think it's turned out to be a very appropriate methodology for those that can't attend the meeting to at least be able to participate and listen in.

Except for some of the initial meetings that we conducted as an 0350 Panel, we have transcribed a vast majority of the meetings and have made those transcriptions available on the web for those who are neither able to attend to the meeting or participate by video or phone conference. They can at least read the transcript and understand what took place.

In addition to the public meetings, there have been frequent opportunities for the NRC to meet with congressional members and their staff as well as state and local officials, and to date we have conducted over 20 briefings of these officials.

Finally, with respect to public process, we did have one 2206 petition that was filed by a member of the public. This petition, as you know, requested the NRC issue an order for the Licensee to require a verification by an independent party for issues related to the reactor vessel head degradation. This petition was denied in light of actions taken by both the NRC and the Licensee which addressed all of the actions and proposed tasks described by the petitioners. These actions included conducting an Augmented Inspection Team inspection and forming both the 0350 Panel and the Lessons Learned Task Force, as well as Licensee's developments of a return to service plan, a restart organization and several oversight boards, which include non-Licensee personnel.

In summary, we believe we've made a considerable effort to include and inform the public relative to the 0350 Panel activities. That concludes my part of the presentation. I'd like to turn it over to Jim Dyer for concluding remarks.

MR. DYER: Thank you. Slide 14, please. In conclusion, the staff believes that First Energy is making progress in improving the overall safety at the Davis-Besse facility. The hardware improvements at the Site are evident during facility tours, engineering analyses are being conducted to verify safety margins, and key programs responsible for ensuring safety are being revised to improve their quality.

The Manual Chapter 0350 Panel is closely monitoring Licensee performance to ensure the proposed safety improvements are adequately implemented. When Licensee performance has not met acceptable standards, as was found in the initial inspections of the containment and some of the program reviews, we have provided this feedback to the Licensee and rescheduled inspections. When the new issues have been identified, such as the Radiological Protection Program and needed containment sump improvements, we have added them to the restart list.

Overall, the Manual Chapter 0350 process has served the NRC well during a very demanding period. It has focused licensing and inspection resources to identify and address key safety issues and facilitate communications between internal and

external stakeholders. That concludes my presentation.

DR. TRAVERS: Mr. Chairman, that completes a relatively brief status of our efforts to evaluate Licensee improvements at Davis-Besse. As you indicated at the beginning of the meeting, we are taking these matters very seriously. We have placed some of our best staff in a position of helping to evaluate those improvements, and we will continue to keep the Commission advised on status of their efforts and our efforts of oversight, and that completes our presentation this afternoon.

CHAIRMAN MESERVE: Thank you. And I know that the work of the Manual Chapter 0350 Panel still continues and that there's more things to be done, but on behalf of the Commission I do want to express our appreciation for all the work that you've done to date. We are following this all with great interest. It's a very important activity for the Commission and indeed for the American people. Commissioner Merrifield?

COMMISSIONER MERRIFIELD: Thank you. Thank you very much, Mr. Chairman. I echo the comments you just made. I would also want to make a note. I know in the previous meeting we had on

lessons learned I think all of us expressed our gratitude to the staff for the amount of work that they've put into this. I would like to take a particular note to thank John Grobe and Bill Dean and the other members of the 0350 Panel for an exceedingly large task, not only in going through the significant safety issues relative to Davis-Besse but a real challenge in terms of meeting the expectations of our public in having appropriate public confidence in an open and clear process.

I think the first question I would have would go to Mr. Grobe and Mr. Dean, and I talked about it a little bit in my first round of questions, and that's the issue of a full and complete effort to identify issues of concerns at the Plant and get those into the Corrective Action Program in a way in which they can be resolved. Jim Dyer talked about how First Energy is making progress in that respect, and I'm wondering if you can go into a little bit more detail about how that effort is being undertaken from your perspective?

MR. GROBE: Certainly. First Energy has separated their recovery activities into two phases: discovery and recovery. And discovery activities are nearing completion. As I mentioned earlier, our

inspections on the very first initiative to do discovery activities, the Licensee performance was lacking in several respects. That activity is completed, the reactor head has been certified as meeting the requirement of ASME Section 3. The design engineering area, there are discovery activities continuing today.

The vast majority of the discovery activities have been completed. The Licensee has generated several thousand condition reports as a result of those discovery activities. Many of them have been addressed. There are still several hundred and probably over 1,000 that are yet to be closed out. The number is not as important as is some of them are very simple, some of them are more complex. But our recent inspections have shown that their discovery activities have been well focused, and the Oversight Board, for example, the Engineering Oversight Board and the Corrective Action Review Board have been doing their jobs.

So our Panel is fairly satisfied with the progress they're making on discovery. As I mentioned, engineering design is one area that continues. Bill, did you have anything you wanted to add?

MR. DEAN: No. I think that's

substantial.

MR. GROBE: Thank you.

COMMISSIONER MERRIFIELD: On a related issue, given the importance of the Corrective Action Program, I wanted to get some sense of our plans for monitoring the future performance of this Program at the Plant and what we would be looking at as early indicators as to whether that Program is being run effectively?

MR. GROBE: One of the aspects of the 0350 Panel is that it doesn't go away at restart. There will be a significant period of time, if the Plant achieves restart, following restart where we will continue to provide oversight. A key focus of that oversight will begin to be on the performance indicators that the NRC already has established. During the course of the shutdown those performance indicators have atrophied because many of them are predicated on operation.

In addition to that, the Licensee has established a set of performance metrics that address all aspects of Plant operation, including a safety conscious work environment and safety culture, and the Panel will be validating that those are in fact valid indicators and that they are demonstrating an

appropriate safety focus. And we will also be validating those indicators with our independent inspection effort.

COMMISSIONER MERRIFIELD: Part of that answer goes to, I think, a broader issue beyond just the 0350 Panel. Prior to the identification of the head degradation, obviously Davis-Besse had been characterized as a good performer, one in which had all green performance indicators. Going forward as an Agency, how can we ensure that the failures that caused the degradation and the other issues that we're now dealing with are appropriately identified in our reactor oversight process, not only through the indicators but also through a more detailed risk-informed inspection program?

MR. GROBE: This is a very good question, particularly for our effort at Davis-Besse. You have heard from the Lessons Learned Task Force and the Senior Management Review Team, and the Commission has endorsed those recommendations. Those will fix areas that we had an opportunity to improve our programs over the long term at all facilities. But at Davis-Besse, for the Oversight Panel, we have to be sensitive to those issues today.

Christine and Bill and I have been very

closely connected with the work of Art Howe and Ed Hackett through the Lessons Learned Task Force to ensure that we had a clear understanding of what they were developing, both specific to the facility but also programmatically, because we have to be performing inspections at the site of concern in an ongoing nature. So we are actively engaged in providing oversight of our inspection program to make sure that the aspects that where the Agency could have done better in the past are being implemented today at Davis-Besse.

COMMISSIONER MERRIFIELD: You mentioned, and for those either here or viewing this through televideo, obviously the Commission some weeks ago with the staff had gone through a significant effort to look at the lessons learned internally to the Agency, and the Commission is certainly on board with, as was mentioned, 49 of the 51 recommendations made by that Panel. I'm wondering, and I do want to give you the opportunity, given the efforts of the 0350 Panel to date, have you identified any additional issues that the staff should consider in addition to what the Lessons Learned Task Force report has provided or do you feel comfortable that in fact that report encompasses the recommendations necessary to avoid

this kind of event from happening in the future?

MR. GROBE: I personally thought the recommendations from the Lessons Learned Task Force were very comprehensive. The areas -- from a regional perspective, the areas that really hit home with us was the importance of passive components which are not modeled in probablistic risk assessments. They're not expected to fail, things like a reactor vessel head. The importance of operating experience, not only for the Licensees to learn from the operating experience but for our staff to learn also and to ensure that we incorporate those learnings into our programs and procedures so that they may not be lost over time. So those are the two areas that come forward to me right now. But I thought the Lessons Learned Task Force had a good set of recommendations.

MR. DEAN: I'm sorry, Commissioner, if I may add, you know, one of the things that you mentioned earlier was we really don't want to have a whole lot of opportunities like this to cause us to do some self-introspection, but, as you know, the reactor oversight process incorporates, as part of its ongoing nature, a self-assessment, and certainly I think the oversight process will garner a number of insights.

I think the one that is of most interest

to me or one that strikes closest to home, I think, is the fact that we probably have not done a very good job in terms of considering the breadth and the wealth of operating experience that may exist in other forums and how do we bring that to bear in helping design a risk-informed inspection program that doesn't become just a pure compliance approach but indeed extracts those things that are important to look at?

COMMISSIONER MERRIFIELD: I think that's a very important observation, and you give me an opportunity to clarify my comment earlier. That in no way underscores my own belief that I think is shared by the staff that our oversight program is a living program in that it will continue to evolve and enhance. As you, I think, correctly point out, my only attempt there was to recognize that hopefully it's not this type of an activity that will allow us to learn lessons. I believe we can do so in more normalized effort.

