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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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BRIEFING ON RESULTS OF AGENCY ACTION

REVIEW MEETING (AARM)

+ + + + +

TUESDAY

JUNE 3, 2014

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ROCKVILLE, MARYLAND

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The Commission met at the Nuclear
Regulatory Commission Headquarters, One White Flint
North, Commissioners' Conference Room, 11545 Rockville
Pike, at 9:00 a.m., Allison M. Macfarlane, Chairman,
presiding.

COMMISSION MEMBERS:

ALLISON M. MACFARLANE, Chairman

KRISTINE L. SVINICKI, Commissioner

GEORGE APOSTOLAKIS, Commissioner

WILLIAM D. MAGWOOD IV, Commissioner

WILLIAM C. OSTENDORFF, Commissioner

NRC STAFF PANEL:

MICHAEL JOHNSON, Deputy Executive Director for
Reactor and Preparedness Programs

1 LAURA DUDES, Director, Division of Materials
2 Safety and State Agreements, Office of
3 Federal and State Materials and
4 Environmental Management Programs

5 ALLEN HOWE, Deputy Director, Division of
6 Inspection and Regional Support, Office
7 of Nuclear Reactor Regulation

8 VICTOR MCCREE, Regional Administrator, Region II

9 MARC DAPAS, Regional Administrator, Region IV

10

11 EXTERNAL PANEL:

12 JOSEPH GRIMES, Tennessee Valley Authority

13 KEITH POLSON, Tennessee Valley Authority

14 DAVID CZUFIN, Tennessee Valley Authority

15 MATT RASMUSSEN, Tennessee Valley Authority

16 W. GARY GATES, Omaha Public Power District

17 LOU CORTOPASSI, Omaha Public Power District

18 TIM HANLEY, Exelon Generation

19

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21

22

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P R O C E E D I N G S

9:02 a.m.

CHAIRMAN MACFARLANE: Okay, good morning.

Today we're going to be having a briefing on the results of the Agency Action Review Meeting. The Agency Action Review Meeting is an annual meeting conducted by the Executive Director for Operations with Senior NRC Managers as part of an integrated evaluation process to insure the operational safety performance of NRC licensees.

There are a number of objectives for the Agency Action Review Meeting. First, to review Agency actions that have been taken for licensees of operating nuclear power plants and plants under construction that have had significant performance issues.

Also, to review Agency actions that have been taken for those nuclear materials licensees including fuel cycle facilities with significant safety or security issues.

Also, to insure that a coordinated course of action has been developed and implemented for licensees of concern, and to review the Reactor Oversight process and the Construction Reactor Oversight Process Program effectiveness. And, finally, to insure that trends in industry and licensee performance are recognized and appropriately

1 addressed.

2 During our first panel today, we're going
3 to hear from our NRC Staff on the results of the Agency
4 Action Review Meeting. The Staff presentation is also
5 going to update the Commission on the progress of two
6 licensees, the Tennessee Valley Authority, the
7 licensee for Browns Ferry, and the Omaha Public Power
8 District, the licensee for Fort Calhoun.

9 Following the Staff presentation we'll
10 hear first from the Tennessee Valley Authority on the
11 performance of Browns Ferry, and secondly from the
12 Omaha Public Power District on the performance of Fort
13 Calhoun.

14 Before we go on, would any of my fellow
15 Commissioners like to make any comments? No? Okay. Then
16 I'm going to turn it directly over to Mike Johnson, who
17 is the Deputy Executive Director for Reactor and
18 Preparedness Programs.

19 MR. JOHNSON: Good morning, Chairman. Good
20 morning, Commissioners.

21 As you indicated, we are here to brief
22 today on the results of the Agency Action Review Meeting
23 that was conducted on April 22nd of 2014. Can I have
24 the objectives slide, please, the next slide.

25 Our oversight process, of course, enables
26 us to identify performance declines in licensee

1 performance and assure that licensees are taking action
2 to address those declines in real time. So, on a rolling
3 basis we look at and oversee the performance of
4 licensees. But as a part of our process, we conduct the
5 Agency Action Review Meeting each year and the Agency
6 Action Review Meeting, including the meetings that lead
7 up to that, and this particular meeting with the
8 Commission all play an important role in the objectives
9 of the reactor oversight process.

10 The Chairman touched on the objectives on
11 the slide. I'll just point you to those. They do allow
12 the Staff, the senior managers to focus on the
13 appropriateness of actions that have been taken for
14 reactor plants and materials licensees that have had
15 significant performance problems, and to identify
16 additional actions, as needed. In addition to that, we
17 do look to make sure that the courses of action that
18 we would take are appropriately coordinated.

19 Also, as a part of the Agency Action Review
20 Meeting we review the results of the Staff's assessment
21 of the Reactor Oversight process, and the Construction
22 Reactor Oversight process. And this past year in
23 addition to some of the routine assessments that we've
24 done, that we do to continually improve our programs
25 we had an opportunity to take on an internal and
26 externally conducted activities to gain additional

1 insights in areas that will enable us to improve the
2 Reactor Oversight process. And you'll hear more about
3 that later in the presentation.

4 We don't plan to focus on the Construction
5 Reactor Oversight process today. We'll in a briefing
6 for the Commission later on new reactor issues, we'll
7 touch on the Construction Reactor Oversight process.
8 Also, Watts Bar Unit 2 is near completion, and we plan
9 to brief the Commission in October of this year on the
10 status of construction of Watts Bar.

11 The final objective of the process is to
12 insure that we -- that trends in the industry in
13 licensee performance are recognized and addressed
14 through our regulatory programs. Next slide, please.

15 This slide provides the conclusions that
16 we reached based on discussions of this year's Agency
17 Action Review Meeting. An overarching conclusion is
18 really the label of the slide, and that is that
19 licensees activities were safe and secure. We found
20 that actions taken on specific facilities that warrant
21 additional regulatory focus were appropriate and that
22 those tools are sufficient to enable us to take -- to
23 address the issues that were encountered, but I don't
24 want to lose sight -- and we'll spend most of this
25 meeting actually talking about through conversations
26 by Marc and Vic focused on those facilities, we'll spend

1 most of the meeting focused on those plants with
2 significant problems. But I don't want to lose sight
3 of the fact that, in general, overall the industry is
4 safe and secure based on the oversight process.

5 There were no significant adverse trends
6 in Materials licensees performance that would warrant
7 significant changes in our Materials and Waste
8 Oversight Programs. Similarly, there were no
9 significant trends, adverse trends in reactor
10 performance that would warrant significant changes to
11 our oversight process.

12 Regarding licensees with significant
13 performance issues, we used the criteria outlined in
14 Management Directive 8.14 which is the Management
15 Directive on the Agency Action Review Meeting. There
16 were four licensees that we discussed based on this
17 criteria. There were two Nuclear Material licensees
18 that were discussed because of significant security
19 performance issues. We did not recommend inviting them
20 to meet with you in conjunction with this meeting
21 because all of the corrective actions have been
22 completed associated with those facilities and
23 inspected. Licensee performance related to violations
24 was associated with activities that occurred
25 approximately two years ago, and the current licensee
26 performance is acceptable.

