UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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BRIEFING ON IMPLEMENTATION OF

DAVIS-BESSE LESSONS LEARNED TASK FORCE

RECOMMENDATIONS

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Nuclear Regulatory Commission

One White Flint North

Rockville, Maryland

Tuesday, November 1, 2005

The Commission met in open session, pursuant to notice, Chairman Nils J. Diaz, presiding.

COMMISSIONERS PRESENT:

CHAIRMAN NILS J. DIAZ

COMMISSIONER EDWARD McGAFFIGAN

COMMISSIONER JEFFREY S. MERRIFIELD

COMMISSIONER GREGORY B. JACZKO

COMMISSIONER PETER B. LYONS

STAFF AND PRESENTERS:

LUIS REYES, EDO

JIM DYER, Director, NRR

BRIAN SHERON, NRR

LOREN PLISCO, Region II

ANDREA LEE, RES

P R O C E E D I N G S

CHAIRMAN DIAZ: Good morning. We are gathering here for something that is, you know, of course, has been in the back of our mind for some time.

We will be briefed by the staff of the status of the implementation of the Davis-Besse Lessons Learned Task Force recommendations and the corrective actions program for significant lessons learned.

Over the past 3 years, we have all been busy. We have had a number of briefings on the issue. We kept Congress informed. We kept our stakeholders informed. It is clear that we made progress. I would like to hear where we are. I think it is important that this issue be closed and eventually be incorporated into the way we do things all the time rather than the unique -- it was unique, now it should be reduced to practice.

The work to improve the agency programs, of course, continues beyond the implementation of the task force actions. Lessons have been institutionalized and I think the staff is going to tell us that we are becoming part of the fabric and culture of the Agency.

We know that every senior manager has been involved in this issue. We get the reassurance that we have looked at everything that was important that needed to be looked at and then we learned from it. And I'm sure we are executing according to those lessons.

With respect to this newly developed corrective action program, I understand will soon be piloted and implementation on it will begin next year.

I think we all realize that the Davis-Besse event, as we all have commented was something that was unacceptable to the NRC. Something that in many ways it was a surprise that should not have been. I think the Agency is better for it.

We intend to make sure that, like I have said several times, there is only not any other Davis-Besse hole in the head, but there is also learning in other areas to prevent

that such an accident could happen.

I think it is time to move on. We have put our self in a good position to do so. I think that the improvements in oversight are going to serve us well, not only in operating reactors and other facilities, but eventually should serve us well as we go forward in tackling what the nation might demand from us and we will have a better oversight system overall.

The Commission looks forward to a frank discussion on the progress that has been made and where the Agency is going to be positioned in the next few years to take the necessary actions.

And especially, I guess, there is some curiosity of where we are going to be with our corrective action program. With that, I would like to ask my fellow Commissioners if they have any comments.

COMMISSIONER McGAFFIGAN: Mr. Chairman, I would like to just make a very brief statement and I will follow it up in questions later. I, obviously, am very enthusiastic about this Lessons Learned Corrective Action Program. I said it last year at the December 8th meeting that we had.

It was one of the first votes I cast when I got back. It turned out you had already answered it in a July memo that I thought this was very important.

I am disappointed in reading in the Cleveland Plain Dealer yesterday that we had not released the August 2004 report that we discussed last December until last week.

And I believe we should have and I hope we have released all of your update memos, although, given that this was not released, maybe your update memos from March and July have not been released either or maybe they were released last week.

I cannot convey strongly enough that the three of us that were here last December reacted very, very positively to that August, 2004 paper. It was captured in the SRM.

The SRM used the adverb enthusiastically, which we don't use very often. We are adverb-free, I think the rule of SECY. And so we are committed to learning from our past mistakes.

The headline was NRC not learning from its past mistakes. We are committed to learning from our mistakes. We are committed to putting a process in place that will help the staff going forward not forget and captures the lessons learned in a systematic way. And as the Chairman said, we are, hopefully, about to pilot that.

But in two public Commissions meetings so far, I have come across papers that have been sort of withheld from the public. And I think you end up doing -- and one was released because it was needed for the meeting. This one was withheld for 14 months and it was not clear why.

And they are not marked secret when they come to us. I will confess as a Commissioner, I had never been in ADAMS -- the staff in OAS is committed to correcting that, but it was just so hard to use when it first came out that I found ways around it.

So I don't look in ADAMS to see why something might be non public. I just get a piece of paper, your June 14th memo GSI-189, this piece of paper, other pieces of paper, your update memos. And I see them and I assume that they are public, because they have no markings on them that say they are not public.

And so I think in this case -- addressing both the staff to say we should have put it out earlier, in my view, and we should have been putting out the updates earlier if we have not.

And I'm addressing, I guess, the folks at the Cleveland Plain Dealer to say we do learn from our mistakes. We are committed to it. And the transcript of our December 8th meeting of 2004 absolutely shows it. So thank you.

CHAIRMAN DIAZ: All right. Commissioner Merrifield.

COMMISSIONER MERRIFIELD: Mr. Chairman, I would expand a little bit

on one aspect of what Commissioner McGaffigan said and that is this Commission is learning from its mistakes. I think it is particularly noteworthy we have met as a body to review the Davis-Besse Lessons Learned Task Force. Repeatedly, this Commission, and I know from my part, made it quite clear that unlike other lessons learned meetings this Agency has conducted, that it was very much the desire of this Commission to make sure that we did not create a report that would get put on the shelf, nor would we have a list of recommendations that were not fulfilled.

I think what is particularly noteworthy and what will brought out by the discussion we were going to have today with our staff is the fact that of the 48 recommendations that have been articulated by the Lessons Learned Task Force, we have completed 47 of them. And the one that we have not completed is the one that is outside of our control. That is one which requires ASME to weigh in.

So the one outstanding lessons learned that we have not acted on in that respect from that task force is one that, hopefully, will be acted on. But I think the staff is to be commended for having followed through on that. I think the Commission has made it clear in the SRM -- in the paper that Commissioner McGaffigan references that we enthusiastically support these efforts.

I agree with the Chairman. We continue to look forward to improvements in our corrective action program. And yet, there is still more that we need to think about, more that needs to be done. In my question time, we will focus in on some issues that I think we need to focus on a little bit more coming out of this.

But I think we have made significant progress. I think we are certainly far away from where we were when we first engaged in this effort and I do take umbrage with some of the comments made that disparage the Commission and its focus on the task at hand. I think we certainly are focused.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. Commissioner

Jaczko any comments.

COMMISSIONER JACZKO: Let me just comment briefly. This is my first opportunity to hear about the Lessons Learned Task Force. It is also the -- likely the last meeting on the subject. So I look forward to hearing what you have to say and seeing how this work is being wrapped up and will continue into the future.

CHAIRMAN DIAZ: Thank you.

COMMISSIONER LYONS: Just a few comments. Some of you heard me when I was sworn in, or at the RIC conference, talk about how as I first came to the NRC probably the Davis-Besse incident, in general, was pretty much the highest priority I had to understand how it had occurred and how the agency as a whole was working to make sure that it could not occur again.

Today, based on what are going to be presenting, I'm more than convinced that the boric acid corrosion concerns are well in hand, well understood, and I trust that those -- that the actions taken will preclude any possibility of that happening again. But I also don't think that it should nor is going to engender any sense of closure for any of us.

I think the concerns that Davis-Besse raised -- and again, not the specifics of the incident, but the fact that that kind of an incident could occur in this day and age with all of our current reactor oversight programs is a real concern.

I think the lessons learned program that we will be talking about later today is absolutely key to making sure that the lessons from Davis-Besse and from other concerns that have caused us to generate lessons from other incidents. That we take those very, very seriously, take them into the future and make sure that new generations of NRC employees understand those lessons as well.

CHAIRMAN DIAZ: Thank you. Mr. Reyes.

MR. REYES: Good morning, Chairman and Commissioners. The staff is here to brief the Commission on the Davis-Besse Lessons Learned Task Force

recommendations and the status of those recommendations.

Our last briefing to the Commission was December 8th, 2004. Today, because this effort was a combination of efforts between the Office of Research and the Office of Nuclear Reactor Regulation, we have members of both organizations at the table today to discuss the status.

We also are going to brief you on the status of our development of a program for institutionalizing agency lessons learned. The need for which was identified as a result of the Davis-Besse Lessons Learned Task Force. And Loren Plisco, the Deputy Regional Administration for Region II, is going to lead that presentation.

To begin, let me turn over the presentation to Jim Dyer, who is the Director of the Office of Nuclear Reactor Regulation.

MR. DYER: Thank you, Luis. Can I have slide two, please.

Good morning, Chairman, Commissioners.

With me at the table today are Brian Sheron, NRR Associate Director and Andrea Lee, the Chief of the Corrosion and Metallurgy Section in the Office of Research. And also, as Luis said separately, Loren Plisco, the team leader for the Institutionalizing Agency Lessons Learned Project.

I will begin the briefing with an overview on the status of implementation of the Davis-Besse Lessons Learned Task Force recommendations. And then Brian will discuss the significant activities that have occurred since our last briefing in December of 2004.

The complete status of all the recommendations is contained in the semi-annual report that was reported to you on October 4th and copies of that report are available at the entrance to the meeting room for any members here who are interested in seeing it.

Brian will be presenting, speaking jointly for both the Office of Nuclear

Reactor Regulation and Research, but Andrea is available to answer questions regarding the Research activities concerning the Davis-Besse Lessons Learned Task Force.

Can I have slide three, please.

Consistent with our normal approach, here is the list of acronyms that hopefully I won't use in shorthand, but if we do and -- the size on the slides these are the candidate acronyms that could be used.

Slide four, please.

COMMISSIONER McGAFFIGAN: I would note that Commissioner Merrifield just used the American Society of Mechanical Engineers, ASME, in his opening remarks, and I commend him for getting into acronym heaven.

MR. DYER: As an overview and a bit of history here, following the issuance of the Davis-Besse Lessons Learned Task Force report, the Agency convened a senior management review team to review that report and the EDO directed -- as a result of that review, the EDO directed the offices of Nuclear Reactor Regulation and Research to jointly develop an overall implementation plan for the 49 endorsed recommendations in four overarching categories. That being, stress corrosion cracking; barrier integrity; operating experience; and investigator and project management guidance improvements.

The management controls for overseeing the implementation of the Davis-Besse Lesson Learned Task Force recommendations included the status tracking report, which we up-dated on October 4th and a more detailed task action plan that was maintained in the NRR Office Director's quarterly status report. It is maintained on the NRC website.

