1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

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4 BRIEFING ON RESULTS OF THE AGENCY ACTION REVIEW

5 MEETING (AARM)

6 + + + + +

7 THURSDAY,

8 JUNE 2, 2016

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10 ROCKVILLE, MARYLAND

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12 The Commission met in the Commissioners'

13 Hearing Room at the Nuclear Regulatory Commission,

14 One White Flint North, 11555 Rockville Pike, at 8:58

15 a.m., Stephen G. Burns, Chairman, presiding.

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19 COMMISSION MEMBERS:

20 STEPHEN G. BURNS, Chairman

21 KRISTINE L. SVINICKI, Commissioner

22 WILLIAM C. OSTENDORFF, Commissioner

23 JEFF BARAN, Commissioner

24

25 ALSO PRESENT:

26 ANNETTE VIETTI-COOK, Secretary of the Commission

1 MARGARET DOANE, General Counsel
2

3 NRC STAFF:
4 VICTOR M. MCCREE, Executive Director for Operations
5 DANIEL COLLINS, Director, Division of Material
6 Safety, State Tribal and Rulemaking Programs,
7 Office of Nuclear Material Safety and
8 Safeguards
9 MARC DAPAS, Regional Administrator, Region IV
10 DANIEL H. DORMAN, Regional Administrator, Region I
11 SCOTT MORRIS, Director, Division of Inspection and
12 Regional Support, Office of Nuclear Reactor
13 Regulation
14
15 ENTERGY STAFF:
16 CHRIS BAKKEN, Executive Vice President/Chief Nuclear
17 Officer
18 JEREMY BROWNING, Site Vice President-Arkansas
19 Nuclear One
20 JOHN DENT, Site Vice President-Pilgrim Nuclear Power
21 Station
22 DONNA JACOBS, Chief Operating Officer
23 JOHN McCANN, Vice President, Regulatory Assurance
24 TIM MITCHELL, Senior Vice President
25 JOHN VENTOSA, Chief Operating Officer
26

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

1 CHAIRMAN BURNS: Thank you. And I will
2 ask the staff to come forward for our main part of
3 today's meeting. We want to welcome the staff,
4 members of the public, other external panelists who
5 appear before us today.
6 The purpose of today's meeting is for the
7 NRC staff to discuss the results of the Agency Action
8 Review Meeting or AARM and to hear from Entergy
9 Corporation representatives on their action plans for
10 improving performance at the Arkansas Nuclear One and
11 the Pilgrim Nuclear Power plants.
12 We will begin with presentations from the
13 staff and following the staff panel, we will have a
14 brief break and then we will hear from two panels
15 from Entergy Corporation.
16 I look forward to the presentations and
17 the ensuing discussion with members of the
18 Commission. Would any of my colleagues like to make
19 any remarks before we begin?
20 Okay, with that, I will turn it over to
21 the staff to discuss the results. Vic.
22 MR. MCCREE: Good morning, Mr. Chairman,
23 Commissioners.
24 Today, we are here to discuss the results
25 of this year's Agency Action Review Meeting that we
26 conducted on April 27th. As you know, the Agency

1 Action Review Meeting is an opportunity for NRC senior
2 managers to gather and evaluate the processes that we
3 use to ensure the operational safety performance of
4 our licensees. Next slide.
5 The specific objectives of the Agency
6 Action Review Meeting or AARM are to review the
7 appropriateness of the actions that we have taken for
8 power reactor plants, for power reactor plants under
9 construction and/or nuclear material licensees with
10 significant performance issues; to ensure that
11 coordinated course of action are developed and
12 implemented for our licensees with performance
13 issues; to review the results of our annual assessment
14 on the effectiveness of the reactor oversight
15 process, including a review of all approved
16 deviations from that process and the action matrix
17 specifically; to review the results and assess our
18 effectiveness of the construction reactor oversight
19 process, including all approved deviations from the
20 construction reactor oversight process action matrix
21 and ensure the trends in the industry and in licensee
22 performance are recognized and appropriately
23 addressed. Slide 3, please.
24 Before I turn it over to the following
25 speakers listed on the agenda, I would like to discuss
26 the results of this year's Agency Action Review

1 Meeting and I would like to highlight one topic which
2 was discussed at the AARM but is not being presented
3 in detail at this meeting today and that is the
4 results of the annual construction reactor oversight
5 process self-assessment that showed that no
6 facilities met the criteria to be discussed at this
7 AARM Commission meeting.
8 The process that we implemented followed
9 the principles of good regulation and we also
10 concluded that the staff have been effective in
11 ensuring the new reactor units that are being
12 constructed are being done so in accordance with the
13 approved designs.
14 We will discuss the construction
15 assessment in more detail during the New Reactors
16 Business Line Commission Meeting, which is planned
17 for later this fall.
18 Now, I would like to turn it over to our
19 first speaker, Marc Dapas, to discuss the performance
20 at Arkansas Nuclear One. Marc.
21 MR. DAPAS: Good morning, Mr. Chairman
22 and Commissioners. I appreciate the opportunity to
23 be here today and discuss with you our regulatory
24 oversight activities with respect to Arkansas Nuclear
25 One or ANO.
26 Regarding my presentation, I will briefly

1 mention the yellow findings we issued that led to the
2 staff decision to place ANO in column 4 of the reactor
3 oversight process or ROP action matrix. Then, I will
4 focus my remarks in five overarching areas with the
5 first being the principle findings from our recently
6 completed 95003 supplemental inspection. I will then
7 discuss the causes for the significant performance
8 decline at ANO as identified by Entergy and
9 independently verified by the NRC. Following that,
10 I will highlight some notable improvements in
11 licensee performance. Then, I will describe our
12 oversight activities and those going forward.
13 Finally, I will share some overarching
14 regulatory perspectives, including the basis for our
15 conclusion that ANO continues to operate with
16 adequate safety margin. Next slide, please.
17 By way of background, on March 31, 2013,
18 while moving the Unit 1 main generator stator out of
19 the turbine building, the temporary lifting assembly
20 failed, causing the stator to fall into the shared
21 train bay between Unit 1 and Unit 2.
22 Based on the risk significance
23 determination, in June of 2014 we issued a yellow
24 finding for both Unit 1 and Unit 2 in the initiating
25 events cornerstone, which for ROP action matrix
26 purposes, was effective the first quarter of 2014.

1 As the stator fell, it damaged a fire
2 main. The water from this fire main caused localized
3 flooding with some of it leaking past degraded hatch
4 seals and entering the Unit 1 Auxiliary Building.
5 Given the flooding vulnerabilities revealed by the
6 stator drop event, the licensee began an extent of
7 condition review which eventually led to the
8 identification of over 100 unsealed conduits and
9 degraded seals.
10 We concluded that the licensee failed to
11 design, construct, and maintain flood barriers for
12 certain structures in a manner that would protect
13 safety-related equipment from flooding.
14 Given the significance of this failure,
15 we issued a yellow finding for both Unit 1 and Unit
16 2 in the mitigating systems cornerstone in January of
17 2015, which was effective the third quarter of 2014.
18 After NRC engagement via the performance
19 indicator or PI frequently asked question process,
20 the licensee submitted revised PI data in March of
21 2015, which resulted in the PI for unplanned scrams
22 per 7,000 critical hours with respect to Unit 2
23 turning white for the second and third quarter of
24 2014. Next slide, please.
25 With the completion of the 95003
26 supplemental inspection, we have conducted a rigorous

1 independent diagnostic assessment of the performance
2 programs and processes at ANO. The 95003
3 supplemental inspection, which is the inspection and
4 assessment tool we use for column 4 plants is the
5 most comprehensive inspection activity we conduct in
6 the connection with the ROP and consisted of more
7 than 3,750 direct inspection hours in the case of
8 ANO.
9 The results of this significant
10 inspection provided us with insights into the breadth
11 and depth of safety, organizational and programmatic
12 issues that contributed to the performance decline at
13 ANO.
14 The subject inspection included a
15 diagnostic review of programs and processes that are
16 not typically inspected as part of the ROP baseline
17 inspection program. It included an independent
18 assessment of the safety culture at ANO, including
19 the results of Entergy's independent, third-party
20 nuclear safety culture assessment and associated
21 apparent cause evaluation.
22 The inspection also included an
23 assessment of the completed and planned corrective
24 actions related to the four yellow findings and the
25 white performance indicator using inspection
26 procedures 95002 and 95001, respectively.

With respect to the white performance indicator, the 95003 inspection team concluded that the licensee adequately addressed the causes for the three unplanned scrams involving Unit 2 and as such, this performance indicator will be closed in the 95003 inspection report, which I expect to sign next week.

In addressing the yellow finding for degraded flood protection features, the licensee modified some 300 existing fire seals to also make them flood resistant. However, in doing so, the licensee created a number of untested configurations.

The licensee has contracted to have testing performed to determine whether there are any actual degraded conditions from a fire protection standpoint. While the data is still being reviewed, preliminary results indicate a positive testing outcome.

One of the root causes for the yellow finding associated with the stator drop event was inadequate control of contractors. Since the stator drop event, the licensee has implemented corrective actions to enhance station requirements for oversight of supplemental workers performing contract work activities, such as engineering and technical services.

However, the 95003 inspection team

1 concluded that corrective actions to address the
2 extent of condition with contractor oversight
3 problems have not been fully effective. Further
4 action is needed because oversight plans for outage
5 workers were inadequate. Qualification requirements
6 for contractors to act as supervisors did not have a
7 consistent standard and designated ANO oversight
8 personnel lacked adequate guidance and training to
9 effectively perform their oversight plan.
10 The licensee has subsequently revised its
11 comprehensive recovery plan to address these gaps.
12 Next slide.
13 The team concluded that the licensee did
14 not fully evaluate safety culture weaknesses. The
15 specific action plan focused on improving safety
16 culture was not developed. And as such, corrective
17 actions were not formulated for some safety culture
18 elements that the 2015 independent safety culture
19 assessment indicated were degraded.
20 The causes and/or extent of problems
21 associated with some safety culture attributes were
22 not evaluated. In response to the team's assessment,
23 the licensee performed appropriate causal evaluations
24 and developed the specific action plan that addresses
25 the full scope and causes for the identified safety
26 culture weaknesses. The licensee did not determine

1 the causes for the full extent of problems with risk
2 recognition and management. Actions to improve risk
3 management were incomplete and few actions existed to
4 address risk recognition.
5 The team identified several examples of
6 where procedure guidance was not adequate and/or
7 workers lacked training to be proficient in their
8 respective risk management roles.
9 The team identified that the licensee's
10 recovery plan did not adequately consider training
11 and benchmarking as key improvement strategies.
12 Benchmarking outside the Entergy fleet and
13 involvement in various industry initiatives has been
14 limited. As Entergy's senior corporate officials
15 have acknowledged in our discussions with them,
16 appropriate industry benchmarking has been a gap
17 across the Entergy fleet. Next slide, please.
18 Problems with effectively implementing
19 various engineering programs were more extensive than
20 the licensee had originally concluded from its self-
21 assessments.
22 While some licensee evaluations indicated
23 performance was acceptable, the inspection team
24 determined that the problems were more significant
25 than the licensee had originally concluded. The team
26 identified instances were ANO did not adequately

1 evaluate and use internal and industry operating
2 experience to prevent future problems. As a result
3 some technical issues were not resolved, leading to
4 recurrent equipment challenges. Next slide, please.
5 Entergy identified and the NRC confirmed
6 through the 95003 inspection the following
7 overarching causes for declining performance at ANO.
8 The licensee did not effectively manage the change
9 associated with resource reduction initiatives in
10 2007 and 2013. For example, the staffing reductions
11 at ANO did not account for the two different unit
12 designs and elimination of various positions resulted
13 in significant increases in work backlogs, as station
14 leaders attempted to prioritize work with existing
15 resources. And starting in 2013, policy changes
16 resulted in an unexpected increase in retirements and
17 the licensee did not adequately manage the loss of
18 experience.
19 Leadership behaviors were not
20 commensurate with a strong safety culture.
21 Monitoring of licensee performance was ineffective
22 across the organization. For example, station
23 performance indicators focused on completed actions,
24 rather than on whether those actions were effective.
25 At the corporate level, performance
26 monitoring and safety review committee processes

1 stopped being intrusive. As I mentioned previously,
2 external benchmarking outside the Entergy fleet was
3 limited. And as such, ANO performance was deemed
4 compared to other sites within the fleet.
5 Standards declined, which was most
6 evident in failures to follow procedures or stop and
7 correct unclear procedure steps. The licensee became
8 more accepting of degraded equipment performance and
9 reduced margins by using strategies that relied on
10 engineering analyses or proceduralized compensatory
11 measures, rather than fixing degraded equipment. The
12 effectiveness of corrective action program gradually
13 declined. For example, degraded equipment was
14 restored without having a complete understanding of
15 the cause for the degradation. Performance
16 assessments were weak or nonexistent and problem
17 trending was ineffective. Causal evaluations did not
18 consider organizational and programmatic challenges.
19 Next slide, please.
20 Although the licensee is in the early
21 stages of implementing its comprehensive recovery
22 plan, there have been some notable improvements in
23 station performance. Licensee management has been
24 more rigorous and conservative in its decision-
25 making. For example, in response to a leaking
26 component inside the Unit 2 containment, a well-

1 designed plan was implemented. Unit 2 was shut down
2 before there was any significant operational impact
3 and a permanent repair was made without any evidence
4 of schedule pressure.
5 Our inspectors also observed a lower
6 threshold for addressing equipment reliability issues
7 during the Unit 2 outage last fall. And the NRC
8 resident inspectors have noted a number of examples
9 that clearly indicate that the operations department
10 is becoming a demanding customer and raising
11 standards across the station. Shift managers have
12 challenged work plans and operability evaluations,
13 insisting on more complete evaluations in
14 documentation and are verifying conditions.
15 Discussions about potential risk are apparent across
16 the station and corrective action program rigor has
17 improved. There is a clear emphasis on having a
18 greater questioning attitude and need to understand
19 problems so that they can be addressed. Next slide.
20 The licensee submitted its comprehensive
21 recovery plan on the docket on May 17th. We have
22 reviewed the plan and concluded that the constituent
23 corrective actions are appropriate and fully address
24 both licensee and NRC-identified performance gaps.
25 We are developing a confirmatory action letter or CAL
26 that captures the specific actions within the

1 licensee's recovery plan that are necessary to
2 address the significant performance deficiencies that
3 led to the station being placed in column 4, as well
4 as the key actions needed to ensure sustained
5 improvement in safety performance.
6 Regarding our inspection process going
7 forward, in addition to the routine resident
8 inspection program, we intend to conduct focused
9 inspections at ANO on roughly a quarterly basis. The
10 specific inspection frequency will be a function of
11 when the licensee has completed its own assessment of
12 corrective action effectiveness with respect to the
13 individual CAL items and informed us that the
14 associated results indicate that items are ready to
15 be inspected.
16 From our inspection activities, we will
17 independently determine whether the licensee's
18 corrective actions have been effective in achieving
19 performance improvement. The CAL will remain open
20 until we have determined that the licensee has
21 sustained performance improvement through effective
22 implementation of its recovery plan. Next slide.
23 As I stated earlier, via the 95003
24 supplemental inspection, we have conducted a rigorous
25 independent diagnostic assessment of the performance
26 programs and processes at ANO. Based on this

1 assessment, we have concluded that Entergy's
2 discovery effort was reasonably comprehensive, though
3 as I have discussed the 95003 inspection team did
4 identify some gaps. Based on Entergy's collective
5 review of the causes for the performance decline at
6 ANO, the findings from the 2015 independent third-
7 party nuclear safety culture assessment and the
8 results of the NRC's 95003 supplemental inspection,
9 we have determined that Entergy understands the
10 breadth and depth of the performance concerns
11 associated with ANO's performance decline.
12 In addition, from our review of the
13 licensee's comprehensive recovery plan, we have
14 determined that it does address with specific planned
15 corrective actions the performance gaps or concerns.
16 Effective implementation of the
17 comprehensive recovery plan supported by the
18 allocation of adequate resources and continued
19 oversight by Entergy leadership should lead to
20 substantial and sustained performance improvement at
21 ANO.
22 Based on the results of our assessment,
23 we are confident that the current level of regulatory
24 oversight is appropriate and no action in addition to
25 those prescribed in the ROP action matrix are
26 necessary.