1 Browns Ferry Unit 1 was discussed because
2 it is in the multiple repetitive degraded cornerstone
3 column of the Action Matrix. We refer to that sometimes
4 as Column 4. Tennessee Valley Authority last briefed
5 the Commission on performance at Browns Ferry during
6 last year's briefing for the Commission on the Agency
7 Action Review Meeting.

8 Fort Calhoun was also discussed at the
9 Agency Action Review Meeting because the facility had
10 been shut down under Inspection Manual Chapter 0350
11 oversight due to significant performance concerns.
12 After an almost three-year shutdown, Fort Calhoun
13 commenced power operations last year after
14 satisfactorily addressing numerous issues associated
15 with safe plant operation. Omaha Public Power District
16 last briefed the Commission again at the briefing that
17 we had for the Commission on the AARM last year. You'll
18 hear, of course, from Tennessee Valley Authority and
19 Omaha Public Power District later on the performance
20 at Browns Ferry 1 and Fort Calhoun respectively. Next
21 slide, please.

22 So, to begin our presentation, Laura
23 Dudes, the Director of the Division of Materials Safety
24 and State Agreements Division in the Office of Federal
25 and State Materials and Environmental Management
26 Programs will discuss Materials and Waste Programs

1 performance.

2 Allen Howe, who is the Deputy Director of
3 the Division of Inspection and Regional Support in our
4 Office of Nuclear Reactor Regulation will discuss
5 -- will review the reactor industry trends and the
6 self-assessment program for the ROP, Reactor Oversight
7 Process.

8 Vic McCree, who is Regional Administrator
9 for Region II, and Marc Dapas, who's Regional
10 Administrator for Region IV will then follow with
11 discussions of current plant status of Browns Ferry 1
12 and Fort Calhoun Station. So with that, I'll turn to
13 Laura to begin her presentation.

14 MS. DUDES: Thank you, Michael. Good
15 morning. I'm happy to be here to be talking about the
16 Materials Program. I was gathering with the folks
17 earlier, and I was thinking it's a little lonely.
18 There's all these reactor people, and for 20 years I
19 was coming in here speaking about either reactors
20 operating or under construction, but I work in a
21 fascinating world, so I look forward to sharing that
22 with you.

23 The Materials Program -- may I have the
24 first slide, or my intro slide. The Materials Program
25 includes over 22,000 NRC and Agreement State licensees.
26 These licensees use nuclear materials for a wide

1 variety of beneficial practices that include
2 industrial, academic, medical and, of course, fuel
3 cycle facilities are included in this.

4 There are millions of licensed activities
5 performed each year. I will tell you that the medical
6 community alone performs over 16 million procedures
7 using radioisotopes. So, when we talk about trending
8 in the Materials Program, I will say the number of
9 reported events versus the number of activities in a
10 given year, I mean, is very small. However, since the
11 impact is often seen on an individual basis, Staff takes
12 this seriously, monitors the data, and looks for issues
13 or events that would require NRC response,
14 communication, or program improvements. So, I plan to
15 highlight some of the issues we addressed this year as
16 part of the national Materials Program. Next slide,
17 please.

18 So, similar to the Reactor Oversight
19 Program, the NRC and the Agreement States Radioactive
20 Materials Program include licensing and inspection,
21 incident response, and enforcement functions. We also
22 collect, monitor, and evaluate industry operational
23 data as part of our event reporting and assessment
24 function.

25 This information is provided in the annual
26 assessment paper that we provided to the Commission.

1 I would make a note for those who are following along,
2 we've included a reference to this paper as part of this
3 slide package, because I'm only going to touch some of
4 the highlights from the Annual Assessment Report, and
5 there's a lot more detail in that paper.

6 So, lastly, our evaluation process does
7 include identification of significant licensee
8 performance issues or NRC program improvement areas
9 that would warrant the high-level attention from senior
10 managers at the Agency Action Review Meeting.

11 Next slide, please.

12 So, the Staff uses the criteria based on
13 -- listed on this slide to measure our performance
14 during the year. And it's a graded approach from high
15 level, high consequence events such as the strategic
16 outcomes we report to Congress, and then all the way
17 down to maybe a low level monitoring, precursor
18 monitoring events that are reported to the NRC on a
19 daily basis.

20 I just do want to make a note about some
21 of this performance criteria. If you recall during your
22 meeting with the Advisory Committee on Medical Uses of
23 Isotopes, there was a presenter who kept -- had a slide
24 that kept saying medical is different, medical is
25 different in that theme. Well, as I've been working in
26 the Materials world for about six or seven months now,

1 I'm not going to say that any use in particular is
2 different, but I do know if you look at the performance
3 criteria listed on there, the difference I notice from
4 my previous experience is the daily, and often direct
5 beneficial and also consequential impact on
6 individuals.

7 One of the criteria listed is a performance
8 measure, and that performance measure is less than two
9 radiation over-exposures that results in a loss of
10 function. Well, in 2012 we had an event in Texas where
11 a radiographer actually lost a finger, so these metrics
12 are very real and very individual in the Materials
13 world. We did take appropriate action, and the State
14 of Texas took action with respect to that event. But
15 I think it's been very personal and human for me over
16 the past few months, so I wanted to share that as opposed
17 to just a list of performance criteria. Next slide,
18 please.

19 Okay. During the Fiscal Year '13 reporting
20 period, there were 415 NRC and licensee annual -- NRC
21 and Agreement State licensee event reports reported to
22 the Nuclear Materials Event Database. The slide -- the
23 graph on this slide shows the performance over 10 fiscal
24 years. We do that just to try and address any random
25 fluctuations in data over a 10-year period in the
26 Materials event reporting.

1 I will note something interesting on here.
2 If you look at the spike I think in 2008, and a little
3 bit in 2009, that is actually a singular activity, which
4 is the Walmart's inventory of their tritium exit signs.
5 However, they ended up reporting upwards to 274
6 additional events in 2008, and then about 60-70 in 2009.
7 If we remove that particular occurrence, you'd see a
8 slight decreasing trend in Material events.

9 Within the Nuclear Material Events
10 Database, some of those events meet the abnormal
11 occurrence threshold. This reporting year we had 10
12 abnormal occurrences. All of the abnormal occurrences
13 dealt with medical procedures, eight were identified
14 as medical events, and two were radiation exposures to
15 embryos for women who were undergoing medical
16 treatments.

17 Again, this is very individual and
18 although the number, 10 events over, you know, 16
19 million procedures is small, we do try and look for ways
20 that we can improve our program and highlight issues
21 to the community, so with respect to this we issued a
22 communication to our licensee, obviously shared it with
23 our States for their licensees because four of the eight
24 events dealt with misadministrations or challenges
25 with high-dose rate after loaders so we did put out a
26 communication to remind licensees about the importance

1 of verification of the treatment parameters for the
2 high-dose rate after loader administrations. Next
3 slide, please.