These controls were subsequently enhanced after the February 2004 Commission meeting to require office executive level approval for any schedule changes and certification of completion of the implementation of the recommendations.

After the December, 2004 Commission meeting, the plan was further

enhanced to include effectiveness reviews of selected groups of recommendations subsequent to their completion to ensure that they met their original intent. Typically, we conducted these reviews within one year after the action was completed.

The plan includes NRR Director quarterly status reports -- quarterly updates, a semi-annual status report to the Commission and so far three Commission meetings, including this one.

All the reports, meeting transcripts and other reference documents have been made publicly available through a Davis-Besse web page on the NRR website.

Slide 5 please.

This slide provides an overview of the implementation. At the time of our last Commission briefing in December of 2004, 40 of the 49 recommendations had been completed. As of today, 48 recommendations have been implemented.

All activities in the categories of operating experience, inspection and project management, and barrier integrity have been completed. The final recommendation addresses, as Commissioner Merrifield said, addresses the NRC rulemaking for industry initiatives to establish inspection criteria for reactor vessel heads. Brian Sheron will provide more detail on this subject later.

The staff determined that the effectiveness reviews were appropriate for 31 of the 49 Davis-Besse Lessons Learned Task Force recommendations. The effectiveness reviews were commenced early this year and 18 have been completed. The remaining effectiveness reviews will be scheduled for completion by September of 2006.

In general, the actions have been found to be effective in responding to the Lessons Learned Task Force recommendations. However, we have made minor improvements and adjustments as we have learned through the implementation.

It should be noted then in completion of the recommendations, we initiated new programs and revised procedures. That was the nature of the recommendations that

they initiated new programs. As a result, there will be a continuing effort to ensure that these actions remain effective.

The effectiveness reviews are one step and these will be revisited as part of our periodic process and procedure reviews.

Let me new turn the presentation over to Brian Sheron who will discuss in more detail the overarching areas.

MR. SHERON: Good morning. First, I will discuss the staff's activities to address the Lessons Learned Task Force recommendations in the stress corrosion cracking category. Principal emphasis of the Lessons Learned Task Force recommendations was to ensure integrity of the reactor pressure vessel upper head.

The NRC continues to implement interim inspection requirements to prevent the significant degradation found at Davis-Besse from occurring again through an order, which is EA-03009, that requires a progressively more rigorous series of inspections depending on a plant's susceptibility to stress corrosion cracking.

Vessel head inspections conducted during the past year, licensees continue to identify upper head penetrations with flaws and make necessary repairs. No significant boric acid corrosion was found.

Since the discovery of nozzle cracking at Oconee in 2001, over 400 cracks and 50 small leaks have been identified and repaired. With the exception of Davis-Besse, all were found well before they would challenge the structural integrity of the upper head and no significant boric acid corrosion was found.

Inspections conducted in response to the order have resulted in early detection and repair of flaws and existing heads and decisions by licensees to replace the upper heads. By the end of this fall's refueling outages, 25 plants will have replaced upper heads. Eight additional plants have announced plans to replace upper heads in the next two years.

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As Jim indicated, the one remaining open recommendation is the ASME to revise code inspection requirements for reactor vessel upper heads in a manner that will be acceptable for incorporation into 10 CFR 50.55a.

In August, 2005, the American Society of Mechanical Engineers approved code case –729, which provides an alternative long term inspection program for upper heads. Staff is currently evaluating this code case for incorporation into 10 CFR 50.55a.

We currently anticipate we will be able to approve it with certain modifications required to make it acceptable to the staff.

A proposed revision to 10 CFR 50.55a will add a reference to the code case, is under development, and is expected to be published next summer.

The final rule is expected to be published in FY 07. Inclusion of the upper head inspection code case into 10 CFR 50.55a will likely allow the staff to rescind the order.

In continuing to effectively address stress corrosion cracking beyond the upper head, staff has worked with ASME to develop long term inspection plans, such as code case –722, which recommends bare metal visual examination of all susceptible components and their welds.

The staff is working with industry to develop additional proactive inspection programs for all potentially susceptible components. For example, the industries materials reliability project has issued mandatory inspection and evaluation guidelines for primary system piping butt welds and is currently scheduled to issue mandatory inspection and evaluation guidelines for the remainder of the reactor coolant system susceptible components in dissimilar metal welds in 2006.

NRC research continues in this area with efforts aimed not only at the susceptible materials, but also to verify the resistance to cracking of replacement

materials. The Office of Nuclear Regulatory Research has an ongoing program to obtain stress corrosion cracking and crack growth information on all nickel based alloys used in the reactor pressure vessel heads.

Finally, the staff will continue to review national and international operational data and inspection results to proactively identify potential degradation mechanisms and degradation sites and to identify possible improvements in our stress corrosion cracking and boric acid corrosion inspection plans.

Next slide, please.

The second working group of recommendations are in the barrier integrity category.

A working group of NRR and RES staff supported by research from Argon National Laboratory evaluated whether the NRC should revise reactor coolant system leakage limits and require plants to install enhanced leakage detection equipment. They identified techniques that can improve localized leak detection and online monitoring and possible improvements to leak detection requirements.

However, implementing these increased capabilities would likely result in only a small reduction in loss-of-coolant accident frequencies at best. Staff concluded that the risk reduction would not justify the cost of installing and maintaining such equipment.

Staff previously reviewed the technical specifications of all PWRs and determined that they include reactor coolant leakage limits and action requirements consistent with the NRC-approved Standard Technical Specifications. Nevertheless, even small leaks that are below technical specification limits could result in large boric acid deposits if allowed to continue for long periods, such as a complete plant operating cycle between refueling outages.

Licensees generally establish administrative limits that initiate actions for leakage that is less than tech spec limits, but actions vary among licensees.

There is a current PWR owners group initiative to develop a uniform method for calculating reactor coolant leakage.

Staff is working with the industry groups that are developing uniform responses to reactor coolant leakage. Staff inspections have verified that the licensees are implementing boric acid corrosion control programs and have been sensitized to look for smaller amounts of boron as part of these programs.

Despite these positive actives there continue to be examples of boric acid accumulation inside containment. We continue to monitor these examples of boric acid accumulation inside containment and are evaluating whether further action is warranted.

Next slide please.

Licensees have the primary responsibility for monitoring reactor coolant system leakage at their plants, but the NRC resident inspectors also monitor reactor coolant leakage data for adverse trends and inform regional management and licensing management if any are noted.

Inspection guidance in the Manual Chapter, 25.15, Appendix D, Plant Status, was revised to provide guidance and techniques necessary for assessing potential adverse trends and licensee actions in response to increasing levels of reactor coolant system leakage.

The reactor oversight program currently has a performance indicator for reactor coolant system identified leakage with thresholds based on percentage of the technical specification limit.

The review and improvement of the performance indicators is an ongoing process performed by a working group of NRC staff and industry representatives.

Response to a Lessons Learned Task Force recommendation, the feasibility of creating a new performance indicator that would track the number, rate and duration of reactant coolant system leaks that have been identified but not corrected was evaluated

by the working group.

They determined it was not feasible due to the difficulty in accurately measuring small leaks and the current quarterly reporting requirement. However, they agreed to follow the efforts of the PWR owner's group initiative to develop a uniform method for calculating reactor coolant system leakage and then evaluate how it could be used in a performance indicator program.

Next slide, please.

The second working group of NRR and RES staff evaluated the adequacy of analysis methods for assessing the risk of passive component degradation. And integrating the results of the analyses into the regulatory decision-making process.

In general, the group found that the methods used to assess risk are adequate. However, in most cases there is insufficient data to use these methods alone to produce robust results. Also, an understanding of the limitations and uncertainties of any risk assessment method is crucial for responsible risk-informed regulatory decision-making as outlined in Reg Guide 1.174.

The available risk assessment models by themselves are usually inadequate to provide strong support for many types of decisions. The inability of the risk models to predict degradation rates and structural integrity effects and the limited information about plant-specific conditions often make it difficult to make reliable predictions very far beyond the latest available measurements.

However, the group concluded that regulatory decisions can be made on the basis of a proper combination of inspection results and predictive modeling and recommended staff training on incorporating risk assessment methods for passive component degradation in regulatory decision-making, including the guiding principles outlined in Reg Guide 1.174. Staff expects to complete this training and an effectiveness review by September of 2006.

Next slide, please.

We will now move to operating experience category.

In the December, 2004 briefing, the staff provided detailed information on new operating experience program, which is codified in draft Management Directive 8.7, Reactor Operating Experience Program, and its associated handbook and NRR Office Instruction LIC 401 -- NRR Operating Experience Program.

Since launching the new program on January 1st, 2005, these documents are being used on a trial basis. We have been soliciting feedback from internal stakeholders and will soon begin revising these documents as appropriate to incorporate comments received.

The program establishes single organizations to systematically collect, communicate and evaluate operating experience information, including foreign operating experience, and make significant use of information technology to make operating experience information available to internal users and members of the public through a single web access page.

A new communication tool to promptly notify NRC staff members of new operating experience in their areas of expertise or practice has been developed.

Users may also use this tool to examine emergent operating experience in their respective areas. We have created teams of technical review groups to systematically access operational data in their specialized areas to identify trends and insights for attention by the appropriate NRR division. The teams will provide semi-annual reports to the Operating Experience Branch.

Next slide.

We have seen several indications that the program is working successfully. Some specific examples of this success are staff follow-up activities relating to a recirculation pump shaft cracking issue at the Hope Creek plant, safety relief valve tee

quencher bolt failures at Hatch Unit 2 and a plant trip at Millstone Unit 3 due to electrical circuit corrosion, otherwise known as tin whiskers.

In addition to internal distribution and evaluation of the information, staff follow-up included issuing information notices, interaction with the nuclear steam supply system vendors and owner's group, and in the case of the tin whiskers phenomenon referral to Research for evaluation of a potential new generic safety issue.

An additional indicator of success is the results of a recent audit by the Office of the Inspector General that evaluated the implementation of the Lessons Learned Task Force recommendations in the operating experience area and provided positive feedback.

Next slide, please.

The operating experience category also contained recommendations relating to generic communications.

The NRR office instruction for generic communications LIC 503 was revised to provide improved guidance in developing generic communications, establishing criteria for acceptable responses from licensees, properly documenting evaluations of licensee responses and performing follow-up verification of licensee implementation.