1 We have also independently confirmed
2 through our inspection and assessment processes that
3 ANO continues to operate with adequate safety margin.
4 While the causes for decline in performance that are
5 described earlier do indicate that over time there
6 had been a reduction in safety margins in terms of
7 how effectively programs and processes were being
8 implemented and how personnel behaved at the station,
9 those margin reductions have not reached an
10 unacceptable level. The robust plant design has not
11 been compromised and there have not been any
12 significant operational events or risk significant
13 findings since the plant was placed in column 4.
14 As I described earlier, a number of
15 improvements have been noted at ANO. Two of the more
16 significant area of improvement are operational focus
17 and equipment reliability. Operator fundamentals
18 have been strengthened and decision-making has been
19 more conservative.
20 You may recall that at last year's
21 commission meeting I commented the NRC has been
22 driving licensee performance. And that going
23 forward, the thoroughness of the licensees' self-
24 assessment and discovery effort would be an indicator
25 of whether that situation had changed. I suggested
26 at that time that if our 95003 inspection team

1 identified extensive and significant gaps in the
2 results of the licensee's discovery effort, that
3 would be an indicator that the NRC versus the licensee
4 was continuing to drive things.
5 I'm glad to see that is not what occurred.
6 And as I said previously, we will continue to monitor
7 and independently assess the effectiveness of
8 Entergy's corrective actions during our continuing
9 inspection activities.
10 This concludes my remarks with respect to
11 ANO and I will now turn it over to Dan Dorman. Thank
12 you.
13 MR. DORMAN: Thank you, Marc. Good
14 morning, Chairman Burns, Commissioners. This morning
15 I plan to provide you a brief overview of the gradual
16 performance decline at Pilgrim Nuclear Power Station
17 which resulted in the plant being placed in column 4
18 of the NRC action matrix. I will also discuss the
19 enhanced oversight activities undertaken by the staff
20 as a result and outline near-term activities. Before
21 I get into that, I would like to acknowledge two
22 members of our team leading the oversight of Pilgrim
23 who are behind me to your left. Mrs. Erin Carfang
24 is the senior resident inspector at Pilgrim Station
25 and to her left Mr. Art Burritt is the Branch Chief
26 in the Division of Reactor Projects who is

1 coordinating and organizing the oversight of Pilgrim
2 during this time. Next slide, please.
3 Pilgrim entered column 3 or the degraded
4 cornerstone column of the NRC action matrix in the
5 fourth quarter of 2013, when the performance
6 indicators for unplanned scrams and unplanned scrams
7 with complications were both white. This resulted
8 from four unplanned scrams in 2013, three of which
9 involved complications. Next slide, please.
10 In December 2014, the region performed an
11 inspection under Procedure 95002 to review the
12 company's corrective actions to address the issues
13 that contributed to the multiple unplanned shutdowns.
14 This inspection determined that Pilgrim's actions to
15 date were not adequate to address the root and
16 contributing causes of unplanned shutdowns. As a
17 result, the staff opened two parallel white findings
18 in accordance with the inspection manual and, in
19 consequence of that, Pilgrim remained in the degraded
20 cornerstone column for greater than five quarters.
21 Next slide, please.
22 On January 27, 2015, during Winter Storm
23 Juno, Pilgrim experienced a loss of offsite power
24 resulting in an automatic shutdown of the reactor.
25 During the ensuing cooldown, one of the plant's four
26 safety relief valves failed to open on demand three

1 times. I would note that the plant was safely cooled
2 down and depressurized using two of the remaining
3 safety relief valves.
4 A special inspection team from Region I
5 discovered that a similar failure had occurred during
6 Winter Storm Nemo two years earlier and that the
7 company had failed to understand and correct the root
8 cause of that failure and to take actions to prevent
9 recurrence. This performance deficiency was
10 determined to be of low to moderate safety
11 significance. The resultant white finding in
12 combination with the greater than five quarters in
13 the degraded cornerstone led to Pilgrim being placed
14 into column 4 of the action matrix for a repetitive
15 degraded cornerstone on September 1, 2015.
16 The assessment letter to Entergy
17 identified that the focus of our enhanced oversight
18 will be on longstanding weaknesses in the company's
19 programs for identifying and resolving problems at
20 the site, as well as an assessment of the safety
21 culture that has allowed these weaknesses to persist.
22 Consistent with the nature of the complications
23 associated with the unplanned shutdowns in 2013 and
24 2015, the inspection will also examine the key reactor
25 safety attributes of equipment performance, human
26 performance, and procedure quality. Next slide,

1 please.

2 As a result of the movement to column 4,
3 Entergy has undertaken a broad scope evaluation of
4 the site's safety culture and corrective action
5 programs, among other things. Pursuant to Inspection
6 Manual Chapter 305, Region I will lead diagnostic
7 evaluation of the licensee's programs and improvement
8 plans when the licensee has indicated readiness to
9 receive such an inspection. At this time, we
10 understand the licensee expects to indicate their
11 readiness within the next couple of months.

12 In the meantime, Region I has undertaken
13 several targeted inspections within the baseline
14 inspection program and also under Inspection
15 Procedure 95003 to ensure that adequate safety
16 margins are maintained. We have exercised
17 flexibilities in the implementation of 95003 to move
18 up some of the samples under the corrective action
19 portion of the inspection to address the procedure's
20 objectives related to the acceptability of continued
21 operations while the company conducts its reviews and
22 develops its recovery plan.

23 The Phase A and B inspections were
24 conducted to determine whether significant issues
25 were being adequately addressed and whether
26 additional regulatory actions were necessary to

1 arrest decline plant performance. They serve as
2 partial completion of this portion of the procedure.
3 Phase A was conducted in January of 2016
4 and reviewed open risk-significant issues and other
5 aspects of the corrective action program. No
6 significant issues were identified as a result of
7 this inspection.
8 Phase B was completed in early April and
9 looked at overall corrective action program
10 performance since the last biennial problem
11 identification resolution inspection, which was
12 completed last August. This inspection focused on
13 progress in improving the plant's performance in the
14 area of corrective actions. Overall, the team
15 determined that Entergy was taking appropriate
16 actions to address identified weaknesses in the
17 corrective action program. The team concluded that
18 progress has been made over the last several months,
19 due to management's commitment to improvement.
20 However, continued management attention is warranted
21 to ensure sustained improvement, as the items
22 identified in the report indicated that weaknesses in
23 the program continued to exist.
24 The final phase of the 95003 inspection
25 will be scheduled for completion once Entergy
26 indicates that it is ready. Next slide, please.

1 We have also targeted problem
2 identification and resolution samples within the
3 baseline inspection program in the areas of previous
4 performance issues. In particular, during the fourth
5 quarter of last year, we targeted several inspection
6 samples in the area of operator performance and
7 procedure quality. While these inspections confirm
8 weaknesses in the corrective program implementation,
9 they have not revealed any additional significant
10 performance deficiencies. To support these
11 inspection activities, Region I has augmented our
12 resident inspector team at the station pending the
13 results of the 95003 inspection. We are conducting
14 senior management quarterly performance assessments
15 and reviews of our oversight strategy. The results
16 of these assessments and the inspections to date will
17 guide the planning of the final phase of the
18 inspection 95003.
19 Currently, the results of these
20 activities indicate that additional regulatory
21 actions beyond those prescribed for plants in column
22 4 are not required. There have been no risk-
23 significant events, equipment failures, or inspection
24 findings since Pilgrim's entry into column 4. Next
25 slide, please.
26 Successful completion of the final phase

1 of the 95003 will ensure that Entergy understands the
2 causes of the significant performance issues and has
3 developed plans which are reasonably expected to
4 result in sustained improvement in station
5 performance. The completion of the 95003 will
6 support the development of a confirmatory action
7 letter and the assessment of the need for additional
8 regulatory action. The content of the confirmatory
9 action letter will identify the most significant
10 elements of the licensee's recovery plan, as
11 determined by the inspection and confirm as licensee
12 commitments. To ensure adequate implementation of
13 the most significant corrective action items, CAL
14 follow-up inspections will be conducted as Entergy
15 makes progress on its improvement plan. Exit from
16 column 4 will occur when sustained performance is
17 demonstrated by the inspection closeout of the
18 elements of the CAL. Next slide, please.
19 Notwithstanding the decline in
20 performance at Pilgrim -- yes, next slide, please.
21 Thank you. Notwithstanding the decline in
22 performance at Pilgrim, the staff concludes, based on
23 the results of our augmented oversight activities,
24 that there remains adequate safety margin in the
25 design and operation of the plant to support continued
26 operation. Since placing the plant in column 4, we

1 have undertaken specific additional inspection
2 activities. These inspections have been aimed at
3 determining whether the performance decline at
4 Pilgrim indicates the existence of other significant
5 performance deficiencies. To date, we have found
6 none.
7 In the meantime, the licensee has
8 embarked on a substantial effort to evaluate their
9 programs and processes, to identify root and
10 contributing causes of the decline and to establish
11 a plan to accomplish sustained performance
12 improvement.
13 This concludes my remarks. I look
14 forward to your questions. And I will now turn the
15 presentation over to Dan Collins.
16 MR. COLLINS: Thank you, Dan. Good
17 morning, Mr. Chairman, Commissioners. This morning
18 I will be discussing the nuclear materials and waste
19 program performance.
20 The materials program includes
21 approximately 21,000 NRC and Agreement State
22 licensees that perform a wide variety of activities
23 in areas such as industrial, academic, medical, and
24 fuel cycle facilities. It is important to note that
25 some activities involve intentional exposure of
26 humans to radiation, particularly in diagnostic and

1 therapeutic medical uses.

2 The NRC 2015 Performance and
3 Accountability Report estimated that 112 million
4 nuclear medicine or radiation therapy procedures are
5 performed annually, with the vast majority used in
6 diagnostic procedures.

7 When discussing trending, the number of
8 reported events is small in proportion to the total
9 number of activities carried out. That being said,
10 the staff monitors the data and continues to look for
11 issues or events that warrant additional NRC
12 response, communication, or program improvements in
13 support of the materials program. I plan to
14 highlight some of the issues we addressed this year
15 as part of the National Materials Program Review.
16 Next slide, please.

17 We collect, monitor, and evaluate
18 industry operational data on an ongoing basis as part
19 of our event reporting function. This information
20 is provided in an annual assessment report to the
21 Commission. Our performance evaluation process
22 includes the review of operational performance
23 trends, significant licensee performance issues, and
24 identification of issues and gaps in the NRC program
25 that warrant high-level management awareness at the
26 agency action review meeting.

1 Operational performance trends refers to
2 what is examined in the nuclear materials event
3 database annual report and is part of our ongoing
4 review of events. Licensee performance issues refers
5 to the specific criteria for identifying nuclear
6 material licensees for discussion at the agency
7 action review meeting. The key aspects of the
8 criteria include licensees with events resulting in
9 failures to meet NRC strategic goals, significant
10 issues or events that result in escalated enforcement
11 and where there are aspects that warrant additional
12 oversight, repetitive significant program issues or
13 multiple inspections also involving escalated
14 enforcement, and licensees discussed at previous
15 Agency Action Review Meetings, where the licensee
16 corrective actions did not address or were
17 ineffective in correcting the underlying issues
18 identified.
19 And finally, NRC program issues and gaps
20 refers to any programmatic issued identified by our
21 self-assessments, annual event review, and trending
22 report, special studies, and enforcement action
23 review. Next slide, please.
24 The staff uses the criteria and
25 information sources listed on this slide to assess
26 and measure our performance, including a graded

1 approach from high level, high consequence events to
2 lower level precursor monitoring. This event review
3 is conducted through our use of our nuclear materials
4 event database, which is also referred to as NMED.
5 We examine event information and trends for overall
6 number of events, as well as in more narrow categories
7 to identify any trends which may indicate
8 programmatic changes or weaknesses.
9 The NMED review also leads us to focusing
10 on specific targeted segments of our program. These
11 special studies are conducted to more closely examine
12 the causes and potential correlation of events in
13 generic or programmatic weaknesses.
14 We also use the abnormal occurrences
15 process, including the abnormal occurrence annual
16 report, as well as a review of significant enforcement
17 actions to identify events of high significance and
18 identify any potential licensees with significant
19 performance problems.
20 Strategic performance measures,
21 including the Agency's safety and security goals are
22 monitored by the Materials Program Office and were
23 addressed in the fiscal year 2015 performance and
24 accountability report and were fully discussed as
25 part of the Agency Action Review Meeting. Next
26 slide, please.

1 All safety and security goals and
2 performance measures were met in fiscal year 2015.
3 There were no fuel cycle facilities or materials
4 licensees that met the AARM discussion criteria. The
5 nuclear materials program met all strategic and
6 performance safety and security metrics. No
7 significant trending or programmatic issues were
8 identified in our review of operational performance
9 trends, licensee performance issues, or other
10 assessments of the materials program.
11 In the next two slides, I will discuss
12 the results of the staff's NMED training review --
13 trending review, rather and a special study of lost,
14 abandoned, and stolen source events involving
15 category 1 and 2 sources that occurred in the last
16 ten years. Next slide, please.
17 During the fiscal year 2015 reporting
18 period, there were 489 NRC and Agreement State
19 licensee events reported NMED. To account for random
20 fluctuations in event data from year to year the
21 annual report reviews data for the last ten years, as
22 depicted on this graph.
23 For fiscal year 2015, there was no
24 statistically significant trends in the overall data.
25 There were, however, a few statistically significant
26 trends identified for narrow portions of the data.

1 These trends in the narrow data sets include a
2 decrease in the overall number of NRC events, a
3 decrease in NRC equipment events, and an increase in
4 Agreement State and medical events. Contributing
5 factors to these trends were the transfers of
6 licensees from NRC to Agreement State jurisdiction
7 during the ten-year time period, increased awareness
8 of events and reporting requirements, as well as the
9 introduction or prevalence of new medical device
10 procedures.
11 Regarding the number of equipment events,
12 the NRC issued an information notice related to damage
13 to industrial radiographic equipment due to falling
14 equipment and improper mounting in April of 2014 in
15 order to address a previously identified trend in
16 radiography. We continue to assess this performance.
17 With respect to the trend in Agreement
18 State medical events, a large number of these were
19 issues associated with yttrium-90 treatments for
20 liver disease. NRC staff issued new guidance in
21 February of 2016 that in part clarifies what
22 constitutes a reportable event for these types of
23 treatments.
24 Despite the trends within the narrow
25 portions of data, the total of events per year has
26 been relatively stable and very small in comparison

1 with the large number of radioactive materials uses
2 each year.
3 The peak in this graph from 2008 and 2009
4 represents events from Walmart's one-time inventory
5 of their tritium exit signs. Walmart identified a
6 large number of lost signs. There 272 events
7 reported in 2008 and 65 in 2009.
8 Within the NMED events, some met the
9 abnormal occurrence thresholds and are reported to
10 Congress each year in NUREG-0090. There were 17
11 abnormal occurrences identified for fiscal year 2015,
12 15 of those were in Agreement State jurisdiction and
13 two were NRC. All involved medical procedures, one
14 of which was a radiation exposure to the embryo or
15 fetus of a woman who was undergoing a treatment where
16 the pregnancy test performed just prior to the
17 treatment returned a false negative.
18 The 17 abnormal occurrences for fiscal
19 year 2015 is a number that is within the statistical
20 variation of previous year's average of 14 since
21 FY2006. The number of identified medical AOs is
22 approximately 3/10,000th of a percent of the number
23 of medical procedures performed annually.
24 We do not believe there are presently any
25 trends or significant safety concerns among medical
26 licensees. We continue to monitor licensees'

1 performance and provide prompt follow-up response
2 when warranted. Next slide.
3 For fiscal year 2015, the staff conducted
4 a special study of lost, abandoned, and stolen
5 materials events that occurred in the last ten years
6 and found that there is not a statistically
7 significant trend for category 1 and 2, lost,
8 abandoned, or stolen source events over the ten-year
9 period. The data shows a fairly steady average of
10 three to four of these events per year.
11 The graph on this slide displays category
12 1 and 2 events. With regard to the category 1 events,
13 there were two that occurred that involved the loss
14 and recovery of a category 1 iradium-192 sources
15 during shipment by common carrier. Not including
16 irretrievable well logging sources, there were 32
17 events that involved category 2 sealed sources.
18 These included 11 events that resulted from shipping
19 errors, where the sources or devices were temporarily
20 lost in the common carrier system but were not
21 actually -- never left the possession of the carriers.
22 All of those sources were recovered.
23 There were six events that involved the
24 theft of a radiography device and the majority of
25 those were either thefts of a device from a truck or
26 theft of the truck itself. All but one of those

1 devices were recovered. The only device that was not
2 recovered was stolen in July of 2011 from the darkroom
3 of a truck that was parked at a hotel. An extensive
4 search was performed, which included a flyover survey
5 by the Department of Energy but the device was not
6 located. Due to the 73.8-day half-life of that
7 radionuclide, that source would no longer be of high
8 radiological significance.
9 There were 12 events that resulted from
10 errors made by radiography crews, where the device
11 fell from a vehicle that was in transit because it
12 was not properly secured or where the device was left
13 at a jobsite or in one case at an airport. All of
14 those devices were recovered, however, eight of those
15 events occurred in the last two fiscal years, which
16 indicates that the lessons learned process that was
17 undertaken by the radiography industry and by
18 regulators has not been completely effective. We are
19 planning to perform additional outreach to
20 radiography licensees to heighten their awareness of
21 these issues.
22 And then finally, there were three other
23 events that occurred where weather contributed to the
24 loss of the radiography device or, in one instance,
25 where an irradiator was abandoned at a biotechnology
26 facility during an eviction process. All of those

1 devices were recovered. Next slide.

2 In summary, all safety and security goals

3 and performance measures were met in 2015. There

4 were no fuel cycle facilities or materials licensees

5 that met the AARM discussion criteria. The Nuclear

6 Materials Program met all strategic and performance

7 safety and security metrics and there were no

8 significant trending or programmatic issues

9 identified in our review of operational performance

10 trends, licensee performance issues, or other

11 assessments of the materials program.

12 That concludes my remarks and I will now

13 turn the presentation over to Scott Morris.

14 MR. MORRIS: Thanks, Dan.

15 Good morning, Mr. Chairman,

16 Commissioners. Today I am pleased to have the

17 opportunity to provide you with a high level overview

18 of the status of the NRC's power reactor oversight

19 process. Next slide, please.

20 Specific topics I will discuss during

21 today's briefing include the Industry Trends Program

22 results for 2015 and our plans to sunset this program

23 in 2016; the ROP Self-Assessment Program revisions

24 made to improve its effectiveness; the self-

25 assessment results for 2015 and our future

26 activities; and finally, recently completed ROP

enhancements, as well as planned enhancement activities scheduled for completion in 2016. Next slide, please.

The Industry Trends Program has been the element of the ROP designed to monitor industry-wide performance, instead of plant-specific performance. The goal of the program is to identify significant trends in the nuclear industry's overall safety performance using industry level indicators.

The Industry Trends Program is comprised of several short- and long-term indicators, as well as the baseline risk index for initiating events metrics.

For 2015, none of the short-term indicators exceeded their established thresholds. Similarly, none of the thresholds associated with the Baseline Risk Index for Initiating Events were exceeded.