4 Okay. So, this is a high level overview of
5 the radiography process. You have the two individuals
6 welding a pipe up on the top left-hand corner. Then the
7 radiographer will set up the camera to take an image
8 of the weld, hopefully stand off from a safe distance,
9 as you can see the picture there, crank out the source,
10 take the image, and then retrieve the source.
11 This can be one of hundreds of images a radiographer
12 takes in any given day in a variety of incredibly
13 difficult working conditions.

14 We initiated a study of radiography for the
15 2013 assessment year. We did this because we perceived
16 increases in the number of radiography procedures
17 performed by licensees, you know, due to oil and gas
18 exploration. We looked at eight, ten, and twelve year
19 trending of radiography event data, and our overall
20 conclusion that there was nothing in that data that told
21 us we needed to make a regulatory change, or a
22 significant program change. But, again, we try and take
23 action on things that we do see. So, there were several
24 events where there were sources that could not be
25 retracted after they had been extended due to some kind
26 of damage. Twelve of those involved construction

1 equipment not even related to the camera falling on the
2 guide tubes. Two events where radiography was being
3 conducted at a solar generating station, the mirror
4 beams actually melted the drive cables so the source
5 could not be retracted. So, the Staff looked at this
6 and said well, these are preventable events, so we did
7 issue a Generic communication to all licensees and the
8 States regarding the need to properly mount your
9 equipment.

10 And although it's not part of the FY '13
11 performance assessment, I did want to just highlight,
12 earlier this year we had three radiography events with
13 the same company, or sister company, and we wanted to
14 just address that. One occurred in Ohio, an Agreement
15 State, Texas, an Agreement State, and then Region IV
16 has some ongoing work with the same company in Alaska.
17 So, we are communicating with all 37 Agreement States.
18 We issued an Agreement State letter which talked about
19 the radiological events involving Acuren, USA and
20 Acuren Inspection. We continue to work with the States
21 to see if there's any common cause failures that we
22 should be addressing collectively with this company,
23 and we will figure out what additional actions are
24 necessary for us to do as a National Materials Program
25 team following the completion of, of course, the States
26 and the NRC's respective inspection and enforcement

1 actions associated with these events. But we have been
2 talking about this. Next slide, please.

3 So, Michael mentioned that there were two
4 fuel cycle facilities that did meet the Agency Action
5 Review Meeting criteria, but I did not touch upon them
6 as he covered that in his opening remarks. So beyond
7 that, the Nuclear Materials Program met all strategic
8 and performance safety and security measures. We
9 identified no significant trending or program issues,
10 so I will turn it over to Allen Howe. Thank you.

11 MR. HOWE: Thank you, Laura. And good
12 morning, Chairman and Commissioners. Today I will brief
13 you on the results of the NRC's Industry Trends Program,
14 and the Reactor Oversight Process Self-Assessment for
15 2013. These areas were discussed at the Agency Action
16 Review Meeting. Slide 12, please.

17 The NRC uses its Industry Trends Program
18 to monitor for adverse trends in the industry's safety
19 performance. Overall, the results for 2013 were no
20 statistically significant long-term trends, and no
21 short-term prediction limits were exceeded. However,
22 we're continuing to review five loss of offsite power
23 events under the NRC's Accident Sequence Precursor
24 Program. Should our review determine that all five
25 events are significant, a long-term adverse trend and
26 the significant events indicator will exist, and we

1 will update the Commission of the change in our analysis
2 and any planned actions.

3 At the time each of these events occurred
4 we immediately evaluated the events to inform our
5 regulatory response, and we conducted appropriate
6 follow-up inspections to assess each event and its
7 causes to insure continued safe plant operation.

8 The Industry Trends Program also includes
9 a baseline risk index for initiating events. This is
10 a risk-informed view of the industry performance in the
11 initiating events cornerstone of the Reactor Oversight
12 Process. None of the 10 initiating event category
13 indices were exceeded in 2013. Slide 13, please.

14 As directed by the Commission following
15 the 2013 briefing on the Agency Action Review Meeting,
16 we reviewed the Industry Trends Program to identify
17 potential enhancements and resource reductions. As a
18 part of our review, we identified that the program
19 doesn't include insights on the public radiation safety
20 and security cornerstones, and we will consider adding
21 indicators for these areas and to the program. We
22 recognize that efficiencies could be gained by
23 replacing or supplementing some of the Industry Trends
24 Program data sources with Performance Indicator
25 Program data from the Reactor Oversight Process.

26 We acknowledge that we should explore new

1 ways to incorporate performance data from new reactors
2 into the program. And we plan to update the Commission
3 on our progress in future Industry Trends Program SECY
4 papers. Next slide, please.

5 Now I'll move on to the results of the
6 Reactor Oversight Process Self-Assessment for 2013.
7 Overall, the Reactor Oversight Process met its
8 performance goals and desired outcomes. We also
9 appropriately monitored plant activities and focused
10 our resources on licensee performance. These results
11 indicate that the Reactor Oversight Process continues
12 to be effective.

13 Regarding the government shutdown, the
14 Staff furlough last October, I wanted to emphasize that
15 we maintained our Resident Inspector Program during the
16 furlough, and the residents implemented their normally
17 assigned inspection and incident response activities.
18 They were supported by Regional and Program Office
19 Managers who met the excepted function criteria.
20 However, the furlough impacted our Oversight Program.
21 I'll give you a few examples.

22 We had to issue some interim guidance,
23 inspection guidance before the furlough. We also had
24 to reschedule some engineering and security
25 inspections, and we completed these inspections by the
26 first quarter of 2014. We postponed an Emergency

1 Preparedness exercise to the second quarter of 2014.
2 Also, some outage-related inspection samples were
3 missed. And, finally, for several inspection reports
4 we missed our timeliness goals for issuance.

5 Despite these impacts from the furlough,
6 we met all the Reactor Oversight Process performance
7 goals, such as completion of the Baseline Inspection
8 Program at all plants, and we also completed the timely
9 completion of all inspection reports. Slide 15, please.

10 A specific requirement of the Agency
11 Action Review Meeting is to discuss action matrix
12 deviations to insure that the causes of deviations are
13 well understood, and to identify any necessary changes
14 to the Oversight Process guidance documents.

15 We had one action matrix deviation in 2013
16 to keep Perry in the degraded cornerstone column, also
17 known as Column 3 of the action matrix, instead of
18 moving it to the multiple repetitive degraded
19 cornerstone column, or Column 4 when those criteria
20 were met for moving it to the multiple repetitive
21 degraded cornerstone column.

22 We did this because the licensee's current
23 performance issues were well understood and limited to
24 occupational radiation safety. And, therefore, we
25 considered the regulatory actions for the degraded
26 cornerstone column to be more appropriate than those

1 for the multiple repetitive degraded cornerstone
2 column. We subsequently completed the supplemental
3 inspections and closed the deviation.