Verification of a sample of safety significant generic communications relating to service water system operability and grid reliability was performed by regional inspectors.

The staff found that the sample generic communications accomplished their intent to inform licensees and collect information on licensee actions in response to significant issues. Considerable variations in licensee responses regarding grid reliability resulted in additional staff follow-up.

Inspection Manual Chapter 0040, which governs changes to the Inspection Manual was revised in February of 2004 to ensure that inspection requirements developed

in response to a generic issue are not inadvertently removed when making subsequent changes. An effectiveness review of the change in August, 2005 determined that no requirements had been inadvertently deleted, and also identified a procedure change that will improve the historical tracking of generic issues. Inspection Manual Chapter 0040 will be updated to incorporate these improvements by February, 2006.

Next slide, please.

There have been numerous changes to the reactor oversight process and inspection program guidance.

Program changes include strengthening the oversight of plants in extended shut downs requiring more complete documentation of important staff decisions, budgeting resources for Inspection Manual Chapter 0350 plants and instituting a site staffing metric to monitor gaps and permanent resident and senior resident staffing at reactor sites.

Many procedure changes were implemented to enhance the NRC's ability to detect declining plant performance, including the specific issues identified at Davis-Besse. Also, several inspection procedure changes were made to address the reactor vessel head and boric acid inspections.

Finally, the inspector training and qualification program was enhanced. Effectiveness reviews of these measures were conducted in 2005, and the changes were found to be effective.

These actions will continue to be reviewed in the future as part of the reactor oversight process annual self-assessment, inspector training program reviews and regional management attention.

Next slide, please.

To ensure plant experience is adequately considered in licensing decisions, new or revised expectations were established and incorporated into the Division of

Licensing Project Management Handbook in 2004.

An effectiveness review in 2005 determined that these expectations had been effectively communicated and implemented. For example, the goal for a licensing project manager's assignment to a specific plant is five years.

Since many factors, such as retirement, promotions or resignations will affect this, management strives to minimize excessive turn over and keep project managers assigned for at least three years.

The review determined that for assignments during the previous year, the average duration was 3.4 years for reassignments within management control, and management was properly evaluating and documenting the impact of reassignments.

Project manager's site visits were consistent with the expectation of twice per year.

There were several examples to indicate project managers were communicating effectively with the resident inspector staff regarding plant activities and significant licensing actions. Both headquarters and regional staff are maintaining a questioning safety attitude about plant events and proposed licensing actions.

One example, a resident inspector provided information regarding deficiencies in a licensee's foreign materials exclusion program and corrective actions were taken prior to approval of an amendment that took credit for that program. Two other examples involve resident inspectors alerting headquarters staff to degraded containment coatings.

The qualification program for new project managers has been in effect for about a year. First candidate to complete the program recently passed a qualification board review and demonstrated excellent knowledge and is now a qualified project manager.

This completes my presentation and I will now turn it over to Jim to

summarize the results.

COMMISSIONER McGAFFIGAN: Mr. Chairman, may I ask a clarifying question? I think it is clarifying.

You mentioned your initiatives with regard to residents and with regard to project managers, another place that we had problems in Davis-Besse was the regional branch chiefs. Was that identified as something that -- there was a high turnover in branch chiefs, and they had other things to say grace over, but wasn't that part of it?

MR. DYER: There had been in the case of Davis-Besse, yes, sir; there had been transition in the branch chiefs. I don't think -- that is not an area we are focusing on. We are looking for the consistency of the technical staff in the qualifications standards and expectations.

COMMISSIONER McGAFFIGAN: Isn't the branch chief somewhere between the resident and the technical project manager?

MR. DYER: Yes, sir. Well, the senior resident inspector at the site reports to the branch chief who has oversight for 2 to 3, 4 sites. And separately in NRR there is a project manager and now the branch chief who supervised the project managers for a particular region. So it's parallel organizations.

But we do not track and look -- I mean as a matter of good management practice, we maintain that we try to keep supervisors in their jobs for at least two years to develop them and make sure they go through the full appraisal cycle. We do not try to put a five year clock on them.

COMMISSIONER McGAFFIGAN: I didn't expect a five year clock, but that's fine.

CHAIRMAN DIAZ: Okay.

MR. DYER: Slide 16, the summary slide, please.

In conclusion, I think, with the exception of the rulemaking activities

concerning 10 CFR 50.55a, the initial implementation of the Davis-Besse Lessons Learned Task Force recommendations is complete.

For that one item, the interim requirements of the order ensure that public health and safety is maintained until the evaluation of the ASME code and the rulemaking process can be completed. In many cases for the recommendation we have gone beyond the specifically recommended actions as you have heard from Brian.

As a result, we believe that we have significantly improved the safety by implementing the Davis-Besse Lessons Learned Task Force recommendations. These improvements include a more proactive program for evaluating material degradation, a revitalized robust assessment of operating experience, enhanced internal and external communications protocols, project management and inspection program enhancements including the resident inspector staffing, and an enhanced safety focus by the entire NRC staff.

We also recognize that we must continue to ensure that these improvements remain effective. We believe that the mechanisms to accomplish this are in place through effectiveness reviews, periodic programs and procedure evaluations, such as the ROP annual self-assessment, and corrective action program enhancements that were taken.

We also initiated actions to institutionalize significant agency lessons learned. For more on that subject, let me now turn the presentation over to Loren Plisco.

MR. PLISCO: First slide please. Good morning. The purpose of this portion of the briefing is to inform you about the status of our project to develop a corrective action program for significant NRC lessons learned.

I plan to briefly discuss the genesis of this effort, summarize the issues identified by the Davis-Besse Lessons Learned Task Force and associated root causes, discuss how the program we are developing will address the root causes, provide an overview of our project approach, update you on the schedule of our project, and share

some of the challenges and opportunities that we have identified to date.

Slide two, please.

In reviewing what happened at Davis-Besse in 2002, the Davis-Besse Lessons Learned Task Force identified several areas where previous NRC self-assessments found performance or programmatic issues that were similar to issues they identified in their review.

They recommended that a more comprehensive review be completed. This is referred to as Appendix F. The EDO directed a review of the Appendix F issues in January of 2003.

In response to the recommendation, NRR conducted the Effectiveness Review Lessons Learned Task Force. It reviewed finding from four reports to determine whether the recommendation from these previous reviews had been adequately implemented.

These reports involved South Texas issues in 1995, two reports involving Millstone from 1996, and one report involving Indian Point 2 in 2000.

The Effectiveness Review Lessons Learned Task Force concluded the previous Lesson Learned Task Forces conducted thorough and exhaustive reviews, identified areas for improvement and proposed reasonable recommendations. However, they also found that the corrective actions resulting from the previous reviews, although initially effective, were not always found to remain effective.

The EDO established my team to review the root causes of the Effectiveness Review Lessons Learned Task Force issues and to address the recommendations of the report.

My team is composed of 12 members representing each of the major program offices, the region and some of the support offices. Many of the members on my team, including myself, have been members of Lessons Learned efforts in the past and

specifically three members of the team were on the Davis-Besse Lessons Learned Task Force.

Slide 3, please.

During its review of the four previous Lessons Learned reports the Effectiveness Review Lessons Learned Task Force found that corrective actions had been implemented but later reversed, some corrective actions had not yet been fully completed, some corrective actions did not address the problem that was found, some recommendations did not result in measurable actions, some actions were closed, but the actions were not fully completed at the time of closure and due dates were changed frequently.

I will mention two specific examples that they found. Following South Texas, the staff revised an inspection procedure used for corrective action programs to include the review of a licensee's long term corrective action rather than just focusing on short term fixes.

That procedure and the guidance was later removed when the reactor oversight process was implemented. I mention that example specifically because I am going to talk later about configuration management and this change may or may not necessarily have been correct, but we didn't help the staff by providing information to them as to why that information was in the procedure to start with and make a conscious decision on changing that later on.

The second example I will provide came from Millstone. In that case the staff found that the knowledge and skills of the project manager should be enhanced in some design related areas. The Effectiveness Review Lessons Learned Task Force found that many of the actions could not be verified as completed and the training of the project managers could not be verified.

Slide four, please.

The Effectiveness Review Lessons Learned Task Force concluded that four root causes contributed to the corrective actions from previous Lessons Learned not being institutionalized.

First, the agency did not have a corrective action program. The task force recommended that the NRC establish an agency-wide corrective action program that focuses on the corrective actions for major Lessons Learned reports and high priority commitments.

The agency did not have a centralized tracking system for the corrective actions. The close out process for the identified actions was not rigorous and the process for close out of issues did not include effectiveness reviews.

Slide five, please.

My team started meeting in January of this year to review the issues, develop an understanding of the root causes and to come up with a solution to address the root causes.

Before I cover some of the details, I will give you the bottom line on the process that we are planning to put in place. First, we will establish a much more rigorous and formal process for addressing corrective actions entered into the program.

The process will screen items for entry into the program, track the items until completion and store the history of the finding and action taken so it can be retrieved. It is important that the basis for our action be well documented and retrievable to the staff.

As we stated in our last update to the Commission, early on we identified that the threshold for screening items into this rigorous process and should be reserved for the significant items that we must ensure do not recur.

We will establish a threshold for the lessons learned items that will be entered into the process so that there is more focus on items that have potential safety significant or there is organizational risk if the problem were to reoccur.

The program will include additional management reviews of the corrective action plans to ensure that they will address the root causes of the lessons learned. And the program will also require effectiveness reviews for corrective actions.

Slide six, please.

Our project has three phases. Phase one was completed last month and in this phase we developed our draft process.

In phase 2, we will implement the base program to capture, track and store the corrective actions. This phase will address the recommendations from the Effectiveness Review Lessons Learned Task Force and we plan to complete this by June, 2006.

Early on the EDO realized that with some additional enhancements we could use our program to provide some important information to the Agency's knowledge management efforts, so we have added phase 3 to integrate knowledge management and configuration management capability.

This is later because it looks like this will be a first of a kind program and we need to think through and make sure we integrate it well with where the agency is going in this area.

In other words, we have not found anything to copy yet.

Slide 7, please.

A little more detail in what we completed in phase one. We benchmarked some external programs, some external organizations, including other Federal agencies and some licensees. We also reviewed some internal NRC tracking systems.

Benchmarking efforts provided some useful insights to our team. I will mention some of them. First, you need senior management involvement and commitment. You need dedicated full-time staff to administer the program not as a collateral duty.

You need centralized tracking. You need accurate information in the system.