Lastly, there were no statistically significant long-term trends identified that would require generic agency action. The safety system failure indicator did yield a statistically significant adverse trend in 2015 but this outcome was the result of outliers in the data set and the staff determined that no follow-up actions were warranted. Next slide, please.

1 As part of the agency's Project Aim re-
2 baselining initiative, the staff proposed to
3 eliminate the Industry Trends Program. In making
4 this recommendation to the Commission, the staff
5 noted while this program, which has been in place in
6 its current form since 2001 has helped to validate
7 broad industry performance trends. No regulatory
8 actions have directly resulted from Industry Trends
9 Program insights.
10 Simply put, the value derived from the
11 program relative to its operational cost does not
12 support its continued implementation. The staff
13 believes that any adverse trends in industry-wide
14 performance that would otherwise be detected by the
15 Industry Trends Program would very likely be
16 identified through other agency processes. Examples
17 of other process include ongoing licensee performance
18 assessment activities, ongoing ROP self-assessment,
19 annual End of Cycle Assessment Meetings, the Agency
20 Action Review Meeting and the Robust Operating
21 Experience Program.
22 As you know, the Commission approved the
23 staff's proposal to eliminate the Industry Trends
24 Program and the program is currently in the process
25 of being abolished. Next slide, please.
26 I would like to now turn to ROP self-

1 assessment related activities. With the Commission's
2 approval, the staff did not perform an ROP self-
3 assessment for 2014 and, instead, focused its
4 resources on addressing the numerous ROP improvement
5 recommendations received from multiple independent
6 sources in 2013 and 2014 and, as part of that,
7 developing a more efficient and effective ROP self-
8 assessment process.
9 Last fall, the staff finalized the
10 pertinent Self-assessment Program governance
11 documents to implement the new process and an
12 information paper was provided to the Commission in
13 December 2015 describing the revised approach and the
14 staff's implementation plans for 2016 and beyond.
15 The revised approach now consists of
16 three elements. Element 1: Assessing staff adherence
17 using, for example, objective performance metrics to
18 measure the effectiveness of and staff adherence to
19 the ROP. Element 2 assesses recent ROP changes to
20 validate that these changes achieved their desired
21 outcomes. And Element 3 involves performing a
22 focused in-depth evaluations of specific ROP aspects
23 and conducting Regional Office peer reviews.
24 Some of the key benefits of the new self-
25 assessment process are that it adds accountability to
26 increase assurance that the ROP is being reliably and

1 predictably implemented across the entire power
2 reactor fleet. It is also a continuous year-round
3 activity versus a once per year focused effort. And
4 finally, it enables more in-depth evaluations of key
5 program aspects and involves a broader engagement of
6 internal stakeholders. Next slide, please.
7 Because 2015 was a transition year for
8 the new ROP Self-Assessment Program, implementation
9 was limited to Element 1 and portions of Element 2 of
10 the new process. Specifically, the staff completed
11 an analysis of performance metric data, evaluations
12 of certain ROP processes, and reviews of recently
13 completed ROP enhancements in related ongoing
14 activities. The more detailed aspects of both
15 Elements 2 and 3 required more time to be effectively
16 implemented than was possible before the new self-
17 assessment process was finalized.
18 For 2016 and beyond, the staff will
19 complete all three elements of the revised program.
20 So, specifically under Element 2 in 2016, we will
21 conduct comprehensive evaluations of recent changes
22 to the security baseline inspection procedures and
23 modifications to the ROP that address lessons learned
24 from the staff's implementation of Inspection Manual
25 Chapter 0350 oversight at the Fort Calhoun Station
26 and 95003 inspection at Brown's Ferry.

1 Under Element 3, we will perform a
2 comprehensive review of the agency's inspector
3 training and qualifications program, as well as an
4 ROP implementation peer evaluation of Region II.
5 In summary, the 2016 ROP self-assessment
6 will include all aspects of the revised Self-
7 Assessment Program and will be documented in our
8 annual SECY paper in early 2017. Assessment results
9 will be discussed with senior NRC management at the
10 2017 Agency Action Review Meeting and with the
11 Commission at next year's briefing. Next slide,
12 please.
13 The results of the 2015 limited ROP self-
14 assessment were documented and provided to the
15 Commission in an April 2016 SECY paper. Three of the
16 26 total Self-Assessment Program metrics were deemed
17 to be not applicable for 2015 because their supporting
18 data was not readily available. Of the 23 remaining
19 metrics, 22 were evaluated as green, indicating that
20 they had met their specific criteria or specified
21 criteria, that is that they represented expected
22 program performance and, therefore, did not warrant
23 further staff evaluation. No metrics were evaluated
24 as yellow, which would demonstrate a downward
25 performance trend that warrants further evaluation
26 and potential staff action to reverse the trend.

1 Only the timeliness metric associated
2 with implementing the significance determination
3 process was assessed as red.
4 In 2015, 88 percent of the opportunities
5 to implement the SDP for greater than green inspection
6 findings were completed within 90 days versus the
7 acceptance criterion of 90 percent. As you know, the
8 staff is currently engaged in a comprehensive SDP
9 streamlining effort to improve SDP timeliness, while
10 maintaining its effectiveness.
11 In 2015, the staff also evaluated the
12 effectiveness of each of the four major program areas
13 of the ROP consistent with the revised self-
14 assessment process. These evaluations were included
15 in the ROP self-assessment SECY paper and encompassed
16 the performance indicator program, the inspection
17 program, the SDP, and the assessment program.
18 Specifically, the staff noted that the performance
19 indicator program continued to offer insights into
20 plant safety and security performance. NRC
21 inspectors independently verified that licensees
22 operated the plant safely and securely. The SDP
23 continued to be a generally effective tool for
24 determining the safety and security significance of
25 inspection findings. And the assessment program
26 continued to ensure that the NRC took appropriate and

1 predictable actions to address licensee performance
2 issues commensurate with their safety significance.
3 Lastly, with respect to the 2015 self-
4 assessment, the staff documented numerous but less
5 obvious improvements to the ROP governance documents
6 and noted substantial progress addressing the various
7 program improvement recommendations. Again, further
8 details are provided in the enclosures to the ROP
9 Self-Assessment SECY paper. Next slide, please.
10 As part of the Agency Action Review
11 Meeting, at which the ROP Self-Assessment is
12 discussed, the staff briefs senior NRC management on
13 any action matrix deviations approved during the
14 previous year, along with a description of the changes
15 needed or made to the ROP to address any resultant
16 lessons learned from the need to pursue the deviation.
17 Executive Director for Operations
18 approved one new action matrix deviation in 2015,
19 which was associated with oversight of the Monticello
20 Nuclear Generating Plant in Region III.
21 Specifically, Region III management requested that
22 Monticello be placed in the regulatory response
23 column of the action matrix that is column 2, rather
24 than the multiple/repetitive degraded cornerstone
25 column, that is column 4, which would have been
26 prescribed by the ROP assessment program. After

1 careful consideration, the EDO approved the deviation
2 because of the successful completion of both the 95002
3 supplemental inspection and a biannual problem
4 identification resolution inspection at the site, as
5 well as a lack of evidence of any broad or systemic
6 performance issues across plant organizational areas.
7 In sum, the staff concluded that
8 placement of Monticello in column 4 of the action
9 matrix and the regulatory actions associated with
10 column 4 were not warranted.
11 The Monticello deviation remains open,
12 pending the NRC staff's review of the license's safety
13 culture assessment, which is currently scheduled for
14 next month.
15 Consistent with the ROP Self-Assessment
16 process, the staff also evaluated the circumstances
17 leading to the deviation and determined that no
18 programmatic changes to the ROP were needed. It is
19 worth noting that since the inception of the ROP in
20 2000, there have only been 23 approved action matrix
21 deviations. I would also like to point out that
22 these deviations from the action matrix had resulted
23 in both increases and decreases in NRC oversight
24 relative to what would have otherwise been
25 prescribed. In fact, only six of the 23 deviations
26 were granted to decrease regulatory oversight

relative to what the ROP would have dictated. Next slide, please.

So to summarize, the staff self-assessment results to date continue to indicate that the ROP provides effective regulatory oversight of the nation's operating power reactors by meeting established program goals and achieving its intended program outcomes. Specifically, the ROP ensured openness and effectiveness in supporting the agency's mission and its strategic goals of safety and security and it was successful in being objective, risk-informed, understandable and predictable. The limited 2015 self-assessment using the new process confirmed that the staff had implemented the ROP predictably and reliably during 2015. Future self-assessment activities will include all of the aspects of the revised self-assessment process including a focus on the efficacy of recent changes to the program, performing in-depth reviews of specific areas of interest and continuing to ensure staff adherence to program governance. Next slide, please.

I will now provide a brief update on the numerous ROP activities in which the staff has been engaged over the past year. As a reminder, most of these activities were spawned by evaluations and/or recommendations derived from a variety of sources,

1 including but certainly not limited to the
2 Commission-directed independent assessment, the
3 staff's own significance determination process
4 Business Process Improvement Initiative, lessons
5 learned from the Fort Calhoun 0350 oversight, and the
6 Brown's Ferry 95003 supplemental inspection, and the
7 San Onofre Steam Generator tube degradation event.
8 Recommendations and feedback were also
9 addressed based on real-time continuous feedback that
10 we received from inspectors in the field throughout
11 the year.
12 Some of the more significant ROP
13 enhancements that we completed in 2015 include
14 revising and improving numerous baseline inspection
15 procedures across all of the cornerstones, modifying
16 the cross-cutting issue process, changing the ROP
17 action matrix criteria for what performance
18 assessments inputs constituted degraded cornerstone,
19 and multiple repetitive degraded cornerstone, also
20 improved several internal and external ROP-related
21 communication tools, and redesigned the ROP self-
22 assessment processes I have just described. Next
23 slide, please.
24 The staff continues its work on several
25 other key program enhancements, many of which are
26 scheduled to be completed in 2016. These include

1 revising the triennial Component Design Bases
2 Inspection to make it less resource intensive, while
3 maintaining its effectiveness.
4 After several public meetings with
5 industry, the staff began conducting pilot CDBIs at
6 eight operating reactors sites. The pilot
7 inspections will be completed by next month. The
8 staff has scheduled another meeting with industry
9 representatives in July at which the lessons learned
10 from the pilot inspections will be discussed and soon
11 after incorporated as appropriate into revisions of
12 the CDBI procedures. Another enhancement to be
13 completed this year involves clarifying the
14 inspection findings screening process and the
15 associated program governance documents to improve
16 agency-wide consistency in the characterization of
17 inspection findings. We are also piloting various
18 SDP streamlining project proposals in an effort to
19 improve the timeliness and predictability of SDP
20 outcomes. The staff has solicited input from
21 industry representatives at several public meetings
22 and even conducted a dedicated session at the March
23 2016 regulatory information conference on this
24 project.
25 We are clarifying ROP and enforcement
26 program expectations relative to when and how to

1 process licensee performance and/or compliance issues
2 in the ROP, in traditional enforcement, or both. We
3 are streamlining the inspection report development
4 process, as well as the inspection report content to
5 better serve internal and external stakeholders while
6 maximizing regulatory clarity, openness, and
7 efficiency. And finally, we are continuing to
8 develop the ROP to incorporate new reactor
9 technologies. Given current construction schedules,
10 new performance indicators in a modified baseline
11 inspection program will need to be in place in the
12 next two years to ensure a smooth transition from
13 construction to operation for the AP1000 reactors at
14 Summer and Vogtle.
15 That concludes my remarks and I look
16 forward to your questions. I will now turn the
17 presentation over to Victor McCree for closing
18 remarks. Thank you.
19 MR. MCCREE: Thanks, Scott.
20 Chairman, Commissioners, I recognize we
21 have covered a lot of ground in the last 54 minutes.
22 So, I appreciate your attention.
23 In summary, we have met the objectives of
24 the Agency Action Review Meeting process and our
25 discussions confirm that the actions that we have
26 taken and the actions that we are currently

1 implementing are appropriate and consistent with our
2 oversight processes.
3 Before taking your questions, I would be
4 remiss in not recognizing that this is Commissioner
5 Ostendorff's last Agency Action Review Meeting as a
6 commissioner. We appreciate your insightful
7 constructive and challenging support of our efforts
8 to ensure that our oversight processes and the
9 decisions that we make to implement those processes
10 are appropriate and implemented in a manner that is
11 consistent with our principles of good regulation.
12 And with that, we are ready for your
13 questions.
14 CHAIRMAN BURNS: Thank you and thanks for
15 the presentations. As you said we have covered a lot
16 of ground here, both in terms on the overall program
17 as well as the two plants that deserve particular
18 attention.
19 This morning we will start questioning
20 with Commissioner Baran.
21 COMMISSIONER BARAN: Thanks, Mr.
22 Chairman. Thank you all for your presentations and
23 all of your work.
24 Dan, I want to jump right in with some
25 questions on Pilgrim's performance. The background
26 materials for the 2015 annual assessment letter

1 indicated that progress at Pilgrim was very slow at
2 that time. Inspectors weren't seeing operations
3 management embracing the need for change and they
4 seemed more focused on regulatory categorization than
5 on addressing actual deficiencies. Is this still the
6 case today or is the NRC staff seeing significant
7 improvement at the site?
8 MR. DORMAN: We are seeing improvement.
9 I think from the time that we issued the assessment
10 letter in September of 2015, you will recall that
11 during the fall Entergy was doing their own due
12 diligence on the future of the facility and decided
13 later in the fall that they would close the facility
14 in 2019 but that first they expect to recover the
15 plant to expected levels of performance.
16 Since that time late last year they
17 started bringing in outside resources. They have
18 established mentors for processes and programs within
19 the site. Initially, we saw significant gaps between
20 the expectations being communicated by the mentors
21 and the level of performance from the staff and we
22 are starting to see those gaps closing.
23 So, I think significant leadership
24 engagement and external resources are helping to
25 start seeing change at the site. What we will be
26 looking for in the 95003 later this year, hopefully,

1 is that that is becoming engrained in the culture of
2 the organization and becoming a sustained turnaround.
3 COMMISSIONER BARAN: What do you see as
4 Pilgrim's key challenges with respect to its
5 corrective action program?
6 MR. DORMAN: With respect to the
7 corrective action program during the most recent
8 assessment letter, we identified a cross-cutting
9 theme in the area of problem identification and
10 resolution. And you may recall in our process, that
11 means that we had at least a dozen findings during
12 the assessment period, which indicated weaknesses in
13 some aspect of that program and they touch on all
14 aspects of the program, recognizing that they have an
15 issue and getting it into the program, doing an
16 adequate evaluation of the causes and then such that
17 you can develop and implement effective corrective
18 actions so that the issues that arose during the
19 assessment period really touch in all three areas of
20 the program. And I think, broadly, it is a question
21 of standards and a questioning attitude throughout
22 the organization. And I think that is where, in
23 particular with respect to the corrective action
24 program, where we are seeing some impact from the CAP
25 mentor to help the staff start realizing that there
26 is a higher expectation than the level that they have

1 been providing.

2 COMMISSIONER BARAN: So, it sounds like

3 you are seeing some progress, some change, but there

4 is work to do. There is a ways to go still.

5 MR. DORMAN: Yes.

6 COMMISSIONER BARAN: Okay. Marc, for

7 ANO, you walked through some of the key performance

8 issues and causes in areas where you have seen

9 improvements. As you sit here today, what are your

10 biggest outstanding concerns for the units at ANO?

11 MR. DAPAS: Well, I think the most

12 important thing for the licensee to focus on is

13 effective implementation of their comprehensive

14 recovery plan and they need to ensure that the

15 appropriate resources are allocated for effective

16 implementation.

17 The licensee has done an organizational

18 capacity study. They understand where the gaps are

19 to principally operations, maintenance, and

20 engineering. I think the key is ensuring that they

21 have staff sufficient to address those gaps.

22 When you look at what were the causes for

23 some of the performance declines you had staff that

24 prioritized various actions because they did not have

25 the staff necessary to prevent increases in work

26 backlogs, in corrective action backlogs.

1 I also think that there needs to be a
2 focus on culture. I think at ANO specifically, there
3 was in the past a bias to mitigate vulnerabilities,
4 rather than eliminate. The staff would lock into
5 what appeared to be the best mitigative strategies
6 versus focusing on addressing equipment issues. And
7 that translates to equipment reliability challenges,
8 which then subsequently can challenge the operators
9 when the equipment is not available. In response to
10 any plant upset condition, you want that equipment to
11 be reliable. So, you want to ensure there aren't
12 latent conditions there. And that bias toward
13 mitigative rather than eliminating the problem I
14 think is something that Entergy understands and is
15 addressing.
16 So, those are some of the challenges that
17 I see going forward with respect to Entergy.
18 And then I guess the last thing I will
19 mention is ensuring that they have adequate
20 procedures, programs, processes in place and
21 expectations that are clear regarding oversight for
22 supplemental workforce, particularly during outages.
23 COMMISSIONER BARAN: Okay, thank you.
24 You both noted in your presentations that both sites
25 had issues with their corrective actions programs.
26 Are there other problem areas that you are seeing

1 common to both of these sites? Are there issues that
2 you consider to be fleet-wide for Entergy?
3 MR. DAPAS: I will offer a perspective
4 there. As I mentioned in my remarks, I think
5 benchmarking has historically been limited at the
6 Entergy sites. And Entergy needs to look at through
7 benchmarking or they are providing what I would call
8 the right frame of reference regarding what good looks
9 like. And I think you achieve that, in part, through
10 benchmarking and that also impacts the discretionary
11 effort that you see from the workforce.
12 And it is important that there is a clear
13 understanding in the role of what they call the
14 corporate functional area managers that are providing
15 corporate oversights and that transcends across all
16 the Entergy sites because they use those CFAMs to
17 communicate expectations and engage management at the
18 site. And it is part of their assessment process to
19 look at how the various sites are performing.
20 And the other thing I would just offer I
21 think it is important that there is a consistent set
22 of performance indicators across the Entergy fleet.
23 I think there were challenges at ANO with the
24 performance indicators not providing the information
25 that the licensee needed to understand whether there
26 were issues or trends at ANO and I think that

1 potentially exists with the other sites as well.