4 As a part of our established feedback
5 process, we are working to clarify some definitions and
6 to add flexibility in handling older performance
7 issues. And just to close the loop from our 2012
8 feedback on action matrix deviations where we had some
9 plant technical issues that were not related to plant
10 performance, our revised guidance now gives the Regions
11 added flexibility to expend resources to review
12 emerging technical issues that are not related to plant
13 performance. Slide 16, please.

14 2013 was a busy year with several
15 activities, including the Reactor Oversight Process
16 Enhancement Project. The Commission directed
17 independent review of the Reactor Oversight Process,
18 other reviews by the Government Accountability Office,
19 and the Office of the Inspector General, and also
20 Lessons Learned related to Browns Ferry, and more
21 recently from Fort Calhoun Station.

22 We also worked with the Institute of
23 Nuclear Power Operations, industry, and other
24 stakeholders to incorporate the safety culture common
25 language into the Reactor Oversight Process guidance.
26 And, finally, the Office of Nuclear Reactor Regulation

1 and the Office of New Reactors worked together to
2 provide the Commission with recommendations for
3 risk-informing the Reactor Oversight Process for new
4 reactors in SECY-13-0137. Next slide, please.

5 The Reactor Oversight Process is a mature
6 and robust program that continues to serve the Agency
7 well. We're also striving to improve, so I'll highlight
8 a few of our focus areas. We plan to continue with the
9 Reactor Oversight Process Enhancement Project. We have
10 numerous inputs from completed evaluations, including
11 the independent assessment I mentioned a minute ago,
12 and we plan to focus our activities on updates to the
13 Baseline Inspection Program, along with addressing
14 feedback on Substantive Crosscutting Issues and input
15 we've received on the action matrix.

16 Regarding improvements to the Reactor
17 Oversight Self-Assessment Process, we're pursuing
18 creation of more objective metrics that are aligned to
19 the Reactor Oversight Process goals and the principles
20 of good regulation. We will continue stakeholder
21 interaction such as our monthly Working Group public
22 meetings, and holding public meetings on specific
23 topics related to the Reactor Oversight Process
24 Enhancement.

25 And looking ahead to new reactors becoming
26 operating reactors, the Office of Nuclear Reactor

1 Regulation, the Office of New Reactors and Region II
2 are interfacing on the transition from construction to
3 operating Reactor Oversight.

4 This concludes my presentation, and I'll
5 now turn it over to Vic McCree who will brief you on
6 Browns Ferry. Thank you.

7 MR. MCCREE: Thanks, Allen. Good morning,
8 Chairman and Commissioners.

9 I plan to give an overview of Browns Ferry,
10 including a brief background discussion, a review of
11 Browns Ferry's performance in 2013, our current
12 performance assessment, and our plans going forward.
13 With me today are Jonathan Bartley, to my right. He's
14 the Branch Chief for the Tennessee Valley Authority in
15 Region II responsible not only for Browns Ferry, but
16 Watts Bar and Sequoyah. Also, Craig Kontz, he's the
17 Senior Project Engineer for the Tennessee Valley
18 Authority. Craig has been very involved with our
19 oversight activities at Browns Ferry for over six
20 years. Next slide, please.

21 This is the fourth consecutive Agency
22 Action Review Meeting, and the fifth meeting in four
23 years where the Commission has invited the Staff and
24 TVA representatives to meet to discuss the performance
25 of Browns Ferry. The meetings stem from Browns Ferry
26 entering the multiple repetitive degraded cornerstone

1 column, or Column 4, of the mitigating systems
2 cornerstone in the fall of 2010 due to the Red high
3 safety-significance determination associated with the
4 failure of a Unit 1 residual heat removal system flow
5 control valve.

6 Since that time, Browns Ferry developed
7 and has implemented many elements of what it refers to
8 as an integrated improvement plan to address the
9 fundamental problems that have affected the
10 performance of the units at Browns Ferry.

11 NRC has conducted multiple inspections at
12 Browns Ferry, including the Inspection Procedure
13 95003, Supplemental Inspection, and a Confirmatory
14 Action Letter Inspection actually that was led by Mr.
15 Kontz in December of 2013. Those inspections enabled
16 us to close the Red finding and the confirmatory action
17 letter in January of this year. However, because of
18 additional White inputs to the action matrix in 2013,
19 which I'll discuss in a minute, Browns Ferry Unit 1
20 remains in Column 4. Next slide, please.

21 Unit 2 remained in the degraded
22 cornerstone column, that's Column 3 of the mitigating
23 systems cornerstone since the fourth quarter of 2012,
24 and in all four quarters of 2013 due to a performance
25 indicator for emergency AC power and a White low to
26 moderate safety-significance finding involving an

1 inadequate implementation of training for a procedure
2 modification used to shut the plant down and put it in
3 a safe condition during various in-plant fire scenarios
4 referred to as Safe Shutdown Instructions. Next slide,
5 please.

6 Unit 3 has remained in the regulatory
7 response column, or Column 2 of the initiating events
8 cornerstone since the second quarter of 2012 due to a
9 White unplanned scrams performance indicator. Although
10 we completed the Inspection Procedure 95001
11 Supplemental Inspection in the fall of 2013, Unit 3
12 remains in Column 2 due to a recently issued White again
13 low to moderate safety-significance finding in the
14 emergency preparedness cornerstone. This emergency
15 preparedness finding which applies to all three units
16 involves TVA's failure to maintain minimum emergency
17 response shift staffing to insure initial accident
18 response in all key functional areas, including the
19 ability to achieve safe shutdown during an Appendix R
20 fire. Next slide, please.

21 As for the current plant status, as shown
22 on this slide, Unit 1 has been at power since March 2013
23 following a startup from a reactor scram associated
24 with a degraded main condenser vacuum. Unit 2 has been
25 at power since May 2013 following a startup from a
26 refueling outage, and Unit 3 has been at power since

1 early May after a reactor scram associated with a failed
2 power supply during testing. The unit had previously
3 operated since startup from a refueling outage on March
4 17th. Next slide, please.

5 TVA has continued to operate the units at
6 Browns Ferry safely. This performance assessment is
7 based in part on the results of over 9,700, almost
8 10,000 hours of inspection-related effort in 2013
9 associated with the supplemental and confirmatory
10 action letter closure inspections again that we
11 conducted in 2013. This was in addition to over 5,000
12 hours of NRC baseline inspection-related effort in
13 2013.

14 These inspections also identified
15 improvements in station performance, such as progress
16 in implementing what TVA refers to as its Safety System
17 Reliability Plan which were evidenced by reduced
18 maintenance backlog, improved material condition in a
19 number of front line safety systems such as emergency
20 equipment, cooling water, service water, residual heat
21 removal, reactor core isolation cooling, high-pressure
22 coolant injection, core spray, and emergency diesel
23 generator, again, improved reliability in those
24 systems due to that investment.

25 We also have seen improvements in work
26 management due to increased resources allocated by TVA,

1 demonstrated worker behavior, as well as better
2 planning and planning meetings. In addition, NRC
3 inspections identified an improved understanding of
4 the importance of a strong safety culture. For example,
5 the Procedure Upgrade Project had improved the quality
6 and usability of the site's procedures. There were
7 demonstrated enhancements in the Corrective Action
8 Program, including an increased quantity of service
9 requests, a lower threshold for service requests, the
10 services requests themselves were of a higher quality
11 and we noted clear assignments of responsibility for
12 implementing corrective actions.