A last very brief question. I noted, and there were comments in the earlier panel, about experts and individuals being hired on by First Energy to take a look at their safety culture, and obviously we're concerned about a safety conscious work environment. Last week, I believe it was last

Wednesday, in a presentation that I'm reading lasted nearly six hours, the First Energy briefed that particular program to the Panel.

In the intervening time, I'm wondering if you had any opportunity to think a little bit more about that presentation and any expectations that you may have about that or any observations you'd like to share relative to that presentation?

MR. GROBE: Two observations and then maybe some discussion going forward. That meeting covered two areas. One was an update on the activities that the Licensee was implementing in what it calls its management and human performance building block, and that's the area that we were talking about that includes safety culture and safety conscious work environment. So several hours of that meeting were statusing all of the corrective actions that they had begun implementation on.

The second half of the meeting was their presentation of a fairly broad set of metrics, and this was our first opportunity to view those metrics. They had not yet put them into place. And one of those metrics involved the work of Dr. Haber and her associates in evaluating or taking a snapshot of safety culture. The metrics included probably, I'm

estimating, maybe 30 other varied inputs, and Dr. Haber's was one of them.

We have not yet begun our inspection of those metrics or Dr. Haber's work, so I don't have any further illumination there. But what I can say is we've done some thorough thinking on what types of inspection we want to do in that area, and we're seeking now some outside assistance for ourselves in the area of how to design and evaluate a safety culture evaluation tool and how we should evaluate the safety conscious work environment and a safety culture tool and someone with experience in recovering safety culture to assist the Panel and the Inspection Team in evaluations in this area.

DR. TRAVERS: If I can just add, this is a subjective area, certainly, to assess, but we have had experience in looking at this issue, as licensees in other situations where plant performance has been at issue have. We're going to continue to monitor it, and we think that the development of metrics to monitor the advancement of safety culture and safety conscious work environment is the right way to go. Even though our regulations don't speak specifically to that, we can oversee their progress, and I think the attitude that suggests that they're going to

continue to establish a program that will monitor and measure their own view of how well they're advancing their own safety culture is a good thing, and we're going to continue to take a look at how well they're doing in that area.

MR. GROBE: The Commission has -- the NRC has provided a number of guideposts to assist us in this area, and the Commission itself has a policy statement that was published in 1996 that addresses specifically expectations for the licensees in a safety conscious work environment arena, and the Panel is using that as a guiding light.

In addition, we have two regulations that go directly to this issue, and that is 10 CFR 50 Appendix B, Criterion 16, Corrective Action Requirements, as well as 10 CFR 50.7, which deal directly with retaliation for raising safety concerns, so that we have those foundational aspects, and we'll be using those in our assessment of the Licensee going forward.

COMMISSIONER MERRIFIELD: Thank you, Mr. Chairman.

CHAIRMAN MESERVE: The last area you got into I think takes away the focus of my questions, which is it seems to me that you have a physical

system problems that you can expect and those are something you can -- may be hard to do in some circumstances, but you have a good idea about how to do it and you can pursue things. The much harder problem is dealing with the human issues, and a lot of the presentation we heard from First Energy had to do with their efforts to deal with safety culture, safety conscious work environment, putting in processes and procedures to try to create a -- reinvent their workplace really in a fashion that's different than before this whole incident occurred.

And it does seem to me this is a very challenging area and a very important one for the Panel to be satisfied. You've indicated that you're going to be relying in part on the efforts that their consultant is using, you're developing your own tools, you're going to be monitoring the situation. I think that this is an area where the Commission I'm sure would like to continue to be informed about progress in that area.

I guess the only other question I would ask -- or a question I would ask, having just made a comment, where do you -- what areas do you think that the slowest progress is being made by First Energy? Where are the biggest problems that remain?

MR. GROBE: I think there's three areas of challenge that remain. One is the one you just mentioned, which is having clarity in how to monitor safety culture and how to measure it and being able to monitor progress over an extended period of time. Safety culture doesn't change overnight. I think Dr. Haber, when I asked her this question the other day, indicated that she expected three to five years before First Energy executives could sit back and say, "I think we're there," or, "All the indicators are green," or whatever measure you might want to put on it. So that's one of the challenge areas.

The second challenge area is what I call bulk work. There's still an amount of work to be done and has to be done right, and we're providing inspection oversight. The third challenge area is design engineering. During the course of the Licensee performing their design reviews and then we've performed independent design reviews on some additional systems, there were some questions. Whenever you do design reviews what you come up with is a lot of questions. And there were some questions that were difficult to answer and are still challenging the organization to make sure that they get the right answer.

As a result of that, they broadened their look, both vertically and horizontally. Some specific technical areas they found enough problems that they wanted to look horizontally across all the systems, and then they decided to look vertically and do vertical reviews of design issues on the most risk-significant systems, the remainder of the most risk-significant systems. So that activity is ongoing, and that's what I see as the third challenge area.

CHAIRMAN MESERVE: Thank you. Commissioner Dicus?

COMMISSIONER DICUS: Thank you. The some 40 public meetings that you've had, how have those gone? I mean how has the input been and the public participation?

MR. GROBE: The meetings have gone long. There's just a lot to talk about. It's been kind of interesting. I don't know of any predictor to identify how many people we're going to have at meetings. We have anywhere from as few as 50 to as many as several hundred. And we've had very engaging dialogue with members of the public. There's been a wide diversity of viewpoints expressed at the meetings. The evening meetings that Bill mentioned typically run from seven to ten, 9:30 or ten in the

evening, so there's an extended dialogue with the public in those evening meetings.

COMMISSIONER DICUS: Do you get a feeling that the public comes away satisfied with the answers that they've gotten with our input? I mean I know there will be a variable, but --

MR. GROBE: I think two ways to measure that. One is personal interface with individuals after the meetings. We always try to ask the person if we've adequately answered their question. Some people are not satisfied with the answers. They're the answers we have. But we also have -- I've gotten good feedback from people that the meetings have been valuable. We also have our feedback system where we have a little card that you can mail in, and that's been fairly positive. The most common criticism has been our sound system quality, and we continue to work on that.

COMMISSIONER DICUS: Yes. I've had those problems in some of my meetings. You heard my question, I'm sure, that I asked that they're taking people from Perry, for example, to help with Davis-Besse, and I asked the question of concern, do we now start worrying in three years about Perry? Do you have a response to that?

MR. GROBE: Yes, I do. We're worrying now, and Jeff Grant, Director of Division Reactor Projects in Region III and Randy Blau in Region I -- Beaver Valley is in Region I, Perry's in Region III -- have had conversations in areas where either Bill or I or Christine or Tony develop a concern that something might be going on that they should be looking at at Beaver or Perry, and we're handling that through internal interface to make sure that we're closely connected on that.

MR. DYER: Commissioner, if I made, as the Regional Administrator, that's one of the areas I really worry about, and I've had discussions with Lew Myer on it and made a specific trip to the Perry facility to discuss and see, talk firsthand what was going on, and then subsequently they came in to make a presentation as to what are they doing to make up for the changes. So they do have a game plan, as First Energy said, detailed specifically to the site for addressing issues at the Perry facility.

COMMISSIONER MERRIFIELD: Mr. Chairman, if I may interpose for a second, it may be the lawyer in me but you both used the word, "worry." Can you clarify -- define worry. Do you mean worry as in you're keeping a close eye on it or worry as in you're

losing sleep at night over it?

MR. DYER: Keeping a close eye.

COMMISSIONER MERRIFIELD: Okay. I just wanted to clarify that. Thank you, Mr. Chairman.

COMMISSIONER DICUS: And final question. We've been discussing safety culture and clearly you had a lot of findings in the 0350 process that identified both people issues and equipment issues. And without going into any details on the people issues, can you give me a feel about was it 50/50 people issues and equipment issues or can you really zero in on that?

MR. GROBE: I don't know that I can give you a number, but I would say I would not focus on people as much. I would focus on the organization. The organizational issues are what caused Davis-Besse. It is the principal root cause, and First Energy was here a minute ago describing how that manifested itself. It's a common attribute in my experience of plants that find themselves in this condition that the plant has become isolated and complacent, and Davis-Besse took that one step further and got to the point where it was clearly only dealing with symptoms and not finding the source of the problem. So I think the most significant root cause was the organizational

problems.

COMMISSIONER DICUS: Fair response. Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner Diaz?

COMMISSIONER DIAZ: Thank you, Mr. Chairman. Let me ask a hard question. If there is one thing that you, any of you, could recommend that the NRC would do to prevent recurrence of an issue like Davis-Besse, what would you recommend -- one thing?

