

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON RESULTS OF THE AGENCY ACTION REVIEW PLAN
MEETING (AARM)

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THURSDAY

MAY 21, 2015

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The public meeting was convened in the Commissioners' Hearing Room, One White Flint, 11555 Rockville Pike, Rockville, Maryland, at 9:00 a.m., Stephen G. Burns, Chairman, presiding.

COMMISSIONERS PRESENT:

STEPHEN G. BURNS, Chairman

KRISTINE L. SVINICKI

WILLIAM P. OSTENDORFF

JEFF BARAN

STAFF PRESENT:

MARC DAPAS, Regional Administrator, Region IV

MARGARET M. DOANE, ESQ., NRC General Counsel

LAURA DUDES, Director, Division of Material Safety, State,
Tribal, and Rulemaking
Programs, NMSS

SCOTT MORRIS, Director, Division of Inspection and Regional
Support, NRR

MARK A. SATORIUS, Executive Director for
Operations, NRC

ANNETTE L. VIETTI-COOK, Secretary of the
Commission

ALSO PRESENT:

JEREMY BROWNING, Vice President of Operations,
Arkansas Nuclear One

JOSEPH A. KOWALEWSKI, Chief Operating Officer, Southern
Fleet, Entergy

JOHN MCCANN, Vice President, Regulatory Affairs, Entergy

TIMOTHY G. MITCHELL, Senior Vice President, Nuclear
Operations, Entergy

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

8:58 a.m.

CHAIRMAN BURNS: Thank you. I'll ask the staff to come to the table, as we prepare for our briefing on the results of the Agency Action Review Meeting. Okay, the focus of today's meeting is on the results of the NRC's Agency Action Review Meeting, or AARM. We'll also hear from Entergy regarding their action plan for the Arkansas Nuclear One facility, which recently transitioned to the multiple repetitive degraded cornerstone column of the Reactor Oversight Process Action Matrix, also known as Column Four. And we'll begin this morning with discussion from the NRC staff panel, Mark Sartorius, Laura Dudes, Scott Morris and Marc Dapas, and following the staff panel we'll have a brief break, and then we'll hear from Entergy. And I look forward to today's discussion. Do my fellow commissioners have any opening comments? Okay Marc, please begin.

MR. SATORIUS: Good morning, Chairman. Good morning Commissioners. The staff is here today to present the results of the Agency Action Review Meeting that we performed about a month ago, April 15th. Before I turn the presentation over to my colleagues, I'd like to take a moment to highlight some of the objectives of the Agency Action Review Meeting, or the AARM. The AARM is a meeting of the senior leadership of the agency, and its goals are to

1 review the appropriateness of agency actions taken for reactor material
2 licensees with significant performance issues. Also, to ensure that
3 coordinated courses of actions are developed and implemented for
4 licensees of concern. We review the results through the staff
5 self-assessments of the reactor oversight process and the construction
6 reactor oversight process, and lastly, we ensure that the trends in
7 industry and licensee performance are recognized and appropriately
8 addressed. So given the significance of the subject matter, we
9 consider this to be one of our most important meetings that we hold at
10 the senior staff level. Next slide, please.

11 Joining me today are to my far right, Laura Dudes, the
12 Director of the Division of Materials Safety, State, Tribal and
13 Rulemaking Programs in the Office of Nuclear Materials Safety and
14 Safeguards. To my immediate right, Scott Morris, the Director of the
15 Division of Inspection and Regional Support in the Office of Nuclear
16 Reactor Regulation. And to my left, Marc Dapas, the Region IV
17 Regional Administrator. Next slide, please. During today's
18 presentation, we'll go into detail regarding the staff's AARM discussions
19 on nuclear materials and waste, program trends and licensee
20 performance, reactor program trends and licensee performance,
21 including ongoing efforts to enhance the reactor oversight process and
22 discuss two licensees with performance issues, Fort Calhoun and
23 Arkansas Nuclear One.

24 I also wanted to highlight two topics which were
25 discussed by the senior leadership at the AARM, but we are not
26 presenting in detail at this meeting today. The first is the results of the

1 Annual Reactor Construction Program Self-Assessment. The staff will
2 discuss the construction assessment in more detail during the New
3 Reactors Business Line; the Commission meeting is planned for this
4 fall. The second discussion that we had at the AARM that we will not
5 be covering in any sense of detail is a discussion of the performance of
6 the reactor licensee at Browns Ferry.

7 Browns Ferry met the criteria for discussion at the
8 AARM by having spent time in Column Four of the Action Matrix during
9 calendar year 2014; however, given the level of engagement the
10 Commission has had with Browns Ferry over the past several years
11 and their transition back into Column One of the Action Matrix in
12 October of 2014, the staff felt that today's time is best spent on more
13 current issues. If the Commission has any questions on the
14 construction self-assessment or Browns Ferry's performance, we'll be
15 happy to deal with those in the question and answer period. So now
16 I'm going to ask Laura to begin our presentation with a discussion of
17 nuclear materials and waste program performance. Laura.

18 MS. DUDES: Thank you, Marc. Good morning
19 Chairman, Commissioners. The National Materials Program includes
20 nearly 22,000 NRC and agreement state licensees that use nuclear
21 materials in a wide variety of beneficial applications, including
22 industrial, research, academic, medical and fuel cycle facilities. The
23 NRC's 2014 Performance and Accountability Report estimates nearly
24 112 million nuclear medicine procedures are performed annually; the
25 vast majority of these in the diagnostic arena. But when we discuss
26 trending in the next few slides, I'd like to just point out that the number of

1 reported events is small compared to the total number of activities
2 carried out in the United States. That being said, the staff does
3 monitor the data and continues to look for performance issues or things
4 that would warrant NRC response, communication or program
5 changes. So today, I plan to highlight some of the issues we
6 addressed this year as part of the National Materials Program. Next
7 slide, please.

8 The National Materials Program is protecting public
9 health and safety. We continue to focus on new challenges that may
10 warrant program enhancements or changes. In April of this year, the
11 Commission met with several of our key partners in this program: The
12 Organization of Agreement States, the Conference of Radiation Control
13 Program Directors, and the Advisory Committee on Medical Uses of
14 Isotopes. The map on the center of this slide represents the National
15 Materials Program and the unique and valuable relationship we have
16 with the states. Over the next few years, we do expect that we may
17 add one or more new agreement state partners to the program, and so
18 we want to focus on making sure we can continue to provide effective
19 communications and training across the nation. So for example, this
20 year, in addition to the formal training that we provide as part of the
21 technical training center, and I know they're doing work on more
22 blended learning and electronic delivery mechanisms, the staff
23 delivered a series of webinars on medical issues, including medical
24 event reporting, to enhance knowledge transfer and promote
25 consistency in licensing, inspection and event reporting across the
26 United States.

1 The photos on the left hand side of this slide represent
2 the individual access control and security monitoring requirements put
3 in place in March 2014 by our Part 37 Source Security Rulemaking.
4 We continue to work with the states as they transition from increased
5 control orders or other binding requirements they put into place after
6 9/11, and they will transition to full implementation of the Part 37 Rule in
7 March 2016. In addition, the staff is executing a comprehensive
8 assessment of the new Part 37 Rule to assure that it provides adequate
9 protection of the nation's radioactive sources.

10 The photos to the right include brachytherapy
11 treatment and the ViewRay system, two medical therapy procedures
12 that can have a substantial, positive impact on the lives of cancer
13 patients. The staff works closely with the Advisory Committee on
14 Medical Uses of Isotopes to assure early engagement on new
15 technologies, new treatments, and diagnostic therapies such that our
16 regulations are protective and yet do not impact the practice of
17 medicine. The photo of the radiography camera and the moisture
18 density gauge represent some of the many industrial sources that are
19 regulated by the National Materials Program.

20 During fiscal year '14 performance year, we had
21 several radiographer overexposure events or potentially significant
22 overexposure events that occurred both in agreement states and under
23 NRC jurisdiction. The staff was able to leverage our very strong
24 relationship with the states to openly share the events, root causes, and
25 details of our regulatory actions such that--and then provide this to all of
26 the partners in the National Material Program so they could share that

1 with licensees and re-emphasize the importance of personnel safety in
2 this industrial practice. Next slide, please.

3 Similar to the reactor oversight process, the NRC and
4 the Agreement State Materials Programs include licensing, inspection
5 and enforcement. We also collect, monitor and evaluate operational
6 data on an ongoing basis as part of our event reporting function. Our
7 evaluation process includes identification of significant licensee
8 performance issues and potential gaps or program issues in the NRC's
9 programs that would warrant high level management attention at the
10 Agency Action Review Meeting. Next slide, please.

11 The staff uses the criteria and information sources
12 listed on this slide to assess and measure our performance, including a
13 graded approach from high level, high consequence events that include
14 our strategic goals and performance measures and are reported to
15 Congress to lower threshold event reporting and also enforcement
16 trends that are reported only within the NRC. All of this information is
17 not only reviewed sometimes on a daily basis as in our event reports,
18 but at various times through the year and rolled up and fully discussed
19 as part of the Agency Action Review Meeting. Next slide, please.

20 During fiscal year '14, the reporting period, there were
21 524 NRC and agreement state reports reported in the Nuclear Material
22 Events Database. To account for random fluctuations in event data
23 from year to year, the annual report reviews data for the last 10 fiscal
24 years as depicted on this graph. To give you a sense of comparison,
25 the fiscal year '14 10-year data was 5,650 events; the fiscal year '13
26 data was 5,634. So the staff does not have any statistically significant

1 trends in the overall data. Staff sometimes looks at narrow parts of the
2 data to look for sensitivities or trends; there is a continued decrease in
3 NRC licensee event reports and a slight increase in the agreement
4 state reports, which is to be expected as we had three moderate-sized
5 programs transition in this 10-year period.

6 I have to apologize to Commissioners Svinicki and
7 Ostendorff because you've probably been hearing this for several years
8 in a row. It will be new for you, but you'll hear it for five years after this.
9 The spike in 2008 and 2009, which skews the graph and may skew the
10 data, is actually a one-time event where WalMart was inventorying a set
11 of tritium exit signs, and so there was 272 events reported in 2008,
12 another 65 in 2009, and it sort of shifts that graph or the appearance of
13 that graph. But more seriously, within the Nuclear Materials Events
14 Database, some do meet the abnormal occurrence thresholds and are
15 reported to Congress. This year, we had 13 abnormal occurrences; 12
16 were in agreement states; one was an NRC licensee. All 13 involved
17 medical procedures and reported to the Commission in SECY-15-0029.
18 Next slide, please.

19 In summary, there were no fuel cycle facilities or
20 materials licensees that met the Agency Action Review Meeting
21 discussion criteria. The Nuclear Materials Program met all strategic,
22 performance, safety and security metrics and identified no significant
23 trending or programmatic issues. Thank you for your attention; I will
24 now turn it over to my colleague, Scott Morris.

25 MR. MORRIS: Thank you, Laura. Good morning Mr.
26 Chairman, Commissioners. Over the next 15 to 20 minutes or so, I'm

1 going to summarize some of the key reactor program related matters
2 that we discussed at the April Agency Action Review Meeting. Next
3 slide, please. Specifically, I intend to focus my discussion on the
4 industry trends program results from 2014, next I'll spend some time
5 explaining what we've been doing with respect to the Reactor Oversight
6 Process enhancement efforts, and finally I'll describe our planned
7 changes to our self-assessment, our annual Self-Assessment Program
8 process associated with the Reactor Oversight Program. Next slide,
9 please.

10 The Industry Trends Program complements the
11 Reactor Oversight Process and is designed to assess overall industry
12 performance using industry-level indicators. It includes a total of 32
13 different indicators looking at multiple aspects of industry safety
14 performance. Any adverse trends identified as a result of reviewing
15 those indicators are analyzed for causal factors, and this information is
16 also used to update our licensing and oversight programs as
17 applicable. The results are also used to--as an input to our strategic
18 performance goal measures and are communicated to our
19 Congressional oversight committees. In summary, no adverse trends
20 were identified in fiscal year 2014, no short-term prediction limits were
21 exceeded, and no long-term statistically significant adverse trends were
22 realized. Next slide, please.

23 As an example, this slide shows one of our long-term
24 indicators as part of the Industry Trends Program. This one happens
25 to be significant events, which are analyzed on a 10-year rolling basis.
26 Specifically, it assesses significant events per reactor unit by fiscal

1 year, and a significant event is defined as a yellow or a red input, an
2 input being an inspection finding or a performance indicator as part of
3 the Reactor Oversight Process. An event that is rated at the
4 International Nuclear Events Scale a rating of two or higher; abnormal
5 occurrences as identified are defined by Management Directive 8.1 or
6 an event that has a conditional--an increase in conditional core damage
7 probability of one times ten to the minus fifth. A comprehensive
8 summary of all the indicators, all 32 indicators and the staff's
9 assessment are included in SECY-15-0061. Next slide, please.

10 While the results of the Industry Trends Program have
11 provided confidence in overall industry safety performance over the
12 years, historically these results have not been used as a basis to initiate
13 specific agency actions or modifications to the Reactor Oversight
14 Process. For this and other reasons, we're making changes to the
15 Industry Trends Program going forward. A couple of changes we're
16 trying to make in the inclusion of security and public radiation safety
17 information; these two topics are currently not captured in the Industry
18 Trends Program. In addition, we're planning to replace many of the 32
19 what I'll call custom Industry Trends Program performance indicators
20 with more readily available Reactor Oversight Program performance
21 indicator data. This should reduce costs associated with data
22 collection and analysis, but at the same time retain meaningful insights
23 and overall industry performance.

24 I should also--we also hope to reduce the time delays
25 commonly associated with the analysis of complicated events.
26 Sometimes the abnormal occurrences and other complicated events

1 get assessed by the Office of Nuclear Reactor Research through a very
2 detailed, comprehensive process, and it takes a lot of time to get an
3 outcome from that. We're hoping to minimize that. And finally, we
4 want to make the Industry Trends Program more accessible to public
5 stakeholders and more understandable and more closely aligned with
6 ROP cornerstones. Next slide, please.

7 I'd now like to turn attention to the Reactor Oversight
8 Program enhancement activities. First, I want to state that we believe
9 and stakeholders agree that the ROP, the Reactor Oversight Process is
10 a very mature and highly effective oversight program. That being said,
11 however, over the last couple of years, there have been numerous
12 opportunities for us to receive input feedback on how to maximize the
13 efficiency and effectiveness of the program. In fact, we've received
14 over 130 specific, discrete recommendations from multiple sources,
15 including our own self-initiated baseline inspection program
16 enhancement project, the ROP independent assessment that was
17 initiated in 2013 and completed in 2014, a self-initiated business
18 process improvement initiative that focused on the significance
19 determination process, various audits that we've received from the
20 Office of Inspector General and the Government Accountability Office,
21 detailed lessons learned reports that we've conducted following the Fort
22 Calhoun 0350 Process Implementation, Browns Ferry being in Column
23 Four, and also the San Onofre Nuclear Generating Station lessons
24 learned. Those things, in addition to our ongoing annual ROP
25 self-assessment and our routine inspector feedback forms, which we
26 received many dozens of over the course of a given year.