13 In addition, there were noted changes in
14 worker behavior, improvements in worker behavior while
15 performing work in the field, such as pre-job briefs,
16 when workers were unclear or unsure they stopped work
17 and they effectively used human performance tools,
18 again such as pre-job briefs. Next slide, please.

19 The 95003 supplemental inspection at
20 Browns Ferry was conducted in three parts. The first
21 two parts were conducted in the fall of 2011. The third
22 part was completed in May of last year, and that
23 consisted of a diagnostic review of programs and
24 processes in a way that are not typically inspected as
25 part of the Baseline Inspection Program. The diagnostic
26 inspection included an independent assessment of the

1 safety culture at the Browns Ferry Nuclear Plant,
2 including the results of TVA's independent third-party
3 assessment and root cause analysis.

4 The 26-member 95003 inspection team which
5 was composed of inspectors from Region I, Region III,
6 the Office of Nuclear Reactor Regulation, the Office
7 of Research, the Office of Enforcement and, of course,
8 Region II found that Browns Ferry had, indeed, made
9 gains toward improved performance as a result of their
10 progress in implementing its Integrated Improvement
11 Plan. The team also identified no greater-than-Green
12 finding. However, the team did find continuing examples
13 of the type of organizational and programmatic issues
14 that hindered improvements and safety system
15 reliability, and human performance, and problem
16 identification and resolution, engineering work
17 product quality, and oversight of station activities
18 that were causal factors in the Red finding.

19 As a result, the team concluded that
20 continued implementation of the Integrated Improvement
21 Plan was needed to demonstrate TVA's ability to achieve
22 sustained and substantial performance improvement at
23 Browns Ferry. In response, TVA submitted a letter to
24 the NRC in August of 2013 committing to a specific set
25 of Integrated Improvement Plan actions, and other
26 actions associated with issues identified during the

1 Inspection Procedure 95003 Supplemental Inspection.

2 In the letter, TVA identified short-term
3 actions referred to as Tier 1 actions that would be
4 completed at specific near-term dates, and an
5 additional set of actions that are referred to as Tier
6 2 actions that would be completed in the long term and
7 contribute to sustained improved performance.

8 After reviewing these commitments, I
9 issued a Confirmatory Action Letter to confirm TVA's
10 Tier 1 and Tier 2 actions. The letter indicated that
11 the completion of the Tier 1 actions when verified by
12 NRC inspection would reasonably serve to inform the
13 NRC's decision making regarding closure of the Red
14 Finding and the transition of Browns Ferry Unit 1 out
15 of the multiple repetitive degraded cornerstone column
16 of the ROP action matrix. Next slide, please.

17 The Confirmatory Action Letter closure
18 inspection was an eight-member inspection, again led
19 by Mr. Kontz, and it included inspectors from Regions
20 I, III, and the Office of Nuclear Reactor Regulation.
21 This inspection included an assessment again of TVA's
22 Tier 1 commitments to determine the adequacy of the root
23 cause evaluations, the corrective actions, as well as
24 enhancements to the licensee's programs and practices
25 to prevent recurrence. This team identified no
26 findings.

1 Based on the inspection results, the NRC
2 concluded that the Confirmatory Action Letter Tier 1
3 commitments were met, and the Confirmatory Action
4 Letter was closed. In addition, the results of the
5 inspection in conjunction with the previously
6 completed inspection activities provided adequate
7 assurance that the completed or planned corrective
8 actions were sufficient to address the Red Finding and
9 the associated violations. As a result, again, the Red
10 Finding was closed, and this was in January of this
11 year. Next slide, please.

12 The performance issues at Browns Ferry
13 also included three Substantive Crosscutting Issues.
14 The Inspection Procedure 95003 Supplemental Inspection
15 reviewed TVA's corrective actions for the causes of two
16 longstanding problem identification and resolution
17 crosscutting issues associated with a thorough
18 evaluation of identified problems and appropriate and
19 timely corrective actions. TVA completed the required
20 third-party assessment to address these two
21 Substantive Crosscutting Issues and the team verified
22 that the actions identified in the Integrated
23 Improvement Plan, which included changes to the
24 Corrective Action Program procedures, roles and
25 responsibilities, staffing, tracking, and trending
26 tools were acceptable.

1 Based on the adequacy and effectiveness of
2 these changes, and a reduction in the number of findings
3 in this area, the team concluded that TVA's action were
4 appropriate to promote sustained improved performance.

5 In addition, the Confirmatory Action
6 Letter closure inspection reviewed TVA's corrective
7 actions for Human Performance Substantive Crosscutting
8 Issue associated with complete documentation and
9 labeling. Based on the team's assessment of TVA's
10 progress in implementing the Procedure Upgrade
11 Project, including the pre-work walk-downs of work
12 instructions, the proper use of human performance tools
13 with a focus on use of verification practices, the
14 training and qualification of workers and, again, no
15 significant increase in findings in this area, this
16 Substantive Crosscutting Issue was closed, and no new
17 Substantive Crosscutting Issues were opened in 2013.
18 Next slide, please.

19 In 2009, again, this is to give you an idea
20 of other regulatory activities that are underway. In
21 2009, we issued a Confirmatory Order to TVA following
22 an alternate Dispute Resolution Mediation for apparent
23 violations of 10 CFR 50.7, Employee Protection for
24 Discrimination. Among the commitments included in this
25 order was TVA's commitment to perform two independent
26 safety culture assessments by the end of 2013, which

1 they have completed. We do anticipate verifying the
2 status of TVA's actions for all of the commitments in
3 this order later this year. Next slide, please.

4 In late April of this year we issued a
5 second Confirmatory Order to TVA for apparent
6 violations stemming from the failure to meet 10 CFR Part
7 50, Appendix R Operations Minimum Staffing Level. This
8 Confirmatory Order is associated with the White
9 Emergency Preparedness Finding that I alluded to
10 earlier.

11 The apparent violations with associated
12 with 10 CFR 50.9, Complete and Accurate Information,
13 and 10 CFR 50.90, Improper License Changes. We will
14 conduct an inspection to verify the adequacy of the
15 closure of this Confirmatory Order when TVA informs us
16 that it's ready to close those commitments. Next slide,
17 please.

18 Going forward we plan to conduct the
19 Inspection Procedure 95001 Supplemental Inspection for
20 the Emergency Preparedness White Finding that I
21 referred to. In addition, we'll perform inspections to
22 verify adequate implementation of both the 2009 and
23 2014 Confirmatory Order actions. Next slide.