MR. DYER: I'll take the lead first. From my perspective, and I relate back largely to a lot of the comments in looking into the Davis-Besse Lessons Learned Task Force. From my position as Regional Administrator in 1999, when we had three 0350 sites and three more senior management meeting watch list sites and we weren't asking for help, that personal reflection is the area, as the Regional Administrator when I came in in 1999, we were in over our heads, and it took a lot of effort to get our way out, a lot of very hard work on the part of the staff and the managers in Region III.

But going back and doing it again, we've learned our lesson, region III as well as the other regions in this, for ROP 4 have asked to identify

where we think we'll have the needs in the rest of the year to execute the Reactor Oversight Program during this cycle. And so I think we've learned that lesson. But looking back at it from a Regional Administrator's perspective is managing and forecasting the resource needs more.

COMMISSIONER DIAZ: Thank you. I think that's appreciated.

MR. KANE: I would echo Jim's remarks. I would add to that to have a robust program, we have to have a really strong continuing self-assessment of our program. I think we've provided for that with the new Reactor Oversight Program. And I think communication of our expectations to all of our employees, all of our inspectors to take a hard look, we want to understand if there's something out there that they don't think is right, to elevate it and get it dealt with promptly by Management.

COMMISSIONER DIAZ: Would you like to add anything to that?

MR. GROBE: I was just going to say when you ask five people for one thing, you usually get five.

COMMISSIONER DIAZ: I understand that.

MR. GROBE: I would just say that --

COMMISSIONER MERRIFIELD: At the Commission, we certainly know that.

(Laughter.)

MR. GROBE: I don't think we do as good a job as we can in the area of -- we've done an excellent job bringing risk focus to our activities, both how we choose to look -- what activities we choose to look at and how we evaluate the results of our inspections. I think we need to make sure that we're adequately looking at the causal factors too and rolling those up as -- it was your question, Commissioner Diaz, on the many little things, making sure that we're capturing the many little things as we look at plant performance.

COMMISSIONER DIAZ: You mean the little things that are important when taken together.

MR. GROBE: That's right.

DR. TRAVERS: I wouldn't disagree with anything anyone here has said, I just -- one thing I think the Lessons Learned Task Force found that captured my imagination is this idea that we should more systematically look at our own messages to the industry and follow up on those in some appropriate way. It may be graded, and it may be different in each case, but we ought to make a deliberate judgment

about following up on boric acid, a bulletin, for example, or any other one where we're asking the industry to self-assess their own situation and perhaps take action as appropriate.

COMMISSIONER DIAZ: Okay. And leaving Davis-Besse, which is, you know, something that I really don't want to do but I have to do, looking, Mr. Travers, during your tenure and especially starting with Millstone, you have seen several 0350 Panels. You also have seen the 0350 Panels dealing with significant issues, including Millstone, Davis-Besse, Indian Point, and you also saw the beginning implementation of the oversight process, and Commissioner Merrifield already alluded to that. But is the 0350 Panel, the way that it's constituted today, is it state-of-the-art? Does it serve us well? I know that Jim Dyer said it's doing well. Is it -- have we looked at it? Is it the way it should be? And, second part of the question, is the feedback from the 0350 Panel being properly utilized for the reactor oversight process?

DR. TRAVERS: Yes and yes, but it hasn't been a stagnant process, it's been an evolving one, and in fact we've made some changes over the years to the approach we've taken in carrying out 0350. O350

is really just a tool for focusing us in our oversight activities, in our limited resource on those issues that are most important to an assessment of the readiness of a particular licensee that's in trouble to restart the facility.

And over the years, we found that we can better focus those efforts, and we've been doing that. And I think in this case, in particular, we've limited the scope of the activities that we're keying in on to those that are most important to our own assessment of whether or not they've completed the activities that they need to to be in a position to restart the facility.

The feedback question, are we learning from the conduct of 0350, is a good one, and I think we have always learned something in connection with 0350. I'm sure we're going to learn some more things as we go through the process here. At Millstone, we learned a lot about assessing safety culture and safety conscious work environment. I think we're applying those lessons in our evaluation here at Davis-Besse, so in that sense, you know, our experience at Millstone was helpful. We learned a lot about design basis issues in the conduct of the very detailed design evaluations that were conducted at

Millstone. I think we've rolled those into an occasional assessment of looking at design basis issues associated with different plants in our ROP. So I think we're doing that, and I think we need to continue to do it. Hopefully, we won't have these opportunities all that often, but I think we're utilizing the information --

COMMISSIONER DIAZ: Well, systematically, you would say that the Agency is focused in obtaining valuable feedback information --

DR. TRAVERS: Yes.

COMMISSIONER DIAZ: -- from the 0350 Panels to improve their reactor oversight process.

DR. TRAVERS: Yes, sir. I think it's part of the sorts of self-assessment that we have done and will continue to do.

COMMISSIONER DIAZ: Okay. Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: Thank you, Mr. Chairman. Let me briefly ask Mr. Dyer something I didn't intend to ask but you brought it up in your remarks with Commissioner Diaz. One of the lessons learned, as you said, was you probably should have

cried for help, but you had a, in my recollection, a vacant engineer position and another person who had multiple sites, one of which, I think, was itself a troubled site at the time. So you really had very little regional focus on this facility. Today, do you have all of these positions filled and people are not being diverted into Davis-Besse and we're not missing something else somewhere else?

MR. DYER: I'm concerned about that. To answer your question, Commissioner, we still have a lot of turnover in our staff and moving around. The Resident Inspector at Davis-Besse has accepted a promotion to another region, and he starts his 120-day clock, and I think we went to extend it, and we're working on augmenting the site staff at Davis-Besse to do that. I have other sites. I've filled resident senior -- excuse me, four branch chief positions. Three were with senior residents, and we delayed entry for some of those to show up at the regional office so we can try to get qualified folks at the site to support it. So it's a never-ending challenge. Specifically, to Davis-Besse, we're maintaining site coverage.

COMMISSIONER McGAFFIGAN: But do you have -- is this more of a challenge in your region than the

other regions?

MR. DYER: Last week, the four regional administrators and deputies got together and held a discussion, and we're all having challenges a little different in each region for different reasons.

COMMISSIONER McGAFFIGAN: Well, we can discuss that maybe at the annual meeting.

MR. DYER: Yes.

COMMISSIONER McGAFFIGAN: So I don't want to get diverted. I think you have a -- I do want to compliment staff. I think you have a very good web page on Davis-Besse, but we also have another web page on Davis-Besse which is the -- where a member of the public might go to look at where they stand in the reactor oversight process phase. And that web page says, "current action matrix column under IMC 0350 process," and then everything on the page is green. I mean inspection findings, performance indicators.

When are we going to have some significance determinations made about the various inspection findings that have been at least preliminarily made and discussed in public, I believe, in many cases? When are we going to start churning out non-green color inspection findings to populate the page, because we've been treating this Plant as if

it's a multiple degraded cornerstone plant since March, and Mr. Lochbaum has been quoted as saying he doesn't really mind whether we ever color anything, because we've been acting the right way. But I think it does convey a bad message if we don't start getting some of this stuff through the process. So what is the current plan?

MR. DYER: I think Jack can share with you the schedule.

MR. GROBE: Thanks, Jim. First, about a month ago, we issued an inspection report that dealt with the off-site and on-site radiological performance.

COMMISSIONER McGAFFIGAN: Right. That one is relatively trivial. I'm talking about the real things.

MR. GROBE: Okay. It included two white findings, but the Cert Panel meets Thursday. This has been a particularly challenging significance evaluation. The entire design pressure boundary was gone, and what was remaining was not designed to retain pressure. So the evaluation of its failure modes and failure mechanisms is very challenging. Office of Research and NRR have been providing this great support. In December, I believe it was the

first week in December, we received the results of their research and analyses that went into an assessment that didn't give us a specific probability of failure of the cavity clad material. It gave us an estimate of what that probability was with a broad number of variables that are not well defined.

So Bill and I have been working closely with the staff here in headquarters to try to take that assessment and our Phase 2 risk analysis results and meld those together into a significance assessment. We believe we've been successful, and we're meeting Thursday morning with the Significance Enforcement Review Panel to finalize that assessment, and shortly after that it should be available publicly.

COMMISSIONER McGAFFIGAN: Let me just clarify, though, I mean that's one element of your -- of a very comprehensive set of inspections you've carried out over the past year. There presumably are others. I mean Mr. Gunther later will say, "Given that containment sump system screens were subsequently found to be grossly undersized, reanalysis of accident consequences would likely show an undo risk to public safety as well." Is there anything in any inspection finding that you guys have -- thus far that applies to

some screens, and is there any probability of an inspection finding -- a colored inspection finding with regard to some screen?

MR. GROBE: The Licensee identified -- let me step back. The sump was completely aligned with its licensing basis design. So there was nothing wrong with the design of the sump, the square footage of the screen area or anything. The initiative that the Licensee has taken is far beyond the licensing basis.