1 So we took all of those inputs early last year and sorted
2 and prioritized them according to a rubric that contained multiple
3 factors, which I can explain later if you have a question about how we
4 do that. But generally speaking, of the 130 items, we're working the
5 highest priority ones first, and the highest priority ones tend to be the
6 most challenging and difficult ones, and I'll explain some of those in
7 more detail in a minute. Our intent is to complete the bulk of these
8 enhancement-related activities by the end of this calendar year,
9 although there will be some notable exceptions. Next slide, please.

10 First, let me talk about the Baseline Inspection
11 Program Enhancement Project. As I mentioned, it was self-initiated
12 two years ago, an NRC wide working group effort. We had folks from
13 Regions and Headquarters, multiple meetings with external
14 stakeholders, public industry, et cetera. It was a holistic review, the full
15 suite of baseline inspection procedures. And by baseline inspection
16 procedures, we mean those inspections that are conducted at every
17 site every cycle, regardless of site or unit performance. We published
18 a report in early 2014 which is publicly available. The substantial
19 revisions that were identified included changes to the Problem
20 Identification Resolution Inspection, a very important inspection which
21 underpins the foundation of the Reactor Oversight Process, the
22 Component Design Basis inspection, and also notably the
23 Independent Spent Fuel Storage Installation inspections, which were
24 recommended and are being moved under the Reactor Oversight
25 Process, which required the development of a Significance
26 Determination Process to ensure that any inspection findings that were

1 identified as a consequence of implementing that inspection could be
2 rolled into the action matrix as appropriate.

3 And finally, under the Baseline Inspection Program, we
4 are addressing what we're considering a significant recommendation
5 from the Government Accountability Office in which they noted that the
6 NRC, and particularly in the regional implementation of the oversight
7 program as it pertains to findings of low or very low significance, that
8 there were some significant differences in the way that the inspectors
9 of the regions that implemented the program. The recommendation
10 was that the staff go back and take a hard look at why that is, and we
11 did that.

12 We had a number of--a couple of table top exercises
13 and published a detailed, analytical report on the causes late last year,
14 and the fundamental primary cause essentially was the amount of
15 ambiguity in some of the inspection program governance documents
16 associated with the treatment of low significance findings. And I can
17 explain that in more detail if that's an item of interest, but I will point out
18 one example, which is how inspectors determine whether an issue or a
19 performance deficiency meets the criteria for--is minor or more than
20 minor such that we would then enter the next stage of the process, and
21 there was some ambiguity in how to make those interpretations. Next
22 slide, please.

23 Moving to the assessment program, the licensee
24 performance assessment, we made significant progress in two major
25 areas; in fact, the first area we've completed, and I should note also that
26 these efforts were also conducted through the use of industry-wide

1 working groups and public meetings. The first one is the substantive
2 cross-cutting issue process, which now we term simply the cross
3 cutting issue process. Essentially what we've done here is we've
4 adjusted the thresholds for what constitutes a cross cutting issue, and
5 in part to ensure consistent agency action and response to an identified
6 cross-cutting issue. This was a difficult and challenging process, a lot
7 of good interaction with the industry but ultimately we aligned on what
8 we think is the appropriate set of thresholds for determining when there
9 is a cross-cutting theme and one the agency should begin more
10 aggressive action with a licensee. We plan to reassess this entire
11 process after a few assessment cycles to make sure that the intent of
12 the changes are actually being realized, so we're going to give it some
13 run time and see how it works out, but we think it's 'a good change.

14 The second major area under the assessment
15 program is we're, you're probably aware, taking a very hard look and
16 have prepared a Commission vote paper, which you should receive in
17 the next few weeks, looking at the definition of what a degraded
18 cornerstone is, and more specifically, how that factors into a licensee
19 transition criteria to move from what we would Column Two to Column
20 Three, or regulatory response column to the degraded cornerstone
21 column. If approved, the current process or the current definition of a
22 degraded cornerstone is two white inputs or one yellow input. We
23 have done a qualitative and risk-based assessment and essentially
24 concluded that it would be appropriate to change the criteria for
25 degraded cornerstone from two white inputs to three white inputs,
26 which clearly would have some impact and could be perceived as a

1 reduction in regulatory oversight. It would also notably change the
2 criteria for Column Four because Column Four is the degraded or
3 repetitive degraded cornerstones.

4 The SECY paper that you should be receiving here
5 shortly will present the basis for the staff's recommendation, again both
6 a risk-based and a qualitative set of factors that were used, but it will
7 also provide a description of some alternative views that the staff has.
8 Suffice it to say there was not 100 percent alignment on the approach
9 that we should take with respect to this recommendation, and the paper
10 will go into some detail as to why some staff believe that maintaining the
11 status quo is appropriate. But if the Commission does approve the
12 staff's recommendation, we will then begin an implementation--we'll
13 develop an implementation strategy to deal with transitional issues.
14 For example, if a licensee is in Column Three right now because of two
15 whites, and we change, what does that mean? Do we grandfather,
16 that type of thing. Next slide, please.

17 Turning now to the Significance Determination
18 Process, this is a--I'm going to spend two slides on this. This is a very
19 important effort, we've broken it into two phases. Phase 1 is
20 essentially the result of a staff initiated, self-initiated Business Process
21 Improvement initiative that we completed in early 2014, but it really
22 looks at the existing process as defined in the inspection manual. The
23 goal of the effort was to, quite simply, improve the process efficiency
24 and effectiveness, including timeliness, and the publicly available report
25 lists 14 specific efficiency and effectiveness recommendations, all of
26 which are being implemented.

1 I believe 11 of them now are completed, there's a few
2 left to be done, but essentially it will improve coordination between the
3 Regional and Headquarters analytical staff, it will reinforce
4 management expectations for the timeliness of the conduct of risk
5 analyses, including a new timeliness metric that will be based not on
6 when the NRC completes its exit meeting until the time we issue a
7 preliminary determination, but rather the time from when the issues was
8 first identified to when we issue, and that we believe will provide a more
9 meaningful assessment of the work that we're doing to improve the
10 efficiency.

11 It will also include some enhanced training for the
12 senior executives that sit on the panels that make the final decision,
13 preliminary and final decisions about the significance of findings,
14 particularly to enhance their level of understanding and appreciation of
15 risk concepts, the degree of uncertainty in the model, the types of
16 assumptions that are being made in the various events. We're
17 confident that these changes will result in a more timely issuance of
18 preliminary significance determination letters to licensees, also known
19 as choice letters. We expect that the--or we believe that this Phase 1
20 Significance Determination Process effort will be fully responsive to the
21 Commission's direction in COMSECY-14-0030 to "streamline the SDP"
22 and we will, by the end of June, we will provide a summary of our
23 completed actions with respect to Phase 1, but also our planned actions
24 moving forward with Phase 2, which I'll discuss on the next slide. Next
25 slide, please.

26 So as a supplement to the Phase 1 efforts, we've just

1 begun a broader, longer term effort, longer term meaning the next year
2 to two years, to review the efficacy of the SDP on a more fundamental
3 or even philosophical level, and we call this Phase 2. The goal of
4 Phase 2 is to identify even more efficient means to employ an
5 integrated, risk-informed decision making principles. And the point of
6 that is to even more further improve SDP time limits, make better use of
7 agency and licensee resources, and to add additional clarity to the
8 process and ideally, enhance the predictability of outcomes at the same
9 time. So the current process, the current Significance Determination
10 Process, at least as it pertains to the reactor safety strategic
11 performance area, which includes initiating events, barrier integrity,
12 mitigating systems, relies very heavily on PRA models, and it creates
13 some inherent challenges, quite frankly.

14 For example, the models that we use are based on
15 essentially full -operations, but not every finding is based on--you know,
16 some of them are shutdown, some of them are in transition or low
17 power or intermediate, so the models don't necessarily effectively or
18 adequately model existing--what's happening. And models are full
19 of--they're not perfect, right? I mean there's always inherent parts of
20 the model that don't accurately reflect reality. Now there are other
21 challenges like associating or estimating initiating event frequencies,
22 like if you have a finding that would only be an issue if there was some
23 type of weather event, say flooding or hurricanes. So estimating
24 initiating event frequencies or degree of rainfall, it becomes very
25 challenging, and there are frankly some scenarios which just aren't
26 modeled, and so it takes time to develop a model after a performance

1 deficiency is identified.

2 So the integrated, what we're calling Phase 2 or this
3 more integrated, risk-informed SDP decision making approach would
4 more fully consider the degree of uncertainty in PRA models and the
5 need for critical assumptions at the outset, and then look at, depending
6 on that, look at the plant equipment, safety/design margin associated
7 with plant mitigating equipment, defense and depth, even regulatory
8 compliance or any other number of potentially more qualitative factors.
9 So again, we're just beginning this, it's going to involve--we're going to
10 need to take a hard look at the SDP basis documents, we'll likely going
11 to need to update our decision-making tools, we'll have to establish
12 some ground rules for how this whole thing is going to work with respect
13 to process mechanics like how long we wait to get clarity from the
14 licensee on what the root cause or apparent cause is, et cetera. Of
15 course we'll seek input from all of our internal and stakeholder inputs
16 along the way, and we'll keep the Commission informed. Next slide,
17 please.

18 My last example of ROP enhancement related
19 activities that I'll discuss this morning and that was discussed at the
20 AARM in April has to do with reactor oversight project or program
21 related communication activities. Both internal and external
22 communications mechanisms were examined; consistent with other
23 plain language initiatives, we're really taking a hard look at our process
24 and the outcomes of our process and the descriptions of our process
25 and what's available in the public domain to ensure that we're
26 maximizing or making best use of plain language. We're not there yet.

1 I looked at an inspection report we published a year or two ago at a site
2 I won't mention and looking at the executive summary, and it's still is full
3 of acronyms and jargon and if I were a member of the public, I would
4 have a hard time, frankly, reading it. So we've got some work to do on,
5 you know, improving active voice, minimizing jargon, making things
6 more concise, even proper grammar, and there are things we can do in
7 our inspection program manual specifically associated with inspection
8 reports to add plain language.

9 Also, we're re-engineering our external website,
10 providing better search tools, inspection report search tools, internal
11 website actions, we're updating our ROP related brochures, and we're
12 providing--including an extensive set of questions and answers,
13 FAQ-type thing. We're also looking to be using some outside contract
14 help to take a look at--do an independent look at our ROP-related
15 documents and have them give us some critical feedback on what we
16 can do better on. Next slide, please.

17 Let me last now turn to the Reactor Oversight Program
18 Self-Assessment Process. This is an annual self-assessment, but
19 you'll recall that we requested in COM 14-0030 last year, we requested
20 that we forego last year's self-assessment, principally to number one,
21 re-engineer the whole process to begin with, the self-assessment
22 process, but just as important, to give the staff--free up some resources
23 to work on all these ROP enhancement activities, some of which I just
24 described. We took a blank slate approach to the self-assessment
25 process, and I'll explain that here just in a moment. The ROP
26 Self-Assessment Program governing documents are being revised

1 now; we will implement the revised process this year and report the
2 results next year, and again, we'll provide the Commission an update
3 on the details of that after we've completed cleaning up all the formal
4 documentation associated with how the program is going to work.

5 But the new program essentially looks at three
6 elements. One--and I should say the purpose, the main drivers for the
7 new oversight self-assessment process is to add accountability, staff
8 accountability to ensure--I mentioned the regional differences; it should
9 help provide some accountability and feedback to ensure that we're
10 tightening that up so that our oversight program is more reliable. But
11 there are three basic elements to the new effort, which will include
12 objective performance metrics using readily available information.
13 The second element will be a very deliberate examination of recent
14 changes made to the program to ensure that the intent is being
15 realized, and the third piece of it is what I would call a deep dive effort
16 into one or more specific aspects of the oversight program to go all the
17 way to the root of the documents and make sure it still makes sense
18 and are we doing it the right way. Next slide, please.

19 The current oversight program self-assessment
20 currently includes three annual evaluations that are formally reported to
21 the Commission, and each evaluation was Commission-directed at one
22 point in the past. They include the Regulatory Impact Summary, which
23 has been issued since 1992 to look at, in response to industry concerns
24 about unnecessary regulatory burden being imposed on licensees by
25 NRC inspectors and the oversight program in general. A second
26 report has been issued since it was directed in 2008 and issued looking

1 at the--issued annually looking at ROP resource expenditures,
2 essentially that was because we had moved to the new oversight
3 program, so there was clearly an interest in understanding the
4 resources that were being dedicated to the process were, and finally a
5 resident inspector demographics analysis. This was initiated in the
6 late '90s out of a concern or an actual experience in which resident
7 inspectors' experience was the time on site and their time as inspectors
8 was declining.

9 The staff believes that these analyses have outlived
10 their usefulness as part of the annual oversight program
11 self-assessment, principally because no recommendations for program
12 improvements have resulted from these reports in many years; none of
13 the analyses have been discussed substantively at recent AARMs; the
14 costs associated with implementing given the benefits we're deriving is
15 not evidence, and it's mainly the reporting aspect. And frankly, some
16 of it is redundant to other things that we're doing in the agency. So I
17 will point out that the data will still be collected, it's really a question of
18 how much analytical work and reporting effort do we put into it. More
19 rationale is provided in a COM that was just issued,
20 COMSECY-15-0014. This concludes my remarks, and I'll now turn it
21 over to Marc Dapas. Thank you.

22 MR. DAPAS: Thank you, Scott. Good morning
23 Chairman and Commissioners, I appreciate the opportunity to be here
24 today and discuss with you our regulatory oversight activities with
25 respect to Fort Calhoun Station and Arkansas Nuclear One. Let me
26 begin with Fort Calhoun Station, where I plan to discuss the basis for

1 our decision to return this facility to a normal level of NRC oversight.
2 Next slide, please. By way of background, in December 2011, the
3 NRC decided to transition Fort Calhoun Station from the Reactor
4 Oversight Process or ROP, which is prescribed by Manual Chapter
5 0305 to the Manual Chapter 0350 process for oversight of reactor
6 facilities in a shutdown condition due to significant performance and/or
7 operational concerns.

8 The basis for the decision to transfer oversight from the
9 ROP to the Manual Chapter 0350 process was that Fort Calhoun
10 Station was shutdown and in the multiple repetitive degraded
11 cornerstone column, or Column Four of the ROP action matrix, as well
12 as the fact that the licensee needed to accomplish significant analysis
13 of the extended condition and extended cause of known performance
14 deficiencies to fully understand what recovery actions were necessary.
15 Over the next two years, the licensee implemented extensive actions to
16 identify and correct the many process, equipment and personnel
17 problems that existed at the station. This included actions to improve
18 the safety culture and safety conscious work environment.

19 Then in September 2011, the NRC issued a
20 confirmatory action letter, or CAL, and then issued revisions to the CAL
21 in June 2012 and February 2013. These CALs documented the 460
22 specific items or issues that needed to be resolved before restart.
23 After expending more than 23,000 hours of increased regulatory
24 oversight, the NRC completed its review of the 460 restart items. The
25 extensive agency effort to independently verify that the licensee had
26 adequately addressed all of the restart items culminated in the 0350

1 Panel's recommendation to me that the plant was ready for restart.
2 After completing my own due diligence, I closed the CAL on December
3 13, 2013. Subsequently, Fort Calhoun Station operators commenced
4 the reactor startup, and reached full power operation on December 26.
5 To ensure the licensee continued to implement a number of long term
6 corrective actions to prevent recurrence of a significant decline in
7 performance, we issued a post-restart CAL on December 17, 2013, and
8 that CAL contained about 160 items. The post-restart CAL addresses
9 actions considered necessary for achieving and sustaining continued
10 performance improvements in a number of areas. Next slide, please.