You need tiered and segmented data for users that are targeted to the individual user.

You need to provide value added to the staff for the system to be successful.

You need a combination of push/pull distribution of the information. What I mean by that is you can query the system and get information you are looking for and also the system will be able to provide you information on specific topics.

You need a graded approach for addressing issues. And you need to reduce background noise in the system. It should focus on important and relevant items.

We have provided an overview of our approach and initial thoughts to the agency senior managers at the May senior management meeting and have briefed office directors to solicit initial feedback from them. We have completed our first cut on what we envision the process -- or how the process will work.

Slide 8, please.

As I just discussed before, the basic program will capture, track and store the findings and resulting corrective actions.

Thresholds for the lessons learned that will be considered for this more rigorous approach will be high. The inputs we have been considering for the program include incident investigation team findings, major agency Lessons Learned Task Force findings, recommendations and findings from GAO and IG. And we also have a category called EDO discretion.

MR. REYES: It is a good category.

MR. PLISCO: We are currently writing a management directive to provide the guidance for the program. We're on schedule to complete a draft next month.

We plan to pilot the process early next year and considering using the results of the Hurricane Katrina lessons learned efforts that is just getting under way to

test our process.

The corrective actions will be tracked more rigorously to completion and the documents that provide the history of the item will be stored so the information is retrievable.

We plan to leverage current and planned systems for tracking the items, storing the history using EDO's tracking system and using the Agency-wide Documents Access and Management System.

The ease of retrieval of the history is important to set us up for our vision in supporting knowledge management. In order to provide value to the staff it must be easy to reconstruct what happened with each item.

Lastly, we need to develop metrics to measure the performance and effectiveness of the program.

Slide nine, please.

As I stated earlier, once the basic program is established we have identified two needed enhancements to the program.

First, we want to establish an agency-wide approach that ensures that the bases for important changes to policies, programs, processes and procedures are maintained and identified so that when staff makes changes in the future, they understand the reason for the current condition.

That is what we mean by configuration management, making sure that before changes are made, the staff understands the history of what they are changing. And we need to help the staff by giving them the tools needed for success.

Second, as I discussed before when we integrated the Agency's knowledge management effort, we need the summarize the information in a new way using a story telling approach and to put the knowledge where it can be used by the staff.

Slide ten, please.

On this slide, I tried to summarize what will be different in the future. There will be more rigor and formality in the tracking of the corrective actions for lessons learned. That means a Management Directive and handbook that describes the process, implementing procedures, root cause analyses will be required and there will be a linkage established between the root cause and the corrective actions.

There will be more management involvement. A management review group will review and approve corrective action plans and close outs.

There will be a dedicated staff, a program manager that will be on the EDO staff as a primary duty.

There will be centralized tracking of the corrective actions by using the EDO's tracking system and items will be tracked on a recommendation basis rather than being grouped.

I mentioned that in the past some of the problems have been as far as finding the information, because a lot of the information was packaged. The EDO would assign an action to an office, you know, fix these ten items. If you try to go back and find a history of each one of those ten items it is difficult to capture. Our recommendation is that they split out into ten separate actions for ease of tracking.

The focus will shift from just implementing the action to institutionalizing the lesson. From the start actions will be developed last.

Lastly, configuration management will be addressed. The office will be asked to explain how the corrective action will be kept in place as part of the approval process in our program.

Slide 11, please.

Our schedule. As I stated, our program definition phase has been completed. Our draft Management Directive and implementing procedures will be completed next month.

We plan to use the results of the Hurricane Katrina lessons learned efforts to pilot the process and finalize the Management Directive by April, 2006. We plan to roll out the program by June of 2006.

Program improvements following that will include the knowledge management enhancements that I discussed earlier.

Slide 12, please.

Challenges and opportunities: Change management is required for the roll out of any new process and we understand that. To be successful, we will need management's commitment to the program and we must demonstrate value to the staff of the program for them to use it.

Resources. The new EDO tracking system that's being constructed now, we plan to use that and that's funded for Fiscal Year '06.

Knowledge management enhancements: we have money in the budget for Fiscal Year '07 to work on those enhancements. There is a potential that the continuing resolution may impact the completion of the EDO's tracking system which we had planned to use, but we have some contingency plans and an alternate approach that we can use until that system gets up and running for tracking.

And originally, we had planned to implement the beginning of our knowledge management solutions in Fiscal Year '06 if there were carry over funds available, but that didn't occur and that part is delayed until after June of 2006.

Legacy issues. We have identified the need to review legacy items to verify that corrective actions are still effective. Because the Effectiveness Review Lessons Learned Task Force did identify some problems when they went back and looked at these four specific reports. The obvious question is, are there other reports out there, other reviews that we did? Do we have other items out there that we need to go back and look at to make sure those corrective actions are still in place and are still effective.

We have also identified the need to include relevant legacy items in our system so its useful for knowledge management in the future for the staff.

Going forward, the information on the previous lessons learned we need to incorporate into the system. And to do that we need to go back and collect that information.

The EDO has agreed to task the offices later this year to review some of these legacy items for those two purposes. One, to confirm -- do effectiveness review on those issues to make sure corrective actions are still effective and to collect the information we all need to feed our system to provide the knowledge management aspects.

The resources needed for that verification and the future lessons learned we have not well defined yet. We are working some samples ourselves on our team to try to define what kind of effort it will take to go back and look at those previous items.

Next slide, please.

Summary. We learned from Davis-Besse that we need a better way to ensure important agency lessons learned are institutionalized. We can't simply fix them and move on like we have in the past.

We are constructing a program to rigorously screen, track, document and store the corrective actions for important lessons. This will establish a process for new lessons looking forward and we also need to review legacy lessons to ensure that corrective actions are still in place and effective. And lastly, we are looking to integrate lessons learned information into the agency's knowledge management program and into the future.

That completes my presentation.

MR. REYES: Mr. Chairman, Commissioners, that concludes the staff's presentation. I am just going to highlight two things. Out of 49 specific items out of the

Davis-Besse Lessons Learned we have completed 48, including effectiveness reviews.

The 49th item is rulemaking that is being closely tracked and it is on schedule. And we have orders in place that will satisfy the safety requirements that that rulemaking will eventually take over.

The second one is -- I use the word in my opening remarks "institutionalizing lessons learned." And I hope you got the insight from Loren's task force that that's exactly what we are doing to do. The reason that Loren was selected to be the task leader was that he was a member of one of these efforts in the past, the Millstone Task Force. And he had members in his task force that were members of some of the other products.

So we really wanted to make sure that all the good work that was done in the past, but not successfully institutionalized, that we now have a way to do it where, in fact, we will include that in our agency knowledge management program.

And with that, we complete our presentation.

CHAIRMAN DIAZ: Thank you, Mr. Reyes, and thank you to the staff for the briefing. Commissioner Merrifield.

COMMISSIONER MERRIFIELD: Mr. Chairman, thank you very much.

I want to do something a little different today.

I have already given some of my comments about the positive aspects of where we have come relative to the lessons learned from Davis-Besse and the efforts of the task force. And I did not hear anything in the briefing today that would take me away from that conclusion.

I would like to, instead, focus my time on an aspect which was not discussed today, which is related to Davis-Besse as well and that is the issue of safety culture.

Before I make my comments, I would want to preface it by saying that I know that the task force, the safety culture working group, has been working very hard in terms of identifying some issues in response to the direction of the Commission.

And I know Mike Johnson who we have now put in charge of this task has done an outstanding job in the past in his efforts relative to the revised reactor oversight program. And certainly, I think Mike brings with him great confidence on the part of the Commission that we can do this in the right way.

As part of my own effort to understand where we are today, I had an opportunity to review an attribute table that had been put together by the safety culture working group.

I reviewed this morning, a letter that we received from David Lochbaum, dated October 27th relative to a meeting that occurred last week. And I happen to have an opportunity to sit in on part of the meeting that occurred, and that was on October 26th.

My conclusion, having reviewed these documents, as well as information and feedback that I got from those at the meeting is that we are, at this point, seriously off track.

Having looked at the table, I think there has been an extraordinary uproar that was engaged in that meeting over what we are attempting to do. Frankly, my review of the table is similar to those who were at the meeting, that we are really trying to package something in a way that doesn't make a whole lot of sense.

The response that was attached to that e-mail -- I asked for the table. I asked for the staff to provide me a copy of the table, because I had not had a chance to review it before I went to the meeting.

COMMISSIONER McGAFFIGAN: Excuse me, is this the one with the 84 attributes?

COMMISSIONER MERRIFIELD: Yes, it is.

The response, when that was transmitted to my office, the cover e-mail from the staff indicated that there was a recognition on the part of the staff that there was an uproar and that current plans were under way to develop in an alternative way, not in any

table format, to present the information and eliminate the table.

Basically, we are doing to repackage all that information some where differently so people understand what we mean, which I think, again, is off track.

Looking at where the Commission was coming from -- we had a very specific SRM that came out on August 30th of 2004. In that, the Commission asked the staff to focus on and consider using problem identification and resolution in enhancing that.

We asked the staff to focus on issues of cross cutting areas. That is an area that I think you have made a lot of success and I am going to talk about that in a minute.

The Commission asked the staff to follow the established process for the ROP. It very much implored us to use a process from the involvement of stakeholders. And it talked about the issue of using findings, but only specifically the Commission talked to the issue of the third column in the action matrix. Where we said, if you get to that point, then, really, you ought to think about whether we ought to consider using safety culture assessment in a specific way.

I think some of the problems that we have here -- let me step back for a second. How did we get here? Well, I think that the Commission and the staff through a lot of encouragement by Senator Voinovich and others up on Capitol Hill have asked us to take another look at safety culture. I think the SRM of the Commission, clearly, was desirous of accomplishing that goal.

Going into it, however, I think it is very clear that quantifying safety culture is a very difficult thing. I think as well the Commission recognized that we can not expect to create a predictive safety culture tool coming out of this.

Now, for this purpose, I'm going to quote from Commissioner McGaffigan's vote that led up to August 30 SRM. In it he said," some stakeholders seem to believe that regulating safety culture will provide a leading indicator of declining licensee performance. If it were easy to develop such leading indicators, it would have been done a long time

ago."

He quotes, both Ed Jordan, who was deputy EDO, as well as former Commissioner Ken Rogers talking to that very same issue in 1997.

I think that where we are right now with this table and the efforts of the safety culture working group are going exactly to what Commissioner McGaffigan warned against in his vote.