24 We will use baseline inspections by both
25 the resident inspectors and region-based inspectors to
26 verify that TVA has adequately implemented its

1 Integrated Improvement Plan Tier 2 actions. Again,
2 these are the longer term actions. We'll also conduct
3 a performance assessment later this summer in all
4 likelihood in accordance with Inspection Manual
5 Chapter 0305 to assess movement of Browns Ferry Unit
6 1 out of the Column 4 of the ROP action matrix once the
7 associated performance indicators, again for
8 high-pressure coolant injection and emergency AC power
9 revert to Green, very low safety-significance. We
10 completed the supplemental inspection under Inspection
11 Procedure 95002 in April associated with those two
12 White inputs, those two White performance indicators,
13 so the hours associated with those performance
14 indicators simply need to roll off which it's projected
15 this summer, and we will be in a position to move Unit
16 1 out of Column 4.

17 In closing, TVA continues to operate the
18 Browns Ferry units safely, and our inspections have
19 seen evidence of improving station performance.
20 However, TVA needs to aggressively implement the
21 performance improvements contained in its Integrated
22 Improvement Plan, including elements of Tier 1 and Tier
23 2 to avoid the cyclic safety and regulatory performance
24 that the Browns Ferry units have experienced in the
25 past.

26 That concludes my remarks on Browns

1 Ferry's performance and NRC actions going forward. I'll
2 now turn it over to Marc Dapas.

3 MR. DAPAS: Thank you, Vic. Good morning,
4 Chairman and Commissioners.

5 I appreciate the opportunity to be here
6 today and discuss with you our Regulatory Oversight
7 activities with respect to Fort Calhoun Station. This
8 is the fifth time in the last 27 months that the Staff
9 has briefed the Commission on Fort Calhoun. But before
10 I get into the specifics regarding our oversight
11 function, I first would like to introduce Michael Hay,
12 who is a Branch Chief in our Region IV, Division of
13 Reactor Projects. Mike has primary responsibility for
14 the NRC's Inspection Program at Fort Calhoun Station.
15 You may recall he participated in the Commission
16 meeting back in January 2013. Mike did most of the heavy
17 lifting involving the oversight and coordination of our
18 many and varied inspection activities associated with
19 the Manual Chapter 0350 process. Next slide, please.

20 I plan to focus my presentation today on
21 three overarching areas. First, I'll provide some
22 historical perspective on our Regulatory Oversight
23 activities at Fort Calhoun Station. Then I'll discuss
24 the basis for my restart readiness decision. And,
25 thirdly, I'll discuss our planned Oversight activities
26 going forward. Next slide, please.

1 In October of 2010, the NRC issued a
2 Finding to Omaha Public Power District, or OPPD, for
3 the licensee's failure to maintain procedures and
4 equipment that protect the station from the effects of
5 a design-basis flood. This resulted in Fort Calhoun
6 Station transitioning to Column 3 of the NRC's Reactor
7 Oversight Process action matrix for a degraded
8 cornerstone in mitigating systems.

9 In early April 2011, Fort Calhoun Station
10 shut down for a scheduled refueling outage. Then on May
11 23rd, in response to rising levels along the Missouri
12 River, the licensee began implementing flood
13 protection measures at the site to protect various
14 safety-related structures. Subsequently on June 6th,
15 the licensee declared a Notice of Unusual Event in
16 anticipation that increasing river levels would reach
17 1,004 feet mean sea level at the station. Then on the
18 very next day, June 7th, the failure of a feeder breaker
19 for a 480 volt load center resulted in a fire in the
20 station's west switch gear room. The fire caused a loss
21 of power to six of nine safety-related 480 volt
22 electrical distribution buses, and consequently the
23 licensee declared an alert. Next slide, please.

24 In July of 2011 we issued a White Finding
25 in the mitigating systems cornerstone for the
26 licensee's failure to correct a degraded contactor in

1 the reactor protection system which subsequently
2 failed. Then in September of 2011, Fort Calhoun Station
3 transitioned to Column 4 of the Reactor Oversight
4 Process action matrix for multiple repetitive degraded
5 cornerstones due to the previously existing Yellow
6 Finding for flood protection-related deficiencies that
7 I mentioned which had remained open for more than four
8 quarters, and the newly issued White Finding in the
9 mitigating systems cornerstone, as well as several
10 greater-than-Green Findings in the security
11 cornerstone.

12 On September 2nd, the NRC issued a
13 Confirmatory Action Letter or a CAL to OPPD which
14 documented certain actions the licensee committed to
15 take before restarting the plant as described in the
16 licensee's Post-Flooding Recovery Action Plan. These
17 actions addressed the flooding impacts at Fort Calhoun,
18 as well as other aspects of station performance. Next
19 slide, please.

20 On December 13th, 2011, the NRC notified
21 OPPD that the Agency had made a change in the regulatory
22 oversight of Fort Calhoun Station transitioning from
23 the Operating Reactor Assessment Program as prescribed
24 by our Manual Chapter 0305 to the Manual Chapter 0350
25 process for oversight of reactor facilities in a
26 shutdown condition due to significant performance or

1 operational concerns.

2 The basis for the decision to transfer
3 oversight from the Reactor Oversight process to the
4 Manual Chapter 0350 process was that the plant was
5 shutdown and in Column 4 of the action matrix, as well
6 as the fact that the licensee needed to accomplish
7 significant analysis of the extent of condition and
8 extent of cause of known performance deficiencies to
9 fully understand what actions were necessary.

10 In January of 2012, OPPD and Exelon entered
11 into an Advisory Services Agreement in which Exelon
12 provided advice and other support services to OPPD
13 focused on station recovery and restart. A few months
14 later in August, Omaha Public Power District and Exelon
15 signed a 20-year Operating Service Agreement whereby
16 Exelon is responsible for the day-to-day operation of
17 Fort Calhoun Station, but Omaha Public Power District
18 remains the owner and licensee.

19 And then on February 22nd, 2012 the
20 Commission was briefed for the first time on Fort
21 Calhoun Station by the NRC Staff and OPPD/Exelon
22 management. In April, the NRC issued a Red Finding to
23 Omaha Public Power District for the licensee's failure
24 to adequately design, modify, and maintain the
25 electrical power distribution system resulting in a
26 fire in the safety-related 480 volt electrical

1 equipment that occurred back on June 7th, 2011. Next
2 slide, please.

3 In early 2012, the licensee developed its
4 Integrated Performance Improvement Plan to guide the
5 problem discovery, analysis, and recovery activities
6 at Fort Calhoun Station. On June 11th, 2012, the NRC
7 issued a second Confirmatory Action Letter which
8 included all the committed actions captured in the
9 September 2011 CAL, as well as expanded the scope of
10 activities to resolve the underlying performance
11 issues at Fort Calhoun Station that were discovered
12 after the original CAL had been issued.

13 The June CAL included a Restart Checklist,
14 the purpose of which was to identify all of the issues
15 that needed to be resolved before restart. The Restart
16 Checklist captured the key actions encompassed by the
17 licensee's Integrated Performance Improvement Plan and
18 it also included an assessment of each of the key
19 attributes described in Supplemental Inspection
20 Procedure 95003 which was appropriate given the Red
21 Finding for the significant performance deficiencies
22 associated with the 480 volt switch gear fire.