11 Per Manual Chapter 0350, there are four overarching
12 criteria that must be satisfied to terminate the 0350 process and return
13 a plant to a normal level of regulatory oversight under the ROP. These
14 criteria consist of verifying that the licensee has established an effective
15 long-range improvement program; is sufficiently implementing its
16 corrective action program; has demonstrated safe plant operation; and
17 has adequate controls in place to address the plant-specific issues that
18 caused the significant performance decline which led to invoking the
19 0350 process. Next slide, please.

20 With respect to the termination criterion of sufficient
21 implementation of the Corrective Action Program, we conducted a team
22 inspection in July 2014 to assess the licensee's Corrective Action
23 Program effectiveness. The team identified concerns with the
24 licensee's ability to effectively evaluate and resolve problems in a
25 consistent manner. Subsequently, the licensee implemented a
26 number of corrective actions. Based on the results of a follow up team

1 inspection in January of this year, the 0350 Panel concluded that the
2 licensee had made significant progress in improving its Corrective
3 Action Program performance. Next slide.

4 With the results of the January team inspection, the
5 NRC concluded that the licensee has effectively implemented long term
6 actions to sustain performance improvement. In March, based on the
7 determination that the 0350 process termination criteria were satisfied,
8 the 0350 Panel recommended that NRC oversight of the Fort Calhoun
9 Station transition to the licensee response column, or Column One of
10 the ROP action matrix. On April 1, with all performance indicators in
11 effect, Fort Calhoun Station was placed in Column One. Independent
12 of the transition to Column One, there are still some post-restart CAL
13 items that are yet to be closed. Of particular note are the items
14 involving restoration of the containment internal structure and
15 completion of the design basis reconstitution initiative.

16 With respect to the containment internal structure
17 nonconforming condition, the licensee has made progress in
18 addressing this issue, and expects to complete the necessary plant
19 modifications during the next refueling outage. With respect to the
20 licensee's design basis reconstitution initiative, we have looked at the
21 approach the licensee is exercising to complete this important
22 multi-phase project during our recent component design basis
23 inspection. We did not identify any concerns with that approach, and
24 understand that the project is targeted for completion in 2018. We will
25 continue to monitor licensee activities in this area through our Baseline
26 Inspection program. Next slide, please.

1 With this last slide, I wanted to highlight the NRC
2 resources we have expended in providing for increased regulatory
3 oversight of Fort Calhoun Station under the Manual Chapter 0350
4 process. Since we invoked that process in December of 2011, we
5 have expended approximately 61,000 hours of NRC staff oversight
6 effort. As you can see on the slide--if you go to the slide, thank
7 you--this consists of 45,000 hours of inspection and 16,000 hours of
8 licensing and assessment activities. As I know you can appreciate,
9 this is a significant expenditure of NRC resources over nearly a three
10 and half year period, and while I don't know what the exact number is
11 for the licensee in terms of resources dedicated to turn the station's
12 performance around, I know from my discussions with licensee senior
13 management that that number is substantial, and in my view, the large
14 resource expenditure underscores the critical importance of the
15 licensee and regulator diligently exercising their respective roles to
16 ensure the licensee's long term performance improvement actions
17 continue to be fully effective. This concludes my remarks with respect
18 to Fort Calhoun Station. Next slide.

19 Before I begin my presentation with respect to
20 Arkansas Nuclear One, or ANO, let me first introduce Neil O'Keefe,
21 who's sitting behind me here, who is the Branch Chief in Region IV's
22 Division of Reactor Projects with responsibility for the NRC Inspection
23 Program at ANO. Neil will be involved in coordinating and providing
24 appropriate management oversight of the various supplemental
25 inspection activities we plan to conduct at ANO. He will be playing an
26 important role in the success of our oversight efforts. With respect to

1 my presentation, I plan to focus my remarks in four overarching areas.
2 First, I'll discuss the Yellow findings we issued for the main generator
3 stator drop in 2013, and for the flood protection deficiencies that were
4 identified subsequent to that event, as well as the White performance
5 indicator for Unit 2, unplanned scrams in 2014. Then I'll discuss the
6 basis for our view that we, the NRC, have been driving licensee actions.
7 After that, I'll explain as part of our performance assessment process
8 the basis for concluding that ANO is safe to continue operating despite
9 being a Column Four plant. Finally, I'll discuss our planned activities
10 as part of our increased regulatory oversight of ANO. Next slide,
11 please.

12 On March 31, 2013, while moving the Unit 1 main
13 generator stator out of the turbine building, the temporary lifting rig
14 failed, causing the 525 ton stator to fall approximately 30 feet into the
15 shared train bay between Unit 1 and Unit 2. As it fell, the stator
16 substantially damaged part of the turbine building on the Unit 1 side,
17 and parts of the lift rig impacted the Unit 2 side of the turbine building.
18 There was one fatality and eight injuries--eight individuals I should say
19 were injured. The partial collapse of the turbine deck damaged the
20 Unit 1 non-vital electrical busses which resulted in a loss of offsite
21 power for six days. Unit 1 was in a refueling outage and shutdown
22 cooling was lost for a brief time until the emergency diesel generators
23 powered the vital busses and operators restarted the pumps. At the
24 time of the stator drop, Unit 2 was operating at full power. The
25 vibrations from when the stator hit the second level floor of the turbine
26 building, as it fell through the shared train bay, caused the Unit 2 reactor

1 coolant pump breakers to trip, which subsequently led to a reactor trip.

2 One offsite power source to Unit 2 was lost after water
3 from a ruptured fire main caused an electrical fault on the non-vital
4 switch gear in the turbine building. Operators took appropriate actions
5 to stabilize Unit 2 and cool the plant down on natural circulation. We
6 initiated a reactive inspection in April 2013, specifically an Augmented
7 Inspection Team or AIT, and an AIT follow up inspection was completed
8 in February 2014. After finalizing the risk significance determination,
9 which involved the development of a shutdown risk model for Unit 1 and
10 a modified power risk model for Unit 2, we issued a Yellow finding for
11 both Unit 1 and Unit 2 in the initiating events cornerstone in June 2014,
12 which for ROP action matrix purposes was effective the first quarter of
13 2014.

14 The performance deficiencies associated with the
15 Yellow finding involved a failure to follow station procedures to ensure
16 that a temporary lift assembly was designed to support the projected
17 load; the failure to perform 125 percent load test; and the failure to
18 ensure adequate supervisory and management oversight of work
19 activities involving contractors. The contractor claimed the assembly
20 had been used before to lift a similar load, and the licensee failed to
21 check this assertion or verify the adequacy of the assembly design.
22 The load drop caused some internal flooding due to the rupture of a fire
23 main, which revealed latent conditions involving degraded flood
24 barriers. In its initial root cause evaluation for the stator drop event,
25 which was completed in July 2013, the licensee did not identify any root
26 or contributing causes related to licensee performance, but rather the

1 evaluation focused solely on contractor performance.

2 NRC inspectors, as part of the AIT follow up inspection,
3 identified the licensee's failure to follow its load handling procedure.
4 After the NRC issued the Yellow finding in June 2014, the licensee
5 initiated another root cause evaluation to address the elements of our
6 95002 supplemental inspection. In that follow up root cause
7 evaluation, the licensee did identify organizational performance issues
8 that led to the main generator stator drop, such as inadequate project
9 oversight and non-conservative decision making. Next slide, please.

10 As I mentioned previously, the stator drop damaged a
11 fire main in the turbine building. The fire water sprayed into the train
12 bay, causing localized flooding. Some of this water leaked past
13 degraded hatch seals and entered the Unit 1 auxiliary building. After
14 the stator drop event, the licensee began an extended condition review,
15 which eventually led to the identification of over 100 unsealed conduits,
16 floor drains leading to flood protected structures that were not isolated,
17 doors and hatches that weren't designed for flooding, open ventilation
18 ducts, and 13 hatch seals that were degraded.

19 NRC inspectors also identified several issues which
20 resulted in the licensee expanding the scope of its extensive condition
21 review. Examples include unsealed abandoned equipment that led to
22 flood protected structures, and an offsite power bus that could be
23 submerged. We also identified that the licensee failed to initiate a root
24 cause evaluation to assess the design and construction issues
25 associated with the flood barrier seal deficiencies. With respect to
26 licensee performance deficiencies, we concluded that the licensee

1 failed to design, construct and maintain the auxiliary and emergency
2 diesel generator fuel storage building flood barriers to protect
3 safety-related equipment from flooding. Without mitigating or recovery
4 actions, core damage could occur for any flood event above plant grade
5 level because the safety related equipment in the auxiliary building
6 could be submerged. We also determined that for Unit 2, internal
7 flooding was the significant contributor to the risk.

8 The significance determination for these performance
9 deficiencies was particularly complicated, as it involved hydrological
10 modeling and statistical analysis. We also performed an extensive
11 review of potential accident sequences and licensee proposed recovery
12 actions or mitigating strategies. The ANO resident inspectors
13 performed walk downs to verify the licensee's proposed recovery
14 actions and determined that some of those actions likely would not
15 work, where as other actions were more complicated than the licensee
16 presented at the Associated Regulatory Conference. As a result, we
17 concluded as part of our final significance determination process that
18 limited credit was warranted for selected mitigation strategies. Upon
19 completion of our final--excuse me--upon completing our final
20 significance determination, we issued a Yellow finding for both Unit 1
21 and Unit 2 in the mitigating systems cornerstone in January of 2015,
22 which was effective for action matrix purposes the third quarter of 2014.

23 Of particular note, the flooding walk downs completed
24 by the licensee in 2013 as part of our post-Fukushima requirements
25 failed to identify the majority of the flood protection deficiencies. This
26 outcome can be attributed to insufficient licensee oversight of

1 contractor activities involving walk down scope determination and
2 actual performance of the walk downs in the plant. After the internal
3 flooding that occurred due to the ruptured fire main revealed that the
4 post-Fukushima walk downs conducted by the contractor were
5 inadequate, the licensee re-performed those walk downs, which led to
6 the identification of the majority of the flood protection deficiencies.
7 One of our regulatory conclusions is that the licensee failed to treat the
8 flooding issues commensurate with their safety significance.
9 Examples include the lack of contractor oversight, the failure to perform
10 a comprehensive, extensive condition review until NRC inspectors
11 identified issues, the failure to initiate a root cause evaluation for
12 flooding design and construction issues, and proposing mitigation
13 strategies that were deficient. Next slide, please.

14 The NRC identified that the licensee had not reported a
15 Unit 2 trip that occurred in April of 2014 as an unplanned scram. This
16 would have been the third unplanned scram in a 12-month period and
17 as such, the performance indicator for unplanned scrams would have
18 turned White. The other two unplanned scrams were due to a auxiliary
19 transformer explosion in the fourth quarter of 2013, and a lightning
20 strike in the second quarter of 2014. Back on April 24, 2014, the
21 licensee experienced a Unit 2 trip while reducing power at the request
22 of the grid operator. The trip was caused by the operator's failure to
23 maintain core power distribution within limits. The licensee concluded
24 that the trip did not represent an unplanned scram because the trip
25 occurred during the planned down power evolution.

26 After NRC inspectors challenged this conclusion, the

1 licensee involved the ROP Frequently Asked Question, or FAQ
2 process, to resolve the matter. In February 2015, the FAQ Committee
3 determined that the Unit 2 trip counted as an unplanned scram. The
4 licensee then reported the subject performance indicator as White for
5 the second and third quarter of 2014. The licensee is currently
6 completing a root cause evaluation for these events, which we will
7 inspect during a supplemental inspection. Of note, the licensee
8 revisited via the FAQ process its decision not to report the performance
9 indicator only after NRC engagement. Next slide.

10 In our view, the NRC has been driving licensee actions.
11 Our inspectors identified weaknesses or gaps in the licensee's problem
12 evaluations, to include both root cause evaluations and extensive
13 condition reviews. For example, as I mentioned earlier, the licensee's
14 initial root cause evaluation for the main generator stator drop event
15 focused on contractor performance only. Not until NRC inspectors
16 identified that the licensee had not followed its own load handling
17 procedure did the licensee conduct a root cause evaluation that
18 included an assessment of licensee performance relative to the event.

19 With respect to potential flood barrier deficiencies, the
20 licensee expanded the scope of its extensive condition review based on
21 several issues identified by the resident inspectors. When unsealed
22 penetrations were identified, the licensee treated them individually as
23 broke/fix and did not assess the collective safety significance of the
24 condition, whereby a number of unsealed penetrations existed. In
25 addition, as I mentioned earlier, the NRC identified that the licensee
26 failed to initiate a root cause evaluation to assess the design and

1 construction issues associated with the flood barrier seal deficiencies.
2 Furthermore, as I noted earlier, we determined that the licensee failed
3 to treat the flooding issues commensurate with their safety significance.
4 Given this conclusion, our inspectors looked for other examples of
5 where the licensee may not have been treating equipment
6 commensurate with its risk or safety significance. I'd like to describe
7 one of the findings from that review that I think is particularly illustrative.
8 It involves the Unit 1 auxiliary feedwater pump, a risk significant,
9 non-safety related component.

10 The auxiliary feedwater system for Unit 1 provides a
11 backup source of feedwater to the main and emergency feedwater
12 systems. Our inspectors identified that the emergency operating
13 procedure, or EOP for this system directed operators to start the
14 auxiliary feedwater pump without opening the normally closed minimum
15 flow valve in order to establish a flow path. This configuration would
16 lead to pump failure in a very short time. The EOP had existed with
17 this error for 20 years, and operators knew about the procedure steps,
18 but failed to question the configuration. The numerous flood protection
19 deficiencies that were ultimately identified represent latent equipment
20 conditions or problems. It has caused us to question if there might be
21 other yet to be identified latent equipment conditions in the plant.

22 I would like to take a couple of minutes and describe
23 two self-revealing latent equipment issues that resulted in findings that
24 while green in terms of significance determination, were close to the
25 green/white threshold. The first involves the alternate AC diesel
26 generator, which is a non-safety related piece of equipment that is

1 credited for mitigation of a station blackout event. The alternate AC
2 diesel generator is similar in design to the safety related emergency
3 diesel generators, and while it is non-safety related, it has risk
4 importance. However, the licensee was not maintaining the alternate
5 AC diesel generator commensurate with its risk significance. The
6 licensee failed to perform preventative maintenance on the governors
7 for this diesel, resulting in an overspeed trip of the engine during
8 testing. The latent condition involved the improper speed setting of the
9 mechanical governor due to failure to follow or implement vendor
10 recommendations.