2 MR. DORMAN: Yes, I would just add to

3 that I think in discussing fleet-wide issues what I

4 see as the challenge is it is not that they have

5 fleet-wide standards and processes that are weak, it

6 is that they have vulnerabilities at their stations

7 because they don't have a consistent fleet-wide

8 standard.

9 MR. DAPAS: I would add one additional

10 thing. The corporate procedures provide for

11 flexibilities. My understanding is it came as a bit

12 of a surprise when Entergy really looked at it. The

13 degree to which those flexibilities were being

14 exercised so that you actually had significant

15 differences in how elements of the various programs

16 and processes were being implemented at the

17 respective sites.

18 And I can speak just for the Entergy South

19 sites, is where we saw that. When you look at River

20 Bend versus ANO, et cetera.

21 COMMISSIONER BARAN: Thank you.

22 Scott, I want to ask a couple of brief

23 questions about the significance determination

24 process. In 2015, as you mentioned, the staff

25 narrowly missed the timeliness metric. Two of the

26 17 total determinations exceed the 90-day goal. One

of those is off by a matter of days, as I understand it.

I am open to exploring ways to streamline the significance determination process if it makes sense but I want to make sure we are not overreacting. Can you talk a little bit about what do we see, what does the staff see as the problem we are trying to solve with these efforts? Is the staff's view that the significance determination process is generally too slow? Is the concern that there are the occasional outliers that are taking too long? What degree of consensus is there among the staff about the problem we are trying to solve?

We have got a minute or two to talk about that.

MR. MORRIS: Sure thing. Thanks for the question. So, there is a lot to that question. I will try to keep it brief.

First and foremost, the SDP streamlining is kind of a misnomer because it is really the beginning and end of the entire issue screening process to identifying whether or not there is in fact a performance deficiency to the point where we document something in an inspection report with our preliminary assessment, followed by the more formal and rigorous application of the significance

1 determination process, potentially a regulatory
2 conference, and then a final issuance.
3 So, really when we are -- the team that
4 we have assembled looking at this is kind of looking
5 at the entire process, not just the formal SDP piece
6 of it, which is kind of at the back end.
7 Given that, what is the problem we are
8 trying to solve? We believe, based on -- and there
9 has been, as you know, a fairly robust internal
10 discussion about where the real challenges are and
11 where is the low-hanging fruit -- we believe a lot of
12 the low-hanging fruit is really on the front end,
13 really associated with managing the issue once
14 identified at a particular site actively and
15 effectively in the organization at the branch chief,
16 even the division level, to ensure that appropriate
17 resources are being applied to the issue; that
18 effective communications are occurring within the NRC
19 staff, as well as with the licensee, to ensure that
20 there is a clear understanding of what the proximate
21 cause is; whether or not there, in fact, is a
22 performance deficiency up to and including an
23 understanding of how well, if it happens to be one of
24 the SDP that is quantitative in nature using a
25 probabilistic risk assessment tool, how well that
26 particular tool fits that particular situation; what

1 uncertainties do we have to address.

2 Basically, to understand how viable is

3 our tool early. And if there are going to be

4 challenges recognizing that early so that we can apply

5 the appropriate amount of NRC staff resource to go

6 after to come to a resolution at issue in a more

7 timely and effective manner. Those are really where

8 we are focusing our efforts right now. There are a

9 lot of other aspects but due to a lack of time, I

10 won't go into all of them. Perhaps another

11 Commissioner will have a question about it.

12 COMMISSIONER BARAN: Okay, thanks, I

13 appreciate that succinct response there and I am

14 looking forward to seeing what the staff comes up

15 with. Thank you.

16 CHAIRMAN BURNS: Thanks. And again,

17 thanks for the presentations. I am going to try to

18 touch on a number of areas here, both in terms of our

19 generic programs but also performance of the two

20 plants that are before us today.

21 I guess this is probably a question for

22 both Marc and Dan but you touch on and I think in

23 answer to Commissioner Baran's question and as well

24 as in your presentations. Some of the issues in

25 terms of what we look at in particular plant

26 performance but the concern, stepping back, sort of

1 fleet performance and I know a number of the
2 administrators and I think Director of NRR met with
3 the Entergy executives. What is a message or what
4 did you see or gain from that discussion in terms of
5 recognition of potential issues that they need to
6 address in the fleet or where you see areas of focus
7 that Entergy really needs to be on, given that yes,
8 we have particular plant performance issues but we
9 are hearing some of the same things in terms of these
10 two plants, particularly?
11 MR. DAPAS: From my perspective, I think
12 one of the things that we heard at that status of the
13 fleet meeting was the recognition by Entergy that
14 they are an outlier in terms of performance relative
15 to the industry. I think the performance indicators
16 they had been using in the self-assessments that would
17 look at one station and how they implement programs
18 and processes relative to another station didn't
19 provide for that assessment relative to industry
20 performance. And that relates to the benchmarking
21 that I mentioned. I also think there have been
22 challenges with corrective action program
23 implementation and that was an area of discussion or
24 a topic of discussion. And one of the things we
25 talked about was when you do causal assessments, are
26 you looking at the organizational and programmatic

1 issues that contribute to a particular issue or
2 concern and not just focusing on the technical issue.
3 So, I think that is an area that Entergy recognizes
4 they need to address across the fleet.
5 And then I think most importantly is
6 equipment reliability challenges. And there as a
7 discussion we had about the increased number of scrams
8 at the various Entergy sites or trips relative to
9 industry performance. And Entergy, as I understand
10 it has embarked on an aggressive effort to understand
11 where they have single point vulnerabilities and
12 address those but equipment reliability is something
13 that I think Entergy needs to look at very hard as a
14 fleet.
15 CHAIRMAN BURNS: Okay. Dan?
16 MR. DORMAN: I agree with everything Marc
17 said and particularly I think it was clear in that
18 meeting that the senior leadership of Entergy has
19 bought into that it is not just Pilgrim and ANO. They
20 have fleet issues that they need to address.
21 And I think equipment reliability is an
22 issue. I spoke to Commissioner Baran's comment about
23 the lack of a consistently applied standard, a fleet
24 expectation. And I think one of the things that we
25 have seen at Pilgrim I think is an issue that we were
26 talking about 20 years ago and they didn't move past

1 it was a reliance on skill of the craft versus a rigor
2 of procedures. And so in the scram in January of
3 2015, they experienced a loss of instrument air as a
4 result of the failure to start of a diesel driven
5 compressor. And there were challenges for the
6 operators in that the instrument air -- the loss of
7 instrument air procedure was not complete in
8 addressing what functions they would lose and there
9 was a reliance there on the skill of the craft that
10 was not up to where it needed to be with that respect
11 to that particular issue.
12 So, one of our follow-up actions in our
13 problem identification samples back in the fall was
14 getting our operator license examiners in the
15 simulator with their shift and observing their
16 response to similar conditions.
17 So, I think there is a rigor in their
18 processes that because of a lack of benchmarking I
19 think they have not kept up with industry standards
20 that have changed on them.
21 MR. DAPAS: One last thing I will add we
22 did have some discussion regarding the degree of
23 engineering rigor that is applied within the
24 engineering organizations when you are looking at
25 50.59 evaluations operability determinations. And I
26 think there are opportunities to increase the

1 organizational capacity in terms of the quality and
2 capabilities of the engineering function.
3 CHAIRMAN BURNS: Okay and one of the
4 things I know you and I were at ANO I guess in April
5 together and had an opportunity to visit the site.
6 One of the points of discussion at ANO
7 and I think you touched on it as well, Marc, is this.
8 A relationship in terms of the safety culture at the
9 site related in part to staffing considerations. And
10 in fact I will use the term, these are my words, in
11 fact starving the staffing over a period of time so
12 that it almost seemed like I said, sort of a loss of
13 experienced folks, greater reliance on contractors
14 resulted in a certain culture, if you will, at the
15 site.
16 Can you maybe fill in the gap and sort of
17 talk about that a little bit and how we saw that
18 manifested and where you think they are going with
19 that? Because it is not just a matter of going out
20 and picking up experienced staff on the street, you
21 know, development. That is a challenge in this
22 industry. It is a challenge for us, as an Agency.
23 So, if you would talk to that.
24 MR. DAPAS: Thanks. I think one of the
25 challenges is, as I discussed, was the various
26 resource reduction initiatives 2007, 2013. And my

1 understanding is that at least at ANO, and you can
2 certainly engage them specifically when you talk to
3 Entergy management is the view at the site was you
4 are expected to make do with what is provided. Don't
5 challenge whether there are inadequate resources.
6 These are initiatives that are being implemented
7 across the fleet and so leadership is expected to
8 determine how to get the work done with the resources
9 that are provided.
10 And as I understand it, corporate would
11 have provided additional resources but ANO didn't
12 raise the flag say there are more folks that we need
13 to implement the programs and processes in a
14 comprehensive manner. And so there were decisions
15 that were being made at lower levels of the
16 organization regarding prioritization of work that
17 management was not aware. They thought things were
18 getting done like apparent cause evaluations et
19 cetera in a quality manner and they weren't because
20 lower levels of the organization had to make resource
21 prioritization decisions. So, I think that was a
22 particular challenge.
23 And then when it comes to contractor
24 oversight, I really just think that Entergy needs to
25 look at the infrastructure they have in place. For
26 example other licensees do this -- they have

1 contractors provide supervisory oversight of other
2 contractors. And you can do that as long as you have
3 a procedure and have a consistent set of standards
4 there and there is a qualification process that you
5 go through and implementing that in a rigorous manner
6 will provide for that effective oversight, if you are
7 going to rely on contractor supervisor oversight
8 versus individual licensee employees. Both will
9 work. It is all a matter of how you implement those
10 two different approaches.
11 CHAIRMAN BURNS: Okay, thanks.
12 And Dan, I want to go specifically on
13 Pilgrim. One of the questions we sometimes get with
14 respect to Pilgrim, given the fact that is announced
15 that it will be shutting down in 2019, is what's the
16 real commitment here. What is the real commitment
17 to address these issues? How is it NRC, in terms of
18 your oversight program, you are really focused on the
19 right things in ensuring that the licensee implements
20 a safe operation, a safe program?
21 How would you respond to that in terms of
22 what you see in terms of our inspection program
23 addressing monitoring this issue regarding -- in
24 effect, what are the incentives to core improvement
25 here, given this is a plant that is going to shut
26 down in three years?

1 MR. DORMAN: I think first is the
2 investment that we see on the ground. The licensee
3 has brought in substantial external resources. I
4 mentioned the mentors that they have put in place to
5 drive process improvement at the site. So, they
6 clearly are at the leadership level bought into it.
7 The fact that we are seeing some movement
8 on the staff performance toward the mentor standards,
9 I think is an indication that the staff is buying
10 into it to a degree.
11 I think they received a number of staff
12 from Vermont Yankee when that station closed at the
13 end of 2014. I think a number of those people have
14 brought a mentality of finish strong that are a seed
15 corn, if you will, in the culture at Pilgrim Station.
16 So, I think there are certainly
17 indications that leadership wants to bring it to a
18 better place and that that buy-in is taking some hold
19 in the staff.
20 I think from an oversight perspective, we
21 have the experience with Vermont Yankee of about a
22 year and a half of operation with an announced closure
23 to adjust our oversight to focus on ensuring that
24 operations and maintenance focus remained on the
25 appropriate priorities. And they did finish strong
26 at Vermont Yankee, addressing a number of issues

1 during that last year and a half of operation. We
2 have -- implemented a similar oversight process for
3 FitzPatrick and Oyster Creek, which also have
4 announced closures.
5 With Pilgrim, we are more focused on the
6 column 4 response and so we have not gotten into a
7 pre-closure oversight activities but the column 4
8 response will address those human performance issues,
9 those safety culture issues, the equipment
10 reliability issues that we would focus on as they
11 approach the announced closure.
12 CHAIRMAN BURNS: Okay, thanks very much.
13 Commissioner Svinicki.
14 COMMISSIONER SVINICKI: Good morning and
15 thank you all for your presentations.
16 To Mr. Dapas and Mr. Dorman, I want to
17 thank you for your presentations which were thorough
18 and clear. So, the good news is, I probably won't
19 have a lot of questions for you. My colleagues have
20 asked a number of questions.
21 You're both very capable and that's one
22 of the reasons that your presentations were well done.
23 But, it's also an outgrowth of the teams you lead of
24 very capable individuals.
25 And, I think it also has its origins in
26 the fact that the reactor oversight process is

1 systematic, disciplined, understood and it allows you
2 to discuss outcomes today that have a certain level
3 of transparency that maybe previous reactor oversight
4 processes did not have.
5 And, that's really one of the strengths
6 of the ROP. I tend to make this observation at the
7 briefing on the AARM results that the system we have
8 now, which we look at consistently, as we heard
9 presentations on business improvement initiatives and
10 other enhancements to the ROP.
11 Nothing is perfect at its origin, so we
12 continue to look at it and to feed back in our
13 experience with it which I think, as a learning
14 organization, is very appropriate.
15 But, I think we also need to proceed with
16 some caution and discernment in terms of where the
17 process is strong, we need to be very vigilant and in
18 guarding those strengths of the program.
19 I will briefly mention, since Mr. Collins
20 has not had any questions, that the -- we also cover
21 the materials side of our program at this meeting.
22 And, the staff reached its conclusion this year that
23 all strategic outcomes, safety performance measures
24 and security and performance measures for fiscal year
25 '15 were met and, therefore, concluded from the
26 assessment of overall performance data. There were

1 no discernable performance trends or generic
2 concerns.
3 I think I would offer, therefore, the
4 observation that I encourage the staff in the
5 materials program to remember that result in light of
6 areas of regulatory action we're exploring now in
7 ocular, dermal and other external hazards, again, in
8 the materials area, NRC has generally acknowledged
9 it's very important to have a graded application of
10 things commensurate with the safety hazard and the
11 risk significance.
12 So, we are reporting this year, as a
13 result of the Agency's review, that we didn't have
14 any discernable trends or generic concerns and so we
15 need to always be feeding that result into our
16 consideration of new regulatory issues.
17 Construction oversight is one of the
18 companion papers that comes along with the package of
19 materials for this Agency Action Review Meeting. It
20 received a glancing blow here today, but there is, of
21 course, the companion paper which discusses the
22 staff's assessment in greater detail.
23 I'd like to share an observation and
24 encouragement on the CROP, as we call it, construction
25 reactor oversight process.
26 Interesting history there is that the

1 program in the form it exists today had its origins
2 back in a NUREG in 1996.
3 If you look at that document of the
4 development of what is now our construction reactor
5 oversight process, at that time, there was a very
6 detailed job task analysis.
7 There were a number of mechanical
8 structures for the program that were considered. Not
9 all of those were adopted.
10 But, interesting and of note to me, is
11 that, at the time it was assessed that the entire
12 inspection program under what became the CROP per
13 site would be approximately 17,000 hours of
14 construction inspection oversight.
15 For Vogtle and Summer by the time the
16 licenses were issued, that had risen to about 33,000.
17 And, with our experience at the two sites to date,
18 it's projected to be about 35,000 of construction
19 inspection hours.
20 So, interestingly, in 1996, to carry out
21 the inspection program of 17,000 hours we assessed
22 that we needed 6 to 12 resident construction
23 inspectors at the sites.
24 Right now, our assessment is that we need
25 five. And, with the surged capacity out of the
26 construction inspection program in Atlanta in our

1 Region II office, that we will take care of this.
2 Interesting to note, I visit the sites
3 fairly routinely and the statistic was pointed out to
4 me that, with six years of on-site presence, I'll use
5 Vogtle as the example, though I think Summer is about
6 the same, six years that the CROP has been present on
7 the sites and in action, we're about 20 percent
8 complete on that 35,000 hour inspection program.
9 In approximately the next two years, we
10 will have to complete 80 percent of the program with
11 five people.
12 So, what I'm seeking from the NRC
13 leadership that I've met with on this topic is simply
14 a commitment that we will have a very consistent
15 attention on the needed inspection resources at
16 Vogtle and Summer.
17 And, I'm acquainted with the history and
18 it made a lot of sense to me, that when I arrived and
19 we had 28 COL applications and we thought we might
20 have 8 to 10 construction sites in the southeast
21 United States at any given time, the notion that you
22 would deploy out of Atlanta, I think was very sound.
23 We have two sites, though, and they're
24 very close together. So, I'm simply seeking from the
25 NRC managers a very consistent attention on this over
26 the next 12 to 24 months.