My basic view is we really should not mess with a successful ROP. That view, I think, is quantified by some of the comments made by Mr. Lochbaum in his letter of October 27th where he quoted one of the participants in the meeting who was very concerned that we would take the 700 Green and Green Plus inspection findings and end up with 660 or so issues resulting from the safety culture attributes table. Clearly, not the direction coming from the Commission.

Reading directly from his letter -- I am going to read the last paragraph. This is a letter to Mike Johnson. "As I mentioned to you during the October 26 meeting, it reminded me of the November 6, 1997 public meeting the NRC staff conducted with industry and public interest group stakeholders about its proposed integrated reactor assessment program. NRC staff did not have time to address the many concerns communicated by industry representatives and me before presenting IRAP to the Commission on April, 2, 1998. As you know IRAP went down in flames and the Commission directed the staff to start over from square one. The current state of the NRC staff's plans for addressing safety culture within the ROP are eerily similar to the plans of November 6, 1997. Both feature concepts developed unilaterally by the NRC staff with essentially no external stakeholder input. Both feature arbitrarily imposed schedule deadline that tie the NRC staff's hands from incorporating input received from external stakeholders at the 11th hour. This recipe made IRAP an unviable option. The same recipe will also certainly render the NRC's staff's findings approach equally unviable. At

least with the IRAP debacle there was a chance to start over and do it right. I only hope there is a second chance in addressing safety culture within the ROP."

Well, given what I have seen so far, I couldn't agree more with the way in which David has articulated this. One of the things that I take away from looking at some of this over the last few days is I think we have actually accomplished a lot relative to Davis-Besse in fixing the way in which we deal with safety culture.

I think the staff -- and I commend the staff for all the work we have done on cross-cutting issues, focusing on the real key areas, problem identification and resolution, safety conscious work environment and human performance. That's the focus. That's the area where we have made a lot of progress and I think the staff needs to be able to articulate that in a better way.

Now, having looked at the materials from our website today, the public website in terms of explaining our ROP description, we have but a mere very short discussion, one sentence after all what we mean on cross-cutting area. I think we need to do a better job in recognizing the work that we have already accomplished and meeting the goals that Senator Voinovich set out for us in understanding how safety culture plays in the work that we do.

The final comment, Mr. Chairman, I would make is when David Lochbaum and the industry are on one side of the fence and our staff is on the other side of the fence, I think we seriously need to stop and ask why.

In this particular case, these are difficult issues. I think we need to give our staff time. I think our staff needs to start from square one with a blank piece of paper and sit down with stakeholders and figure out the best way to enhance a very good ROP process by additional attributes relative to safety culture and not mess up what I think is a good program. Thank you, Mr. Chairman.

COMMISSIONER McGAFFIGAN: Mr. Chairman, if I were a British

parliamentarian, I would say hear, hear, because I agree entirely with what Commissioner Merrifield just said. And I hope we can reflect it in the SRM.

If the staff is trying to buff what they have produced in the way of these 86 or 84 attributes and repackaging it, they will be wasting their time.

CHAIRMAN DIAZ: Thank you, Commissioner Merrifield. Thank you Commissioner McGaffigan. Commissioner Jaczko.

COMMISSIONER JACZKO: I appreciate Commissioner Merrifield raising the issue of safety culture. It was an issue that I also feel very strongly about. And I think -- one of the reasons why I think it is so important here with everything that has been done with the good work on the Lessons Learned Task Force and all the work on the corrective action program is we are no longer concerned about Davis-Besse. We are concerned about the next Davis-Besse. And what we are mostly concerned about is stopping the next Davis-Besse before it becomes a Davis-Besse.

And so safety culture is certainly a crucial aspect in addressing that, having people focus on safety culture, having the licensees focus on safety culture so that they are asking questions. And I think, Brian, in your presentation you mentioned some of the things that are going on with the inspection and the program management issues and you had down there a bullet that said questioning attitude.

And that's one of the expectations. And I think along with some of the comments that Commissioner Merrifield made. Things like a questioning attitude are extremely difficult to instill, to create, to regulate and to require.

So as we look at all of these things with the Lessons Learned Task Force, my question -- perhaps each one of you can respond to this is – how are all of these things that we have accomplished, including the corrective action program, how are these things going to prevent the next Davis-Besse from happening?

I think that is really the crucial issue here that we are interested in. So

maybe, you know, a very brief and it was an open ended question, maybe in a very narrow way, if maybe, Luis, you could start.

MR. REYES: Let me give it a try.

When the Commission testified in front of Congress and was asked about the Davis-Besse situation, the Chairman of the NRC at that time answered the question saying it was an organizational failure. And what we did is we analyzed what led to that organizational failure. There were multiple contributing causes that led to that. And it included not enough resources all the way to programmatic implementation.

What we have done is we have taken every one of those contributing factors and addressed each one of them. Now, that was for Davis-Besse.

Now, the effort that we are talking about corrective action for lessons learned is taking the broader step and looking not only at Davis-Besse, but at Millstone, the South Texas Project, et cetera, et cetera. And make sure, going back to my word this morning, institutionalize that into the Agency to make sure that our programs are strong enough to make sure we prevent, anticipate and detect early any degradation of safety that led to things like Davis-Besse.

But what we did is we did an analysis, all of the factors included. And it went from staffing, to budgeting to training. I mean it included -- and that's where you get the 49 items. Anything that could possibly --

COMMISSIONER JACZKO: My concern and, certainly, I think the work with the corrective action program is a very important aspect of this because I think one of the things that came out of this is that we often do corrective action programs and those things can -- it happens in my office, there is an issue, something, you address it, move on to the next issue and sometimes you forget those things that you did. So capturing that with the new corrective action program, I think, will be key.

But, you talk a lot about institutionalizing changes and a lot of these things.

How do you -- a lot of these things ultimately become culture. How do you get down to somebody who is very far down in the levels of the bureaucracy?

How do you get them to institutionalize all the changes that are being made through the lessons learned task force?

MR. DYER: Commissioner, I think one of the things I was just going to expand on, to get it down all the way through the organization, I think it is critical. In the one area that we looked at and called for in Davis-Besse was the project manager and inspector enhancements. Inspectors already had a qualification program.

The project managers had a handbook that they would read as sort of an on-the-job desk guide or however. There was not a real formal qualification program.

As a result of Davis-Besse we have enhanced that to make that a qualification program. What we realized in doing that in NRR is that you need to take it beyond that. We need to have our reviewers, even secretaries and things like that. We need to have a qualification standard.

That's where that gets into the knowledge management, knowledge transfer and the infrastructure that's required for all our staff as we go through it. And then, as part of that qualification program, it is to recognize that institutionalizing the lessons learned are a critical part of the qualification process for the staff. And given the projected growth and the challenge that we have bringing in new people to the organization, I think, it's going be vitally important to us.

In history, when we are bringing people in they were much like me, where they had a nuclear background and they had to trained to be a regulator. A lot of times that was done by on-the-job training and having a mentor informally.

Now, I think we have put some structure into it to make sure that we have consistency in that growth of the staff right when they start coming in the program.

COMMISSIONER JACZKO: I appreciate that. One of the things I

appreciate you mentioning was the next question I was going to ask. You mentioning the potential new influx of people to deal with the new reactors. Maybe, Luis, this a question for you.

What are we doing to make sure that as we get all those new people, that all of these lessons learned on that new influx of people -- and presumably, I would think that some of our best people that we have now who are working in NRR in some of these areas that really dealt with a lot of the lessons learned, some of our best people are going to want to go to the new exciting area of new reactors. So we are going to lose a lot of that knowledge to that area.

What's being done to make sure that that whole process will be managed to make sure that these lessons learned won't be lost?

MR. REYES: When I talk about institutionalizing the issues that includes such things as training and the qualification program he is talking about. For example, every inspector has to be certified to a Manual Chapter, we call it 1245, that just happens to be the number. And it includes a lot of training requirements. And we are going to have to reflect on that such things as the ones we are talking about.

I will give you a good example. A while back we realized that every engineer we were hiring from college was either not born or was in diapers when TMI happened. So we had to actually create a training session where we say, this is what Three Mile Island was about, this is what we learned, this is the regulations that were changed, et cetera, et cetera.

COMMISSIONER JACZKO: Do you have a similar one for Davis-Besse?

MR. REYES: Not yet.

NRR is doing one as we speak, a video on licensing, because they are going to include it in their training program of the new project managers who were not here in the 1970's when we did licensing.

So when we talk about knowledge management program, that's what we are talking about. It is more than the old tribal story telling, which is mostly what we used in the past, to one that is institutionalized, where you have either a training requirement or a qualification process or it is included in our infrastructure, procedures, et cetera, et cetera.

So the knowledge resides, not in the story telling necessarily, but it is part of the formalized process.

COMMISSIONER JACZKO: Just to follow up with a few quick questions. Will you do a Davis-Besse kind of training session?

MR. REYES: We have not identified that we are going to do a video, but all the lessons learned from Davis-Besse, just like Millstone and South Texas projects are going to go through the process that Loren talked where we are going to go back and revisit it and make sure that we institutionalize those. That is the effort he said we need the resources for. We need to go back and say --

COMMISSIONER JACZKO: And the amount of those resources you need are -- you can provide that afterwards.

MR. REYES: I could use a picture of Benjamin Franklin and a lot of green paper.

But it depends, it depends on the speed that we want do this at.

MS. LEE: And I can also make a comment going back to your comment about people at a certain level of bureaucracy at the Agency being one of those people.

In the office of Nuclear Regulatory Research, there has been a lot of research that has been done on the nickle based alloy materials that have been in public NUREGs or going to be published. One of the things we have done is we have bi-weekly calls with the regions so we can talk about some of these inspection results that they can look at. And we have actually identified a few things that we could give to them since they are on the front lines looking at this information.

We have also had a lunch time seminar on boric acid corrosion and how to input that information to the inspection folks in Research. So it has been disseminated to the regions and we do talk about these issues in a timely way. And we get the inspection results as soon as they get them on our bi-weekly calls.

COMMISSIONER JACZKO: Thank you.

CHAIRMAN DIAZ: Thank you, Commissioner Lyons.

COMMISSIONER LYONS: I start by commending the presenters who I know are representing the hard work of a lot of staff on this issue. I really do appreciate the way you presented these issues and have continued to work through them.

I also very much appreciate the line of questioning that was taken by both Commissioner Merrifield and Commissioner Jaczko. I think that line of questioning in each case is very, very high in my thinking as well, as being absolutely critical.