11 The second equipment issue involves a Unit 1 decay
12 heat removal pump failure. The wrong breaker component was
13 replaced during maintenance in 1998, which lead to the failure of the
14 pump to start during a reduced inventory condition in an outage in
15 March 2013. The vendor recommended replacing the lower prop
16 spring and the electrical supply breaker for the pump; however, the
17 work instruction was not followed, and the upper prop spring was
18 replaced, thereby reducing breaker reliability. In summary, events and
19 findings indicate that latent problems have existed in equipment as well
20 as programs and procedures that have led to plant problems. These
21 problems were not recognized for a number of reasons, including
22 inadequate cause and extensive condition evaluations during the
23 implementation of the Problem Identification and Resolution Process;
24 weaknesses in understanding of the design basis and lack of a
25 questioning attitude. It is my understanding that the licensee plans to
26 conduct a thorough review of various plant systems to determine if any

1 other latent conditions exist, and we will assess the adequacy of that
2 effort through our supplemental inspections. Next slide, please.

3 While ANO clearly meets the entry criteria for being in
4 the multiple repetitive degraded cornerstone column, or Column Four of
5 the ROP action matrix by virtue of having yellow findings in two different
6 cornerstones, we assessed whether the performance deficiencies
7 manifested in the main generator stator drop event and flooding
8 vulnerabilities were isolated in the context of overall licensee
9 performance. We concluded they were not isolated as my discussion
10 regarding additional examples of where the licensee has not treated
11 equipment commensurate with its risk significance or importance to
12 safety and additional latent equipment issues would indicate. In
13 addition, we completed a Problem Identification and Resolution, or
14 PI&R inspection just this past week, with the team exiting at the site with
15 the licensee last Friday. We enhanced the scope of this inspection to
16 assess whether broader organizational and programmatic weaknesses
17 exist at the station. The PI&R team confirmed that significant
18 challenges exist, and effective diagnosis of organizational and
19 programmatic performance gaps and effective implementation of
20 corrective actions for those gaps.

21 While the report has yet to be issued, one finding of
22 note which is consistent with the discussion I had earlier about licensee
23 challenges with the quality of its cause evaluations is that the licensee's
24 cause evaluations typically don't provide for a thorough assessment of
25 organizational and programmatic contributors to events or issues. In
26 our view, to provide for a thorough understanding of its performance

1 gaps, the licensee needs to conduct detailed and comprehensive
2 self-assessments in a range of areas. Once the licensee has
3 completed this discovery effort, it needs to determine what actions and
4 strategies are necessary to close those gaps. As part of our increased
5 regulatory oversight, we will independently evaluate the scope of the
6 licensee's effort to identify its problems and then assess both the
7 adequacy of planned corrective actions and the effectiveness of those
8 actions.

9 When a plant is placed in Column Four of the ROP
10 action matrix, one of the most important questions we ask ourselves is
11 whether we consider the plant safe to continue power operation.
12 Based on extensive discussion as part of our End-of-Cycle Assessment
13 Meeting, we concluded the answer to this question is yes. Operator
14 performance has been strong; when challenged, operators have
15 responded well. For example, the consequences of the stator drop
16 event would have been even more significant without the excellent
17 response by the operators in the control room. Also equipment
18 reliability has been relatively good; when plant equipment operates
19 well, there are fewer challenges to operators due to equipment failures,
20 and of course we will continue to monitor operator and equipment
21 performance for any notable changes. Next slide, please.

22 I would like to spend just a few minutes describing
23 those oversight activities we recently completed and highlight some of
24 the more significant activities we have planned. With respect to those
25 activities that we have completed, I led our annual ROP End-of-Cycle
26 Assessment Meeting that we conducted on May 12, about a week and

1 a half ago. This was a public meeting during which we communicated
2 our assessment of licensee performance over the past year. As I
3 mentioned previously, we completed a PI&R inspection last week.
4 Regarding planned supplemental inspections, when the licensee
5 indicates it is ready to receive, we will conduct a 95001 inspection in
6 connection with the white performance indicator for unplanned
7 scrams, and then a 95003 inspection for the yellow findings.

8 I would also highlight that we are planning to conduct a
9 Component Design Basis Inspection, or CDBI next year. We moved
10 the CDBI inspection from later this year to next year to allow the
11 licensee to focus on preparations for the 95003 supplemental
12 inspection, as well as to provide us with the flexibility to conduct any
13 necessary follow up inspection in the engineering area after completion
14 of the 95003 inspection. Next slide.

15 In recognition of the additional internal coordination
16 and communication activities as well as external stakeholder outreach
17 efforts associated with a plant in Column Four, we have augmented
18 NRC staffing with the Regional office dedicated to ANO. This includes
19 assigning a senior oversight manager, Troy Pruett, who is the Director
20 of the Division of Reactor Projects, and reorganizing the Division so that
21 ANO is the only plant assigned to a specific branch, and as I mentioned,
22 Neil O'Keefe is the Branch Chief for that branch. We also anticipate
23 increased public outreach and external stakeholder communication.
24 This was evident in the recent ROP End-of-Cycle Assessment Meeting,
25 where we had significantly more public attendance and engagement
26 than we have historically seen, which is to be expected given the

1 increased agency focus on this plant, and I wanted to mention,
2 Commissioner Ostendorff, there were some Congressional staffers that
3 were there that also had accompanied us during your recent trip to the
4 plant.

5 We recognize the importance of keeping the public
6 fully informed of our oversight activities at ANO, and going forward, we
7 will look at additional communication tools as a function of the degree of
8 public interest. Next slide. In summary, based on the extensive
9 discussion with respect to ANO with this year's Agency Action Review
10 Meeting, NRC senior managers affirm the appropriateness of agency
11 actions that have been taken for this plant using data compiled during
12 the ROP End-of-Cycle Review. This concludes my presentation, and I
13 welcome any questions that the Commission may have. Thank you.

14 MR. SATORIUS: And we all stand ready to answer of
15 your questions. That's the complete staff's presentation.

16 CHAIRMAN BURNS: Okay. Thank you. And
17 Commissioner Ostendorff will begin the questioning this morning.

18 COMMISSIONER OSTENDORFF: Thank you,
19 Chairman. Thank you, team, for here for your presentation. Mark, I
20 completely agree with you that this is perhaps the most important
21 meeting this Commission convenes every year and I think the fact that
22 it's done with the facts on the table, with the public opportunity to see
23 how we as a regulator function is just critically important. So thank you
24 for highlighting that in your opening remarks.

25 MR. SATORIUS: Thank you.

26 COMMISSIONER OSTENDORFF: I'm going to start

1 with Laura. I appreciate your review of the materials and the Waste
2 Performance Program. It's important that you're at the table here
3 because sometimes the Materials Program perhaps does not get the
4 same visibility that the Operator Reactors Program might receive, and I
5 think it's a real credit that we include this aspect even though we may
6 not have the licensee appearing for this particular year's session.

7 I appreciate your highlighting, Laura, the numerator
8 and denominator problem on the abnormal occurrences. I think that is
9 so important to reiterate time and again and when we're talking about
10 especially medical procedures that can save people lives or
11 significantly improve their quality of life. So thank you for bringing that
12 to the table.

13 I also want to give feedback to you and your team.
14 When I was down in Texas earlier this year and had extensive
15 engagement with the Agreement State folks down there at the Texas, I
16 think it was Department of Environmental Quality and their Health and
17 Safety Group, but all the different aspects of the Agreement State
18 Program who were very complimentary of the NRC's Agreement State
19 interface with the State of Texas, which is a very large participant. So,
20 well done to you and your team.

21 Scott, I'm going to turn to your presentation.
22 Appreciated your commentary on what you're doing overall to look at
23 making the very mature program perhaps even more streamlined, more
24 efficient in a lot of respects. I think in the context of the Commission's
25 deliberations on Project Aim your commentary on efficiency is really
26 important. And so, thank you for bringing that into the discussion.

1 I did have a couple of questions I wanted to ask you.
2 On slide 16 I wanted to -- I've talked to Bill Dean in the past and others
3 about the Component Design Basis Inspection Program. And I've
4 talked to regional administrators. I talked to Mark and his team just
5 down in Arlington back in February on CDBIs. And can you talk a little
6 bit more about what you're looking at as any potential changes to that
7 program? I know you're still formulating an opinion and an approach,
8 but I'd be curious as to what are some of the things that are on the table.

9 MR. MORRIS: Sure. Thanks, Commissioner. So,
10 yes, CDBI, extremely important inspection, one in which our external
11 stakeholders would agree with us on that. The questions that have
12 been raised about the component draft basis inspection, both internally
13 and externally really have to do with the scope and breadth and the
14 amount of time and the number of inspectors that we apply to the effort.
15 And also whether or not we're spending -- we're going to the same well
16 multiple times. I think we're in the third or fourth cycle of the CDBI
17 since this current version of it is implemented.

18 But we identified a number of things in the baseline
19 inspection process enhancement effort that I spoke about. In addition,
20 we received a white paper from the Nuclear Energy Institute and the
21 industry representing the industry and their interests. They had a
22 number of suggestions or recommendations about how we should
23 move forward to modify the program, not to eliminate it. And they
24 included such things as more credit for industry self-assessment, more
25 credit for adjusting the scope and breadth of the program based on the
26 licensee performance, whether your perhaps other engineering insights

1 that we may have received through inspections or other activities would
2 suggest that in an engineering program at a given site is strong, so
3 therefore we should reduce the scope of the CDBI for that site, and
4 conversely the other way as well.

5 Interested in putting together an industry/NRC
6 oversight panel. There's been some concerns about the type of issues
7 that are being surfaced as part of the component design basis
8 inspections and how they seem to migrate from one side to the next to
9 the next to the next even though perhaps there are compliance issues
10 that are not particularly safety or risk significance. So there's a number
11 of things that we're looking at and frankly have agreed with the industry
12 to continue to pursue.

13 We are in fact -- there a group of my staff out in Region
14 III this week who are looking at how to modify the CDBI inspection
15 going forward as part of a pilot effort. And like I said, we plan to
16 implement a pilot inspection for some of these changes.

17 One of the main things I'll leave with on this topic is the
18 idea that we bring a lot of inspectors over the course of three weeks on
19 site. And industry has used terms like it paralyzing our organization for
20 that period of time. So is there a way we can spread that out over a
21 cycle? And so, that's one of the things we're looking at as part of the
22 pilot. Maybe do some programmatic work in one week, and then let
23 some time go by, and then do the actual detailed engineering
24 independent inspection. So, that's what we're doing.

25 COMMISSIONER OSTENDORFF: Well, I'm glad
26 you're looking at it. I think the program overall is good, but I think some

1 changes are warranted. I've spent some time on this topic with
2 industry and with licensees and with the staff. I would ask that NRR
3 please provide the Commission some type of a communication, your
4 choice, as to what you're looking at to keep us informed, because I think
5 this is a critical part of our Baseline Inspection Program and that we
6 would benefit from hearing what you're thinking is about proposed
7 changes.

8 Scott, I'll just comment that I think the -- as I put in vote
9 on COMSECY-14-0030, it's really important for us to have timely
10 decision making in response findings in plant events. And so, I
11 appreciate your focus on that aspect. I recognize that some of these
12 events are very complicated, and we're going to get into questioning, if
13 we've got time, with Mark on this on ANO. And I realize have to
14 provide the opportunity to the licensee to fully explain what has
15 happened. There's a due process piece here, so to speak, that we
16 need to -- but basically we provide. But it's important for us to make
17 timely regulatory decisions. So thank you for your emphasis on that.

18 Marc, I'm going to turn to you very quickly. I've got
19 two areas to comment on. One to comment on and one to ask you a
20 question about. First, on Fort Calhoun, 61,000 hours. I was at Fort
21 Calhoun this year to look at them during the 0350 process. I thought
22 Tony from your staff did a great job of keeping us informed on the status
23 of these 460 corrective actions and so forth. Looking at the 61,000
24 hours between inspection and licensing and assessment, just big
25 picture, macroscopic view. I'm not asking if that's a right number or a
26 wrong number, but any big take-aways you have for that effort from the

1 NRC side as a regional administrator?

2 MR. DAPAS: Yes, thanks for that question,
3 Commissioner. I would offer that it was the amount of inspection that
4 was necessary given the performance gaps. I think if a licensee is
5 very circumspect in identifying their issues and takes appropriate
6 corrective action, the degree of follow-up inspection obviously is
7 commensurate with that licensee effort. And there were some cases
8 where we had to expend additional effort because the licensee hadn't
9 resolved the issue satisfactorily.

10 But for a plant that had the degree of performance
11 gaps and challenges, both equipment, personnel and processes that
12 existed at Fort Calhoun Station, I think the inspection effort was
13 appropriate. We did have some learnings from our lessons learned
14 about when we engage. And it was regarding Corrective Action
15 Program. But I think in terms of the actual 0350 process it worked as
16 designed. And I think that it was an appropriate resource expenditure.

17 I will offer that we are budgeted. When you look at it, I
18 had assistance from all the other three regions in terms of staffing the
19 inspection teams to ensure I had the right skill set. And so, there is an
20 allowance in the budget, the recognition with some number of plants
21 that you assume are problem plants, so that it's not just one region that
22 is having to do all the heavy lifting with respect to the resource impact.

23 MR. MORRIS: And if I could just briefly add, the
24 61,000 hours over 3½ years is about 17½ thousand hours per year.
25 And typically we spend about 6,000, 7,000 hours per year per site.

26 COMMISSIONER OSTENDORFF: Okay. Thanks,

1 Scott. That's helpful. The perspective is helpful.

2 Marc, thank you again for accompanying me on the
3 visit March 31st to Arkansas Nuclear One. The five congressional
4 staffers from the two senators' offices and the local congressmen
5 appreciated your presence, and the Region IV, and the resident
6 inspectors hosting that.

7 MR. DAPAS: Thank you.

8 COMMISSIONER OSTENDORFF: I just have one
9 question, the time, real quick. You gave us perhaps the most thorough
10 discussion of any licensee performance I've heard in the last six of
11 these I've -- this is the sixth one I've been to. Commissioner Svinicki's
12 been to a couple more than I have. Your comments on the licensee's
13 recovery plan as far as realism and so forth? Very brief comments.

14 MR. DAPAS: I think it's very important that the
15 licensee engages in a comprehensive discovery effort. If you look at
16 our 95003, it's a diagnostic-type inspection. I think the licensee clearly
17 needs to own the performance gaps, ensure that their assessments in
18 the various areas are comprehensive and then identify appropriate
19 actions, and then engage and ensure those actions are effective.

20 So in my view the real onus is on the licensee here. I
21 don't want to be in a position where our inspection activities are the
22 means for identifying the performance gaps. I hope that they are more
23 confirmatory in nature and that the licensee has identified its own
24 issues and taken ownership. So, that would be my perspective.

25 COMMISSIONER OSTENDORFF: Thank you. And
26 again thank you for a very thorough discussion of your viewpoint on the

1 ANO.

2 Thank you, Chairman.

3 CHAIRMAN BURNS: Commissioner Baran?

4 COMMISSIONER BARAN: Thank you, Mr.

5 Chairman. I agree with Mark Satorius and Commissioner Ostendorff
6 that this is a very important Commission meeting, and I appreciated all
7 of your presentations.