1 The deployment from Atlanta, I am told,
2 becomes logistically complex because it is
3 construction and you have a schedule, but it's more
4 likely than not that things will not occur as at the
5 time frame where they are listed on the schedule.
6 So, we're looking for flights into
7 Augusta. We're looking at shifting hotel rooms.
8 As a practical matter, the inspectors
9 tell me, it's a little more complicated than we
10 thought.
11 So, I think we need to manage that, both
12 sites have also added a back shift which means that
13 I've got, you know, five people, maybe not all of
14 them are fully qualified inspectors that are trying
15 to cover multiple shifts including the back shift.
16 These are our boots on the ground. We
17 call them that all the time. So, I think that I'm
18 asking for special attention to meeting their needs
19 and not over stressing them.
20 In the next two years, they might also
21 want to take an occasional family vacation or do
22 something like that. And, I think we don't want to
23 burn people out.
24 So, we didn't talk much about CROP, but
25 I think, as I've indicated to you today, it's much on
26 my mind. And, again, I'm just asking, as I'm

1 confident we will, to have a lot of care and attention
2 to that.
3 I'll close by wishing Mr. Morris well
4 wishes. He will soon be taking on a new
5 responsibility that the Agency has asked him to do.
6 And so, this may be the end of our
7 dialogue about changes to the significance
8 determination process. You have not been able to
9 convince me, not that you haven't given it a spirited
10 try.
11 I attended the RIC session that you made
12 reference to in your presentation. And, although Mr.
13 Lochbaum likely part company respectfully on a number
14 of topics, I found his presentation very compelling.
15 He looked at the timeliness statistics in
16 a hard data driven kind of look.
17 And, I wasn't surprised to read the
18 staff's assessment that we were only, by a couple of
19 determinations, made us miss the metric. One was by
20 a few days as Commissioner Baran noted.
21 And, it is my view that for processes of
22 this complexity, it is not reasonable to think you're
23 not going to have one or two particularly complex
24 circumstances in a given year.
25 I liked Commissioner Baran's term about,
26 you know, we have to look at this, but we shouldn't

1 over react. I know NRC hates missing metrics because
2 we're regulators and so we are hard judges on
3 ourselves. But, I think we're always going to have
4 some outliers.
5 Those are outliers for a reason. They
6 pose some kind of complexity and I think short cycling
7 the process is where we will disappoint ourselves.
8 The other thing I'm monitoring closely is
9 Appendix M, or as we like to call it, Appendix Mike,
10 here.
11 It is, for those not acquainted, I want
12 to get the title exactly right. We've recently
13 issued an update recently in the last couple of years
14 to the Technical Basis for Inspection Manual Chapter
15 0609, Appendix M, entitled Technical Basis for the
16 Significance Determination Process Using Qualitative
17 Criteria.
18 Now, this is a dialogue that's been going
19 on for a while, quantitative versus qualitative.
20 And, although I acknowledge that there's maybe been
21 a little bit of hyperventilating, we're always going
22 to have a mix of both quantitative and qualitative
23 factors.
24 I will be suggesting and encouraging the
25 staff to be looking at the invocation or use of
26 Appendix M. Have we been looking at trends there?

1 Are we becoming more comfortable in short cycling the
2 hard work of quantitative, which I think that Dan and
3 Mark would agree that one of the things that gives
4 the ROP all its rigor is the fact that it has a lot
5 of analysis and, therefore, that's a lot of hard work
6 for us.
7 I think it can be attractive over time to
8 say, well, I kind of know where the outcome should be
9 and if I could just kind of short circuit it with
10 qualitative aspects, I might be able to get where I
11 need to go.
12 So, again, I can't direct, but I would
13 encourage the staff to -- I think it may be getting
14 to be the appropriate time to look at Appendix Mike
15 utilization and whether or not that's having an
16 enhancing or detrimental effect to the overall rigor
17 and discipline of the ROP.
18 I will just tell you, which Mr. Morris
19 knows, but I will make clear, that as long as I am
20 privileged to serve on this Commission, I will be
21 very possessive and do not miscalculate the
22 Commission's level of ownership over the ROP. We're
23 very, very invested in this process.
24 I will oppose anything that I assess to
25 be making the ROP more like the systematic assessment
26 of licensee performance which, if you don't know,

1 preceded it, and, despite it's name, was, in my view,
2 not terribly systematic and not, at the end of the
3 day, a very accurate assessment of performance of
4 licensees.
5 So, I stand in clear opposition to moving
6 in that direction and I've run over, so sorry if
7 anyone wanted -- Victor, you can pull rank here and
8 give some reaction. Just saying that all sounds good
9 to me is fine.
10 MR. MCCREE: You covered a lot. It all
11 sounds good to me, Commissioner.
12 And, some of us -- many of us at the table
13 actually implemented the systematic assessment of
14 licensee performance and celebrated its demise -- sun
15 setting.
16 Appendix M is certainly not intended to
17 short circuit the Commission's policy on risk
18 informing our oversight processes. In fact, we put
19 it in place to assist in achieving that end to fill
20 gaps, if you would, when quantitative assessments
21 alone, although the Commission's direction has never
22 been to conduct a risk-based oversight process.
23 Risk informed, again, which inherently
24 involves use of deterministic information and we look
25 forward to further engagement on Appendix M as we've
26 strived over the years to improve its efficacy. But,

1 it is a good approach and we are not using it in a
2 manner to circumvent a quantitative process.
3 I appreciate your encouragement on the
4 construction reactor oversight process. We look
5 forward to a more fulsome conversation during the
6 construction program review later this year.
7 I'm confident that Kathy and Laura will
8 make sure that we resource both Vogtle and Summer in
9 a way that supports implementation and processing
10 including forwarding -- advancing the assignment of
11 residents at the site as the pace of construction
12 escalates at both sites.
13 COMMISSIONER SVINICKI: Thank you for
14 that.
15 Thank you, Mr. Chairman.
16 CHAIRMAN BURNS: All right, thanks.
17 I'm not going to defend -- so much defend
18 SALP, although I think the important thing is, as you
19 had indicated, ROP is sort of built on SALP, what
20 preceded SALP was far more -- far worse which was
21 basically five individual fiefdoms in individual
22 regions.
23 So, we learn by experience, that's one of
24 the good things I think this Agency does. But,
25 certainly, with the ROP, I would agree that we've
26 made strides.

1 Commissioner Ostendorff?

2 COMMISSIONER OSTENDORFF: Thank you,
3 Chairman and thank you all for your presentations.

4 I want to add my comments to Commissioner
5 Svinicki's on the ROP process. She said a lot that
6 I agree with entirely.

7 I just would comment that I see the
8 evolution over the number of years, as the Chairman
9 and Commissioner Svinicki have referred to as a
10 positive, very positive step. I think it's a real
11 strength to the Agency.

12 When I looked at how the Department of
13 Defense, where I spent 26 years and looked at unit
14 performance, whether it be in the operation reactor
15 safeguards examination, tactical readiness
16 evaluations, nuclear technical proficiency
17 inspections, across the board for the submarine
18 force.

19 And, I looked at how the Department of
20 Energy, when I was an official there, we looked at
21 the site performance in the weapons complex.

22 I think we have a far more disciplined,
23 mature process that serves the nation very well.

24 And so, I think the fact that there might
25 some inertia for further change, it's a good thing
26 and that there needs to be a strong justification to

1 change things.

2 I think that the predictability and

3 stability are real positive attributes and consistent

4 with our principles of good regulation.

5 And, the fact that you take ongoing looks

6 and suggest changes where appropriate, that's a real

7 strength, too.

8 I want to add my thanks to Scott, to

9 Commissioner Svinicki and Scott, to going down to

10 Region IV.

11 I want to acknowledge that this is, I

12 think, Marc's last appearance before the Commission

13 as Region IV Administrator. I want to thank Marc for

14 his dedicated leadership of the Region IV team during

15 your time down there.

16 I want to thank both Marc and Dan Dorman

17 for your ongoing communications with the Commission

18 on Arkansas Nuclear I and Pilgram. I've visited both

19 sites with you all last year. I think the

20 communications you've had with the Commission on your

21 teams' assessment of the licensee performance and

22 your very thoughtful and careful perspectives on the

23 significance of various findings.

24 What was appropriate from a regulatory

25 standpoint, I think it's been a real positive

26 experience for me as a Commissioner to watch you all

1 go through that and I applaud you and I know the
2 teams, whether it be the resident inspectors on site,
3 the regional team members and the branches, et cetera.
4 I think it's -- I don't really have any
5 questions on performance because I think you did such
6 a good job on communicating with the Commission.
7 I do have one comment the Chairman raised
8 and I appreciated him raising this comment about the
9 fleet meeting you had down, I think, in Jackson,
10 Mississippi here recently. And, I believe that Cindy
11 Peterson attended that.
12 And, I just wanted to comment from my
13 experience elsewhere primarily, but also here at NRC,
14 I think Marc, your comment on, I don't recall the
15 exact words you used, but, you know, in an environment
16 where people were making do with what they were given,
17 with the resources on site, that really registered
18 with me.
19 And, I assume you discussed that in your
20 fleet meeting?
21 MR. DAPAS: Yes.
22 COMMISSIONER OSTENDORFF: I'd appreciate
23 any other, you know, how you saw Entergy's reaction
24 to that discussion on this particular aspects.
25 I think the resource piece is really an
26 important part here.

1 MR. DAPAS: I've had some discussion with
2 the various levels of Entergy management on that
3 particular aspect as it applied to ANO. And, more
4 difficult to speak, or I'm not in a position to speak
5 to what degree is at the view associated with the
6 other sites.
7 But, with respect to ANO, it certainly
8 was part of the culture there about making do with
9 what has been provided. And, Entergy management was
10 receptive to that.
11 And I think, you know, INPO conducts
12 various evaluations. They've done corporate
13 assessments and my understanding is that that's
14 consistent with one of the items that was identified
15 via that corporate assessment that INPO conducted.
16 You know, we look at that to determine
17 whether there are any safety issues, but we did have
18 the opportunity to review that assessment and that is
19 something that was consistent with what INPO had
20 identified and Entergy management has acknowledged
21 that.
22 The discussion at the status of the fleet
23 meeting was more along the lines of leadership
24 behaviors and reinforcing standards at the first
25 level supervisor and ensuring that individuals
26 understand what are the expectations and reinforcing

1 those. So, that was the context to the status of the
2 fleet discussion.
3 COMMISSIONER OSTENDORFF: I have to tell
4 a very quick sea story. So, I go back when I was the
5 commander of the USS Norfolk during a time period in
6 1995 when Department of Defense budget was -- there
7 was some difficulty there.
8 And, I can remember very clearly at that
9 time, there were perhaps 16 to -- probably 18 attack
10 submarines based out of Norfolk, Virginia. Most of
11 them were 688s, some of them were 637 Class.
12 But, as a routine practice, because of
13 the shortage of money for spare parts, that every
14 time a ship got underway that had a BQQ5-D sonar
15 system, that we would transfer or be the recipient of
16 spare power supplies that were about $10,000.00 a pop
17 for the sonar system because of the shortage of money
18 to buy spare parts.
19 And, there's lots of discussion, and this
20 was 21 years ago, lots of discussion about it but it
21 just did not pass the common sense test.
22 And, if you're going to operate anything,
23 I'm using this very broadly, in this case, submarines,
24 you need to provide the resources to properly do it.
25 It was -- it set, I can tell you, it set
26 a very poor tone for this third-class Sonarman who

1 was maybe 21 years old saying that, well, this, you
2 know, our work maybe is not important enough to invest
3 in the proper power supplies to run your system at
4 sea, you know, and we were having the cannibalization
5 process and material transfers going on.
6 So, it's not just the functionality of
7 the system affected by the lack of spare parts, but
8 also the culture, the environment, the atmosphere
9 that it became very evident that it lowered
10 everybody's standards and it was not helpful.
11 So, I use that Navy example I think is
12 what really caused me to want to comment on it.
13 MR. DAPAS: Yes, thanks, Commissioner.
14 I would just put my comments in full
15 context here. My understanding of one of the real
16 ah-ha moments for Entergy was the 2015 third-party
17 nuclear safety culture assessment where there
18 was -- and I had the opportunity to talk with Jeremy
19 Browning, the site VP about the observation by that
20 team that individuals were making decisions at lower
21 levels in the organization regarding prioritization
22 because they weren't sufficiently resource loaded for
23 the activity.
24 The more senior management did not have
25 an awareness that those decisions were being made.
26 So, they thought root cause evaluations, apparent

1 cause evaluations were being conducted adequately and
2 comprehensively when, in fact, they weren't.
3 And so, not having that awareness so that
4 you could engage, and that's a number of things that
5 contribute to that, but that was the context in terms
6 of the culture of making do with what you have and
7 making prioritization decisions at lower levels where
8 more senior management not being aware could not then
9 engage to address that.
10 And, the discussions that I've had with
11 more senior Entergy management, you can certainly
12 engage them. They've clearly indicated that
13 resources will be provided at the appropriate level
14 to recover the plant.
15 COMMISSIONER OSTENDORFF: Thank you.
16 Two brief comments and then I'll close.
17 Dan Collins, thank you for your
18 presentation. I appreciated your putting in
19 perspective the number of events in the numerator
20 compared to the denominator of millions.
21 And, I think those perspectives are so
22 important for us as a regulator to communicate
23 externally.
24 We had this number of issues out of this
25 number of overall activities. And, I think that
26 perspective is really important. So, thank you for

1 highlighting that in your presentation.

2 And, Scott, I'll just comment that you

3 made a brief reference to the component design basis

4 inspection pilot. I think that's a really important

5 part of our oversight inspection activities.

6 I agree with efforts to try to reduce the

7 burden on licensees while maintaining the spirit and

8 the intent of the intent of the inspection. So, I

9 look forward to seeing what the Agency's results are

10 from those pilots.

11 Thank you all for your presentations.

12 Thank you, Chairman.

13 CHAIRMAN BURNS: Thank you.

14 Anything else?

15 Well, again, thanks to the staff for the

16 presentations and perspectives on the overall

17 programs as well as the two plants, Pilgrim and ANO.

18 We'll take now a brief break, about five

19 minutes or so and then we'll resume with the second

20 half of the meeting.

21 Thanks.

22 (Whereupon, the above-entitled matter

23 went off the record at 10:41 a.m. and resumed at 10:52

24 a.m.)

25 CHAIRMAN BURNS: Well, we'll come back

26 to order and we'll begin the presentations from the

1 first of the two Entergy panels and first discuss the
2 action plan for Arkansas Nuclear One.
3 And, on this panel, we have Chris Bakken,
4 Executive Vice President and Chief Nuclear Officer
5 for Entergy, Tim Mitchell, Senior Vice President,
6 Donna Jacobs, Chief Operating Officer, Jeremy
7 Browning, Site Vice President for Arkansas Nuclear
8 One and John McCann, Vice President for Regulatory
9 Assurance.
10 And, Mr. Bakken, I'll turn it over to you
11 to begin the presentation.
12 Thanks.
13 MR. BAKKEN: Thank you, Mr. Chairman.
14 Good morning. My name is Chris Bakken
15 and I'm the Chief Nuclear Officer for Entergy Nuclear.
16 As you may know, I'm new so, as I approach
17 the end of my second month at Entergy, I wanted you
18 to know on behalf of the company and myself how much
19 we respect the NRC, it's technical expertise and the
20 perspectives and insights that you provide as we work
21 to improve our fleet's performance.
22 Specifically, this morning I'd also like
23 to acknowledge and accept the feedback that was
24 provided by Mr. Dapas and Mr. Dorman in the earlier
25 portion of this meeting. And we share and agree with
26 their perspectives.

1 We are committed to full regulatory
2 compliance at all our facilities as our minimum
3 standard.
4 Our top priority is to operate or
5 facility safely, securely, and reliability and we
6 will not waiver from that commitment.
7 We are well aware that our nuclear fleet
8 performance has not met expectations and is not
9 operating at the levels of excellence that it should.
10 We're disappointed, frankly, to be here
11 today and to be the only fleet in the United States
12 to have three units at two sites in column 4.
13 And, we're absolutely determined to
14 improve our performance.
15 Specifically, as I said, we're committed
16 to improving our plant's performance. We're
17 committed to operating our plants safely and reliably
18 and in full compliance with NRC rules and regulations.
19 We're committed to operate as one fleet,
20 consistent with all regulatory requirements and
21 industry best practice so that we quickly share our
22 learnings across our fleet and don't learn our lessons
23 and our shortcomings one site at a time.
24 And, finally, we're committed to being
25 professional with all internal and external
26 stakeholders and not being defensive nor insular.

1 Our nuclear assets remain an important
2 part of Entergy's utility growth strategy. I have a
3 leadership team here at the table that is focused on
4 improvement and we have the full support of our
5 Chairman, Leo Denault, the Entergy senior executive
6 leadership team, and our Board of Directors.
7 Our goal is not just to exit column 4 at
8 Pilgrim and Arkansas Nuclear One. It is to return
9 our plants to sustained excellent performance and to
10 be considered again as one of the best nuclear
11 operators in the world.
12 From feedback provided by the NRC, our
13 employees and other key stakeholders, there are a
14 number of common causes that we have determined, after
15 careful consideration, self-reflection, and analysis
16 over the past months.
17 As examples, in our past, we have assumed
18 that we knew all the answers when we were challenged.
19 And, we've learned that we did not. We need to be
20 more humble.
21 As a result, we've also learned that we
22 have not listened well and have been defensive when
23 we've been challenged.
24 We now have insights though have
25 consistently set and adhered to our own high standards
26 and, instead, were relying on others to identify our

1 problems.

2 We were not sufficiently self-aware of

3 our performance shortfalls.

4 We also now realize that we've not always

5 been clear in roles and responsibilities, such as the

6 role of the fleet organization, and in the

7 prioritization of our work.

8 We are committed to owning and fixing

9 these issues. Today's discussion is specific to two

10 of our sites. Rest assured that we are taking in the

11 learnings pointed out by the NRC, the industry, our

12 own root cause analyses, our organizational capacity

13 study, and other stakeholders to improve our entire

14 fleet's performance.

15 For Pilgrim specifically, we are

16 committed to safely operate the unit until June of

17 2019 and then through to a successful

18 decommissioning.

19 The site has the full support of my

20 leadership team, the company and its Board of

21 Directors to achieve this objective.

22 We will provide the necessary resources

23 so that we can finish the station's operating life in

24 a position of strength or finish strong as we refer

25 to it with our employees.