23 In June of 2012, the Commission was briefed
24 a second time by both the NRC Staff and OPPD on the
25 status of recovery actions at Fort Calhoun Station. On
26 November 13th, 2012, the NRC issued the Restart

1 Checklist Basis Document which clarified the scope and
2 breadth of the Restart Checklist items and the minimum
3 actions that the NRC planned to take to verify that the
4 licensee had adequately addressed the specific items
5 in the CAL. Basically, it provided a detailed
6 description of the 460 specific items that the NRC would
7 review as a minimum to insure operational safety at Fort
8 Calhoun Station. Next slide, please.

9 In January of 2013, the Commission was
10 briefed for the third time on the status of NRC
11 oversight activities and licensee recovery efforts. On
12 February 26, 2013, the NRC issued CAL 1320 which
13 confirmed that the licensee would not operate above the
14 hot shutdown condition, i.e., Operating Mode 3, until
15 the NRC had completed its review of the Restart
16 Checklist items.

17 The February CAL also added three Restart
18 Checklist items associated with containment internal
19 structural integrity involving four support columns,
20 containment electrical penetrations, and a White
21 performance indicator for safety system functional
22 failures. The Commission was briefed for a fourth time
23 in May 2013. Next slide, please.

24 After expending more than 23,000 hours
25 collectively to inspect, assess licensee performance,
26 and complete several licensing activities, the NRC

1 completed its review of the Restart Checklist items in
2 December 2013. Similar to Browns Ferry, as Vic
3 described, I'd like to emphasize that this was an Agency
4 effort. It included support from all three of the other
5 Regions, as well as Headquarters Technical Staff. And
6 this extensive Agency effort to independently verify
7 that the licensee had adequately addressed all of the
8 Restart Checklist items culminated in the 0350 Panel's
9 recommendation to me that the plant was ready for
10 restart.

11 After completing my own due diligence
12 which included reviewing a variety of inspection
13 reports, the 0350 Panel meetings, receiving briefings
14 from the Staff, and prior to reaching a decision my
15 extensive engagement and a number of phone calls with
16 licensee management to discuss the status of
17 outstanding issues that had yet to be resolved, and
18 licensee associated corrective actions. So, following
19 my review of those various documents and receiving
20 those briefings, I closed CAL EA 1320 on December 13,
21 2013.

22 Then on December 18th, Fort Calhoun
23 Station operators commenced the reactor startup and
24 reached full power operation on December 26th. Our
25 inspectors conducted around the clock control room
26 observations during the startup and power ascension.

1 To insure that the licensee continues to implement a
2 number of long-term corrective actions to prevent
3 recurrence of a significant decline in performance, I
4 issued a Post-Restart Confirmatory Action Letter on
5 December 17th. That Post-Restart CAL addresses actions
6 considered necessary for achieving and sustaining
7 continued performance improvements in a number of
8 areas, including site safety culture, the Corrective
9 Action Program, engineering activities, facility
10 design and licensing-basis reconstitution, as well as
11 implementation of regulatory processes involving
12 changes to the facility which includes the 50.59
13 process and evaluating degrading and non-conforming
14 conditions, or operability determinations.

15 This Post-Restart CAL basically captured
16 the various commitments that the licensee had indicated
17 are actions they plan to take as a result of the letter
18 that they sent to me indicating the licensee's own
19 self-assessment conclusions regarding their readiness
20 to restart the facility. Next slide, please.

21 Regarding our planned regulatory
22 activities now that the plant has resumed power
23 operation, in addition to conducting baseline
24 inspection activities, we plan to conduct focused
25 inspections in specific areas. For example, we
26 scheduled a 13-person team inspection in July of this

1 year. This team inspection will focus on site safety
2 culture, the licensee's Corrective Action Program, and
3 the licensee's Evaluation Program for degraded and
4 non-conforming conditions. In addition, we are
5 planning another team inspection in February of 2015
6 that will focus on the effectiveness of licensee
7 actions to implement a Design and Licensing-Basis
8 Reconstitution Program. The licensee has indicated
9 this is a multi-year project and they would expect to
10 complete that activity in 2018. Next slide, please.

11 The 0350 Panel continues to assess
12 licensee performance on a routine basis. This includes
13 conducting panel meetings to discuss inspection
14 results, planned future inspections, and scheduled
15 public outreach activities.

16 Regarding public engagement, we continue
17 to discuss Fort Calhoun Station performance in public
18 meetings with the licensee as part of our effort to
19 provide for an open and transparent oversight process.
20 In 2013, we continued eight public meetings, and then
21 so far in 2014 we've held two public meetings with the
22 licensee to discuss station performance.

23 Regarding transition from the Manual
24 Chapter 0350 process to the normal level of regulatory
25 oversight that is prescribed by Manual Chapter 0305,
26 the criteria for termination of the 0350 process

1 includes verification that the licensee has
2 established an effective long range Improvement
3 Program, is sufficiently implementing its Corrective
4 Action Program, has demonstrated safe plant operation,
5 and has adequate controls in place to address the
6 plant-specific issues that caused the significant
7 performance decline which led to invoking the 0350
8 process.

9 The major team inspection in July should
10 provide us with a considerable amount of information
11 to support the 0350 Panel's deliberations on whether
12 or not the 0350 process termination criteria have been
13 met. Once the panel reaches a conclusion that the
14 termination criteria have been met, the panel provides
15 me along with the Director of our Office of Nuclear
16 Reactor Regulation a written recommendation to return
17 Fort Calhoun Station to a normal level of regulatory
18 oversight.

19 As Michael Johnson said earlier, the
20 Agency Action Review Committee affirmed that our
21 regulatory actions for Fort Calhoun Station were
22 appropriate given the significant performance issues
23 that existed at this station. So, as such, we plan to
24 continue with the oversight strategy that I've
25 described to you.

26 Thank you, and at this point I'll turn it

1 back over to Mike.

2 MR. JOHNSON: Thanks, Marc. That concludes
3 our presentation. We're ready for your questions.

4 CHAIRMAN MACFARLANE: Okay, great. Thank
5 you very much. Commissioner Magwood.

6 COMMISSIONER MAGWOOD: Thank you,
7 Chairman.

8 Let me begin by recognizing that this week
9 marks the 70th anniversary of D-Day. This Friday will
10 be D-Day plus 70, so if you know any World War II
11 veterans please take the opportunity to shake their
12 hand and thank them, because the opportunities are
13 becoming fewer and fewer all the time.

14 First, I wanted to -- I understand that the
15 meeting took place April 22nd, the AARM took place April
16 22nd. We didn't receive the Summary Letter until
17 yesterday. I wanted to give you an opportunity to sort
18 of talk about the process that gets us from the meeting
19 to the letter, because I'd like to understand how we
20 might do better to get that to the Commission faster
21 to make it available to the public on a more expedited
22 basis.