8 Mark, I wanted to thank you for all the work you and
9 your team have done on Fort Calhoun. That's really important work.
10 And I wanted to pick up where Commissioner Ostendorff left off with
11 some questions on Arkansas Nuclear One.

12 Entergy had a site safety culture survey done for ANO
13 by a third party. How do you view the results of that survey and where
14 do you see the greatest challenges for Entergy in this area?

15 MR. DAPAS: Yes, thank you, Commissioner. I
16 would say that survey clearly is very important. In fact, per our -- when
17 a plant is in Column 4, we require an independent safety culture
18 assessment. And then we go in and we conduct our own assessment
19 and we look of course at the results of the third-party assessment that
20 the licensee had conducted.

21 I think it's very important. I think the licensee really
22 needs to leverage the results to engage the site staff on strategy for
23 improvement. In fact, my understanding is one of the key findings from
24 that safety culture assessment was that there's an urgent need to
25 internalize and communicate the seriousness of performance problems
26 and engage the site in their strategy for improvement. So, I see this as

1 a real opportunity for the licensee to use the results of that safety
2 culture assessment to fully communicate to the staff that there are
3 performance gaps and there are clearly issues that need to be
4 addressed at the station. So I see that as very important.

5 And one of the other significant findings from that
6 safety culture assessment, as I understand it -- and this was based on a
7 brief that I had from licensee senior management shortly after the
8 survey results had been delivered to the licensee -- that there is a
9 mismatch between resources and work load that is having an impact on
10 some safety margins.

11 And what that means is leadership and site personnel
12 are not necessarily aligned on those resources. There may be
13 resources that are dedicated for a certain activity, but because the work
14 load is greater than the resources -- and example would be extended
15 cause review. We've had some challenges that we've identified; you
16 heard me talk about that in my remarks, where the resources dedicated
17 to that particular deliverable are less than what is being assumed by a
18 higher degree, a higher level of management.

19 So what you end up having is individuals prioritizing in
20 order to get the work done, and therefore the deliverable or the product
21 is less comprehensive than originally assumed because those
22 resources have been diverted to other activities. That was an example
23 that was provided by the licensee to illustrate this mismatch between
24 resources and work load.

25 Of course we don't engage in how resources are
26 dedicated. We engage on what the results are. But that was one of

1 the things that were highlighted as a result of the safety assessment, or
2 the safety culture assessment. And so, I think it's important that the
3 licensee looks hard at that to ensure they are getting the high-quality
4 assessment products as part of their discovery effort.

5 COMMISSIONER BARAN: You highlighted during
6 your presentation that contractor oversight issues were a contributor to
7 both yellow findings --

8 MR. DAPAS: Yes.

9 COMMISSIONER BARAN: -- at ANO. How does
10 the NRC staff ensure that similar contract oversight issues are not
11 affecting other Entergy sites?

12 MR. DAPAS: Contractor oversight has been an issue
13 of particular concern by the industry. We talked about that, not at this
14 Regulatory Information Conference, but the previous one. As part of
15 the regional breakout session we talked about oversight of contractors
16 providing various examples of where there have been challenges.
17 Quite frankly, our inspection activities are the means that we would use
18 to assess licensee corrective actions. And when I was at the site
19 talking to Entergy senior management, one of the things that Entergy
20 did acknowledge is any issues that are identified at ANO will be looked
21 at in terms of broader application across the fleet for the other Entergy
22 South sites.

23 And one of the things that we have had some
24 discussions with Jeff Forbes and Joe Kowalewski, senior management
25 at the site, is the need to perhaps have a status of the fleet discussion,
26 and this would be a topical area that we would talk about because it

1 cross-cuts. So communicating concerns we have in that area to
2 licensee senior management. And then through our inspections
3 looking at how has the licensee taken appropriate action to address that
4 oversight of contractor issue.

5 But I will offer, it is a broader issue, because like we
6 talked about at the Regulator Information Conference, what can an
7 licensee expect from a contractor, a contractor that is an expert in
8 certain area. There's a certain pedigree of the deliverable that you
9 should receive. So it gets to do you look at every calculation that a
10 contractor might conduct as part of something that's been
11 supplemented with the -- or has been given to the contractors to provide
12 a deliverable? What is the degree of oversight that's appropriate?

13 We hold the licensee accountable however arrived at,
14 but there is a balance there, because otherwise the licensee would
15 need to have all of the expertise in house if they're going to have to do a
16 100 percent review of all aspects of a product that they receive from a
17 contractor. But notwithstanding, we will look at what actions the
18 licensee takes at each of the sites.

19 COMMISSIONER BARAN: Thank you. And so
20 obviously the licensee here has quite a bit of work to do at ANO, and
21 that has implications for you and your team. What do you see as the
22 most significant challenges for your staff as they oversee Entergy's
23 efforts to improve overall performance at ANO?

24 MR. DAPAS: Well, I think the first thing, as I
25 mentioned in response to Commissioner Ostendorff's question, is the
26 licensee identifying its own issues versus is the NRC identifying those

1 issues because the licensee hasn't been sufficiently circumspect?
2 And I am highly confident our 95-003 inspection, given how much of an
3 in-depth inspection that is, will identify the gaps that the licensee hasn't.

4 But having an inspection team with the right skill sets
5 and background is another thing; like we had several teams that
6 conducted inspection activities at Fort Calhoun, and making sure you
7 resource load those teams with the right folks, knowledgeable, skilled
8 individuals. Fortunately I'm able to tap into the resources of all the
9 other regions in headquarters as necessary to staff those teams. But I
10 think making sure that the licensee is ready to receive when we come
11 out and do an inspection so that we are confirming that the licensee has
12 taken appropriate action versus us identifying problems and then
13 making sure those inspection teams are appropriately resource loaded
14 with the right skill set.

15 COMMISSIONER BARAN: Well, thank you for your
16 work in this area. I know you've got a lot of work ahead of you. And I
17 just want to echo what Commissioner Ostendorff said. I mean, I
18 appreciated that you had a very thorough and frank discussion of the
19 issues at ANO. And from my point of view that's what we're here for
20 today, or a big part of why we're here today, and I appreciate --

21 MR. DAPAS: Thank you.

22 COMMISSIONER BARAN: -- your comments.

23 Scott, I wanted to ask about the pending request
24 before the Commission to eliminate the three annual reporting
25 requirements. And particularly I was a little bit surprised about the
26 recommendation regarding the resident inspector demographic paper,

1 because I've heard that even today we do have some issues in certain
2 areas of the country, difficulty recruiting -- Mark's nodding, because he
3 has some of these areas -- recruiting and retaining highly-qualified
4 residents, and really maybe more particularly senior residents.

5 So I'd just be interested in hearing; again a couple
6 minutes left, a little bit more about the thinking behind why that report
7 should be eliminated. Is that we have the wrong metrics here? Are
8 there better metrics that we should have that would make such a report
9 more helpful?

10 MR. MORRIS: Yes, thanks, Commissioner, for the
11 question. So, briefly; and I could have enumerated further in my
12 presentation, it's not that we're going to eliminate -- it's not that we're
13 not interested in the information. It's not even that we're not going to
14 collect it anymore. It's really a question of the amount of analytical
15 work that we put into it and also the amount of documentation and the
16 need to deliver it to the Commission as part of an ROP
17 self-assessment.

18 So, what we would propose, what we're looking at
19 doing is still collecting the information. In fact, even though we didn't
20 do a self-assessment last year, we still collected the information. I
21 mentioned the objective metrics that we're putting in place as one of the
22 elements of the new process. This would be one of the metrics. We'd
23 have metrics about how long resident inspectors had been on a site,
24 what kind of experience they had, the same type of thing we had.

25 The second point on this is that we tend not to make
26 decisions about site staffing on the basis of these annual reports. It

1 tends to be more real time in response to ongoing concerns. And we
2 leverage the various tools we have for retention and hiring and that type
3 of thing to deal with things in a more -- we just don't take the annual
4 report and then say, gee, you know, we need to go back and find
5 somebody to go fill ANO, or whatever. I mean, that's just now how it
6 works. But we're still going to collect the information.

7 MR. DAPAS: If I could just add one quick comment.
8 Being a region that has some challenges in filling some of the remote
9 sites, as Scott said, I have a full awareness of what the challenges are,
10 what the experience level is. And we try and leverage the tools we
11 have, be it relocation incentives -- and we've increased the relocation
12 incentive at three sites and that has been successful for two of the three
13 in identifying qualified candidates. But it's not like I look at that annual
14 self-assessment and say, oh, it's like the realization that we have
15 challenges. We're aware of that on an ongoing basis and leverage the
16 various retention initiatives that we have in place to try and staff those
17 sites.

18 MR. SATORIUS: If I could just add one thing. It was
19 about five years ago when I was in Marc's position and Commissioner
20 Svinicki asked me a question. Mark, how often do you think about
21 succession planning for your resident inspectors? And said every day.
22 That's something he lives every day. MR. MORRIS: And a
23 final thought, if I could add, just that the report now really only looks at
24 the amount of time an individual has or experience that they have. It
25 doesn't really measure the quality. That's a much more difficult thing
26 to try to assess. The report doesn't go there. That's a softer sort of

1 analysis. So it's another reason we sort of question the need to do all
2 the analytical and reporting work, because it doesn't necessarily have a
3 good connection to what we're actually doing once we staff the sites.

4 COMMISSIONER BARAN: Okay. Thanks. That's
5 helpful. Thank you, Mr. Chairman.

6 CHAIRMAN BURNS: Well, thank you again for the
7 presentations. This is actually interesting for me to reflect on the ROP.
8 And from that standpoint I think this is an area in which the agency over
9 the years has taken lessons about its Oversight and Enforcement and
10 Inspection Program and tried to basically magnify the effectiveness and
11 also the meaningfulness of the program.

12 I could remember as sort of a junior attorney one could
13 argue there were five different Inspection and Oversight Programs
14 within the country when we had five regions, and one could say it was
15 more like the Articles of Confederation than the U.S. under the
16 Constitution because there were some very strong -- not that we don't
17 need strong regional administrators, but strong-willed regional
18 administrators who had a particular view about how the program should
19 go.

20 And from there into the SALP Program, which again
21 was an attempt again to provide greater unity across the agency and
22 greater consistency and to the ROP, I think to be a little, as I say, more
23 timely and forward looking. So again, I think just sort of more a
24 personal comment or an observation over the years. And again, I think
25 this is a program that does represent our willingness to sort of learn
26 lessons and try to improve ourselves.

1 I know, Scott, you spoke to -- and I know there's been
2 this issue in going back. And that was one of the issues I think with the
3 SALP Program that led to the ROP is the concern of about being too -- I
4 don't mean retrospective, but basically getting to a point where you
5 have findings that are basically outdated. That was a concern of a
6 SALP, as I recall, is you're having a circumstance where you're making
7 an assessment but the assessment is really about the plant condition
8 two years before by the time it -- sort of everything processed through.

9 I mean, one of the things you touched on; and I think
10 there was some difficulty certainly with the ANO example, but this
11 question about resolution and in terms of the significance
12 determination. What would you say are the biggest challenges to that
13 timely resolution, or achieving timely resolution?

14 MR. MORRIS: Thanks, Mr. Chairman. I'm actually
15 glad you asked that question, because I didn't have enough time to go
16 into it in my slides.

17 There's actually several things. Its' really not just the
18 analytical work that's done in risk-based for a significance
19 determination. The first thing that we need to understand is what is the
20 performance deficiency? What is the apparent or root cause that is the
21 actual deficiency that we're going to document as the basis for the
22 finding? And that sometimes take a while.

23 I mean, some of these events like ANO are very
24 complicated to try to figure out precisely where the performance
25 deficiency is. And sometimes there's many and then we have to
26 select, well, which one is the most appropriate given the

1 circumstances? So a lot of energy goes into determining what the
2 performance deficiency is in the first place. And we tend to allow,
3 particularly for the complicated events, the more significant ones, we
4 tend to allow licensees to complete their own internal root cause
5 assessment before we formally engage in the analytical work that then
6 takes time depending on the complexity of the issue, whether or not our
7 model adequately accounts for the conditions of the facility. Initiating
8 event frequencies I mentioned earlier.

9 That being said, there are a lot of things we can do to
10 tighten this up. And that's what the whole phrase 2 thing is about.
11 And really what we're focused on there is simplifying it to the extent that
12 when we realize early on that this is going to be one of those what I'll
13 call ANO kind of things where it takes us quite a while to get to a bottom
14 line, to develop some criteria up front so that we know this is the path
15 we're headed on early. And then potentially divert that into some using
16 some other criteria or rule-based process to get us to a more timely
17 outcome.

18 There's a lot of uncertainty in these things, so we don't
19 believe that pursuing this alternative path is a bad thing. We think the
20 potential benefits outweigh the downside of continuing to sharpen the
21 tools and figure out what the -- and then we have disagreements on
22 what the right assumptions are and etcetera. So those are the big
23 things. There's probably a few others. But again, I look forward to a
24 spirited conversation internally with our senior risk analyst community,
25 senior leadership, and even the industry on what kind of things we can
26 do to sort of philosophically move the process to a better, more

1 integrated risk-informed approach.

2 MR. DAPAS: If I could just make --

3 CHAIRMAN BURNS: Yes, go ahead.

4 MR. DAPAS: -- one quick comment. I think one of
5 the challenges we see in analyzing the risk or safety significance of the
6 event is how do you credit portable equipment, B.5.b equipment. And
7 moving forward, I will offer, licensees will look at FLEX equipment here
8 because it's proceduralized. They train on it. And so, what credit do
9 you give in terms of recovery or mitigation strategies for that?

10 In the case of ANO we spent a fair amount of time
11 trying to evaluate what was the appropriate success probability to
12 ascribe to different recovery actions? And when you look at a
13 standard PRA; take the emergency diesel generator, you've already
14 analyzed the generic database for reliability. You already know what
15 human error probability is and you have a certain probability that that
16 equipment will perform. But when you're talking about B.5.b
17 equipment or other portable equipment, you have to do a case-by-case
18 analysis to determine what is the appropriate probability of failure or
19 success, if you will, to ascribe to that equipment. And that's where the
20 challenge was. And we faced that in particular with the flooding
21 deficiencies and trying to determine what was the significance.

22 And then the other challenge I'll just say unique to
23 flooding is when you're trying to determine the initiating event
24 frequency. That is a particular challenge when you're trying to model
25 the flood plain and determining local precipitation events, etcetera. So
26 there are some difficulties inherent to the PRA, but I also am a

1 proponent of once you identify the issue, we should have a certain time
2 frame. And my particular view is you go with the best information you
3 have at that time and then you communicate the result. But just a
4 thought.

5 CHAIRMAN BURNS: Yes, thanks to both of you for
6 that.

7 Just to mention, I was at the CRCPD meeting earlier
8 this week talking to them. And you touched on the issue of training
9 and related activities that help enhance consistency. We heard that
10 last month when we had the meeting with OAS and CRCPD. But that
11 was certainly something they echoed again when I had a sort of side
12 meeting with a lot of the leadership there. So again, that's I think a
13 good focus for us.