COMMISSIONER McGAFFIGAN: All right. So just to clarify, just on that item, there is no inspection finding, there is no color coming, they are within their design basis, and indeed they're taking something to go beyond what our requirements currently require?

MR. GROBE: That's correct. In 0350 space, individual inspection findings that are continuing manifestations of the same problem do not often result in additional substantive action on the part of the Agency. The Licensee identified several specific installation issues with the sump. They weren't part of our inspection findings, and they're addressing those. So the answer to your question is we have a number of issues that the evaluation is

ongoing in the design engineering area, and those are sticky wickets, they're difficult design issues. Some of those may result in substantive findings, I can't project that at this point in time.

MR. DEAN: I'm sorry, Commissioner, if I may interject as well, as you know, we have recently completed an STP Task Force, which has looked at issues that I know that are of concern regarding timeliness of significance determinations and of course the Davis-Besse event has resulted in a fairly lengthy significance determination process. And I agree with you in terms of public perception looking at the web page and so on. But in a lot of respects, the way that the Agency has reacted is really kind of a success story in terms of we didn't have to wait for a completion of a risk analysis or a risk assessment to take the appropriate action as to assure public health and safety. And so that's the message that I've been conveying when I've been questioned by the press or public on this issue regarding the length of time for the significance determination. It's almost moot really in some respects.

COMMISSIONER McGAFFIGAN: I agree it's moot in terms of the actions we've been taking, but I think it's an important thing that we need to tie up,

and I fully understand that some of these are very complex and unique. I think you once set for yourselves an impossible goal of doing significance determinations in 90 days, and I think for the really complex cases you need more time than that, and you should amend your system so that you don't set yourself an impossible goal. But I think at some point we have to make a call and, you know, I'm glad to hear that the Cert will be meeting later this week. Mr. Chairman, I've got other questions, but in light of the third panel, I think I'd better stop. Thank you.

CHAIRMAN MESERVE: Thank you. I'd like to express appreciation to the 0350 Panel and to the staff for all the work that they've performed.

We have been going now for well over two hours, and let me suggest that we take just a few minute break and let people stretch their legs, and then we'll get started with the third panel.

(Whereupon, the foregoing matter went off the record at 12:44 p.m. and went back on the record at 12:59 p.m.)

CHAIRMAN MESERVE: Okay, why don't we get underway again. We have a third panel which represents, is constituted by various stakeholders.

They include Paul Gunter who is the Director of the Reactor Watchdog Project of the Nuclear Information and Resource Service, NIRS. We have Jere Witt, who is the County Administrator for Ottawa County in the State of Ohio. And Alex Marion, who is the Director for Engineering at the Nuclear Energy Institute.

Mr. Gunter, would you like to proceed?

MR. GUNTER: Thank you. My remarks today are focused on the Task Force Evaluation, the Agency's scrapping of the Davis-Besse Shutdown Order for Bulletin 2001-01 Safety Inspections.

First Energy's deliberate neglect destroyed the Davis-Besse reactor vessel head and significantly risked a nuclear accident. The recurrent lack of effective NRC oversight further eroded a hole in the public's trust of the Agency's commitment to safety.

The Agency's reactor oversight process erroneously represented that First Energy was maintaining its focus on safety. NRC plant assessments failed to even mention the blizzard of corrosive boron snow driven by reactor coolant system leakage inside containment.

While First Energy eventually admitted that placing production over safety had become a

routine course of business for years, NRC has yet to admit its role in prioritizing company profit margins over public safety margins.

The final report fails to address the Agency's justification for abandoning its risk analysis technique as outlined in Regulatory Guide 1.174.

The NRC policy statement on probabilistic risk assessments encourages greater use of this analysis tool in safety decision making. It provides the staff and the licensee with clearly established governing safety policies and procedures through a set of five principles.

The five principles were applied by staff in September 2001 as the basis for issuing an order to noncomplying licensees to perform inspections of control rod drive mechanism nozzles per the request of the Bulletin. Staff concluded that four of the five safety principles were not met. And the fifth, a special circumstance existed where current regulations were inadequate.

Using the guidance, staff concluded that Davis-Besse was not safe to operate beyond December 31, 2001 and "determined a potentially hazardous condition may exist such that the integrity of the

reactor coolant pressure boundary may not be maintained at the Davis-Besse Nuclear Power Station."

An order was finalized in mid-November to shut down Davis-Besse for safety inspections and presented to the Commission, but never issued.

Following the abandonment of the order on November 29, 2001, staff requested that the assessment of the five principles be discussed in a briefing to the Executive Director of Operations and the Commission's Technical Assistants. The staff vu-graph acknowledged again that four of the five safety principles were not met for the extension of Davis-Besse's operation beyond the Bulletin Advisory. Staff concluded if inspections were performed, current regulations are not met. One barrier is likely degraded. Safety margins are likely reduced. Only a small increase in CDF or core damage frequency results.

The risk measurement is monitored only by performance of the inspection. We question the Agency's confidence levels in the core damage evaluation given the large and numerous uncertainties in predicting cracks, given that the NRC staff knew First Energy had never fully inspected the reactor pressure vessel boundary, and given an internal NRC

communication dated November 8, 2001 where First Energy Vice President of Nuclear Operations acknowledges to the Agency that "there is a high likelihood that they, Davis-Besse, have leaks in the primary pressure boundary."

In fact, NRC daily status report on the Bulletin dated November 30, 2001, staff acknowledged that not one of the principles was met with confidence. "Although operation in this condition could result in core damage frequency and incremental core damage probability values, that are above the normally accepted guidelines of Reg. Guide 1.174 and Reg. Guide 1.182. The analyses also indicate that the consequences of such an event would not constitute undue risk to the health and safety of the public."

Despite findings that said don't do it, the process was derailed to extend the operation at the Davis-Besse beyond Bulletin advisory. In so doing, NIRS contends that the Agency unreasonably gambled an accident.

Given the containment system's screens were subsequently found to be grossly undersized, a reanalysis of accident consequences would likely show an undue risk to public safety as well.

The task force did not acknowledge,

evaluate, nor make recommendations on the NRC management action to abandon the steady judgment of the Agency's established risk analysis technique for safety decision making.

The abandonment of the order and its regulatory basis is the result of an Agency management culture that prioritized the corporate and financial concerns of First Energy executives. The task force report outlines that Davis-Besse's technical specifications require the reactor to begin shutdown within six hours of a determination of reactor leakage and cold shutdown within 30 hours.

The task force finding that NRC does not consistently enforce its licensing agreements for maintaining the reactor pressure boundary is extremely disturbing in light of the certainty that rust never sleeps.

The Agency's inconsistency speaks more clearly to an arbitrary policy of enforcement discretion on matters vital to safety and internal e-mail from an NRC manager to the Commission states, "We could have made an argument for immediate shutdown, but we are exercising discretion in allowing them to go to December 31st, but not beyond."

Another NRC internal communication states,

"I said we can justify today to shut these plants down. However, we are exercising discretion, noting it would clearly be punitive to immediately shut a plant down and they sit there for a month waiting to obtain the correct inspection equipment, etcetera."

NIRS questions the use of the word "punitive" in what sense? We can only conclude that early shutdown for safety inspections is punitive to the company's maximum capacity factor and annual financial reports.

Internal Commission communications dated November 21, 2001 clarify that First Energy President Bob Sanders had spoken earlier to NRR Director Sam Collins to say that he did not want an order because idling the plant would have financial impacts.

Interestingly enough, an e-mail from the previous day by the Resident Inspector told staff that he had sat in on the station's morning management meeting and observed "that licensee management expressed cautious optimism that the NRC could approve, would approve their plans to defer inspections until April 2002." Staff noted their surprise as "this is contrary to the message that was sent to DB on Thursday, 11/14/2001." The order was never issued.

The task force did not review, nor make recommendations regarding the significant missed opportunity for NRC to restore a measure of public confidence and trust by issuing the Davis-Besse order.

The Agency could have demonstrated its commitment to public safety by enforcing the licensing agreement with Davis-Besse as established by federal law. NRC missed an opportunity to demonstrated a lesson learned from 1996 when Time Magazine "caught the Nuclear Regulatory Commission at a dangerous game that it has played for years, routinely waiving safety rules to let the plants keep costs down and stay on line."

Millions of lives ride on NRC safety decisions each day. NIRS concurs with the emergency enforcement petition recently filed by Ohio Congressman Dennis Kucinich. It is more appropriate for NRC to set an example of a commitment of safety by holding a revocation hearing of First Energy's license rather than proceed any further on the restart of the Davis-Besse reactor.

Thank you.

CHAIRMAN MESERVE: Mr. Witt?

MR. WITT: Commission Members, thank you for the invitation to address the Commission on this

important topic. I obviously do not provide you with the expert technical information you've heard from everyone else, but I believe I provide the common sense approach to this issue.

I am Jere Witt. I am Ottawa County Administrator for the past 25 years and a member of the Davis-Besse Restart Overview Panel.