With Commissioner Merrifield's comments on the safety culture would only want to again say here, here, as Commissioner McGaffigan did. I think you described it very, very well. And I very much worry about the direction we are going. I also think you are quite correct in saying we should take credit for what has been done.

I was going to get to the same point as Commissioner Jaczko in a slightly different way by noting that not too long ago I had the occasion to read Sam Walker's book on TMI. And about the same time, I was reading one of the Davis-Besse lessons learned discussions. And I was struck how the lessons learned from TMI and the lessons learned from Davis-Besse are not very different.

And to some extent, you could almost overlay the types of lessons that came through in both of those, which gets directly to the point that Commissioner Jaczko was making, that probably the biggest challenge in all of this is how do you institutionalize it and truly do get this to the point where it is part of the values that every employee of NRC and hopefully industry too has and has it at every level.

Related to that, and this may be corny, but a comment that might help. I visited Davis-Besse a few months ago, fascinating visit. But I thought I was doing to get to see the actual corroded elements. They are not there. I don't remember now where they are.

But it did strike me that -- number one for me as a new Commissioner it would be very useful to see that. Maybe it would be useful from the standpoint of helping to institutionalize that among new inspectors and new employees of the NRC.

Whether -- I understood that Davis-Besse that that section had been cut out and was physically somewhere. I don't remember where physically somewhere was.

MR. SHERON: It went to Lynchburg.

COMMISSIONER LYONS: Lynchburg. Perhaps a model.

MR. REYES: We do have pictures.

COMMISSIONER LYONS: I have seen the pictures. I have seen the pictures many, many times, but I can't help thinking that seeing it or even seeing a model would mean a whole lot more than seeing the picture.

I have seen the picture many, many times. And I'm all for showing the picture, but perhaps that would help us in institutionalizing the importance of this whole discussion.

By way of specific questions, I did have a few and they were mainly on Loren's presentation, which I very much appreciated.

You talked about the need to capture important findings, Loren. I very much agree. But I couldn't help thinking that it's going to be quite a challenge to define what are the important findings. And again, how are they captured in a way that, again, to keep using the word, how are they doing to institutionalized?

First, we need to capture at a high enough level as you said, but I am wondering how we set that criteria and then how we, through knowledge management,

make those findings available to the next generation. Very similar to the line of questioning that Commissioner Jaczko was taking?

MR. PLISCO: As far as the threshold we understand the difficulty. We are drafting a Management Directive now to put into words how we would describe that threshold.

We have gone back and looked -- we are looking at the body of lessons learned that have been done in the past to look and give us some sense of what kinds of things might go in the program.

But our view is that the item should have some organizational safety security emergency preparedness significance or potential generic significance, something that has a root cause or a root cause that can be identified so we can tie the corrective actions to that root cause.

And in some sense it is a type of item that needs to be institutionalized so that type of thing does not reoccur in the future.

We looked at -- as far as things we would consider to go in the program as the results of major Agency Lessons Learned Task Force reports, incident investigation team reports, and potentially findings that come from GAO and OIG external audits and commitments we make in response to that are the type of things we are talking about.

MR. REYES: We have good effective processes for smaller issues. For example, if an inspector identifies that an inspection procedure needs enhancement, NRR has a very effective process to do that and we do that easily. Where we found that we were not effective is in the higher level lessons from several events that have occurred in history -- I mean through the years.

So that's where we want to make sure that we are having the right threshold, because that's where you are going to get the safety and risk impact from institutionalizing it. But we don't have the answer yet, because we have not put it all in writing.

And one of the reasons that we have this category EDO, because we want to have a safety relief valve there that if -- it may not meet our threshold, but if we think it is important enough, we can add it to the system. So I don't want to have a system where we don't have enough flexibility to after we put out defined thresholds that we not being flexible to do that.

MR. PLISCO: The other point that we talked a lot about in our team is the fact that it does not get this extra treatment, does not mean it does not get addressed and isn't tracked in the corrective action program. It is still tracked to the completion and documentations are collected and the close out is done. It just doesn't -- it won't require a root cause analysis and an effectiveness review, and some of these extra management controls. We call it gold plating, is what we are calling it.

It will not require those extra activities, but it is still in the system and documented to close out.

MR. REYES: Because we have other systems for frequently asked questions, for inspection procedures updates, et cetera, et cetera. So we do have a lot of the low-level taken care of. But we don't have a process that we are comfortable with when it says an institution, when it is a larger issue. And when you go to Davis-Besse where there was a budget issue or the filling of the job issues or programmatic issues, and that's where we are targeting this effort too.

MR. PLISCO: And all we are trying to discern is -- if you go back and look at lessons learned task forces in the past, what the teams do is do a great job of finding issues, but everything they find they put in their report. And there may be issues that are just improvement items. Things that came across, we can do better, that may or may not be a contributor to the event itself, but those are put in the report too.

We're really just trying to discern those things that are improvement items or things that came across that do need to be addressed, but won't go into the system. And

the things that were involved with the root cause of the problem, those go into the system. That's the line we are trying to draw.

COMMISSIONER LYONS: I appreciate that it is a hardline and I appreciate what you're doing to try to define it. I will have more questions as we come back.

CHAIRMAN DIAZ: Thank you, Commissioner Lyons.

Let me start at a different level in here a minute. During the staff presentation there were some really long periods of discussions. And the slides actually just dealt with the very top of the issue.

I think that sometimes when there is significant technical discussion, it might need to be broken down a little bit and if you -- a couple of sentences in there, because -- I even hate to admit this -- I was able to follow it, but I was hard pressed to follow it. And I think I'm very familiar with the issue.

So, we might want to look at when we put this very, very large titles and the long discussion that people that are not as familiar as the Commission is will have a better chance of dealing with it.

COMMISSIONER MERRIFIELD: Mr. Chairman, I appreciate you raising this issue. As you know I have been one who has made this comment frequently in the past. I think this is an issue that is obviously important to members of this side of the table.

It may well be worth having a meeting with members of our staff, SECY, and the EDO's office to have a mutually agreeable understanding of our expectations of what should be provided to us by the staff.

I agree, when we have staff members reading very long statements for a very long period of time, my view is they can always provide that to us and generally they don’t. We can talk collaboratively in a way that I think will meet all of our needs.

COMMISSIONER McGAFFIGAN: I'm hear, hearing, again.

CHAIRMAN DIAZ: All right. Let me try to, then, address the issue of the safety culture. And of course, I'm in general agreement with my fellow Commissioners, but I'd like to try to state what the bottom line issue is.

We, in the Commission, have been concerned with the issue of safety culture for a long time. We, of course, are very responsive to Senator Voinovich's concerns, but we need to make sure that what we put in regulatory context belongs inside regulatory context. And what that is that belongs in the licensee's context is in there. And that's where this is a very difficult path. And it is something that we need to be very sure where we're going.

We can make sure and conduct oversight over the licensee's management of the issues of safety and how they maintain the safety culture work environment -- safety conscious work environment. And you know, we are now going into an arena that requires real, real deep analysis and focus, because it is being addressed in many ways that might be beyond where the Commission actually intended at the time. So having said that, I think we will revisit the issue.

Let me go back to this meeting. I'm looking at my clock too.

I think what is important when we look at all of the real heavy words and context is that what the NRC faced at the time and also the licensee is there was technical know how about how boric acid or wet boric acid corrodes carbon steel. And that was not connected with the actual issue.

So, using one of my favorite words, there was no connectivity between the technical know how and the actual event as it was unfolding.

And I think what we, of course, are trying to do is make sure by whatever tools we need to put in place, that that does not happen again. That if there is the technical know how and there is, you know, facts, issues, data, things that are known that

could support the analysis of an event that those are there. And that's part of the lessons learned, but it is also part of the corrective action program.

We need to make sure that we give whoever needs the tool and the basic resources, but that know how needs to be transferred. That requires people to be cognizant that the information exists and that the event exists and those need to be connected.

Mr. Reyes, would you like to comment on that?

MR. REYES: No, I figure you are exactly right and I kept going back to knowledge management, knowledge harvesting and knowledge transfer, because that's probably one of our biggest challenges coming in the near future. People who were here through -- I was here in 1986 when we had a previous reactor vessel head corrosion, so I know it. But, we need to make sure that we transfer that knowledge. So that is exactly what we need to do.

We are in agreement on what the needs are. The execution is that we need to make sure we satisfy the Commission.

CHAIRMAN DIAZ: I was talking to people that might be seeing this and might not know exactly what knowledge management is. And so I was try to address the bottom line issue is there is a known technical fact or experience and it needs to be connected at the plant level, at the inspector level, is what needs to happen.

We talked about accountability the other day. And accountability, of course, also means interconnection or cross connection between the different offices. How are we ensuring that the different offices are closely connected?

I heard about Research and NRR, but the reality is that these are issues that will require continued connectivity between the offices.

MR. REYES: As you know we recently just had a senior management meeting and half a day of that meeting was exactly to discuss knowledge management.

And the reason of that being is that each office has a lot of good initiatives in this area. We talk about NRR's video and the project manager qualification. Andrea talked about some of the Research lectures and communications with the regions and I could go on and on.

But the challenge we have is to make sure that it is integrated in a forum that the whole agency benefits from it. And I won't tell you we have the answer, but very clearly we started to work all the senior managers together in terms of knowledge management.

We agree on a definition. I communicated that to the staff in my last EDO update. Now, what we need to do is to role it out in an integrated fashion. So that is still a challenge. We know we have a challenge in that area.

CHAIRMAN DIAZ: I can't help but take a crack at one technical issue.

Brian was talking about how in several cases it might be insufficient data to predict for the long term or to predict very far beyond or the analysis was not completely connected to what needed to be done or the assessment.

Again, I want to take a minute here to emphasize that there is a natural sampling frequency that is very, very important when you are trying to determine what you are predicting.

Natural sampling frequency could be as short as a refueling cycle, for example. Or it could be as long as, you know, the ten years for in-service inspections.

I think one of the key things that we need to make sure people understand is that the sampling frequency is vital. And the natural sampling frequency is essential to determine how far do you need to predict? We really don't need to predict 30 years from now. I mean, it would be nice. Okay.

I mean, we could do it, that would be great. But if we don't have it, we need to make sure that the period that we need to exercise the oversight and make sure that

nothing happens that is natural sampling frequency.