14 And, Scott, I'll come back to you. One other question.
15 You talked about the Plain Language Initiative and all that. Is there
16 any kind of feedback we get from let's say the end of cycle meetings or
17 the other kind of meetings about the process? I have to confess I don't
18 -- I may have been in one year ago, but I haven't been --

19 MR. MORRIS: I don't know that I'm --

20 CHAIRMAN BURNS: Is there any kind of input we get
21 in that context?

22 MR. MORRIS: Yes, we do get input. In fact, when
23 we have public meetings that we have a -- I think there's a place on our
24 -- we hand out feedback forms at all of our public meetings.

25 CHAIRMAN BURNS: Yes, yes.

26 MR. MORRIS: And we actually collect that

1 information and try to utilize that. I mean, I'm personally not familiar
2 with how we track and trend that. There may be someone else on my
3 staff who is. But I think just based on my own due diligence in looking
4 at the quality -- or not the quality, but really how we describe issues,
5 how we explain issues, I think we try very hard, but we're just not that
6 good at it and we really could benefit from some independent third party
7 to come in and say, you know, when you say Delta CDF, what do you
8 really mean? I mean, we know what that means and the industry
9 knows what that means, but it's not clear. And that kind of language is
10 in the executive summaries of some of these reports, and it's tough.

11 So, I can't directly answer your question. I do know
12 there are challenges and I do know that as part of the Plain Language
13 Initiatives as being led out of the EDO's Office we're dovetailing to that.
14 And again, we're going to get some outside help with that.

15 CHAIRMAN BURNS: Okay. Yes, I used to joke I
16 never understand the colors because I'm color blind, so --

17 (Laughter)

18 CHAIRMAN BURNS: But --

19 MR. MORRIS: Red is bad.

20 CHAIRMAN BURNS: I know red is bad.

21 (Laughter)

22 CHAIRMAN BURNS: I'm supposed to stop, too.

23 If I could, just one last question for Marc related to the
24 issue on contractors. Have we -- in terms of the -- is this contractor
25 being -- is it other licensees, or other facilities, if that that's a right
26 question.

1 MR. DAPAS: I don't know the answer to that.

2 CHAIRMAN BURNS: Okay.

3 MR. DAPAS: Quite frankly I would be surprised to
4 hear yes, but I don't know the answer to that per se.

5 CHAIRMAN BURNS: Okay.

6 MR. DAPAS: We did send out a generic
7 communication that talked about like for example the contractor
8 oversight with the post-Fukushima flooding walkdowns where there
9 have been challenges identified with flood protection deficiencies. We
10 have sent out some generic communications. And I do know the
11 industry has communicated with their counterparts, but I don't know to
12 what extent that contractor continues to be used.

13 CHAIRMAN BURNS: Okay.

14 MR. DAPAS: And it was a subcontractor as well.

15 CHAIRMAN BURNS: Okay. Did you want to say --

16 MR. SATORIUS: Just wanted to make sure that you
17 and your colleagues were aware that when you're talking about
18 contractors in ANO's case, it wasn't just the rigging contractors. It was
19 also the contractors that the licensee had hired to do the flooding
20 walkdowns. A lot of licensees use contractors for that. So it was the
21 control of those contractors as well.

22 CHAIRMAN BURNS: All right. Okay.
23 Commissioner Svinicki?

24 COMMISSIONER SVINICKI: When we gather in the
25 back, in order not to violate the Government and the Sunshine Act
26 before we come out here, we're often talking about current events and

1 things as the four colleagues -- we have staff there too to make sure
2 that we don't talk about any matters of NRC business.

3 But so we were talking about events in the Middle East and
4 Commissioner Ostendorff's son had some combat service there and he
5 made this offhand comment that, oh, I probably mention that too much.
6 And I said I don't think it's possible to over-recognize the service of the
7 men and women in uniform.

8 And so, as we head into Memorial Day I just want to
9 say that although that Memorial Day is about those who didn't make it
10 home, I know that NRC has at this table and in this room and probably
11 listening to me many who have had the honor of wearing the uniform of
12 this country. So I wish all of them and their families and everyone
13 listening to me, frankly -- I hope everyone has a wonderful and safe
14 Memorial Day holiday this weekend. So that was my little one-minute
15 lead in.

16 It's interesting to go last because you can kind of think
17 of all the reactions I was having as I listened to the presentations. I
18 can talk about some, all or none of them. But some have been
19 covered by my colleagues. I do appreciate Chairman Burns' reflection
20 on the systematic assessment of licensee performance, which in my
21 study of it was not terribly systematic. And that's one of the reasons
22 that we have the Reactor Oversight Process.

23 I also have made commentary in years past at this
24 particular meeting not only about the importance of the meeting -- which
25 I do have to say this is that Mr. Dapas -- there's been many
26 compliments of the thoroughness of his presentation. He had the

1 distinct honor of having only one licensee to be talked about this year.
2 At other meetings we've had to divide that time. So weren't you lucky,
3 Marc, that you got the entirety of that planning wedge on the calendar to
4 -- on the schedule to fill? So thank you for the thoroughness of your
5 presentation, which I think was driven by the amount of time we gave
6 you to talk.

7 MR. DAPAS: Thank you.

8 COMMISSIONER SVINICKI: But it was very, very
9 useful. And that was a complicated event. There were a lot of prongs
10 of various phenomenon, then the effect they had on each other. So it's
11 a tough one to talk about.

12 So when we're talking about things like the significance
13 determination process, I share the view that we do want to be timely,
14 but I think we also -- we want to get it right. So I hope and I'm certain
15 -- since I know most of you, have worked with you for years now, I know
16 that you do value that and will make sure. We cannot be sacrificing.
17 We cannot just have a crude understanding of it and then assign
18 significance. That will not be possible to do or we will find ourselves in
19 a process of revising that. And I don't think that will gain us anything in
20 terms of efficiency. So I'm certain we'll keep that in mind.

21 I do also appreciate that Scott's presentation went into
22 a number of changes that are under contemplation. On that broad
23 topic I think the reference that the Chairman made to SALP is so
24 important because ROP is so mature and is considered one of the
25 agency's I think very strong success stories, license renewal. We
26 have other programs that we -- were basically made in the USA, were

1 made here at NRC. We didn't really pick them up from any other
2 country's regulator and we have matured and made them efficient and
3 effective. And so, I think the danger though is when they've been in
4 place long enough and have these strengths of objectivity of replication,
5 which is an important thing that the SALP did not have. You could not
6 be sure that a plant assessed in Category X in Region Y would have
7 been -- received the same assessment.

8 And so, as we contemplate changes to our ROP -- it's
9 not perfect; of course it's not -- we need to not become so comfortable
10 in the success of it that we begin to inject things that are perhaps less
11 replicable, less objective, less scrutable. I use that word a lot, but it's a
12 kind of like special type of transparency, meaning not only can you see
13 what was done, you can have some level of understanding because it is
14 laid out and defined very, very clearly.

15 When I see that we want to have a consideration under
16 the streamlining of defense, the significance determination process in
17 P2, of issues like defense-in-depth, I have to once again step back and
18 say I'm becoming a little bit troubled with what I seem to hear a lot about
19 now, which is moving away from things that are easily understood and
20 defined, clear metrics that are quantifiable. And I worry that perhaps
21 we are deciding that we chafe a bit under the objectivity and the
22 replicability of what we've put in place because it constrains us.
23 Because when you set up a system that is easily understood and
24 observed from afar, then we can't say, but you know, in this instance my
25 gut kind of tells me that if we could just -- there was more significance to
26 this than in another occurrence.

1 Well, I would have to tell you that over time I worry that
2 you're kind of back to a SALP at that point because you have this
3 overlay of saying the metrics yielded result X, but I have these soft
4 factors, these qualitative items and my long experience and expert
5 judgment that allow me to just put it in another category. And please
6 understand that I know that there is discretion at decision making levels
7 right now in the ROP. I think that that's important. It needs to be
8 completely transparent. That's my view.

9 It's a little bit like campaign finance, which I shouldn't
10 be talking about things I'm not expert in. But there is the view that as
11 long as it's all revealed, then -- you know, that corruption -- it's this
12 notion of pull it out into the daylight, and corruption doesn't survive in
13 the daylight. So here as long as it's repeatable and understood, I think
14 that there is room for us to make kind of exceptions from the raw output
15 of the process.

16 But the Chairman has also talked about coming back to
17 NRC from an international post and he talks about this view around the
18 world of NRC as the gold standard. And I think that that was achieved
19 foundationally because of just this type of transparent, disciplined,
20 clearly defined regulatory oversight.

21 Commissioner Ostendorff made a comment at a public
22 Commission meeting recently about the question of filters and the fact
23 that some of our international regulatory counterparts have been very,
24 very blunt with us that there was no analysis behind their regulatory
25 imposition of filters. In this country we subjected that and filtering
26 strategies to our process and we came out with an outcome that said

1 that filters are not cost-beneficial, that filtering strategies in some
2 manifestations do not pass cost-benefit and backfit.

3 And I think that our desire shouldn't be to be looking
4 more like the countries that say we kind of thought it up and did it. I
5 think at the end of the day that makes NRC a lot less than it is now.
6 And I know that none of you see -- that I know that the years I've spent
7 here I don't' want to feel like I was there during a time when we were
8 kind of redefining ourselves to be less than when I came. We all
9 received this inheritance of this very strong system. You all spend
10 even more years here than I do, so it means that much more to all of
11 you as you look at these ROP enhancements.

12 So I ask you to hear me and please, please tread very
13 carefully because it's a system that works so much better than what we
14 had. It works well. It's not perfect, but be careful and be vigilant about
15 the fact of preserving its strengths, which I know matter a lot to all of us,
16 because I once listened to Ron Wyden talk about something in a senate
17 hearing -- I actually kind of remember what it was, but I don't' want to
18 talk about the issue. It had to do with the Bonneville Power
19 Administration, not surprisingly, which he of course has always had
20 strong views on. But he said I will either stop this or I will collapse
21 while headed in that direction.

22 And so I sometimes remember what it is to be so
23 committed to something that there's going to be one or two outcomes.
24 But I have been here long enough now to have developed a real pride
25 and then therefore a defensiveness, a kind of maternalistic feeling over
26 NRC's reputation. And when I look at -- and hear me that we're going

1 to have a lively debate on qualitative factors on using defense-in-depth
2 to justify cost-benefit analysis. And I won't go quietly. I will either stop
3 it or I will collapse while headed in that direction.

4 So I think the one thing you know about me; and you're
5 all laughing because -- and in a good way -- because you know me at
6 this point. There's no hiding. It's like family. We know each other.
7 You know where I'm coming from on that. But, so this ended up -- I'm
8 becoming -- these are going to take on a religious tent revival fervor
9 here --

10 (Laughter)

11 COMMISSIONER SVINICKI: -- because I'm just
12 making homilies all over the place. But I know that -- and part of it
13 -- someone said to me, they said you've become like extremely
14 protective of NRC. And I think that I'm that kind of person. You can't
15 put me somewhere, no matter what I think -- and I have very
16 conservative views, and you also know that about me, and I believe that
17 -- I'm all about good governance and government doing the right things
18 in the right way.

19 But that being said, if you put me somewhere, I'm
20 going to become very, very kind of protective of that place. And the
21 -- you all maybe don't know what you have here. That was the thing
22 about coming to NRC. You have something just -- the reputation for
23 excellence, you don't know how rare that is. You don't understand like
24 how precious it is. But it's like any reputational thing. It's in jeopardy
25 of being lost. All it takes is a couple of stupid actions and then it's
26 gone. So I just -- I want that for this place. And I'm sure I didn't earn it

1 for you and it was probably earned by a lot of sweat equity from a lot of
2 people, some of you of course. But oh, my gosh, hold onto it because
3 it's rare and it's precious.

4 MR. MORRIS: May I just --

5 COMMISSIONER SVINICKI: Scott, yes, of course.

6 MR. MORRIS: -- react to what you said? First of all,
7 I want to agree with everything you just said. In fact I started out my
8 presentation on the ROP enhancements saying we believe and
9 stakeholders have affirmed that the ROP is an effective process, and
10 we don't want to lose that.

11 That being said, we're a learning organization and
12 we've got a lot of inputs and we know we can always do better. You
13 may not know this: Bill Dean likes to refer to himself as the father of
14 the ROP and he probably --

15 COMMISSIONER SVINICKI: Because it's successful
16 it has many fathers. Do you know that saying? Success has many
17 fathers.

18 (Laughter)

19 MR. MORRIS: Yes, it does. I think Mike Johnson is
20 the godfather.

21 COMMISSIONER SVINICKI: And the self is an
22 orphan.

23 MR. DAPAS: Right.

24 COMMISSIONER SVINICKI: Okay?

25 MR. DAPAS: Well, I happen to be a child -- I was one
26 of Bill's children. So I was on the working group that developed it,

1 including the SALP. So I am very well attuned to first principles
2 associated with this program. In fact my staff, who I'll put up as the
3 best in the agency, hear me say the words "Let's make sure we're not
4 deviated from first principles." They hear me say that all the time. So
5 first principles include the things you mentioned: predictability,
6 scrutability, clarity, risk-informed, performance-based.

7 What we struggle with, quite frankly, Commissioner, is
8 when we get into these circumstances where we're spending 200,
9 maybe 300 hours trying to come up with a risk significance of a finding
10 that will move -- that will result in a 40-hour inspection. We really
11 struggle with how much we put in on the front end to determine how
12 much we do at the licensee site on the back end.

13 So I'm just pointing out one of the factual realities.

14 COMMISSIONER SVINICKI: But to your credit, in
15 parallel you're also looking at how many findings of X color move you
16 from here to there because one of the reasons that we go to our battle
17 stations on the significance is because of the color, because of the
18 number, because of when they occur. And it's like any system.
19 People are going to get experienced with it and they're going to work
20 -- and I'm over my time and my colleagues are so patient with me, and I
21 appreciate that a lot.

22 I want to say on the reports I share Commissioner
23 Baran's view, but I'm going to just add further to that. On the resident
24 inspector I'm not sure -- I'm going to look closely at your request on all
25 three of them. And I do try to be reasonable on this. But I'll use this
26 as a point. The resident inspector report that comes to the

1 Commission -- first of all, if it takes a lot of extra work to take it from
2 compiled and written up to get to us, I'll walk down to your office and get
3 a copy of it. I don't know what the steps are there, but if that is so
4 labor-intensive, I'll come get it.

5 But the other thing is that I know that a Regional
6 Administrator thinks about it every day, and the rebuttal to
7 Commissioner Baran was, well, it's not really helping us fill these
8 positions. I don't think that's the point. When I get that -- first of all, it
9 wasn't instituted for that reason at all. It wasn't intended to make -- so
10 if it's failing in that purpose, that wasn't one of its purposes.

11 But what it does is it reminds me that, oh, by the way,
12 when I have to vote, I'm selecting one of you all to fill these important
13 positions in the agencies. If I don't see Resident Inspector on your
14 résumé, I'm at least going to want to think about that. It's a reminder to
15 me at an all-hands meeting to make some comment about that that is a
16 valued experience that many members of the SES have and it's to give
17 it that visibility. It's to try to increase the attractiveness and the value of
18 that so that I remember as a messenger that I am part of fixing that
19 problem, even though I don't have to deal with it at the functional level
20 that Mr. Dapas does. But if I don't get that annual report, is that going
21 to fall off my radar screen? I have to tell you, yes, it probably is,
22 because I'm a human being.