26 It's also important for you to understand

1 that Arkansas Nuclear One is a critical long-term
2 asset for Entergy, our fleet, and the State of
3 Arkansas.
4 The facility plays a key role in
5 delivering electricity to customers across the state.
6 It is a major employer and it's helping that local
7 community to continue to become a better place to
8 live, work, and raise families.
9 We are committed to returning Arkansas
10 Nuclear One to one of the industry's strongest
11 performers and the flagship of our fleet.
12 I will now turn the discussion over to
13 Arkansas Nuclear One Site Vice President, Jeremy
14 Browning, who will be followed in due course by
15 Pilgrim Site Vice President, John Dent.
16 So, Jeremy?
17 MR. BROWNING: Thanks Chris.
18 Good morning. I'm Jeremy Browning, Site
19 Vice President, Arkansas Nuclear One. I appreciate
20 the opportunity, Mr. Chairman, Commissioners, to
21 share Arkansas's current performance and the basis of
22 the comprehensive recovery plan and our actions
23 moving forward.
24 Starting with the development of the
25 comprehensive recovery plan, when we first entered
26 into this, we sought benchmark data for other stations

1 that had undergone similar, got the learnings from
2 that.
3 We also recognize that we needed to have
4 a dedicated team of not only Entergy personnel, but
5 industry folks that had participated in similar
6 efforts. So, we wanted to leverage that.
7 The ANO assessments were comprehensive
8 and very broad. The causal analysis that we
9 performed were rigorous and developed corrective
10 actions or produced corrective actions that, not only
11 address the contributors that led to the findings
12 that Mr. Dapas spoke to, but also our
13 institutionalizing learnings that will sustain our
14 performance and drive us to excellence.
15 During the implementation or development
16 of the comprehensive recovery plan, we demonstrated
17 bias for action. We were taking interim actions to
18 try to improve performance. And, as Marc stated in
19 a couple of areas, those interim actions did not hit
20 the mark completely, primarily in the areas of the
21 safety culture and the area of vendor oversight as
22 it's been presented.
23 When we looked at that and tried to learn
24 from that and as we incorporated that into the
25 comprehensive recovery plan, one of the areas that we
26 felt like we had not done an adequate job was the

1 full engagement of the workforce.

2 We had an intentional bias towards trying

3 to make sure that the station stayed focused on the

4 operation of the facility. Other utilities that have

5 entered into these kind of endeavors have been

6 distracted in the operation of the plant, so we tried

7 to insulate a little bit and make sure that the

8 station stayed focused and we probably went too far

9 in that effort and didn't engage.

10 We did have some employment

11 engagement -- employee engagement. However, I think

12 we didn't have sufficient.

13 Some of the insights that were provided

14 to us by the 95003 inspection did point out that the

15 causal analysis that we did in the area of safety

16 culture didn't hit the mark.

17 We thought that we could address that

18 though kind of some corrective actions that were

19 scattered throughout the plant and not make that a

20 central point of the corrective action plan.

21 So, we restructured the plan and, after

22 going through that evolution, I recognized that that

23 needed to be at the forefront of the plan to paint

24 the picture that the culture changes at ANO were going

25 to be the driving force for the plants. So, that

26 became the catalyst for us and I do appreciate that.

1 The causal analysis, what it did for me
2 and what it did for the senior leadership team is it
3 really made us focus a little deeper on the values
4 that we have at ANO.
5 The behaviors that you heard in here
6 about folks maybe letting resource limitations not
7 intentionally, but unintentionally, maybe bound the
8 extent of cause or condition. They were allowing
9 that limitation to maybe cloud what our core values
10 are, and that would be nuclear safety as our top
11 priority.
12 So, when you go to the value system and
13 that is defining how we behave, that is how we're
14 intending our supervisors to coach.
15 The effectiveness measures that were put
16 into the comprehensive recovery plan were based on
17 benchmark data of excellence. The effectiveness
18 measures that we have in place and the oversight
19 structure that we have put in place, not
20 just -- aren't just limited to ANO.
21 There's an oversight review board for ANO
22 that consists of both Entergy executives and industry
23 executives so that we have a balanced approach to
24 making sure that we're getting the right level of
25 challenge.
26 The process is twofold. It measures

1 timeliness and the rigor in which those actions are
2 being implemented but just the measure of activity
3 isn't good enough. We have to see objective evidence
4 that performance is improving.
5 Other stations, as we have benchmarked,
6 have put too much emphasis on just measuring levels
7 of activity and feeling good about themselves because
8 they're getting things done with rigor and quality.
9 However, they're not getting the intended outcome of
10 performance improvement.
11 So, our process is twofold. We want the
12 rigor, we want the timeliness. But, if those actions
13 aren't giving us the performance improvement, we need
14 to make those course adjustments.
15 Approximately 80 percent of our
16 comprehensive recovery plans will be -- actions will
17 be completed this year with the balance to be
18 completed in the following years.
19 As I stated, workforce engagement and a
20 focus of our core values is at the heart of the
21 comprehensive recovery plan.
22 Next slide, please, if I could?
23 The commitment that we are making is to
24 the safe and reliable -- continued safe and reliable
25 operation of ANO and the rigorous implementation of
26 the comprehensive recovery plan.

1 And, in order to do that, we recognize
2 that we need to ensure that our leaders recognize
3 risk and mitigate that risk appropriately with a bias
4 for action to eliminate as opposed to mitigate.
5 Validation of organizational capacity
6 really has four scope elements and there is a process
7 that's in place to validate that. It's called a
8 People Health Committee modeled very similar after
9 the Equipment Health Committee that we have at the
10 station and have had for a while.
11 It doesn't just look at an individual
12 component deficiency like the -- if it's a
13 vulnerability that you see in a department, what is
14 the vulnerability of that human resource's impact on
15 the overall system? And then, what's that system's
16 overall impact on the site?
17 So, it takes a more holistic look at the
18 station.
19 It also looks at the, as we've discussed,
20 some our problems, whereas, a senior workforce left
21 and newer employees and one for one ratio doesn't
22 occur from a knowledge transfer standpoint.
23 So, it's a more forward looking, making
24 sure that, as attrition if forecasted, that that
25 knowledge transfer is conducted in a timely manner.
26 It also has a forward look at things that

1 might be on our horizon. When we did our recovery
2 plan development, we recognized that certain
3 initiatives came to Arkansas like the NFP-805
4 initiative in the Fukushima initiative.
5 So, you're seeing a changing of a
6 workforce on the horizon, some increased volume of
7 work. The new process would identify new volume of
8 work is on the horizon and what is your workforce's
9 ability to actually implement that and do the two
10 match?
11 So, you can be making those proactive
12 adjustments to your resources. So, it's not just
13 about the volume of the resources, it's about the
14 knowledge, skill and proficiency of those resources
15 and then what are those resources actually working on
16 today? And, what are those resources going to need
17 to focus on tomorrow and in the years to come to make
18 sure that we are prepared to deal with ongoing
19 challenges.
20 And, that concludes my comments.
21 CHAIRMAN BURNS: Okay. All right,
22 thanks.
23 We'll start again with a question from
24 Commissioner Baran.
25 COMMISSIONER BARAN: Thanks, Mr.
26 Chairman.

1 Thank you all for being here.

2 I think this is really one of the most

3 important Commission meetings we have each year.

4 Chris, I very much appreciated your

5 comments and your frank acknowledgment of the

6 problems at ANO and in other parts of the Entergy

7 fleet.

8 Marc Dapas detailed his assessment of the

9 situation at ANO and you indicated that you were in

10 agreement with his comments.

11 Is there anything from his presentation

12 you disagreed with or you thought was unfair?

13 MR. BAKKEN: No, I think Marc gave a very

14 accurate analysis of the situation. I'd also

15 acknowledge, Commissioner, as you said, that the

16 problem that we have at ANO, we have elements of it

17 across the fleet and we need to work very hard to

18 take our lessons that we've learned there an ensure

19 that we apply them across the fleet and we're doing

20 a good bit of work on that through the balance of the

21 year to strengthen our ability to do that.

22 COMMISSIONER BARAN: Marc highlighted

23 the decisions about resources were one of the root

24 causes for ANO's performance decline and this

25 manifested itself in different ways, staffing levels

26 that were lower than what they needed to be, what was

1 needed.

2 Contractor oversight wasn't adequate.
3 Equipment maintenance and repairs weren't as prompt
4 or thorough as they should have been.

5 What has Entergy done and what are you
6 doing to address these resource issues at ANO?

7 MR. BAKKEN: Well, from an ANO
8 standpoint, I guess I'd like to talk about some of my
9 lessons from an ANO standpoint and then I'll let
10 Jeremy amplify it.

11 But, he talked about the Plant Health
12 Committee, but, to me, organizational capacity is a
13 good way of framing up the discussion. And, it's got
14 to be a forward looking organizational capacity
15 assessment. And, that's what I believe the Plant
16 Health Committee does.

17 But, what I'm talking about is it
18 includes staffing. Do we have the right staffing in
19 order to perform the workload that is in front of the
20 organization?

21 So, depending on variabilities in that
22 workload, staffing and organizational capacity have
23 to be adjusted accordingly.

24 In addition, though, it's experience.
25 It's proficiency, it's leadership. It's
26 prioritization to make sure that the work is done

1 with the highest quality. So, it is a much bigger
2 element.
3 So, we're doing organizational capacity
4 studies across the entire fleet including the fleet
5 resources. I think Marc or Dan one brought up some
6 of the CFAMs. I think Mr. Dapas actually brought up
7 the corporate foundational area managers.
8 Well, they're part of the ongoing
9 organizational capacity study that's going on right
10 now. So, we're looking at it not just at ANO, even
11 though ANO got started first, or they did start first,
12 but we're expanding that across the entire fleet.
13 MR. BROWNING: So, specifically, what was
14 done at ANO is the capacity study was done in the
15 third quarter of last year. Capacity study says,
16 based on benchmark data and some of things that Mr.
17 Dapas spoke to which is we're dual unit 18-month cycle
18 dissimilar plant. What does that need to look like
19 if you're not in a column 4 condition?
20 So, that base load, what does that need
21 to look like? The results of that came to us in the
22 first quarter of this year and, through the
23 corporation, we actually raised the base load target
24 size of ANO to meet that capacity study results. So,
25 we now know what we need to look like.
26 In addition to that, we did what we call

1 deep dives into the department. What do you need
2 today based on today's demands. And, that study has
3 just recently been completed and we're comparing the
4 comprehensive recovery plan resource requirements to
5 the current stations resources.
6 And, that's not just volume, it's the
7 skills, the knowledge, the proficiency of that
8 resource and making sure that those two match.
9 We do have a couple of challenges, as
10 Marc spoke to, in the engineering area and
11 maintenance. Although the maintenance area and the
12 engineering area gaps have been closing and we're
13 close to having that finalized.
14 But, those were our two most challenged
15 areas based on the first quarter results.
16 COMMISSIONER BARAN: As you're
17 evaluating the rest of the fleet and looking at
18 potential issues including resource questions, what
19 are you finding? Is this a resource problem
20 occurring at other plants in the Entergy fleet?
21 MR. BAKKEN: We've launched a very
22 comprehensive organizational capacity review using a
23 known industry consultant that has a considerable
24 amount of benchmarking data.
25 That study will conclude in the next
26 several weeks. But, sitting here today, I have a

1 broad view of the outcome of that study.

2 Mr. Dapas comments are directly on. So,

3 we are below industry benchmarks in terms of

4 operational staff, maintenance staff, and engineering

5 staff.

6 I think one of the things, you know, Tim's

7 mentioning in terms of the corporate functionality

8 managers, we need to look quite hard at the capability

9 and competence of the fleet support organization.

10 Our numbers and our strength in that area is less

11 than some of the other fleet operators in the country

12 and we believe that's one of the things that we need

13 to correct to continue to have sustained excellence

14 in performance in the long-term.

15 So, we'd be looking to increase our

16 technical capability, our design conscious, our

17 licensing basis understanding, design basis

18 understanding and look to bring more of that work in

19 house and do less of it externally through

20 contracting.

21 COMMISSIONER BARAN: Okay, thank you.

22 MR. BAKKEN: So, that's what we've found

23 and those are our intentions.

24 COMMISSIONER BARAN: Thank you, Mr.

25 Chairman.

26 CHAIRMAN BURNS: Thank you,

1 Commissioner.

2 Again, I appreciate the presentations
3 and, in fact, the journey that you're on in terms of
4 addressing some of the issues that have been raised
5 both at ANO and we'll talk in a few minutes at Pilgrim
6 and the perspective from what does that mean in terms
7 of overall fleet performance.

8 One of the things and one question I had
9 and one thing I think I heard during my visit a couple
10 months ago was that, frankly, the operating staff was
11 one of the strengths in the organization. And,
12 what -- and really, a real asset to the plant.

13 And, I think what I heard, too, is
14 there's, in terms of taking some attempt to sort of
15 leverage that both experience and quality in terms of
16 the improvement initiatives.

17 And, maybe you could talk a bit about,
18 anybody, talk a bit about that and how you see
19 building upon that? Because I think, looking for
20 places where there are pockets of good performance or
21 excellence to try to drive other areas. So, I'd be
22 interested in hearing how you're trying to do that.

23 MR. BROWNING: Yes, there's a couple of
24 examples that I could provide to you as we have taken
25 some of our senior leadership, the pipeline of
26 operators that ANO has been fairly healthy, so we are

1 able to bring some leadership out of that department.
2 And, one of the areas that we were
3 struggling was the corrective action program. So,
4 we took a senior shift manager and he is now the
5 department manager of that group.
6 We went through a change management
7 process so we've got a very operationally focused
8 corrective action program manager who's now the
9 conscious of our corrective action program.
10 And then, as far as the fleet's
11 concerned, the Ops Manager that had been in place for
12 a couple of years is now the engineering director at
13 the Grand Gulf facility. So, I think there is a lot
14 of opportunities for the learnings that he had at ANO
15 and the journey that led to where we were and the
16 foundation that was built in ops and to take that to
17 another station and to implant that.
18 So, it's through this People Health
19 Committee where the succession planning and the
20 knowledge transfer of where our vulnerabilities are
21 and where our strengths are and how do we develop the
22 people today for that person that's going to leave or
23 that area and start working that.
24 We do have a succession planning process,
25 but it's more about the implementation of that process
26 that we're focused on.

1 MR. MITCHELL: And, I think more
2 fundamentally even, you have to back up to the do we
3 have the right on shift, and I believe we do. And,
4 they've got to be setting the standards for the entire
5 organization because they are there 24/7 and they've
6 got to set those standards so not just --
7 I agree with Jeremy and that is an
8 important aspect of being able to get that experience
9 out within the rest of the organization. But,
10 Jeremy's also, and so is the plant manager at Arkansas
11 Nuclear One, been very focused on making sure that
12 the shift manager and the control room supervisors,
13 the reactor operators are all operating at the highest
14 standards of performance.
15 But then, also, providing that influence
16 upon to the rest -- on to the rest of the
17 organization.
18 MR. BAKKEN: I'd just add, Mr. Chairman,
19 I think behind your comment is something I believe
20 quite strongly which is that for a plant to be
21 successful, the operations department and the
22 operations team have got to be the leaders on the
23 site.
24 You know, they're the people that we
25 license. They have the best understanding of the
26 site, the best capability to make risk judgments,

1 safety judgments, et cetera.

2 So, I think one of the things that you

3 did sense and was discussed in your visit is that the

4 facility at Arkansas Nuclear One, that is occurring.

5 We have other facilities where it's not

6 to the level of strength that it needs to be. So,

7 when we look at the organizational capacity and our

8 workforce planning, we'll be looking to reinforce

9 those departments in the rest of our fleet so that we

10 can be in operations to that organization at the sites

11 and use that team to preserve the safety and the

12 reliability margins of the plant.

13 CHAIRMAN BURNS: Okay, thanks.

14 And, I want to -- last question I'll ask

15 and you talked and addressed, you know, developing

16 organizational capacity, evaluating resources, you

17 know, the organizational effectiveness, how things

18 are carried out.

19 And, you also talked about safety culture

20 which is one of those things that's more ephemeral.

21 It's, you know, you can't say my wife has a story or

22 father used to say, you know, going to some family

23 event, you will attend and you will enjoy.

24 And, that doesn't quite work that way in

25 terms of safety culture. But, tell me a little bit

26 more about the initiatives you're undertaking, just

1 to foster that?

2 Because I realize that's not just

3 assessing, you know, do I have the right number of

4 staff? Do I have, you know, the right contractor

5 balance and all. It's a more difficult thing to

6 address. So, I'd appreciate hearing about that, a

7 little more detail on what you're trying to do in

8 that area.

9 MR. BROWNING: So, one the -- I know

10 it's -- it looks simple, but this book right here is

11 called the ANO Standards and Expectations book and on

12 this page is, at the top of it, it defines our core

13 values.

14 And, the very first value is, we always

15 keep nuclear safety first. And so, what we do is how

16 do we translate that into a tangible example?

17 If, for example, we see someone that's

18 not necessarily adhering to a procedure the way they

19 should be, start with what is our standard when it

20 comes to procedure, use and adherence.

21 And, you know, the standard would be

22 clear and then we would talk to, do we believe that

23 procedures lead to consistent outcome and results and

24 that's why they're in place? And, the answer to that

25 would be yes.