Do you want to comment or I --

MR. SHERON: No, I totally agree with you. And as a matter of fact, if you look, I think, at one of the areas where we were going back and forth with the ASME had to do with how often they had to inspect vessel heads, especially the plants that were in the low susceptibility category that you would naturally think may not have that problem.

And we were insisting that they had to have a very much more frequent inspection than what the industry was proposing, for example. Just because there is -- once you start getting out beyond where we have data, there is an unknown. And we don't like to be surprised, as you know now.

We have also asked the Office of Research to look at, for example, alloy 690. As you said, we can't predict out 30 years, but we can actually do accelerated aging tests.

One of the things we are trying to do is to understand is this material as robust as we believe it is or are we going to see, for example, some degradation in the out years, perhaps 20 or 30 years from now with that material?

I was in graduate school at the time, but I was told that when the industry selected Inconel 600, we were told this was the miracle material that was not going to crack or anything.

CHAIRMAN DIAZ: I was going to say I remember, but I'm not going to say it.

COMMISSIONER McGAFFIGAN: You mean you weren't delivering the lectures.

MR. SHERON: So that was one of our lessons learned was that we are not just going to accept a statement that says Inconel 690 is the tougher material and don't worry. We are going to worry.

CHAIRMAN DIAZ: But we need to also make sure that we put a realistic view of when is it needed and that realism is an important component of our regulatory oversight. Commissioner McGaffigan.

COMMISSIONER McGAFFIGAN: Thank you, Mr. Chairman.

I'm going to start with the summary of the first part of the briefing, which I think was delivered by Jim.

It's a small point, but it is an important point. “Activities have resulted in significant positive outcomes for the Agency and the nuclear industry.”

I think that's shorthand for the Agency acting on the behalf of the American people, the American public. That's our job. But that gets to be a long thing. And I know these things, as Commissioner Merrifield knows, are based on fonts that show up on computers and sometimes slides are constrained that way.

But I think you could have put for the Agency and the American public and the nuclear industry, something like that. I think it is important.

We are the Agency for the American public. We are the public health and safety watchdog of this nation when it comes to nuclear matters and -- but it does not always come across in our slides.

Brian, on the first set of slides you mentioned the tin whiskers case at Millstone as something that was a positive. I'm not absolutely sure that it is a positive, because my understanding is that staff after the -- have I already used five minutes?

ANNETTE VIETTI-COOK: You want five minutes, I did three minutes.

COMMISSIONER MERRIFIELD: He’s on his first round.

COMMISSIONER McGAFFIGAN: I'm still on the first round.

ANNETTE VIETTI-COOK: Oh, I’m sorry.

COMMISSIONER McGAFFIGAN: I get seven I thought.

ANNETTE VIETTI-COOK: You do.

COMMISSIONER McGAFFIGAN: I looked up and I said oh, my God.

MR. REYES: The man is on his fifth round, but he says he's on his first one.

COMMISSIONER McGAFFIGAN: They say I'm long winded, but I didn't think I was that bad. Dr. Sheron, the tin whiskers thing cuts another way in that the air space industry and NASA were very familiar with this phenomena. And yet, it had not really seeped into NRC and nuclear industry space.

It strikes me as a very close analogue to, except for the fact that it is outside of the nuclear industry that people have had some problems with tin whiskers, that it is similar to Davis-Besse. It is the unexpected that we have to plan for. And the way to plan for it is to have very broad antennae out internationally, but also out, perhaps, to other sectors that share similar equipment.

So tell me very briefly how the tin whiskers thing is a success or am I right that there is a little bit of failure in it too and that we had not anticipated the problem?

MR. SHERON: Yeah, I mean, you're correct, we had not anticipated the problem. Let me say this, I'm not going the claim to be the expert. And it may be that some of the staff actually knew about it, but because it had not really manifested itself on any nuclear applications, there may have been a feeling that it was not something that we were susceptible to.

We saw it and --

COMMISSIONER McGAFFIGAN: We didn't think we were susceptible to cracking on the top -- build up of boric acid on the top of vessels too. It is the stuff we don't think we need to document why we don't think it and then test why that periodically -- do we continue to think that this is not going to be something that is going to apply to us.

MR. SHERON: I think -- you know, you raise a good point, and that is that

if there are similar applications of nuclear related technologies in other industries, that would be a good area to probe and find out what kind of experience they have had especially in those areas.

COMMISSIONER McGAFFIGAN: The stress at 22,000 miles above the earth on systems can be every bit as bad as in a nuclear power plant, because of the very high radiation fields and cosmic ray fields and all that stuff.

MR. SHERON: One area we are looking at right now is with the conversion to digital protection systems. It's no longer just control system, it is protection and the emergency safeguards actuation system.

And we are right now doing a review with Oconee that wants to replace and they have provided a number of information about experience they have had with those systems in other applications besides just in the U.S.

COMMISSIONER McGAFFIGAN: Let me just -- the rest of this is going to be Mr. Plisco's task force and the EDO. I expressed the frustration at the outset that we hadn't made the August report public certainly by last December's meeting.

I don't know whether your documents that have been updating us through the year, the March document, the July document, have been made public and the timing of those being made public. It would not have made a lot of sense for those to be public if the original document was not public, but what is the philosophy here in terms of discussing these sort of things?

MR. REYES: I will have to go back and check why that one. I was looking through the book as you were talking and all of them had ADAMS numbers in them. So I will have to go back and find out. But the answer is we have nothing to hide it's all in the public domain.

COMMISSIONER McGAFFIGAN: And it's good news.

MR. REYES: If anything, we have erred in the other direction. And once in

a while, we have to say oops and we have to put it back.

COMMISSIONER McGAFFIGAN: I thought that report was so important. I was recalling with Commissioner Jaczko when he came here -- I handed him that. And I said, I thought it was one of the best reports -- or the best report I have read during my tenure here.

And I know that the from Mr. Dyer that the authors received some recognition for their efforts because one of the senior staff -- I will leave out names -- said that report in August of 2004 sort of knocked their socks off. You don't get too many reports like that.

So we are serious about pursuing it. The question for Mr. Plisco is, you benchmarked against other agencies. What are the other agencies? Were they regulatory agencies.

MR. PLISCO: We benchmarked FAA, Department of Energy, and the Navy.

COMMISSIONER McGAFFIGAN: How about FDA?

MR. PLISCO: Not FDA.

COMMISSIONER McGAFFIGAN: The benchmarking occurred in sort of individual staff discussions with the agencies in a one-on-one basis?

MR. PLISCO: Yes.

COMMISSIONER McGAFFIGAN: It strikes me that there could have been some stakeholder involvement in that process where you had some of these discussions relatively publicly. Maybe people have trouble talking about these things publicly, but we could have done updates publicly. This is who we are talking to. We might have gotten recommendations from others as to who else we should be talking to.

I don't know what the right agencies are. I have my doubts about some of the agencies you just mentioned.

MR. PLISCO: NASA was the other one.

MR. REYES: I knew we talked to NASA specifically.

MR. PLISCO: And we had particular interest in NASA, because they had undergone some reviews by GAO of their program and then made changes.

COMMISSIONER McGAFFIGAN: This is probably the most important thing, this corrective action program tied with the knowledge management program is the most important thing we are going to be doing in the next several years. I would join Commissioner Jaczko in saying you got to tell us about resource issues. I don't think any of this stuff can possibly be delayed. The licensing actions can be pushed back. There are some other things that can be pushed back. A few hundred thousand dollars if that's what it is or more if it's a few million, this is very important and we need to be putting the resources in and we need to understand where we are on resources.

I remember the EDO at last December's meeting telling us that we need to hold our wallets because he had some pretty strong ideas, this EDO tracking system, which is long overdue.

But then, he has -- I don't fully understand the system where the EDO then has trouble getting his priorities funded, but --

MR. REYES: It has to do with five great Americans sitting across the table.

COMMISSIONER McGAFFIGAN: Well, your priorities in this area should be our priorities, I think they are our priorities. So I would join Commissioner Jaczko in wanting to understand that. And I will come back to this in the three minutes that will be allocated later. Thank you.

CHAIRMAN DIAZ: Thank you very much. Commissioner Merrifield.

COMMISSIONER MERRIFIELD: In the interest of time, I will try to be short.

As a follow-up to my last round where I had some detailed discussion in my

views on safety culture, I just wanted to ask the EDO if there was anything in that statement you wanted me expound on or whether I was sufficiently clear in my views?

MR. REYES: No, I think you were pretty clear. Let me just share with you what we are doing with it.

We're not too far away from your comments in terms of the staff briefed me after the meeting, the recent meeting. And they came to the same conclusion. Two issues that came up. One is a failure from our part to communicate to the industry how are we -- and I'll use a tagging finding -- to put in cross cutting issues.

In other words, when the inspector has a finding, how that process is where the finding is put in a bin to subsequently be looked at for cross-cutting.

Now, that has a bearing on what we are trying to do. We are trying to follow the Commission guidance on using the ROP, just seeing if there is a better mechanism to identify safety culture issues early on. And the intent is to use something similar when you have a finding and you tag it for cross-cutting, whether it's human performance or problem identification to see if there will be a way to say, okay, this could be an issue that could be considered for safety culture.

We are going to have two more public meetings and we are giving away the table. We understand that the table is not a good idea, it's not accepted by anybody. But if you step back from the attributes table and look at what the objective was, we may have derailed from the tracks in the process, but the objective was how can we -- this is going to go down to execution of the inspector findings.

If you go back if you really, really mean it and you want to have cross-cutting issues identified early, it's going be the single findings by the inspectors that are going to be highlighted and say, this one may be something to look into further and then with other issues. Cross-cutting issues on human performance.

So that was the objective. We did not execute it right, but that is the

objective, remains the objective.

So we are going to schedule two more public meeting. We understand there is a proposal from the industry on how to do this in an easier way. And we will do that in public meetings to try to ascertain is there a better way do it within the ROP.

COMMISSIONER MERRIFIELD: Well, it is pretty clear that the strawman that the staff laid out got burned to a fair the well. I was concerned to hear that the staff plans to develop alternative ways to get the same thing and eliminate the table, and I think that is the wrong message.

Let me finish here. I do think we need to start from square one with a blank sheet of paper. And if we are really going to keep trying to go down the road this way, you know, David Lochbaum -- I don't want to speak for him -- but my understanding is when he walked out of the meeting he said, basically until you get your act together I'm not coming back.

And as a success measure for me, unless we have folks like David at the table in a thoughtful way that we can get their views and not simply lay a strawman out and see how people are going to throw darts at it we are not going to get what the Commission expected.