Ottawa County is the biggest stakeholder in this process. The residents of Ottawa County are most affected by the plant. Safe operation of the plant has and always will be my first priority.

It should also be noted that Ottawa County's Emergency Management Agency has demonstrated itself to be one of the best in the country. This has been done involving drills with FEMA and the NRC and more importantly real life scenarios of tornadoes, floods and collapsed buildings.

The protection of the residents is their only goal.

My role on the Restart Overview Panel is to represent Ottawa County to ensure the plant is ready to restart and operate safely. I have observed the restart activities since Day 1, attending over 60 meetings, many all day long. These meetings include Restart Overview Panel monthly meetings, two tours of

containment, NRC public meetings, updates from NRC staff, three full days with groups of employees on the safety conscious work environment, meeting with employees individually, two meetings with the First Energy Board of Directors Nuclear Committee and observing many plant activities including the Restart Readiness Review Board. Obviously, I've been closely involved.

We must evaluate the value of the continued operation of Davis-Besse in terms of safety and value to the community. Davis-Besse is the largest employer and largest taxpayer in Ottawa County.

Obviously, Davis-Besse and the NRC made mistakes and we must ensure it never happens again. I have personally been involved in the development of the plan putting together the actions required to safely and effectively operate Davis-Besse in the future.

There is a new commitment to safety developed and it will continue to grow. The commitment started with the new management team and demonstrated through their actions and involvement with the staff. The leadership and action program is making sure it permeates through all the staff from

the top to the bottom.

Employees are using the new systems as evidenced by the many safety improvements being brought to light and instituted, including major ones such as the emergency sump and leak detection systems. This will only help the safety culture continue to grow.

There is a new system in place for resolution of open issues. Employees are trained on it and see the results. Management is out in the plant observing the work and being directly involved with the staff.

The CEO and Board of Directors are very involved as evidenced by their time spent at Davis-Besse and meeting with the Restart Overview Panel.

The 0350 process has been a good one to get to where we are today. We now need a better process to ensure it does not happen again.

I have some recommendations and some thoughts for the Board to consider. The NRC should meet at least semi-annually with Ottawa County to update on the status of the plant and any risk significant issues. We should be a player in any discussion of potential safety risk.

The Restart Overview Panel should continue

in some format to continually review the plant operation and the NRC's review of these operations. This panel gives an expert, independent review of the plant. I am sure many plants have expert consultants that review their operations. But my experience on this panel has made me keenly aware of how much better this review is done if they meet as a group. They have asked the toughest questions throughout the Davis-Besse incident and continuously challenge each other and the staff.

I also believe the NRC should be involved at least as an observer. I truly believe that independent experts such as this, acting as a group, could have possibly prevented this incident.

I also would echo some of the questions asked by the NRC Commission before to other panel members as to how they're going to guarantee that proper inspections are made to ensure safe operations and what methods you would use to assess the effectiveness of these changes and will there be independent oversight of these changes.

I would also ask that the NRC consider how it has -- it will change its safety culture as they have asked Davis-Besse to provide information how they will effectively change its own.

I know that First Energy has dealt with the personnel issues of those involved and I would hope that the NRC deals with its own appropriately, if they have not already done so. This is vital to public confidence. I will assure you that Ottawa County will continue a more active role as a partner in the future operation of Davis-Besse. We will challenge and demand answers from both First Energy and the NRC.

The systems and programs are in place to safely operate Davis-Besse and I'm confident with the proper changes made by Davis-Besse, FENOC, First Energy and the NRC, we will all continually monitor all facets into the future to protect the residents of Ottawa County.

My family lives in the area along with my grandchildren and I would never suggest restart if I believe a credible safety risk is involved. It is time to move forward in the process with safety as the number one and only goal.

A renewed stringent regulation by the NRC must be part of this process. This regulation must be based on knowledge and common sense and not one influenced by political agendas.

I would personally like to thank the NRC

staff, especially Jim Dyer, Jack Grobe, Bill Dean and Christine Lipa and others for their open and candid discussions with the residents of Ottawa County and myself. They have gone above and beyond to ensure that we are informed.

I would also like to express my appreciation to First Energy, especially Pete Burg, Bob Saunders, Lou Meyers and others for allowing me to participate on the ROP and giving me free access to all facets of Davis-Besse.

Lastly, I would like to thank the Commission for the opportunity to address you today. I hope my comments provide you useful information as you continue your oversight.

I would be happy to answer any questions at the appropriate time.

Thank you.

CHAIRMAN MESERVE: Thank you. Mr. Marion.

MR. MARION: Thank you, Mr. Chairman, Commissioners and fellow panel members, good afternoon. I appreciate the opportunity to briefly summarize to you on industry activities that have been affected in response to the Davis-Besse head corrosion event. My discussion today focuses on three industry organizations, the Institute of Nuclear Power

Operations, the Nuclear Energy Institute and the Electric Power Research Institute.

May I have the next slide, please?

(Slide change.)

MR. MARION: This summarizes a couple of the actions that the INPO organization has undertaken. Workshops were conducted in each region last year for utility executives and senior management. These workshops involved senior management from First Energy as well as INPO and they facilitated a candid, open discussion of issues and activities prior to and subsequent to the Davis-Besse event. The primary focus was on organizational human performance and management issues.

After these workshops or I should say concurrent with these workshops, INPO initiated an evaluation of their internal cornerstone programs to try to establish what they did know as a result of their programs, what they did not know relative to the conditions at the plant with additional focus on the organizational factors that may have contributed to the event.

The overall objective of this effort by INPO was to try to identify those actions and activities that had an impact on safety. And as a

result of this focus, INPO conducted an assessment of their cornerstone programs and identified 14 recommendations. And the cornerstone programs are the ones that deal with evaluations, assist visits, training and evaluating and communicating operating experience.

May I have the next slide, please?

(Slide change.)

MR. MARION: Additionally, a Chief Executive Officer Conference was hosted by INPO this past November. The theme was building and maintaining a safety culture. Additionally, INPO formed a materials department to focus its effort on materials issues as they relate to operational safety issues and the basic objective was two-fold: to be proactive in support of industry efforts in this area and to have a good understanding of best practices to ensure that best practices are implemented as far as material performance is concerned.

Lastly, INPO initiated a review visit program of reactor coolant system boundary integrity. Two plants were piloted to establish the reasonableness of the program and I'm pleased to tell you that the first official review visit begins this week and the objective is to review all the plants and

evaluate the practices and programs in place to assure the reactor coolant system pressure boundary is maintained. That program will be completed in approximately three years time.

May I have the next slide, please?

(Slide change.)

MR. MARION: This slide summarizes a significant operating experience report that was issued by INPO towards the end of last year. It discusses, the report itself discusses conditions at Davis-Besse relating to management and oversight, boric acid control program, the corrective action program, and the philosophy of justifying and accepting boric acid on the top of the reactor vessel head over a period of time.

It also discussed missed opportunities and it really focused on the willingness of the plant staff and management to operate the facility with degraded equipment.

There were three recommendations that are summarized briefly on this slide. I'd like to speak to them for a moment.

One of the recommendations calls for a case study of the Davis-Besse experience for all managers and supervisors and that all the utilities

periodically conduct a case study for new managers and supervisors.

There's a continuing emphasis in assessing the organization's focus, the utility organization's focus on root cause and corrective action, to evaluate degraded equipment and material condition of the plants.

Lastly, there's a recommendation to identify and document abnormal conditions and evaluate potential effects of these conditions, whether they're significant or whether they're small, to evaluate worse case outcomes of the condition if the condition is not repaired and to look at these conditions individually as well as collectively in aggregate.

May I have the next slide, please?

(Slide change.)

MR. MARION: From the perspective of the Nuclear Energy Institute, in November of last year, our Executive Committee adopted a resolution to support an industry-wide effort to improve materials degradation management programs in the industry and I'll speak to those programs in a little bit of detail later on.

This effort called for a self-assessment of all the materials programs and that self-assessment

was driven by two main factors: recent events that have occurred over the past couple of years, for example, the Indian Point 2 steam generator tube rupture in February of 2000; the BC summer hot leg weld cracking in October of 2002; the circumferential cracks in the CRDM nozzles at the Oconee plant at the end of 2000 and into subsequent outages for the other plants in early 2001 and obviously, the Davis-Besse nozzle cracking experience, coupled with the corrosion situation.

There are other plant experiences that have been identified that are not necessarily at the same level of notoriety as the ones I've mentioned, but the idea of this approach is to evaluate those experiences and make adjustments in the program so that the industry can be more proactive in heading off these degradation -- identifying the degradation problems and resolving them before they result in a significant challenge to plant safety systems.

May I have the next slide, please?

(Slide change.)

MR. MARION: The self-assessment is essentially a review of the current material programs to identify barriers and gaps. To put it another way, we're trying to capture what is working well, which

programs are effective and why; what is not working well and what needs to be done to improve the particular program. We're also looking for areas of duplication and overlap and we're looking at what's missing.