26 Then, we'd say, do we really value

1 nuclear safety because those deviations, although
2 minor, can lead to nuclear safety problems. So,
3 really talk to these.
4 And, the other core values are we fix and
5 maintain our plant. We operate as a team. We
6 continuously learn and seek to improve from people
7 that are doing it better.
8 So, those are some of the things -- and,
9 every time we see a deviation from behavior, we go
10 back to these values and say, we can't behave this
11 way if we say we value these things. And we have
12 those very candid discussions with our staff.
13 MS. JACOBS: I think maybe I can broaden
14 that back, too, Chairman. If we look at the entire
15 fleet, so part of our root cause analysis was to take
16 a look at nuclear safety culture and do a nuclear
17 safety culture review for the fleet itself.
18 And so, supplementing our team with some
19 very experienced industry executives coming in and
20 looking at what we're doing, putting it in terms of
21 the NUREG-2165, the common culture traits that we
22 have.
23 And really stepping back and
24 acknowledging that, across the fleet, we need to have
25 a stronger focus on nuclear safety.
26 And so, it really starts with the leaders

1 of what is most important for us and how we pull that
2 out of the organization.
3 We heard an example about when we needed
4 to take the unit down at ANO and we did that and that
5 was probably different focus than what we would have
6 done before.
7 We're seeing the same types of examples
8 at our other sites where, if we've got an equipment
9 issue, we're going after the equipment issue. If we
10 need to bring the unit down, we're also asking
11 ourselves, what other work is the right work to do?
12 Mr. Dapas talked about a recognition of
13 our single point vulnerabilities and we've had a
14 tendency to always want to mitigate instead of go
15 eliminate. And, that's been a real focus for us. If
16 we need to bring a unit down, we'll go through the
17 complete list of a single point vulnerabilities and
18 what can we go fix at this opportunity?
19 And, I think that's a lot different from
20 the past where we might have been more focused on
21 bringing the unit back up immediately instead of
22 saying, we have an opportunity to make some
23 corrections in our facilities.
24 So, while we've done that nuclear safety
25 culture review, we're putting in more formalized
26 corrective actions. I think the first step you have

1 to see is how we internalize it as leaders and we
2 carry that across our fleet.
3 CHAIRMAN BURNS: Okay, thanks very much.
4 Commissioner Svinicki?
5 COMMISSIONER SVINICKI: Well, thank you
6 for your presentations.
7 When I visited ANO, one of the things
8 that struck me that I took away from there was a
9 strong sense of almost family between the women and
10 men who work at the station and there was a real
11 community spirit, but that carried over into the plant
12 itself.
13 And, while employees looking out for each
14 other is a very positive attribute, a site vice
15 president, maybe I'll direct this to you, Mr.
16 Browning, how do you assure yourself that employees
17 are willing to challenge each other as will be
18 necessary in order to have success on the recovery
19 plan? Challenge each other’s actions and to really
20 move forward on the changes that are necessary?
21 MR. BROWNING: That wasn an absolute.
22 One of the five key insights that came out of our
23 nuclear safety culture highlighted the fact that
24 we're very close. We're a very tight team and almost
25 family.
26 But then, the safety culture survey went

1 on to -- or assessment went on to say, and as a
2 result, you tend to not want to intrusively challenge
3 each other or you trust without verification.
4 So, we have to institutionalize some
5 forcing functions to force ourselves to do this.
6 So, in some of our key meetings, we have
7 brought in external people from ANO. This would be
8 like in our Plant Health Committees, our people health
9 committees, the challenge meetings that we do before
10 we conduct maintenance called a critical evolution
11 meeting.
12 And, these people from an external point
13 of view are using the attributes of leadership and
14 watching the managers. And, when they don't see
15 those examples where we've challenged sufficiently,
16 they will either interject during the meeting or
17 provide a critique.
18 All that information is also rolled up
19 into a product that we review on a frequency to see,
20 are we seeing improvement in those behaviors over
21 time? And we have been and these have been in place
22 for, in some cases, a year.
23 COMMISSIONER SVINICKI: Yes, I think one
24 other thing that goes along with that is when we look
25 at closing out actions, how do we really challenge
26 them to make sure we've been effective and the

1 implementation of the action closure review board,
2 which is a team that that is their sole purpose is to
3 go in and challenge that.
4 We're actually using that at other sites
5 as well, not just at ANO. But, it's a very good
6 opportunity for us to go through and make sure that
7 the actions we're putting place are effective so that
8 we can continue to move our improvement performance.
9 MR. MITCHELL: There's also a corporate
10 role in addressing your question and that corporate
11 role includes a corporate function of area managers
12 but others. So the improvements that we're making
13 from a fleet recovery standpoint are very focused on
14 making sure that we have the right view of are those
15 corrections, are those behaviors, are those
16 improvement opportunities being recognized and acted
17 upon?
18 MR. BROWNING: And so, a recent learning
19 from a Waterford Station in the way they implement a
20 management review meeting is, it had in the past been
21 more of a fleet challenge of our performance, but
22 we're changing that format to where it's more of a
23 departmental challenge of each other’s performance
24 with the fleet's role to make sure that challenge is
25 adequate.
26 So, it's a little bit of a change in the

1 mind set. The material's the same, but it's shown
2 to be real effective at Waterford, so that's just
3 another tool that we're using to make sure that the
4 corporation has the ability to see us do that external
5 to ANO.
6 COMMISSIONER SVINICKI: Another
7 observation over the course of time in looking at
8 U.S. industry performance is that, certain fleets or
9 particular sights have cycles of performance over the
10 decades.
11 Do you feel that you, as you developed
12 your recovery process, have designed in long-term
13 sustainment of the measures and different changes
14 that you're making? Has that been something that was
15 designed in up front?
16 MR. MITCHELL: That would -- absolutely
17 our intent to make sure that that was our focus, not
18 just a -- and that kind of leads back to Mr. Bakken's
19 initial comments.
20 Our objective and our focus is not to
21 exit column 4. Our objective is to restore
22 performance at a level of excellence that ensures the
23 sustainability that you're talking about.
24 But -- and that applies to Arkansas
25 Nuclear One as well as the fleet. So, our everyday
26 motto or mantra is to go focus them on, what do we

1 need to go do, not for today, but what do we need to
2 do for the long-term health of the organization?
3 MR. BROWNING: And, technically, at ANO,
4 what that looks like is before any one of the focus
5 areas gets closed out, it's about the execution,
6 quality execution. Did you see the performance
7 improvement that you expected and then what are the
8 sustainability tools?
9 So, those three scope elements have to be
10 satisfied before any one of our focus areas will get
11 closed. And, it's not just ANO says that, it's ANO
12 says that and then is challenged by not only fleet
13 but also industry folks to say we believe that you've
14 met the mark.
15 MR. BAKKEN: Just a follow on from
16 Jeremy's last thought and an answer to your question,
17 I think we have a piece of work to do in terms of
18 strengthening the capability of the fleet governance
19 organization, the team that work in echelon to make
20 sure that we have a proper vision of industry
21 excellence, that we have sufficient benchmarking from
22 our peers in the industry and that we keep that fresh.
23 One of the things we discussed in the
24 meeting we had at the end of March was our ability as
25 an organization to recognize excellence today.
26 We have bene insular, I mentioned in my

1 opening remarks. We tended to benchmark within our
2 fleet and we've missed some of the improvements that
3 others have made in the industry. So, when we look
4 forward, I think part of the sustainability is to
5 keep that alive, keep that benchmarking going.
6 One of the things I've been very pleased
7 to find in taking this responsibility is the response
8 from my peers in the industry who are very willing to
9 try to help us and to allow us those opportunities to
10 benchmark and to learn from them and their successes
11 in doing things similar to what we're trying to
12 achieve.
13 So, I think that part is really
14 instrumental to us continuing to improve and then
15 sustaining that over time is to keep that very fresh
16 and current.
17 COMMISSIONER SVINICKI: Thank you.
18 Thank you, Mr. Chairman.
19 CHAIRMAN BURNS: Thank you.
20 Commissioner Ostendorff?
21 COMMISSIONER OSTENDORFF: Thank you all
22 for your presentations.
23 I'm going to maybe pick up where you were
24 leaving off, Commissioner Svinicki. I appreciate
25 your candor as the Chief Nuclear Officer. I know
26 you've been then a short time. Thanks for coming by

1 to see the Commission here earlier a few weeks ago.
2 You know, you've got a strong background
3 in the nuclear industry in the United States and
4 overseas. What was the biggest surprise you had
5 coming into Entergy? And, my question's not about
6 ANO but just about the overall fleet? Because I
7 think the fleet issue is one that certainly has the
8 Commission's attention here.
9 MR. BAKKEN: I don't know if I'd frame
10 as a surprise but I think the one thing where we have
11 the largest opportunity for improvement is to
12 strengthen how we operate as a fleet.
13 Because, my vision of Entergy was a
14 decade old and I had a very different perspective.
15 When we were in England, it was actually Entergy
16 people that were there helping us turn the fleet's
17 performance around.
18 So, the clear roles and responsibilities
19 and mission statement of the fleet organization is
20 the area where I think we have a very large
21 opportunity to improve and then consequentially
22 improve our whole fleet's performance.
23 So, that would be my answer to the
24 question.
25 COMMISSIONER OSTENDORFF: Okay. I'll
26 ask this question and I'll let you decide who wants

to answer.

The question is, how do you assess morale at ANO? You can figure out who you want to have answer that question, it could be multiple people.

MR. BROWNING: Well, there's a couple of different ways we're doing that at ANO.

One is, we're doing pulse surveys every quarter targeting specific things. So, we're getting direct feedback from the employees.

We just finished a major survey where we had about 80 percent of the site participate in that. So, we get those learnings.

The other way is by being with your people in different settings. I call them 2C's meetings. People meet with me, they meet with the plant manager, a broad spectrum of the site.

They meet, I guess you could say, independently with some facilitators and then I would enter the room and then we discuss their comments and their feedback and then we address those.

So, those are some of the ways, but it's the best way that I know is to be with your people where they're doing their work and have meaningful interactions with them while they're doing it.

And then, you also can measure the results of that by the discretionary effort that you

1 see in the results that you see from your performance
2 improving. That's the only way that I know.
3 MR. MITCHELL: I think there's another
4 element to the morale at Arkansas Nuclear One. I
5 think they are encouraged by the actions that are
6 being taken, but there's still a question on their
7 part of, are we committed to the long-term
8 sustainability of those actions or is this just a
9 short-term?
10 And, we have to demonstrate to them that
11 it is a long-term commitment that we are after.
12 COMMISSIONER OSTENDORFF: Okay. Thank
13 you all.
14 Thank you, Mr. Chairman.
15 CHAIRMAN BURNS: Thank you.
16 And, I guess what we'll do now is switch
17 out to have the folks who addrss Pilgrim come forward.
18 And, again, thanks.
19 Well, welcome. And, again, we'll proceed
20 with the presentation from Entergy with respect to
21 Pilgrim.
22 MR. BAKKEN: I did not intend to repeat
23 my opening remarks. I'm sure you're happy to hear
24 that.
25 CHAIRMAN BURNS: Thank you.
26 MR. BAKKEN: So, I'll let -- we've been

1 joined by John Ventosa who's the Chief Operating
2 Officer for the northern portion of our fleet and
3 John Dent, the Site Vice President. So, I'll hand
4 over to John.
5 MR. DENT: Thank you.
6 Good morning. My name's John Dent,
7 again, I'm the Site Vice President at Pilgrim. I
8 very much do appreciate the opportunity to be here to
9 talk with you this morning.
10 Before I jump into the presentation, I
11 first of all wanted to say that, on behalf of Pilgrim,
12 on behalf of myself, completely align with Mr.
13 Dorman's comments, the NRC's perspective of our
14 performance.
15 We agree that we're safe to operate. We
16 do recognize, however, that we have work to do, a lot
17 of work to do to continue to improve our margins to
18 safety and we are 100 percent committed in doing so.
19 So, with that said, what I intended to
20 cover this morning is some questions that I thought
21 may be of most interest.
22 So, first of all, what I'd like to talk
23 about is why Pilgrim's in column 4. And, I know Mr.
24 Dorman talked about the ROP perspective of why we're
25 in column 4, I wanted to take it just a little bit
26 further.

1 Additionally, I wanted to talk about how
2 we're addressing our performance problems, what our
3 fundamental problems are and what a fundamental
4 problem is, kind of a definition of what a fundamental
5 problem is, and then, finally, how we're driving our
6 recovery.
7 And then, when I'm finished I'd be more
8 than happy to try to answer any questions that you
9 might have. Okay?
10 First of all, why we're in column 4, as
11 Mr. Dorman talked about, 2013 we had a combination of
12 unplanned SCRAMS and SCRAMS with complications that
13 resulted in our entering the column 3.
14 The latter part of 2014, we were
15 unsuccessful with our 95002 inspection. Subsequent
16 to that, we identify an issue with a safety relief
17 valve that we misdiagnosed in 2013 which, obviously,
18 resulted in a white finding, the third white finding
19 and our entry into column 4.
20 So, I would characterize that as the
21 direct cause or the nuts and bolts from the ROP
22 mechanics of why we're in column 4.
23 But, the real reason, the underlying
24 reason that we're in column 4 is because of us. It's
25 because of our culture. And, at the heart of our
26 cultural issues, I would tell you, is our

1 implementation of the corrective action program.
2 We've lacked the reverence, that deep
3 appreciation for finding and fixing our problems.
4 Now, I'm not here to tell you that's our only problem,
5 but I would argue that, had we been implementing the
6 corrective action program to the spirit by which it's
7 intended, there's a pretty good possibility I
8 wouldn't be sitting here talking to you today about
9 why we're in column 4.
10 So, we're doing a lot of work in that
11 area. We, as we talked about earlier, we think we're
12 making progress. We recognize we have a long way to
13 go and a lot of work to do to really instill the
14 cultural changes that we need to instill to be where
15 we need to be which is aligned with industry
16 excellence.
17 So, that's the why we're in column 4.
18 How we're addressing our performance
19 problems? There is a very systematic and
20 comprehensive process that's been very successful in
21 the industry. We've taken the opportunity to
22 benchmark plants such as Fort Calhoun, Brown's Ferry,
23 Palo Verde and, obviously, ANO. ANO's kind of an
24 ongoing benchmark for us.
25 They are, obviously, further along in
26 their efforts. We've taken the opportunity to

1 leverage the pluses and deltas and will continue to
2 do so through our efforts.
3 I did want to touch on from a very high
4 level how we're going about this. There's
5 three -- kind of three parallel activities, if you
6 will, going on right now.
7 There's a team of industry experts, a
8 company that does this for a living and is being very
9 successful. We've hired that company. So, this team
10 of nuclear professionals working with the Pilgrim
11 team in concert.
12 Essentially, what they do from time zero,
13 which was the latter part of 2015 to the beginning of
14 2016, they take a look at our performance.
15 Basically, turn over every rock going back in time to
16 a point in time when performance at the station was
17 considered to be healthy or strong.
18 So, all that data is pulled together and
19 then, in parallel with that, there's a separate part
20 of the team that's doing observations in the field,
21 whether it be in the plant, the control room, meeting
22 settings, training settings or whatnot.
23 And, they're gathering information so you
24 have a combination of a historical perspective for
25 our performance, coupled with a contemporary or
26 current perspective of our performance.

1 All that information comes together, it
2 goes through a very rigorous structured process and
3 what comes out of that process is what's termed, one
4 of the key outputs is our fundamental problems.
5 And, a fundamental problem is, by
6 definition, it is your cultural problems, it is your
7 systemic organizational issues. And, it's typically
8 that the fundamental problems are the drivers for
9 your other problems. And, I'm going to talk about
10 those in just a minute.
11 So, in parallel with that, we have five
12 issues of concern or five focus areas, very -- we're
13 very clear on what those focus areas are.
14 So, from the onset, what we've done is
15 we've implemented interim actions and the intent of
16 the interim actions that address those five areas is
17 to ensure we're managing risk throughout the process.
18 So, we understand what our fundamental
19 problems are, our organizational drivers. We
20 understand what the causes are. We understand what
21 the corrective actions are to fix the problems.
22 We implement the corrective actions and
23 then we assure ourselves that the corrective actions
24 have effectively fixed our problems. Then and only
25 then will be back off of the interim actions. So,
26 that's the second piece.

1 The third piece is augmented staff.
2 We've talked a lot about staffing and organizational
3 capacity. But, what we've learned from benchmarking,
4 what we've learned from our own experience and going
5 through the 95002 inspection was that, to safely
6 operate the plant is it takes a lot of effort. It
7 takes a lot of attention from the site, from the
8 leadership team, from the workforce to safely operate
9 the plant.
10 That's the price of admission. We have
11 got to operate the plant safely 24 hours a day, seven
12 days a week. That's a foregone conclusion.
13 Equally as important, we have to recover.
14 We have to understand what our fundamental problems
15 are and we have to implement a recovery plan to
16 improve performance.
17 So, to do that, we know that we've needed
18 to augment the staff. So, key leadership positions,
19 we've created shadow or assistant level full-time
20 positions. And, in certain departments within the
21 organization, we've augmented the staff as well.
22 And, to be clear, this augmented staff
23 isn't just here from now until we get through recovery
24 and when we return to column 1, this augmented staff
25 are completely funded and resourced all the way to
26 the end of plant life. So that's the third piece.

1 So, it's big picture, analytical approach
2 to understanding our problems. We've got interim
3 actions in place to manage the risk until we solve
4 those problems.
5 And, from an organizational capacity
6 standpoint, we have the staffing necessary to support
7 safely operating the plant and recovery.
8 Okay? So, that's how we're addressing
9 our problems at a very high level.
10 Our fundamental problems, just as
11 analysis or analytical approach I talked about is
12 referred to as the collective evaluation process.
13 And, for us, at Pilgrim, the collective
14 evaluation process has determined that we had three
15 fundamental problems.
16 Not surprising is CAP, corrective action
17 program. In fact, we didn't wait for the collective
18 evaluation process to complete. Very early on in the
19 process, we made the decision that we have a
20 fundamental problem in the implementation of the
21 corrective action program.
22 So, we went right into the root cause
23 evaluation. We've been in the process of
24 implementing those corrective actions and we are
25 seeing improvement in our efforts.
26 Again, a long way to go, but we are seeing

1 improvements in that area.

2 The next two fundamental problems, risk

3 recognition and decision making is a fundamental

4 problem for us.

5 And then, finally, in the area of safety

6 culture, a specific focus in three areas, leadership,

7 resources or organizational capacity and then,

8 finally, oversight.

9 So, they are our three fundamental

10 problems.

11 It is noteworthy, I just want to make a

12 point here, since 2013, we've been working hard to

13 improve our performance. We implemented a

14 comprehensive improvement plan in 2013.