23 So I will look at it. I will try to be reasonable, but the
24 fact that these reports -- maybe you don't have problems in these areas
25 because of the fact that you remind the Commission every year about
26 these topics. And so please understand that if you don't get universal

1 approval to do that, it's not because we want to keep reporting burdens
2 on you with that. I'll stop. Thank you.

3 CHAIRMAN BURNS: Before our break anything
4 else? Commissioner Baran?

5 (No audible response)

6 CHAIRMAN BURNS: Yes, we'll reassemble at 11:00.

7 (Whereupon, the above-entitled matter went off the
8 record at 10:54 a.m. and resumed at 11:02 a.m.)

9 CHAIRMAN BURNS: We'll now have a presentation
10 from Entergy on their action plan for Arkansas Nuclear One.
11 Representing Entergy will be Timothy Mitchell, Senior Vice President,
12 Nuclear Operations for Entergy Nuclear; Joseph Kowalewski, Chief
13 Operating Officer for South Entergy Corporation; John McCann, Vice
14 President of Regulatory Affairs for Entergy; and Jeremy G. Browning,
15 Vice President of Operations for Arkansas Nuclear One. And
16 gentlemen, you may begin.

17 MR. MITCHELL: All right, good morning, Mr.
18 Chairman and Commissioners. First, I want to tell you how much I
19 appreciate the opportunity to come speak. We do want to tell you how
20 we own our problems. We are going to take actions. We are in an
21 assessment process right now. We intend for those to be
22 comprehensive and extensive as we work through those assessments.
23 And I'll get into more detail on that.

24 But a couple of things I do want to talk about
25 specifically, there were questions earlier, are associated with the
26 contractor oversight. We have significantly made changes in the way

1 that we do contractor oversight across our fleet, not just in the South,
2 not just at ANO, but across the entire fleet.

3 Our belief absolutely is in that we have to identify our
4 own issues. So one of the big things that we are driving right now, we
5 have been driving, is to make sure that we do that very thing. And our
6 assessments are in progress right now as far as the breadth that they're
7 intended to be comprehensive. They are driving to cover all aspects of
8 operation at Arkansas Nuclear One. And then outcomes will ultimately
9 drive where we go with an action plan.

10 So before I go forward, I do want to say I'm here, I'm
11 the Senior Vice President of Nuclear Operations. Jeff Forbes sends
12 his regrets and apologizes. He had a medical procedure this week at
13 the Mayo Clinic. It went well, but he could not reschedule that medical
14 procedure and it just was an unfortunate timing because he will be very
15 much involved with the recovery efforts at Arkansas Nuclear One.

16 So the entire organization is focused on Arkansas
17 Nuclear One. We've changed our oversight structure from a corporate
18 standpoint and we have
19 identified very specific division of responsibilities that include Jeff
20 Forbes' responsibilities associated with Arkansas Nuclear One.

21 You've already been introduced to the gentlemen that
22 are assisting me today and they all very much own, just like I am
23 describing here.

24 Now I'll go to opening comments, please, slide.

25 Having a 500-ton stator drop on our turbine deck,
26 having that fatality occur, having the unrecognized latent deficiencies

1 that existed within our plant, those are just unacceptable. We
2 understand that this is not bad luck. We understand that it is not bad
3 timing. Our performance decline started some time in the past. We
4 are analyzing when did we think that performance declined at Arkansas
5 Nuclear One started. We will go back in history and our causes will
6 address all elements of what has occurred in order to allow that
7 performance decline to occur.

8 So our reviews will also be by design very
9 comprehensive in nature. Our concern is with safety. We will restore
10 confidence in the safe operation of the facility. We have and will
11 continue to benchmark to aid in our learnings. We will not be satisfied
12 until a healthy, continuous, improvement culture is established.

13 Go to the next slide, please.

14 For this recovery, we are committed to operate the unit
15 safely and conservatively. So during the entire period that we are
16 focused on recovery, we will staff the organization -- I'll get into that in
17 some more detail in just a minute -- to ensure that our focus on
18 operational performance does not decline in any way, fleet-wise or
19 site-wise.

20 We're focused also on correcting performance
21 deficiencies and do that with urgency. One of the aspects of our
22 self-assessment on the Corrective Action Program was the timeliness
23 or the urgency that we attacked those actions. We are fixing that.

24 We're going to take a broad view towards condition
25 and cause. We're going to implement effective actions that improve
26 performance. We're going to change the culture to promote a healthy,

1 continuous improvement and to not only achieve, but also to sustain
2 excellence.

3 These objectives that I went through either on the slide
4 or that I just talked about also don't mention Arkansas Nuclear One.
5 The reason is we're going to not just focus on Arkansas Nuclear One.
6 We're going to take advantage in order to improve the entire fleet.

7 Go to the next slide, please.

8 Now we'd like to talk about the how we're going about
9 this. So it's real easy to say that we're going to do it, but if we don't look
10 at how we're going to achieve it, then we will not get the results we
11 expect. So a lot of work has gone in over the last year or so to make
12 sure that we had an organization in place, that we had processes in
13 place, that we had the oversight in place necessary to enable the
14 recovery.

15 The benchmarking that we discussed earlier not only
16 focused on what was learned from Column 3, what design deficiencies,
17 what modifications, it also focused on what organizations worked the
18 best to make sure that the recovery effort was effective.

19 We also want to focus on doing good analysis and that
20 analysis is important, but a real objective is to go implement fixes. So
21 we are not just going to analyze things. We're going to go beyond that
22 and we're going to implement fixes to our problems. We're going to
23 correct problems.

24 We have supplemented our resources including
25 dedicated energy leadership. This includes using a large number of
26 experts that also have previous recovery experience.

1 We commissioned the Independent Safety Culture
2 Assessment last July. It is now complete, concluding and I quote,
3 "That although weaknesses exist, the overall safety culture at ANO is
4 sufficient to support safe operation." We think that's important. We
5 think it's very important we stay focused on that to ensure that that does
6 not decline at any point during the recovery process.

7 The key findings are being used to obtain site-wide
8 buy-in that recovery is needed. So as Mr. Dapas spoke during
9 answers to questions, we agree that that buy-in has got to occur. We
10 agree with the Independent Safety Culture Assessment, that that's
11 something that we're driving and we believe we're making progress on
12 that.

13 We have dedicated corporate -- let me back up a little
14 bit. We're going to use the 95003 inspection procedure also to help
15 guide us in how to be comprehensive, but we don't limit ourselves just
16 to the 95003. We are going beyond that with our assessments.

17 Dedicated corporate oversight is also a key
18 organizational design feature provided to both help ANO, but also to
19 leverage improvements across the entire fleet and learnings across the
20 entire fleet. The scope of oversight includes what's normal operating
21 activities and recovery efforts.

22 The Chief Nuclear Officer, as I said earlier, he will be
23 personally involved with the recovery efforts. So that guarantees that
24 the resources necessary will be applied to this station.

25 Next slide, please.

26 All right, so much of this slide I've spoken to, but there's

1 a few things that I really do want to point out. The dark blue arrows are
2 actions that have already been completed. The brown are actions that
3 are currently in process, all of this part of the assessment process.

4 Our focus is on completing thorough and completed
5 assessment of our performance which we expect to have complete in
6 the third quarter of this year. We are dedicating resources to make
7 sure that that is comprehensive. The time line bar across the top says
8 2014. And I apologize. It should say 2015. Activities

9 beyond that point are not scheduled. We will schedule based on a
10 known scope. We will not no scope until we have completed these
11 assessments.

12 So a couple of important assessments here that we've
13 already talked about, one of them, the Independent Nuclear Safety
14 Culture Assessment. You'll see it is complete. We thought that was
15 very important that we commission that early, again, last July. And
16 the lessons have been covered quite a bit including the lessons
17 associated with the Corrective Action Program.

18 We've also completed our assessment of the PI&R, so
19 problem identification and resolution. And we identified similar things
20 to what Mr. Dapas spoke to earlier. The root cause for the PI&R
21 assessment is currently in progress.

22 So with that, go to the next slide, please.

23 So in closing, I'd like to stress that we consider
24 Arkansas Nuclear One performance gap serious. We are totally
25 committed to fully assessing our performance in a rigorous manner.
26 We will take action to eliminate the gaps to create a sustainable drive

1 for excellence. We will apply lessons to improve fleet performance as
2 well. Our recovery has been started, but we have a lot of work to do in
3 front of us.

4 Thank you, Mr. Chairman and Commissioners, for the
5 opportunity to speak.

6 CHAIRMAN BURNS: Thank you. And we'll begin
7 again with questions from Commissioner Ostendorff.

8 COMMISSIONER OSTENDORFF: Thank you,
9 Chairman.

10 Thank you for being here today and for your
11 presentation. I reflect back upon the visit I had with some of you back
12 into March of this year. We had a very candid, frank discussion around
13 your conference table at the end of my visit when Marc Dapas was with
14 me on March 31st.

15 And I think -- maybe it's just helpful for me just to share
16 some observations that I have here. One of them was at the time,
17 discussing with Region IV Administrator, I think, in the initial aftermath
18 of the stator drop event, it was not clear that Entergy or the site had
19 taken full responsibility or accepted the seriousness of what had
20 happened as far as my personal opinion was that there was a lot of
21 finger pointing at the contractor piece dealing with the stator load drop.

22 I can remember years ago when I was a squadron
23 commander in Norfolk. We did weapons handlings evolutions all the
24 time on the pier and every day we could be loading weapons,
25 Tomahawk missiles, ADCAP torpedoes, Harpoon missiles three days
26 in a row. And every day, we started out with a load test, the same

1 crane that was used the day before, every day. So my initial waterfront
2 weapons handling experience with cranes and so forth kind of shaped
3 my initial impression.

4 So I'll tell you I initially had some concerns as to where
5 you were on your acceptance of your responsibility. I'm not trying to
6 lecture you here. I'm just sharing some thoughts. But I'd say when I
7 discussed around the table with you all that these issues here about
8 seven or eight weeks ago I felt better about your acceptance of the
9 challenges and where you were.

10 I think the Region IV Administrator stated in the first
11 panel that the NRC was driving licensee actions. That's a pretty strong
12 statement. And I'm taking, Tim, that you were not necessarily
13 disagreeing with that. Is that -- as far as the past history?

14 MR. MITCHELL: I believe there are things that were
15 driven that we did not look at reflectively to the extent that we could. I
16 believe that could spend a lot of time talking about the causes and
17 those causes were already important for us to go back and understand
18 because those causes need to be part of our action plan to ensure that
19 we never get back there again. So yes, we agree.

20 COMMISSIONER OSTENDORFF: Okay, because
21 that's a pretty strong statement that Mr. Dapas made, I think he backed
22 it up with a number of contextual examples.

23 Good news and I'll tell you a real strong -- we talked
24 about this as well, you have strong endorsement of your operator
25 performance in response to flooding acts and other issues. I think
26 that's a strong kernel to build from because I think if there had been a

1 strong statement or statement that the Regional Administrator did not
2 have confidence in your operator performance that would be a game
3 changer for me. So I think that's a strength you can build upon.

4 And I was tell you all -- I think I was telling John this a
5 few months back, it was 30 years ago, I was on a submarine that failed,
6 a nuclear weapons technical proficiency inspection. We were carrying
7 nuclear weapons at the time. It was a big deal. And dealing with the
8 morale issues of the workforce, the operators, when you're trying to
9 recover and it's going to be a marathon and not a 100-yard dash, trying
10 to recover from something over a period of time, keeping morale up and
11 focused is really important.

12 So I think you have the good news piece of the
13 operator performance being strong. And so I encourage you, as I
14 know you will, to leverage that to your advantage as you move forward
15 with your various recovery actions.

16 MR. MITCHELL: And to protect.

17 COMMISSIONER OSTENDORFF: Yes. Exactly.
18 This Commission has experience with bringing in outside resources in
19 the context of Exelon, going in to help OPPD with Fort Calhoun issues.
20 I think there's a lot of lessons learned. I know that these, I think,
21 outside resources from within Entergy, is that --

22 MR. MITCHELL: It's both.

23 COMMISSIONER OSTENDORFF: Both. Why don't
24 you comment on the ones outside of Entergy?

25 MR. KOWALEWSKI: So we've supplemented
26 resources at two -- in two different groups. We've got regulatory

1 response group which is performing all of the assessment, the root
2 causes which has participation from the site, but it's primarily staffed by
3 personnel that are contractors, many of them have been involved with
4 Palo Verde, Fort Calhoun, Browns Ferry recoveries. The Safety
5 Culture Assessment Team had many of the same people that did the
6 safety culture assessment at Palo Verde. So that organization is
7 structured such that we are bringing in a lot of that expertise. And right
8 now, we've got over 80 people doing these various assessments.

9 What we wanted to do is not lose our ownership, so the
10 managers over those different assessments are Entergy personnel.
11 What we did was we have hired additional Entergy personnel so that we
12 can rotate key managers over to run those assessments, own those
13 assessments, and then we've got reviews that will engage the rest of
14 the site and what they're finding and to help guide them.

15 The other thing we did was take the operating
16 organization and look at what the demands are going to be on it. And
17 we are both changing some of that organizational structure to provide
18 additional oversight and resources and providing contractors as well as
19 additional Entergy employees. So for instance, we recognize we're
20 going to have a very heavy engineering workload, so we've increased
21 the number of Entergy engineering managers from two to four.

22 MR. MITCHELL: And the reason why it's important
23 that we supplement the resources is we want to make sure that we do
24 not succumb to any misdirection anywhere else in the fleet or that we
25 lose the operational focus that you referred to as well. So we think it's
26 important. And some of that expertise is very valuable in assessing

1 performance. And so we want outside eyes looking at our
2 performance as well.

3 COMMISSIONER OSTENDORFF: Well, I know that
4 you know you have a lot of work to do. I look forward to hearing the
5 progress as you march down this path. Thank you.

6 CHAIRMAN BURNS: Thank you. Commissioner
7 Baran.

8 COMMISSIONER BARAN: Thanks. Mr. Mitchell,
9 you started off almost at the very beginning talking about your focus
10 now on contractor oversight issues. And I wanted to just follow up and
11 get a little more detail on specific actions that Entergy has taken to
12 address that issue at ANO or at other Entergy South facilities.

13 MR. MITCHELL: There were independent root
14 causes done on it, two issues; one being the flooding and the other
15 being the stator drop. From a stator drop standpoint, we've changed
16 the way that we apply the ANSI guidance as far as what you have to do
17 in order to validate that an adequate load test has been done on any
18 component.

19 When we looked at it, a lot of the things like polar crane
20 in the containment, they're checked shiftly, similar, they're not a
21 full-load test, but there is a checkout done at a very defined frequency.
22 However, when you're using a first of a kind or a unique lifting
23 apparatus, there were some code allowances that we allowed to occur
24 that were certified by a vendor as meeting the conditions of that code
25 allowance and they didn't. So we have implemented independent
26 checks of those kinds of considerations and quite frankly, we're going to

1 do a lot more load tests. That's not something that comes up every
2 time. But even when you consider things like a transformer or
3 something, we put personal lives on the certification of the jacks that
4 are used to jack a transformer, for example. So the intrusiveness has
5 been ramped up extensively.