The second bullet, we identify some of the programs that are captured in the self-assessment and I'm not going to read that, but I do want to make it clear that these programs include the NSSS owners groups activity related to some material performance project.

And EPRI provides technical support to their programs and they're a significant contributor in the self-evaluation.

The scope of the entire effort from the standpoint of PWRs and BWRs includes the primary system for primary water reactors, the dry well for boiling water reactors, secondary side steam generators for primary water reactors and materials issues related to reactor fuel as an example of the issues associated with axio-offset anomalies.

Next slide, please.

(Slide change.)

MR. MARION: From an EPRI perspective, I mentioned earlier that they're providing technical

coordination and support for the existing material programs, but more importantly, they're supporting the industry and NEI in providing us technical basis to respond to and deal with the NRC generic communications that have been issued over the past several years.

The primary focus from the standpoint of the technical analyses and the programmatic elements, if you will, focus on three areas: inspection, repair and mitigation.

Additionally, EPRI and the Office of Research in the NRC have been discussing opportunities for collaboration and I'm pleased to see there are three areas that have been identified in the details of the plan and obviously the costs are being worked out as I speak. Hopefully to everyone's satisfaction.

But the areas involve boric acid corrosion to get an understanding of the corrosion mechanisms and its effect on materials; to evaluate primary water stress corrosion crack growth rates of Alloy 600. And Alloy 600 is the primary material used in head nozzles.

And do metallurgical analyses of the specimen that was removed from the Davis-Besse reactor vessel head as well as the specimens that have been

removed from the North Anna 2, J-groove welds.

Next slide, please.

(Slide change.)

MR. MARION: Our basic objective is to capture the findings and recommendations from the self-assessment, to review and seek approval of the recommendations by the industry's chief nuclear officers, and our expected completion date is May 2003.

And I'd like to take a moment just to identify several of the challenges that have already been identified in this effort. Obviously, funding. Money and resources is the key challenge. What we've realized is each of these programs which are crucially important to various elements of the industry are in competition for research funds.

Prioritization, obviously. Communication, within the industry as well as communication with the NRC. Consensus resolution process as it's applied within the program advisory structure. Regulatory interface which involves NEI and the individuals from these programs as well as the NRC. Accountability in terms of if one of these programs is not successful, to whom is the leadership of that program held accountable?

Implementation, of course, implementation of the guidance documents that have been developed by the respective programs. And monitoring the implementation of those guidance documents over a longer term.

Next slide, please.

(Slide change.)

MR. MARION: In conclusion, I would like to indicate that we believe that the NRC's lessons learned task force effort that evaluated the internal programs and policies is a healthy and positive action that the NRC had taken. And we are willing to work with the NRC staff as the action plan supporting the recommendations are developed and implemented over the next several months to a couple of years.

The benefits of such objective critical review, both by the NRC and the industry is extremely crucial and I think the industry, historically, has demonstrated the discipline to systematically conduct such critical reviews. It results in enhancement of the industry programs and it results in continuous feedback on implementation issues.

The bottom line is all of these efforts, both from the NRC and the industry point of view clearly demonstrate a continuing focus on assuring

plant safety. And that concludes my presentation and I thank you.

CHAIRMAN MESERVE: I'd like to thank all of the panels for their presentations. In light of the lateness of the hour, I'll just have a question for each of you.

First for Mr. Gunter, first a comment and then a question. Your presentation relied principally on the principles that were drawn from Reg. Guide 1.174. That is a Reg. Guide that is intended to be used for changes in the licensing basis, that would be license amendments that involve permanent changes in the plant and by its literal terms would not be the document which one would rely for temporary action such as the one that the staff was making in allowing six weeks of continued operation.

I recognize that you were invited into reliance on it and the staff made reference to it in some documents that NRC made available to you, but it literally is not something by its terms was applicable to the decision that was before the staff.

Question, we had an extensive presentation by First Energy, the variety of actions it has taken to try to deal with the circumstances at the Davis-Besse plant. I wonder if you have any criticisms or

comments on the actions that the licensee has taken to deal with the situation?

MR. GUNTER: Well, the first question that came to mind today was am I correct in that there are four reactor coolant pumps at Davis-Besse?

CHAIRMAN MESERVE: Four.

MR. GUNTER: Two have been refurbished. Well, I guess my question is is that given the other two were not refurbished, I guess there is a question with regard to the material condition, particularly in light of the age of those other two reactor coolant pumps compared to the two that were refurbished.

Is there some way to get some comment on that?

CHAIRMAN MESERVE: I don't think the Commission is in a position to comment on that, but I'm sure the staff would be in a position to be able to answer your question about the reactor coolant pumps.

MR. GUNTER: Or Davis-Besse.

CHAIRMAN MESERVE: Or Davis-Besse, I'm sure.

MR. GUNTER: I guess one concern that remains though is that the -- with regard to the destruction of the trust that First Energy engaged in,

more than just material condition of the plant. There is currently no metric system, let's say, right now for restoring public confidence that the management culture has done anything but shift seats and that the same agenda probably even under more pressure right now with regard to a restart plan, may not have changed.

How is the Commission, how is the 0350 Panel to engage that broad area of uncertainty in light of the fact that your trust should have been torpedoed by this plant's actions?

CHAIRMAN MESERVE: Let me say I think that is a fair comment and question and a lot of discussion we've had today has dealt with the problems of assessing how safety culture has changed and not being able to monitor that. And I think that is going to be a challenge for the panel, the 0350 Panel to assess, evaluate the restart decision.

Mr. Witt, that does tie directly to the question I had to you and the staff has had extensive activities in trying to outreach in the community and to try to get a sense of the community concerns.

Have those activities been effective? Are there things that we should learn from this experience as to how to do that job better and to communicate

with the affected community in a better fashion than we have?

MR. WITT: I assume when you refer to the staff, you're talking about the NRC staff?

CHAIRMAN MESERVE: Yes.

MR. WITT: No. I think they've been very effective in doing that. They certainly have gone above and beyond in keeping the local governments involved, answered our questions, met with us to explain issues.

I think they've done a very good job of that. I can't think of anything quite honestly that they could do to improve on that, other than Jack Grobe suggested the sound system.

(Laughter.)

That's certainly not a reflection on the NRC. That was just the facilities available.

But no, I think they've done everything they can to keep people involved. I know that they stay after the meetings to answer more specific questions so someone is not taking up all the time.

We asked for and they certainly followed our request in asking that the local public be allowed to ask their questions first, so someone cannot dominate the program. And they've done all that and

done a very good job of it, frankly.

CHAIRMAN MESERVE: Mr. Marion, you spent, I think appropriately, the bulk of your time talking about the self-assessment activity that the industry is completing.

Let me ask the question about how you're going to deal with the circumstance that maybe the Davis-Besse plant presents for us in that we have a high level effort to try to assemble information and to make sure that the situation is analyzed, but before the event of Davis-Besse we had a situation where the people who were there were comfortable and that they thought they had their hands around the problems that existed in the plant and were not necessarily open to receiving advice from outside in this sort of area.

How are you going to deal with the problem of getting to the plants that may not be actively involved in assessment process itself, may be comfortable with the world as it exists and they have some problems that need to be addressed?

MR. MARION: Mr. Chairman, that's an excellent question. I think it was mentioned before by the representatives from First Energy that there was a sense of complacency and isolationism on the

part of the management and staff at that plant.

And that's one of the human performance and management issues that the INPO program is going to focus on. And INPO is going to conduct their evaluations of all the plants.

I mentioned communication is a significant element in terms of a challenge before us as we move forward and INPO makes it a point to communicate within their advisory structure, their findings as a result of these evaluations and review visits, etcetera. And they also obviously communicate with the utilities and their peers, but most importantly, they communicate with the Chief Executive Officers in the industry.

As I mentioned from an NEI perspective, the same Chief Executive Officers are on our board of directors of NEI and we've been communicating with them our intent and objectives relative to the self-assessment and materials programs. And we are unique at NEI as compared to the other industry organizations because we are the only organization that brings together the chief nuclear officers in the industry. And we have been communicating with them also, relative to the results of our review of the materials programs and INPO attends our meetings and also

communicates to that body, that level in the industry, their findings as a result of these evaluations.

And I think having said all that, the heightened level of awareness and sensitivity and all of the documentation and information that's been brought to bear relative to the technical conditions at the plant and relative to the human performance and materials conditions at the plant, I feel comfortable in saying at every level within the industry, that information is being integrated into the way the utility personnel operate and manage their facilities. And it's not the kind of thing that's going to change overnight or improve overnight, but we have a number of processes in place through the various organizations.

CHAIRMAN MESERVE: Thank you. Commissioner Dicus?

COMMISSIONER DICUS: Thank you, Mr. Chairman. First of all, I do want to thank all of our stakeholders for coming. You provide extremely valuable input into the processes we deal with. I want to thank you for that.