So if you lay out -- here's what the SRM was laying out. Here is some of the suggestions. And the SRM says it, these are not -- we said, these are things the staff should consider. It may well be that staff could well come back and say, no, we don't think some of these are going to work, we don't need to -- whatever.

So I do think it has to be more of a dialogue. I do think where we have taken it does not seem to be the right place.

Last comment, and I apologize Mr. Chairman, the answer I thought was going to be short.

I did hear a comment by Loren Plisco regarding how we incorporate lessons

learned looking at Hurricane Katrina.

The only footnote I would make -- I know the Chairman is testifying on this tomorrow. I may have a little view, because I was Acting Chairman during Rita; but I think as we look at this we should look at not just Katrina, but also at Rita. I think the tendency sometimes is to look at -- in lessons learned where are the areas where we have had gaps. I think we also need to focus on the areas where we had success. Because I think in both instances, there are lots of successes for our Agency in what we did. And I certainly would not want the staff to lose sight of that.

CHAIRMAN DIAZ: All right.

COMMISSIONER JACZKO: I just want to follow-up on what Commissioner Merrifield said. I think it is important to highlight successes and I think -- one of the things I think, Brian, you mentioned in your talk in the operational experience area, you said specifically -- you gave some examples of successes. Maybe in the other three areas you could provide briefly some examples of successes as well where some of the programs that are put in place have shown themselves to be valuable.

MR. SHERON: Well, as I said in the operating experience, we have set up these teams. I think I had mentioned it at the last -- you were not here, but at the last briefing we set up teams of staff in technical areas. In other words, we said okay, if we have pumps, we got pump experts from the Office of Research, from the regions, from NESS, from NRR and they are a team. They are identified as a team.

They will be forwarded operational data, any operational data that comes in that involves pumps. Their job is to look at it as a group and to say are there any trends here. Is there anything going on that, perhaps, we need to --

COMMISSIONER JACZKO: Give me an example of where -- has there been an example where one of those teams has gotten a problem, and has identified something and there has been –

MR. SHERON: I don't think anyone has identified anything specifically, but we got our first report in. And I think where we are really saying it is a success that the teams are actually operating as a team and doing this and providing the input to us. So we think it is going to be successful.

COMMISSIONER JACZKO: What about in some of the areas other than in the operational experience area, give me an example of some successes in those or someone else too.

MS. LEE: I am going to give you an example in the barrier integrity area. It's really a spread sheet that is called "Statistical Process Control" that was put together by Srinivasan. And it basically looks at leakage rates and trends and there was an actual inspector that used this statistical process control and identified an issue at Hope Creek. And it was written up in their newsletter and distributed to Research and other parts of the agency. It was actually used and actually implemented and they discovered a problem at Hope Creek.

COMMISSIONER JACZKO: I know I have a very brief time here. I appreciate those. I think it is important to highlight those so that people see, you know, that this is not just a lot of management talk and a lot of -- these things are working. The examples that you gave and that example, I think, are very good examples.

I would just bring up something -- I don't know whether this is a product of some of the things that have come out of the Davis-Besse Lessons Learned Task Force, but I also just want to highlight, I think, the work that was done at Palo Verde recently. I think is a good example of inspectors doing good work of a team that was out there doing work, working as a team, identifying a potential problem.

Turned out that everything was in the end, okay. But, again, it was a good find and I think it was a good example of the staff having a questioning attitude, asking the right questions and looking for the unexpected. I think that was an example of a very

much of an unexpected. It forced me to go back and pull one of my physics textbooks off the shelf and learned a little about pressure again, and fluid flow and all those kinds of things. So I think it was a good example.

CHAIRMAN DIAZ: Thank you. Commissioner Lyons.

COMMISSIONER LYONS: Commissioner Jaczko just mentioned the recent incident at Palo Verde, but I think the one before that at Palo Verde, the dry sump issue, may be incorrectly, but when I have been asked a couple of times whether I thought that the Agency might have come close to another Davis-Besse. I have used that dry sump catch at Palo Verde as being another example. Maybe it is an overstatement on my part, but at least it was another example of a questioning attitude and an inspector that didn't take the easy answer.

The main thing I wanted to focus on in the last few minutes, few seconds of my time, resources was mentioned by Loren, was mentioned by Commissioner McGaffigan. I certainly don't disagree that we need to identify resources for this program.

But I'm also very concerned that we don't identify or in some way come up with a package of resources, which makes this someone else's problem.

I get very nervous if it sounds like we are creating an office or a group of people whose function is to catalogue lessons learned. And it comes back to the word that we have all used repeatedly now institutionalizing this.

Somehow -- and I am sure there is still a resource aspect to it, but whether we have truly learned from Davis-Besse, I think, will depend on whether every employee, including every new employee, truly has institutionalized the lessons from Davis-Besse and truly has developed that questioning attitude. And although, it may have been corny I made that suggestion of a model of Davis-Besse down stairs. I would not mind seeing that everyday just to remind me of how close we came.

And maybe it's corny, but at least some way of trying to institutionalize the

need for the questioning attitude at all levels and being very careful that we don't get into a mold of saying that by defining resources for a task force or for an office, that we have solved the problem.

I'll close with that.

CHAIRMAN DIAZ: Thank you Commissioner Lyons. Commissioner McGaffigan and then I will close.

COMMISSIONER McGAFFIGAN: Chairman's prerogative. The line of questioning I was on with Loren, we have developed this thing we're about to pilot in a relatively closed manner, is that correct?

There have been a lot of -- you are dealing internally with your task force. Take Mr. Lochbaum who was in the audience, we have not run this past him, although, I remember after the December 8th meeting last year he was quoted in Inside NRC or one of those publications as being very enthusiastic about what we are about to do.

So this has been done in a relatively closed fashion.

MR. SHERON: Yes, sir. I have done, I think, two public presentations. One with the ANS conference and one at a high level on what we are doing.

COMMISSIONER McGAFFIGAN: I think this is very important. I have said that several times today. We are facing these twin tsunamis of additional work and departures of experienced staff, including at the very senior level of the Agency and we sort of have to get this stuff in place for the Agency in 2010 to have a chance to do its job and do it well in my view.

We have developed this in a relatively closed process. My words, not yours. We are about to pilot it.

How open is the pilot going to be? How open is the intent at the end of this?

Does this stuff get published in an open part of ADAMS where we say, this is how we are trying to institutionalize lessons learned so that a Commissioner, would be

Commissioner, could look at it and sort of learn about this stuff even before he got here. Because Commissioners need training too not just --

MR. REYES: I agree with that.

COMMISSIONER McGAFFIGAN: I would love to have access to it. I would love to have access to it at home on the web page. And then we might well get comments from members of the public, which you would have to sort through, that would be constructive comments that they could go into the lessons learned effort.

But I don't know what your vision is with regard to how open this is going to be. Is it all going to be internal NRC ADAMS, or is it going to be something that will serve as a basis for dialogue with our broader stakeholder community, both in the public and in the industry?

MR. PLISCO: I think there is a lot of advantage to have these lessons learned out in the public domain and to have access to it. And we understand that.

Where we are now, again, gets to funding, you know, as we make the system more complex, put it on external web and look at what security issues we have to worry about. How far down. All those kind of IT questions we have not gotten to yet.

MR. REYES: There is no reason why we can make it public. We have done all our previous lessons learned in public and this one will follow suit.

COMMISSIONER McGAFFIGAN: Also, the public could contribute, perhaps -- and Commissioners, not just EDO, contribute on this threshold issue.

The Chairman in less -- is it two weeks ago now, senior management meeting, last week. My time has been very compressed in my weeks back here, because they tell me, vote, vote, vote, and I can't come up for air. But he talked about this being a techno-legal agency or legal technical agency. And we're also an information technology agency for better or for worse.

When you listen to you guys, you are more worried about butt wells and

corrosion and not whether the IT systems -- but there are ADAMS and Starfire and God help us other lessons learned from IT acquisitions that we better institutionalize in their domain.

Maybe that does not have to be here. There are legal technical lessons learned that have to be institutionalized and some of those may not be able to be public, because they go to our standing in future trials in appeals courts. But getting this institutionalized on a broader basis is also important.

MR. REYES: That's my goal.

I used the word this morning in my opening remarks and I meant it. That's why it has to be a system that everybody, all 3,000 employees can use. That's why you have to set up a threshold to make sure you don't choke it so nothing gets done.

COMMISSIONER McGAFFIGAN: The last comment I will make, Mr. Chairman -- I know I am over my time limit -- as part of the confirmation process I just went through, I spent over an hour with Senator Voinovich walking to votes on the Senate floor, walking back. He is terribly interested in this, which is a much broader issue than Davis-Besse.

He is terribly interested. He is our Chairman. Senator Carper, the ranking member is interested in the subcommittee. And I think that they would help us on the resource side. They would help us on the -- as I said, if this thing were public, I could imagine a bunch of questions for the record for future Commissioner/Chairman positions, where if the Senate institutionalizes it, if the Commission institutionalizes it, it makes it easy for the EDO to manage what Loren talked about in the way of change management.

I hope it comes across. This group of people, all five of us, are really committed to getting this right. And any help you need from us, we are ready to give you.

CHAIRMAN DIAZ: Thank you very much, Commissioner McGaffigan. Let me see if I can, as Commissioner McGaffigan said, use my prerogative to try to come to

some closure in here.

I talked about the other day about that time of transition. And I believe there is a transition that takes place today with this briefing. We are from the point of analyzing learning to actually executing what we have learned. Putting them into action, making them part of the framework of the agency.

I think we have heard from my fellow Commissioners how important this is, because reality is that, you know, we can say, well, we can close Davis-Besse. It's not Davis-Besse what we are really concerned about now. It is how we go forward with confidence that our oversight is doing for the American people what it needs to do.

That's never going to go away. It is never going to have less importance. No matter what else we do, that is always going to be there.

So the importance of this work and the importance of what we learned, not only from corrosion in the vessel head, but from our actions and the actions of the licensee and how that gets put into our framework, how do we work with it in the future is what you are addressing. We want to thank you for really taking a deep look.

We also, of course, are advising you that we will continue to look at it and expect to make sure that every one of the lessons learned and the potential improvements are timely, are done well, are realistic and they actually provide our staff with the tools that they need.

With that, unless my fellow Commissioners have any further comments, we are adjourned.

(Whereupon, the meeting concluded)