6 As far as the oversight of the flood barrier walk downs,
7 that's just something that we have to ingrain in our program that we are
8 going to lead those efforts. We're not going to rely on other eyes to go
9 look. The other eyes are important because they do give you
10 independence, but we have to own those results.

11 Joe, did you want to add?

12 MR. KOWALEWSKI: Yes. And more broadly, we
13 did make changes in our process with respect to normal contractor
14 activity and the requirements for the oversight -- Entergy oversight
15 when a contractor comes on site. And when there's a large number of
16 contractors coming on site, in particular, say a refueling outage, we've
17 added an audit element to that so that not only are we implementing
18 additional controls of the contractor oversight, but when there's a large
19 effort that the independent oversight goes and audits to make sure that
20 that has been done appropriately, to add that additional check.

21 We also identified a level of safety risk which we called
22 enterprise risk and created a new process when we reached those kind
23 of activities that can have a very significant impact on the safety of the
24 unit such as a stator lift.

25 Another item that hit our enterprise risk trigger was
26 bottom-mounted instrument inspections because of potential safety

1 impacts of leakage there. So that when we identified an enterprise risk
2 item which typically involves contractors, we elevate all the way to the
3 COO level the detailed contractor reviews for those activities and how
4 there will be oversight.

5 MR. MITCHELL: And actually enterprise risk goes all
6 the way to the Office of the Chief Executive.

7 COMMISSIONER BARAN: And focusing for a minute
8 on the post-Fukushima flooding walkdowns by contractors, have you
9 seen similar quality concerns or have similar quality concerns, but
10 identified at other Entergy sites?

11 MR. MITCHELL: We did an extended condition at all
12 Entergy sites and really found no concerns with the walk downs at the
13 other sites. But we did go check for light configurations, unscheduled
14 cables. We looked at everything we learned from Arkansas Nuclear
15 One and applied it at the other sites.

16 COMMISSIONER BARAN: Okay, and on the
17 Independent Safety Culture Assessment, what areas do you see as
18 needing the most improvement there at ANO?

19 MR. MITCHELL: First of all, we've got to have a
20 recognition that performance has got to improve. So that's got to be
21 ingrained in the organization. That's something that we'll be very
22 focused on. Some of the CAP elements that were noted in the
23 Corrective Action Program, excuse me, I'm doing acronyms, Corrective
24 Action Program elements that were pointed out with dealing with
25 corrective actions in a timely or an urgent manner, making sure that
26 we're putting the right rigor behind them, but that we are closing out and

1 fixing our problems.

2 And then the organizational programmatic elements, I
3 think those are things that we need to be better at being able to do when
4 we're doing causal analysis within CAP.

5 Jeremy, do you want to add?

6 MR. BROWNING: I didn't want to miss Marc Dapas
7 earlier comments about one of the key elements that was identified in
8 that Safety Culture Assessment was the need to communicate and
9 align the organization on the performance gaps, the significance of
10 those performance gaps, establish that sense of urgency in order to fix.
11 It's not a process problem when it comes to our Corrective Action
12 Program, it's our implementation which is defined by our behaviors
13 which establishes the culture. So we recognize that we have to fix that
14 culture first before we fix that engine that's going to drive our
15 performance improvement which is the Corrective Action Program.
16 But you can't get that until you've got the sense of urgency, the passion
17 and the commitment by each and every employee for improvement, so
18 that is one of the key focus areas for me at the station is to make sure
19 that I've got the buy-in and the commitment by the entire team.

20 MR. MITCHELL: We think that will really benefit us
21 that Jeremy and Joe and others commissioned that last July so that we
22 already have the results of it while we're doing these assessments now.

23 COMMISSIONER BARAN: And I'm over my time, but
24 I wanted to just briefly ask, Marc Dapas discussed at length his view of
25 the ANO situation. Is there anything in his description that you thought
26 was unfair?

1 MR. BROWNING: There's nothing that he said was
2 unfair.

3 MR. MITCHELL: I think it was completely fair.

4 COMMISSIONER BARAN: Thanks.

5 CHAIRMAN BURNS: Thank you. I wanted to follow
6 up with Commissioner Baran's questions regarding the safety culture
7 survey and he got to a lot of questions I would have had in terms of
8 areas of focus or over improvement. But one of the things I think you
9 said, Mr. Mitchell, that there were some positives out of it as well
10 as -- as reflecting on Mr. Dapas' comment regarding the strength of the
11 operator performance. What do you see out of this survey that you
12 think you can leverage in terms of what I'll call positives or places to
13 build on from the survey?

14 MR. MITCHELL: That would be something Jeremy
15 could expound upon as well, but you know, I think it is very important for
16 us to protect, just like Commissioner Ostendorff's question on the
17 operator fundamentals. We want to maintain a strong focus on those
18 operator fundamentals. I think the independent team noted that there
19 was strong performance within Ops and to have an organization that
20 has a strong operational focus, it takes more than just the Ops
21 organization to have that. So those elements are definitely things that
22 we think will aid us as we move forward, but I go to sleep every night
23 concerned that that's got to be our number one priority is to make sure
24 we protect that.

25 Jeremy, do you want to elaborate?

26 MR. BROWNING: I think that survey also pointed out

1 that there's a tremendous amount of pride within the organization. It is
2 a legacy organization that's very proud of what it has contributed to the
3 industry and I think that's also been a detriment to our performance
4 decline is our sense of pride in what we've done, what we have
5 accomplished. We were resting a little bit on our past successes,
6 assuming future successes and we lost that self-critical desire to just
7 continuously improve in everything we do.

8 Now aligning the organization to that and letting the
9 organization reflect on that, I think is helping us now get that teamwork
10 and that pride reestablished that we are going to reestablish ourselves
11 as an industry leader and we've got the capability and the capacity to do
12 that. That assessment did say that, but they said that's a fragile thing.
13 You're going to lose that if you don't act on it very quickly. So that is
14 one of the focus areas is to continue to leverage the pride, the
15 teamwork, don't let the chins hit the chest. Keep the chins off the
16 chest, keep focused on the task at hand, and we've got the capability to
17 do this.

18 CHAIRMAN BURNS: Thanks.

19 MR. MITCHELL: And that's why we're pushing the
20 assessment period right now so hard. Is once we get to an action plan,
21 it will be easier to show people what they need to do to complete the
22 action plan. Right now, during the assessment period, that -- we've got
23 that focused on the learnings from the Independent Safety Culture
24 Assessment and it will expand after we get the specific actions.

25 CHAIRMAN BURNS: Thank you. One of the other
26 things that was interesting to me in your description is you talked that

1 during the recovery process you would try to do some benchmarking
2 against successful recoveries from other facilities or other units that
3 have had difficulties.

4 Tell me a little bit more about that, what types of either
5 sort of generically or even specifically what types of things you're
6 looking at in that regard?

7 MR. MITCHELL: We've actually already done a large
8 number of assessments. We've assessed -- to name plants, Palo
9 Verde. We've assessed Browns Ferry. We used lessons from Fort
10 Calhoun. I personally talked to the Chief Nuclear Officer at Palo Verde
11 to get his assessment of what things do we need to be doing, what
12 things does myself or Jeff Forbes need to be focused on so that was
13 quite an interesting conversation. We'll be doing more of that.

14 Joe went to Palo Verde personally to do a Palo Verde
15 benchmark that was at lower levels within the organization, how the
16 regulatory assurance people at the site dealt with recovery and so forth.
17 So there's been a lot benchmarking to this point, but it will continue.
18 Our whole organization for recovery is designed based on what we've
19 learned from that benchmarking.

20 MR. KOWALEWSKI: The resources that we're
21 putting in play on the operational side are very much a result of that
22 benchmarking and we're also adding additional resources to the
23 corporate staff based on that benchmarking that after these
24 assessments, we have our corporate functional area managers,
25 experts in the various disciplines involved in the assessments. The
26 outcome of that will change procedures, processes, behaviors that we'll

1 want to leverage across the fleet. That takes corporate resources to
2 do that leverage.

3 We learned from our benchmarking that we need to act
4 now to increase that staff so that as we complete the assessments, we
5 can go right into that improvement and not be reacting. So we're
6 getting a jump on expected outcomes and staffing up for expected
7 outcomes before we even know them and that's going to help us not
8 have a gap there.

9 MR. MITCHELL: Actually, part of that lesson was that
10 the fleet and corporate can be an inhibitor upon applying the processes
11 that are needed for recovery. So that's all part of why we have
12 significantly increased the focus of corporate upon Arkansas Nuclear
13 One, including dedicated focus upon. So it's not just to make sure that
14 we know that they're not losing the bubble with respect to operational
15 performance, but it's also so that we can facilitate getting what they
16 need in place.

17 MR. BROWNING: And we wanted to make sure that
18 the benchmarking wasn't just isolated to the corporate. I did send my
19 maintenance manager with Joe and my engineering director,
20 maintenance managers, and what I consider my line organization,
21 engineering is going to have a heavy influence. And part of the
22 overstaff that we talked about putting in place, a director that reports
23 directly to me that oversees my Corrective Action Program and
24 performance improvement came from Palo Verde. He had experience
25 in their Column 4 recovery and he is now working directly for me as a
26 permanent Entergy staff.

1 CHAIRMAN BURNS: Okay, very good. Thanks for
2 those questions. I want to thank Commissioner Ostendorff for having
3 gone out and visited recently. I do hope in terms of my own schedule
4 and trying to schedule during this period a visit out there and we'll work
5 with you on that.

6 MR. MITCHELL: We'd certainly welcome a visit at
7 any time.

8 CHAIRMAN BURNS: Thanks. Commissioner
9 Svinicki.

10 COMMISSIONER SVINICKI: I want to thank all of
11 you for being here today because this isn't the seat you want to find
12 yourself in, so I think you've spoken very forthrightly. You have, of
13 course, communicated, I think, with all members of our Commission. I
14 appreciate also the brief message from Mr. Forbes. I think again all
15 members of our Commission have had a chance to have him express
16 his commitment to this recovery process and certainly especially as we
17 get older, we learn that if we do not take care of ourselves, we can't take
18 care of anything else. I wish him a constructive health outcome on
19 anything he's dealing with right now.

20 I have a little bit of the flip side experience in that I was
21 at the station mere weeks before this event occurred and so when I
22 heard about the stator drop it impacted me very deeply and I thought
23 about why. I think there's two principal reasons. The first is that it is a
24 reminder to all in the nuclear profession that walking through and
25 saying "hmm, everything looks good. You know, it's all" -- that is no
26 guarantee that there isn't something significant looming on the horizon.

1 So I was taken aback by that. I had a very constructive visit there.

2 The other thing that I was struck by in the community
3 was how -- what an interconnected and tight community it is. So the
4 other reason it impacted me was that I could simply project that it
5 was -- because it included a very unfortunate loss of life, I'm sure that
6 was devastating even one individual in a small, tight-knit community,
7 that's felt very deeply. So I express my condolences to everyone in
8 that regard.

9 I think though maybe to look for a positive as
10 Commissioner Ostendorff did, got a deep sense of family and
11 community is a tool to you as you move through recovery process
12 because there's too many references to how long I've been hanging
13 around, but often I've walked through a few nuclear plants in the U.S. at
14 this point and around the world, actually, but signage I sometimes see
15 reminds station personnel that they are responsible for themselves, the
16 safety of the facility, and each other. And it's that last part that I think
17 you have a strong platform there that the station personnel feel like
18 family.

19 And Mr. Browning, I know from your resume you have
20 some pretty deep roots there yourself. After service in the Navy as a
21 young man, and thank you for your service, you also spent some time at
22 Grand Gulf, but you spent a lot of time, you began there in 1990, as an
23 entry level plant operator and so I think if anyone knows this, it's you.

24 It can also be a kind a insularity, though, so there's a
25 danger in it is that maybe you said we were resting a little bit on our
26 confidence in ourselves and each other. And while that's a good thing,

1 it's a double-edged sword. So I appreciate that.

2 We did hear from Mr. Dapas. I ran out of time for
3 reasons that I'm doing right now, I'm so verbose on everything, but he
4 had made a commentary that they had found or were concerned
5 about -- we get to cheat a little bit because we have his talking points.
6 But in talking to Slide 34, he said "in summary, events and findings
7 indicate that latent problems have existed in equipment."

8 And then on his next slide, he said, "Equipment
9 reliability has been relatively good." So I'm not trying to pick on Marc
10 and he's not here at the table to defend his presentation, but I use it as
11 an example of the complexity of what you are trying to diagnose. So
12 on the one hand, we find and Marc gave the basis for the conclusion
13 that we worry about latent equipment problems, but then one of the
14 reasons that the staff rooted its decision that ANO could keep operating
15 is operator performance was strong. Commissioner Ostendorff
16 commented on that. And equipment reliability has been relatively
17 good. So this is -- there's no easy -- if you could just go find one thing
18 and fix it, good Lord, everyone would be so happy if that were the
19 outcome. But it does make one wonder.

20 One hears a lot about the economic pressures in the
21 energy sector for generating stations, both fossil and nuclear, and all of
22 them are under a lot of cost pressures. So one thing I would ask,
23 although it's been communicated to the NRC, would you please repeat
24 or state your commitment that as this improvement process unfolds, if
25 station investment is needed that Entergy will provide that investment?
26 Could you assure me of that?

1 MR. MITCHELL: That's absolutely the case. And I'd
2 like to amplify that a little bit because one of the lessons we're learning
3 is our looks at equipment reliability have shown significant improvement
4 in equipment reliability, not just at Arkansas Nuclear One, but across
5 the fleet. However, it's an incomplete look. So that incomplete look,
6 what we've learned is we need to be looking at more passive
7 components, like flood barriers. We need to be looking at components
8 that maybe wouldn't fall out as a critical component, but still could be
9 risk significant as the auxiliary feedwater pump that Mr. Dapas talked
10 about, so we're revamping the way -- we don't want to lose what we
11 have with respect to equipment reliability, but we want to add more to it
12 and that would be a core damage frequency, contributor kind of look at
13 what things could influence the overall safety of the facility and then go
14 attack those components that would be associated with that. So we're
15 adding to our approach. And you have my commitment.

16 COMMISSIONER SVINICKI: And I'll just close by
17 saying that the really hard work now falls on the shoulders of the
18 women and men working at ANO and all of you who are assisting them.
19 So I certainly wish you luck in this very difficult workload that you have
20 in front of you.

21 Thank you, Chairman.

22 CHAIRMAN BURNS: Thank you, Commissioner. I
23 wanted to thank you for being here today and telling us about your
24 plans and efforts to move forward to address the issues. And this is an
25 important opportunity here for us as a Commission to review the
26 performance of reactor and material licensees and to hear from the

1 licensees like ANO here who have experienced a decline in
2 performance and hear the plans to improve that performance and get
3 back on the right track. So again, I'd like to thank you for your
4 presentations here and thank the staff as well, and with that, we'll
5 adjourn. Thank you.

6 (Whereupon, the above-entitled matter went off the
7 record at 11:37 a.m.)

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