Mr. Witt, I particularly appreciate the kind statements you made about the NRC staff. I also appreciated your recommendations and I think you were

positively critical and that's a very good statement. I also have dealt extensively in my former life with local governments and I do appreciate the efforts that you go to.

I have a question. I know when I was out of the room I was able to listen to your comments. Given the fact that INPO has a process, NEI has its efforts, do you see anything changing in how INPO and NEI may work down the road?

MR. MARION: Let me just answer that question.

COMMISSIONER DICUS: You've got two different goals.

MR. MARION: Absolutely. We do our best to work together, all three industry organizations in a complementary fashion to support the needs of the industry.

Now INPO's mission focuses on maintaining operational safety, doing all the necessary work associated with evaluating operating experience, making recommendations, etcetera, etcetera.

We maintain a boundary in our relationship and interactions in terms of NEI is the organization that was put in place to deal with the regulatory issues. INPO provides them some support, but you will

hardly ever see INPO at a public meeting to discuss some regulatory issue and they defer to NEI.

From the perspective of EPRI, EPRI provides technical support to both organizations. So I don't see any significant change in the way the three organizations interact. Quite frankly, I've been in Washington for approximately 15 years when I first came to the predecessor organization, NUMARC. And I think the organizations work very well together. And the greatest advantage we have is when we can integrate our efforts on a particular problem that needs to be solved, where all three organizations are supporting the needs of the industry and I think in this area you have that.

COMMISSIONER DICUS: Okay, in light of the hour, I'm going to stop.

CHAIRMAN MESERVE: Commissioner Diaz.

COMMISSIONER DIAZ: Thank you, Mr. Chairman. I think that out of all of this, we of course, I conclude and maybe my fellow Commissioners too, that we have significant deficiencies that we are facing. We're not perfect, not that we ever claimed to be perfect, but we do try hard.

In this respect, I think they mentioned in the last panel the fact that we are held to very high

standard. I think this is an issue that sometimes we need to reflect on, that we are here facing this issue which has consumed tremendous amount of our time, the time of all stakeholders, because not that there were really consequences to the public, but because there could have been, and the fact that we cared about the fact that there could have been consequences and dedicate all of these amounts of time to show the very high level of standards that we apply to all of our processes.

And having said that, Mr. Gunter, I know that you have in your presentation, you made some strong statements regarding why we issued the order. I don't want to visit that. I don't agree with that. I think the processes that were surrounding that were well justified. I also do not agree on the implications that we put considerations on financial conditions. I don't think we did. I'm sure the Commission did not.

However, I am really intrigued by the fact that I'm sure you want these processes to be better. Outside of the order and the implications of financial consideration which I disagree, what do you think we could do better to communicate publicly what went through and what are we doing? What do you see out

there that we're not doing that you think is important to restore public confidence?

MR. GUNTER: Well, very briefly, I think that adherence to enforcement of the licensing agreement.

The public sees a tech spec, the limited condition of operation which is the technical judgment that's been established based on safety. The question remains in our minds why wasn't the technical specification enforced at the appropriate time when First Energy admitted to the NRC that they agreed there was leakage on the reactor pressure boundary. Why wasn't the technical specification put into action at that time?

I'm just saying that would provide the public with a demonstrated commitment that the NRC is willing to enforce its license agreement with nuclear power operators. If that's abrogated, you don't gain the public trust.

COMMISSIONER DIAZ: Right. I understand. So maybe we should have made better effort to explain the difference between the nozzle heads and the actual hole in the head of the reactor in the reactor head. That's -- there is a difference.

MR. GUNTER: Leakage is the question.

COMMISSIONER DIAZ: Leakage, but we can have leakage and I don't want to get into an argument. It's too late. We can have leakage from the reactor coolant seal and the tech spec allowed certain amount of leakage from a series of components in the plant.

MR. GUNTER: I understand.

COMMISSIONER DIAZ: And that's not considered a violation of tech spec until they reach a certain level, say two gallons per minute or whatever the tech spec says.

But I do see your point. Thank you so very much.

Mr. Witt, very quickly, you said -- a question was asked to you whether the staff was communicating properly and so forth. I think they tried very well.

From your perspective, is there anything else the NRC could have done with the county to make sure that you were properly informed? Is there any other thing that we could have improved on?

MR. WITT: You mean as part of the 0350 process?

COMMISSIONER DIAZ: No, no, as part of the entire Davis-Besse process.

MR. WITT: I think -- first of all, I

think as I said in my presentation, some type of semi-annual meeting with NRC staff, resident inspectors at Davis-Besse would be appropriate. I believe it's important enough for the residents of Ottawa County that when a decision was made to allow the plant to continue operating for the extra extended period of time, that the county in the future should be involved, at least know about that process. Frankly, that's great hindsight right now and I'm not laying blame on anybody for that, but I think it's a lesson learned from this that the county who obviously has the most to risk in this process, could be better kept informed.

COMMISSIONER DIAZ: Okay. Mr. Marion, I have said in a public document that I firmly believe that we are never going to have another Davis-Besse. Why? Well, that's why we're here. No matter what anybody thinks, it is almost -- it's very, very, very difficult to envision another type of that same phenomena happening, the same place, leading to those conditions.

However, that's not the issue that we have to face, you as an industry and we as a regulator. What is the other phenomena that might come out that is totally different and that might come up in little

steps by steps? Can you tell me in simple words how is the industry preparing not for corrosion of the head, which I think we probably will not see another one, but to the other type of phenomena that will challenge the potential safety of public health and safety, what are you doing?

MR. MARION: Well, from a material performance point of view, the first step is to have a system in place where you can identify and capture operating experience, not only in the U.S. but in the world. And INPO is positioned to do that.

One of the key elements of our recommendations is to improve that particular area so the information is available as soon as possible. To give you an example, if I can, I was involved in representing the industry and dealing with a head nozzle cracking issue about 10 years ago when the experience was identified at the Bougey facility. And all the information, the data at that time indicated that you would likely have axial cracks as opposed to circumferential. And over that period of time up until the Oconee experience, all of the experiences with cracks and faults have been actually oriented. And when the Oconee experience occurred, lo and behold

we found out that there was a plant in France that had indeed experienced the circumferential crack and we recognized that. And the point of evaluating operating experience is to get that information, all of the information together, so that we could determine what the potential degradation mechanisms are and what form they would take. That's a lessons learned that's more responsive to your particular question.

COMMISSIONER DIAZ: Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner McGaffigan?

COMMISSIONER McGAFFIGAN: Mr. Marion, one of the issues that staff is grappling with and I know you're grappling with is the ASME code currently for vessel head inspections is clearly not adequate for what we need to do going forward. And how quickly do you think we can put in place something that is a revision to what we have today and we can have confidence in the vessel head inspections going forward?

MR. MARION: I'll give you a direct response to the question which I'm sure you will appreciate. The best level of effort by the standard

development organizations has typically been on the order of three to five years. I was recently appointed to the ASME Board of Nuclear Codes and Standards. We do have a meeting later this week and I will make it a point to see if they can find a way to expedite changes to the code to deal with this issue so that subsequently we can get NRC adoption. But at this particular point, we're a couple of years away.

COMMISSIONER McGAFFIGAN: You understand in the interim we may have to do something?

MR. MARION: Absolutely. As a matter of fact, I've made those kinds of comments to the NRC staff that if there is a gap, they need to determine a way to fill it.

COMMISSIONER McGAFFIGAN: Okay, and I think we fully intend to do that.

Mr. Gunter, one of the issues that -- I fully endorse everything that Commissioner Diaz said to you in terms of disagreeing with many of the elements in your presentation today. I think the Chairman's response to the Inspector General's Report, Mr. Hollahan's response to the Inspector General's report which state our case, one of the issues you were raising earlier was your interpretation of the

tech spec. This diagram shows where Davis-Besse stood. It's one of our performance indicators for the -- as part of the reactor oversight process. And they were so far into the green range and reactor coolant system leakage prior to February that there really was no tech spec. We expect some leakage and this plant was at the very top of the green band.

So I think you're misinterpreting our tech specs which is your -- we get to interpret them. I guess you get to try to interpret them. But there's a fundamental difference there.

Let me get to my question. If we had issued the order which a unanimous staff felt it was not a safety case for, but let's say we went ahead and issued the order, we then would have found approximately January 20th, we would -- instead of March 6th, we would have been told that there's a full reactor head. How would you have behaved differently since then? Would you have not called for the reactor to be shut down? Would you not be expressing no lack of confidence in us or the licensee? You're milking our internal communications about this draft order in ways that I don't agree with, but just say we had done exactly what you know we didn't do. We still would have had a problem. We

still would have had issues that we had to deal with. The licensee would have had issues that they had to deal with. But how would your behavior have been any different?

MR. GUNTER: I think we would have taken note of the process by which the Agency had engaged.

COMMISSIONER McGAFFIGAN: Really?