15 Objectively, subjectively, we've been

16 seeing performance improve. Again, we've got a long

17 way to go and we've got plenty of work to do in front

18 of us. We're not where we need to be, I just want

19 to be clear about that.

20 But, the reason I bring it up, this is

21 really important in our process. As we go through

22 the analytical portion and the causal analysis, it's

23 very important to us that, for example, if we identify

24 six drivers to a problem in say, CAP, if three of the

25 drivers had been adequately addressed from the

26 beginning of the assessment or the beginning of the

1 improvement efforts, we need to be clear that these
2 drivers have been addressed.
3 And, the reason I tell you that, it's
4 really important to us from a focus standpoint of the
5 organization that we're not putting corrective
6 actions in place and diverting the organization's
7 attention to fixing things that don't need to be
8 fixed, we need to be fixing the drivers that will
9 improve our margins to safety. So, that's the reason
10 I tell you that and that's a focus for us.
11 It sounds simple, it sounds basic, but
12 it's a bit more complicated than it may sound.
13 So, that's the fundamental problems for
14 us and then, finally, how we're driving our
15 performance recovery efforts.
16 The root cause is the apparent cause. Of
17 all that causal analysis work will come together in
18 corrective action plans.
19 We have interim correction actions in
20 place. We have an improvement plan that's in place.
21 So, all that comes together and that'll be combined
22 into what we talk about as the comprehensive recovery
23 plan.
24 And, I'll tell you, that's the mechanics
25 of how that comes together. But, the magic for us
26 here, since 2013, we've been working very, very hard

1 to build the trust and transparency and openness and
2 engagement of the entire workforce.
3 A key element of that in 2013 was the
4 engagement of the workforce and helping us build the
5 comprehensive improvement plan. Big dividends for
6 us back then.
7 The ownership, the buy-in, the
8 understanding, the knowledge. The knowledge of my
9 role in a recovery, the knowledge of my role as a
10 worker, what it means to be in column 4, what that
11 means to us in terms of margins and safety and what
12 my role is.
13 They are the dividends we're looking for.
14 So, we're literally weeks away to implementing that
15 portion of the process.
16 Again, we've been talking to the
17 workforce a tremendous amount throughout the effort
18 and the workforce knows that we're in the process and
19 will be pulling together.
20 So, all that said, the way this is going
21 to play out as we move forward here in the coming
22 weeks, when we've got the comprehensive plan in place,
23 when we're confident that our actions are being
24 effective and we're seeing performance move in the
25 right direction, when we're confident that the
26 organization's completely aligned around where we're

1 going, then and only then will we pick the phone up
2 and let the NRC know that we're ready for the
3 inspection.
4 So, and, Mr. Mitchell alluded to it here,
5 and I talk incessantly to the workforce about this
6 and I want to be clear today, this 95003 inspection
7 is very, very important to us. There's no doubt
8 about it.
9 But, this isn't about passing an
10 inspection. That's not what this is about. What
11 this is about is an organization understanding what
12 our fundamental problems are, what those cultural
13 issues are, understanding what behaviors we need to
14 change, not just to improve the margins to safety but
15 to drive us to industry excellence. That's what this
16 is all about for us.
17 So, that's what we're doing to drive
18 recovery. And then, just very briefly to close
19 things out here, as far as safe and reliable
20 operation, there's a lot I can say in that area.
21 But, I keep coming back to engagement,
22 continuing to engage and build on what we've
23 accomplished with the workforce at Pilgrim and
24 continue to leverage the workforce.
25 Our workforce to align top to bottom,
26 horizontally, vertically, that's what's going to

1 carry the day for us and lead to our success in terms
2 of, like I said, not just improving margins to safety,
3 but driving our site's performance to excellence.
4 And, the last thing I wanted to just touch
5 on is finishing strong. I have a board in the
6 presentation that talks about finishing strong.
7 There's an elephant in the room we really
8 haven't talked about a whole lot. We're shutting the
9 plant at the end of May 2019. That's going to happen.
10 I know these are just words, I like to
11 think our actions and our words mesh up. From our
12 perspective, and when I say we here, when I say we,
13 I mean the site leadership team, I mean the workforce,
14 Entergy Nuclear, Entergy Corporation are 100 percent
15 committed, not just to improve in our margins of
16 safety, but we're a 100 percent committed to driving
17 right through the end of the plant life here.
18 Somebody sitting in the room right now
19 made a comment to me about a week ago and it really
20 resonated with me. This organizational vision of
21 running through the tape at the finish line, I really
22 like that vision.
23 We've got the organization aligned around
24 leaving a legacy of excellence. We've got a proud
25 New England workforce and I think this workforce is
26 completely aligned around finishing strong at the end

1 here.

2 So, I said a lot. I said a lot fast.

3 I'd be more than happy to answer any questions that

4 you may have.

5 Thank you.

6 CHAIRMAN BURNS: Okay, thanks. Is that

7 it?

8 Okay, thanks very much. Again, we'll

9 start with Commissioner Baran.

10 COMMISSIONER BARAN: Thanks.

11 Mr. Dent, I appreciate your

12 acknowledgment that Dan Dorman's assessment of the

13 issues at Pilgrim is fair. I think that's really

14 helpful to have kind of a common understanding of the

15 problems to address there.

16 I asked Dan about the Region's

17 observation at the end of 2015, that’s a few months

18 ago now and that operations management wasn't

19 embracing the need for change. It was more focused

20 on regulatory characterization than on addressing and

21 fixing problems.

22 I'm interested in your thoughts on -- he

23 also mentioned that he's seen improvement, but

24 there's a way to go. So, I'm interested in your

25 thoughts on that and I'm interested in Chris's

26 thoughts on that coming on those issues coming in and

1 new to the fleet.

2 MR. DENT: Yes, I think, first of all,

3 we've made some organizational changes in ops,

4 promotional across the board. But, nonetheless,

5 we've some changes and I think the, at least I'll

6 give my perspective, I won't speak on behalf of our

7 residents or Mr. Dorman.

8 But, I think the lines of communications

9 have opened considerably. I think the focus on, for

10 example, shift managers driving performance at the

11 station is a focus for us.

12 We're not an industry leader as far as

13 shift managers driving performance and that's

14 something that the operations leadership team as well

15 as the senior leadership team are focusing on. And,

16 I think we're seeing improvement within that area.

17 So, that is very much a focus for us and

18 it is important to us.

19 MR. BAKKEN: And, just to follow on in

20 the point I commented on it a bit earlier, but, you

21 know, in my experience tells me that strong

22 operational leadership leads you to have a

23 successfully and well run site.

24 I think the other piece that we need to

25 look at, which we really haven't discussed, is

26 succession planning and workforce planning.

1 Because, the other thing that makes an
2 organization successful is a pipeline through the
3 operations organization. It's then used as a feed
4 stock for the rest of the organization, be it
5 maintenance, engineering, licensing, et cetera.
6 We have some of our facilities that do
7 that very well and we have others where we need to
8 improve. And, I think that role of the path through
9 the shift manager and then out into the broader
10 management responsibilities and fleet
11 responsibilities is key to our success. So, that'll
12 be a focus area for us in the coming years.
13 COMMISSIONER BARAN: Mr. Dent, you
14 mentioned that one of the steps you're taking at
15 Pilgrim is to augment the staffing and that that's
16 something you intend to maintain over the next few
17 years in a run up to shutting down in 2019.
18 How are you going to make sure that any
19 necessary capital improvements are made to the plant
20 even though it's only going to be operating for a few
21 more years?
22 And, I guess this is a question also for
23 the senior leadership of the fleet. How is the fleet
24 going to make sure, fleet management going to make
25 sure that, if there are investments that need to be
26 made at a plant that's going to be shutting down in

1 three years, those investments are made?

2 MR. DENT: Yes, the timing, if you heard

3 the safety culture comment I made around risk

4 recognition and decision making, that decision making

5 aspect, there are things we've done in terms of

6 structure processes to make sure decisions that we're

7 making are rigorously vetted out and challenged.

8 So, timing wise, we have one outage left,

9 one refuel outage. We just finished scoping that

10 outage. And, that is -- you have two years left to

11 operate and from a making the decision what scope

12 goes into the outage or not, what we did is we

13 expanded it beyond the site.

14 We took our shot at scoping the outage

15 and we thought were absolutely positively necessary

16 for the efficient operation of the plant through plant

17 life.

18 And, what we did is, we've had

19 independent challenges at a fleet level to make sure

20 that there wasn't anything we were missing or we

21 weren't getting blind to it in terms of being too

22 close to it.

23 So, we're including third-party or kind

24 of independent help in that area to make sure we're

25 not missing anything.

26 COMMISSIONER BARAN: Okay.

1 MR. VENTOSA: The only thing to add to
2 that, I mean there's a significant kind of fleet
3 corporate piece of that from an oversight piece, John.
4 And, I think we looked at it a little bit
5 differently in the past. Not the probability of the
6 piece of equipment failing because you could
7 rationalize then two years, you know, probability
8 time, but what's the consequence?
9 And, let's focus on consequence when
10 we're making scoping decisions. And, we are
11 committed, from a resource standpoint, and when you
12 look at the outage scope coming up in this next
13 outage, it's commensurate with consequence, not
14 necessarily probability.
15 There's a little nuance there, but that's
16 kind of how we've focused, I think, the organization
17 that it was important for us.
18 COMMISSIONER BARAN: Thank you very much.
19 CHAIRMAN BURNS: Thank you,
20 Commissioner.
21 One of the things, Mr. Dent, you touched
22 on it and I think in the presentations, but perhaps
23 you can elaborate some.
24 You have, I think, what you have going is
25 you, in effect, have two things in one. You have the
26 notion of finishing strong apart from whether you're

1 being, you know, or Pilgrim was in column 4, it would
2 have that challenge in terms of communication, in
3 terms of the workforce, you know, the workforce
4 commitment, enthusiasm, whatever in terms of getting
5 across, as you say, getting across the finish line in
6 May 2019.
7 The same token now we have in terms of
8 the improvement processes, improvement initiatives
9 that need to -- that focus on the column 4 status.
10 Can you tell me, how is that sort of
11 integrated or how is that finish strong sort of
12 influencing, in effect, the corrective actions taken
13 with respect to the column 4?
14 Can you give me some sort of picture of
15 how one influences the other or sort of absorbed or
16 put together?
17 MR. DENT: If I could just step back for
18 a minute to answer --
19 CHAIRMAN BURNS: Sure.
20 MR. DENT: -- that question in terms of
21 speaking on behalf of the workforce.
22 Prior to March of this year, there was
23 anxiety within the workforce.
24 CHAIRMAN BURNS: Yes.
25 MR. DENT: Frankly, because we hadn't
26 made the decision whether we were shutting down in

1 '17 or '19 and the other variable out there was the
2 workforce didn't understand what their retention was
3 going to be.
4 So, what does this mean to me and family
5 and my life? So, that was a distraction to the
6 workforce. We're past all that now.
7 So, there's an interesting, I don't know
8 that I can completely explain it, but the workforce,
9 maybe it's the demographic. I think 2019 fits into
10 a large portion or a large demographic of the
11 workforce life's plans, if you will.
12 So, there's this sense of positive -- a
13 positive energy within the workforce that is really
14 heartening. It's really, I hate to say surprising,
15 but given the circumstances, it's surprising. But,
16 it's very, very encouraging.
17 So, you couple that with running -- we're
18 running multiple initial classes right now, three
19 initial maintenance classes, initial license class,
20 initial non-license class. We're bringing in folks
21 from Fitzpatrick.
22 We're actually able to attract people
23 from within the industry that are at a different part
24 in their career, at the end of their career because
25 of the retention. So, we're able to draw that
26 experience in.

1 So, you couple all that and there is an
2 organizational momentum right now and this, like I
3 said, this New England, there's a sense of this New
4 England pride and this leaving a legacy of excellence
5 resonates.
6 I forgot who it was mentioned the folks
7 from Vermont Yankee coming in with the spirit of
8 finishing strong. Fitzpatrick has the same kind of
9 a presence about them as an organization. And,
10 that's kind of the groundswell that's coming up
11 through the organization.
12 So, we're, as far as the column 4 recovery
13 is concerned, we're recovering. We've had
14 independent, outside of Entergy, multiple
15 organizations and individuals come in and say, you'd
16 never know this plant's shutting down. You wouldn't
17 be able to tell by the behaviors of the workforce.
18 You just, in casual conversation, the organization we
19 used Marathon to help us with recovery efforts, they
20 were astonished by how positive and how engaged -- how
21 the leadership team and workforce is interested in
22 fostering more of that spirit of continuous learning.
23 So, I know I said a lot, I'm not sure if
24 I answered your question.
25 CHAIRMAN BURNS: No, no, I think that's
26 helpful. That's helpful, it does help elaborate.

1 One of the other things you talked about
2 in terms of both in the initiative on finishing strong
3 in terms of transparency, communication with the
4 workforce, Pilgrim is, quite honestly, one of those
5 plants that gets a lot of attention from the local
6 community.
7 How are you communicating what you're
8 doing in the local community in Massachusetts?
9 MR. DENT: Yes, we worked fairly
10 extensively with the Selectmen in the township. We
11 work a lot. Our recovery director, a guy by the name
12 of Dave Noyes, is very engaged. Chip Perkins sitting
13 behind me.
14 So, we have a lot of engagement with the
15 Selectmen.
16 We're working on setting up an advisory
17 committee that's more tailored towards going into the
18 phase of decommissioning. So, there's a lot of work
19 that goes on at that level and I think it's fairly
20 effective.
21 We've brought in just recently, it was
22 just announced within the last day or two, another
23 individual that had been at Pilgrim before that's
24 responsible for that public relations kind of
25 approach with the various stakeholders.
26 So, we've got a few different prongs that

1 we're working through in terms of the outreach and
2 engagement. So EWC, Entergy Wholesale Commodities,
3 has a whole division that's basically dedicated to
4 exactly that, not just with us, but with Fitzpatrick
5 and Vermont Yankee and Indian Point as well.
6 CHAIRMAN BURNS: Okay. Thanks very
7 much.
8 Commissioner Svinicki?
9 COMMISSIONER SVINICKI: Well, thank you
10 for your presentation and for your responses to my
11 colleagues' questions.
12 We have covered quite a bit. I will ask
13 one question, maybe I should have asked this also of
14 the ANO, you've made very clear that your recovery
15 plan does not begin and end at passing an inspection
16 or exiting column 4.
17 But, if I were to narrow my question and
18 say, in terms of approaching significant inspection
19 milestones or other regulatory milestones, is it
20 clear to you what you need to do and what the
21 expectations are?
22 I guess I'm asking for some feedback in
23 terms of our communications on regulatory
24 expectations and the scope and intent of how we're
25 going to assess various things as those milestones
26 approach.

1 MR. DENT: Absolutely. So, I'll talk
2 about something internally we're doing and my
3 accountability to the guy sitting to my right.
4 But, in terms of the, you know, all the
5 way up to Mr. Dorman, and I hadn't gotten into this
6 when I said I was aligned with his comments, the
7 relationship that we have with the regulatory is very
8 transparent and open and clear in terms of our
9 communications.
10 There wasn't one comment that Mr. Dorman
11 made that surprised me or because we have that
12 dialogue. We have that open communication channels
13 at all levels, from the resident's office all the way
14 up to Mr. Dorman.
15 So, as far as the inspections coming
16 down, we've had a lot of them, as we talked about,
17 not just the phase alpha and bravo, but a lot of
18 supplemental inspections.
19 Not one of them have we not been crystal
20 clear on what's expected and I don't expect that to
21 change going forward.
22 MR. VENTOSA: Just to add a little bit,
23 I mean, because the Pilgrim experience was somewhat
24 unique in that it was limited attributes.
25 COMMISSIONER SVINICKI: That's true.
26 MR. VENTOSA: So, the dialogue, from my

1 perspective, and the open communication is really
2 critical from the very beginning and I have no
3 negative feedback. It's been open both at a regional
4 Branch Chief when they have a concern, they bring it
5 up. And, we made sure that that dialogue is open
6 from the beginning because there isn't a lot of
7 precedent in that particular piece of column 4 for
8 Pilgrim.
9 So, feedback is, I believe, it's working
10 well.
11 COMMISSIONER SVINICKI: Okay.
12 Thank you, Mr. Chairman.
13 CHAIRMAN BURNS: Okay, thank you.
14 Commissioner Ostendorff?
15 COMMISSIONER OSTENDORFF: Thank you for
16 your candid presentations. I was listening intently
17 with respect to the morale, the shutdown in 2019 and
18 it's good to hear that you're encouraged.
19 But, my human nature experience indicates
20 that that road will get tougher in the coming months,
21 not easier.
22 And so, I'm not saying I'm a skeptic, I
23 believe what you're telling me, but I've seen a lot
24 of organizations approaching end of life or outside
25 the nuclear industry and I just would encourage
26 constant vigilance in that area. I know it's going

1 to get -- I think it's going to get more difficult
2 for you than -- as the 2019 approaches.
3 That's all I have, thank you very much.
4 CHAIRMAN BURNS: Okay.
5 Well, thank you. Again, thanks for
6 the -- thank you for the presentations. This has,
7 as some of my colleagues have noted, this is one of
8 the most important meetings we hold during the year
9 to go over the assessment of performance within the
10 industry, both.
11 And we've spent a lot of time on in the
12 reactor fleet, but also for the materials -- licensees
13 that we have a responsibility for, both directly as
14 NRC but also in cooperation with our colleagues in
15 the Agreement States.
16 I'm also pleased we've had this
17 opportunity to hear from Entergy to address the plans
18 for seeking improvement at both ANO and at Pilgrim.
19 And, we're pleased to hear about the plans for
20 improvement at those sites.
21 Thank you all again and, with that, we
22 are adjourned.
23 (Whereupon, the above-entitled matter
24 went off the record at 11:56 a.m.)
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