MR. GUNTER: Certainly. What we're looking for right now is demonstration of enforcement.

COMMISSIONER McGAFFIGAN: Well, I will never forget your organization coming in in early December of 1999 with three rulemaking petitions, basically asking us to shut down all the plants on January 1, 2000 because it was your judgment that they couldn't be operated safely.

We had had a process in that case that went back at least three and a half years to totally kill the Y2K problem in this industry. I mean just absolutely be technically on top of it, be ahead of all the other industries. And we, of course, did not grant your petitions for rulemaking and we operated through the night of Y2K and indeed we were on heightened alert just in case we'd done something wrong. And it was a fairly, it was a smooth transition. We didn't need to shut the plants down,

nor did any other nation need to shut their plants down.

We had a process in that case. We had a process that extended back three and a half years that was technically deep. And yet, your organization at the eleventh hour, 59th minute comes in with petitions for rulemaking, asking us on a noncredible technical basis to shut down all the plants.

MR. GUNTER: I think they were more focused on compensatory actions, as I recall, particularly with regard to emergency diesel generators back ups and that. I think that's a more appropriate characterization.

COMMISSIONER McGAFFIGAN: I totally disagree that there was any Y2K issue with regard to emergency diesel generator backups.

So your answer to the question is you would have given us some credit for having issued the order, but would you today not be calling for the plant not to be started up?

MR. GUNTER: I think indeed we wouldn't -- we would be calling for the same revocation hearing. That's right. Because of the degree of degradation, the breach of trust. Those are issues that are not necessarily resolved by the order, even, but what

would have been established by the order was a demonstration to reflect an Agency bias on the side of conservative bias on the side of public safety.

COMMISSIONER McGAFFIGAN: I think we have a very conservative bias on the part of public safety. I do think you need to look at the biases of your own organization and I've been here now six and half years. I don't think you've ever given us credit for anything, but that's -- I'll leave it at that.

Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Commissioner Merrifield.

COMMISSIONER MERRIFIELD: I think there's a respectful difference of opinion, going to Mr. Gunter, a difference of opinion on the motivation and process that we use for getting to the decision that we did.

I would agree with you that even if the order had been followed along the lines that you would have wanted us to, I too would believe that we would still be here having this meeting today. It's obviously a very serious issue and I think we still would have been -- we obviously still would be in a process going through the 0350 process and hearing from our own staff.

I'm interested in hearing from you focused on the process and actions that the NRC and FENOC have taken to resolve the issues associated with head degradation and how that has moved its way through the 0350 process.

MR. GUNTER: I think that we're still, there are still a number of questions with regard to how the tech spec failed us. I mean as Commissioner McGaffigan has pointed out, the indications in the tech spec that everybody was still agreeing, but in reality the plant was eroding and it seems to me that that's -- that we were all under false impressions of the margins of safety that were at this plant. That is a very disturbing insight.

COMMISSIONER MERRIFIELD: I appreciate that observation. But the focus of my question is we are in a process right now --

MR. GUNTER: Moving forward. Of moving into restart. I understand.

COMMISSIONER MERRIFIELD: Well, we are going through a process of reviewing the activities being undertaken at the plant to make sure that the plant is put in the condition where we have a comfort level of the safety.

MR. GUNTER: I understand.

COMMISSIONER MERRIFIELD: So that's sort of the focus on that question is the process we're using through 0350 to get there --

MR. GUNTER: Again, my concern is that we lost confidence in the technical specifications reliability for actually monitoring plant condition and that trust has not been restored in the restart process. If, in fact, the plant could have been in the green, in terms of reactor pressure coolant boundary surety and the damage existed, it does -- it's disturbing to us that we could be moving along the same lines under the same false assurances on other systems.

COMMISSIONER MERRIFIELD: Well, I appreciate that comment. I would make the observation and others have made the observation about the tech specs and I'm not going to -- I haven't looked at that separately and I leave it to them, to their assurances.

The one other, I think, instructive thing is that when we actually took a look at the control rod drive mechanism as a result of the inspections taken after February of last year, we identified that the nozzle cracking, in fact, identified after the shut down was well within the levels that were

predicted by the staff. So I mean at least in terms of that level, we did, as it relates to the control rod drive mechanisms themselves, I'm not talking about obviously the problem with the degradation on the control rod drive mechanisms, it did in fact, meet our predictions.

Mr. Marion, a quick question. On Slide 6, you go into some detail about how you are going to try to integrate a variety of industry programs while facially this seems to be a good initiative, historically, the industry as faced challenges with having a variety of ongoing activities that it needs to balance, given issues that are coming forward on an ongoing basis.

Can you elaborate a little bit further on how you're going to integrate these programs and manage them in such a way as to be able to identify those historic issues that are still out there that you're grappling with separately in these programs?

MR. MARION: As I mentioned, one of the early findings was that each of these programs are somewhat -- well, not somewhat, but they are in the competition for resources and support and attention, etcetera. And one of the preliminary thoughts that we're considering and this is under active

consideration. It's not a final. But it's responsive to the question, is that we're seriously considering an executive level oversight body as well as a technical advisory group that would be structured to evaluate all of the information relative to operating plant experience with materials performance issues. That technical advisory group, as an example, would make an initial determination of what has potential impact on similar materials in nuclear power plants. And not only impacts from the standpoint of a regulatory compliance issue, but impact from the standpoint of operational safety and business economics, quite frankly.

One of the things that we found as a result of the effort thus far is that there's -- we're dealing with humans and speaking of human performance, one of the first characteristics when a problem is identified is that it can't happen here. It's someone else's problem. And then when you work through that realization, then you start looking at the regulatory process and try to bound the significance of the process based upon NRC's current regulations.

Well, one of the questions that we're struggling with and I suspect that we'll be discussing that with the NRC staff at some time in the future, is

whether or not the tech spec action statements relative to unidentified and identified leakage are adequate and sufficient. We don't have an answer to that, but that's one of the questions that we're willing to come to grips with ourselves and also engage the NRC on.

As I mentioned earlier to Commissioner Diaz' question, the key advantage is to put in place a process that allows the identification of operating experience and does an expeditious review and assessment of the impact of that experience in a more holistic manner than what we used to do previously. Quite frankly, the industry has been reactive. A lot of these programs were put in place primarily because of NRC concerns with material performance issues. And we want to get beyond that reactive mode and get into one that's more proactive.

I'm pleased to see a lot of good, constructive, out of the box thinking. It's going to help us in that regard.

COMMISSIONER MERRIFIELD: My last question goes to Mr. Witt. I would second the comments made by Commissioner Dicus in terms of the appreciation for the work and the contribution made by our local stakeholders, as you mentioned, live with these

facilities each and every day.

Our Agency, there have been a number of commenters and editorialists who have been opining and questioning the NRC's commitment to safety. Having been a member of the Restart Overview Panel and having interacted with our staff, is it your view or not that the NRC is treating this issue seriously and that our Agency has a sufficient commitment to safety?

Do you want to comment on that?

MR. WITT: Certainly. First of all, to your first question, I believe that they are treating it very seriously. Everything I've seen has demonstrated that. And I think the NRC does have a commitment, definitely to safety. That's my opinion. That's your main goal.

I think we all know what happened here and there was some -- you know, obviously wrong decisions made and a lot of issues behind making those wrong decisions, but I don't think that changes the fact that the NRC is committed to safety and I think you have to learn from these experiences and go forward.

One of the other things that I learned and I forget who asked the question, but the question has been asked a couple times is just by changing management at the top, has that changed the safety

culture of the employees? My answer to that would be because I talked to the employees. I spent three days at the beginning of this process talking to employees about safety culture. My belief is the only reason the safety culture, the safety conscious work environment failed in this system is because top management didn't reinforce it and in fact, someone would raise -- right a condition report or raise an issue and nothing ever happened to it, so the employees got complacent to the point where they said well, if nothing happens with it, why should I write a condition report?

I really believe now that the top management has changed and they are paying attention to the details of the condition reports and responses are getting back to the employees, the employees always had a safety conscious work environment mentality, but they lost that because top management was not paying attention to it. And I think by changing top management and in fact, them seeing the results of that, will make that safety culture develop more and more with the employees.

I've seen it happen. I personally, obviously, have observed a lot of these happen.

COMMISSIONER MERRIFIELD: I appreciate

that comment and I do appreciate a recognition as to the commitment of our staff to safety.

I would tell you although you've had little interaction with the Commission and senior staff, but at least from my viewpoint the commitment of the Commission and our senior staff is no different and that safety is our priority.

Thank you, Mr. Chairman.

CHAIRMAN MESERVE: Good. Obviously, Davis-Besse is a very important event for the NRC and we're putting a lot of time into making sure that we understand it and deal with it properly.

I very much appreciate the insights that all of the panels today have brought to us. It's been very helpful.

With that, we're adjourned.

(Whereupon, at 2:06 p.m., the meeting was concluded.)