23 MR. JOHNSON: Thanks, Commissioner
24 Magwood. We did, in fact, do the meeting on the 22nd.
25 As a part of that meeting we capture notes. I would have
26 anticipated that you would have gotten that written

1 summary of the notes that we captured in the slide and
2 the presentation today earlier, so we'll do -- we'll
3 make that more timely next year. It is our expectation
4 that you would have that, and the public would have that
5 in advance of this meeting.

6 COMMISSIONER MAGWOOD: Is there something
7 in the procedure that specifies when the summary is made
8 available?

9 MR. JOHNSON: Allen, do you know the
10 specific answer to that?

11 MR. HOWE: I don't know that there is a
12 specific time frame outlined in the procedure, but it
13 certainly is our goal to get it to the Commission in
14 a timely manner. And following up with what Mike said,
15 you know, our objective for next year will be to
16 improve the timeliness and get it to the Commission
17 earlier than we did this time.

18 COMMISSIONER MAGWOOD: Okay, I appreciate
19 that. I think it might be worth the Commission
20 considering requiring an update to the Management
21 Directive on this to make sure that we set a clear time
22 frame to reduce the uncertainty in the future to make
23 sure that we do get this, because I think it's very
24 important that this document be brought publicly as
25 soon as possible, and this time it wasn't.

26 MR. JOHNSON: Commissioner Magwood, could

1 I also just add, and in addition to that there are a
2 number of other products that support this meeting, the
3 trending paper, the Commission paper, the paper on the
4 annual self-assessment for the Reactors Program, the
5 Materials Program. And we endeavor to make sure that
6 all those products are to you, and we did, in fact, make
7 all of those except the Minutes.

8 COMMISSIONER MAGWOOD: Let me start
9 -- well, first, let me make a couple of comments. I
10 wanted to thank Laura for her comments about your
11 personal experience and how you've looked at the
12 Materials Program. The Materials Program does give
13 -- it's probably the most visible and regular contact
14 the Agency has with most members of the public is
15 through the Materials Program, and it affects people,
16 as you noted on a very personal level, both positively
17 and negatively, especially when you think about the
18 medical side or the exposures. And I appreciate that
19 the Staff did not find that the number of exposures
20 warranted any changes in the program, but there does
21 seem to be a persistent number of these things. And
22 maybe it's just life in the field, I don't know, but
23 are you -- since you made the observation that you look
24 at this very personally, are you taking any messages
25 from this? You can give us your thoughts after working
26 on the Reactor side for so long, and now seeing

1 exposures like this taking place on the Materials side?

2 MS. DUDES: Well, I think in particular
3 -- are you talking about the radiography exposures? So,
4 yes. In fact, I was encouraged. We had -- sometimes it's
5 hard to get a lot of excitement around the Materials
6 Program within these walls, and we had a really good
7 discussion during the AARM because these Acuren events
8 had just occurred. And we spent a lot of time talking
9 about well, what can we do to maybe up the consequence,
10 you know, for not following the rules?

11 I mean, you wouldn't really make a
12 regulation change because in all three of these cases,
13 the regulations if they had been followed would have
14 been -- they would not have had this issue. So, we had
15 this discussion. We are thinking -- I mean, I can't
16 --- I don't really want to say exactly one direction
17 or another but, you know, Illinois' program, and I
18 believe Joe Klinger mentioned it when he was here
19 briefing you, that they certify radiographers, so when
20 they're identified doing something wrong they take that
21 certification.

22 I mean, you look at the balance of
23 enforcement against an individual and you have certain
24 financial restrictions, so the enforcement may be not
25 as effective because it's a small amount of fine for
26 someone who's making a lot of money doing it their way.

1 So, we are working with the States and talking amongst
2 ourselves to try and figure out how can you more
3 effectively get people to follow these regulations? And
4 OE [Office of Enforcement] had talked about discretion,
5 and maybe we could do more with fines, or maybe we start
6 taking the licenses for repeat offenders so that you
7 can really have an impact on those who are not
8 exhibiting safety culture.

9 COMMISSIONER MAGWOOD: The Illinois
10 Program, have they seen some benefits from the
11 certification approach they've taken?

12 MS. DUDES: I don't know -- they think so in
13 terms of events in their state, but then we still have
14 reciprocity, so Texas has a very similar program, but
15 then people can work in different states, so then you're
16 not necessarily taking the card. But, I mean, I think
17 it's a step where you have an action where you're
18 actually -- if you find somebody who is not being safe
19 with these materials, you take away their license for
20 a period of time. Might be more effective.

21 COMMISSIONER MAGWOOD: All right, thank
22 you. Marc, I appreciate also your comments about the
23 massive cross-department Staff effort on Fort Calhoun.
24 That was -- I was able to observe some of that as it was
25 going on, and it was really pretty impressive to see
26 so many components of the Agency contributing Staff

1 time to this. It was a pretty impressive effort, so I
2 think all the people that participated in that deserve
3 our thanks because it wasn't easy to go out there for
4 weeks at a time to do that.

5 You know, as we've gone through the 0350
6 process with Fort Calhoun, is it your feeling that the
7 guidance and procedures that we use to implement that
8 process proved to be sufficiently clear in beginning
9 the process, and conducting it, and now as you go
10 forward to getting out of it, do you feel like the
11 guidance was clear enough?

12
13 MR. DAPAS: Yes, thanks, Commissioner. I
14 appreciate that question. I was going to mention that,
15 I think Allen touched on this, that we conducted a
16 comprehensive Lessons Learned regarding our
17 implementation of the 0350 process to date, and the
18 overarching conclusion from that -- and that was led by
19 Greg Warnick, who's a Senior Resident Inspector at San
20 Onofre Nuclear Generating Station, and it included
21 participation from folks in other Regions; Ray Powell
22 from Region I, also Michael Balazik from NRR. And the
23 overarching conclusion was that the guidance that
24 existed was appropriate in providing direction on
25 assessing licensee performance, and conduct of
26 inspection activities. And that we, as an Agency,

1 appropriately engaged when we saw a performance decline
2 as a result of the Reactor Oversight Process
3 activities. And I think from having talk to Mike Hay
4 and some of the other members of the 0350 Panel the view
5 is that the guidance that does exist is adequate. The
6 Lessons Learned review did identify some areas where
7 we can provide enhancements, in particular, with
8 respect to some inspection procedures, like looking at
9 tornado missile protection, high-energy line break,
10 environmental qualification, and containment
11 structural integrity in terms of the internal
12 structures where there were some particular challenges
13 at Fort Calhoun Station, and then looking at do the
14 inspection procedures provide guidance in terms of a
15 smart sample in those areas. And I think there is some
16 enhancements -- there are some enhancements that the
17 Lessons Learned team did identify in that area. But,
18 in summary, the overarching view from the team was that
19 the 0350 guidance was adequate.

20 There is one area, though, that where I
21 think additional guidance needs to be provided, and
22 this came from the Lessons Learned Team review. And
23 that's how do you treat issues, let's take for example
24 tornado missile protection, and you evaluate the
25 risk-significance of that. And you determine, let's say
26 that's a Yellow Finding, if we've already addressed

1 that comprehensively by virtue of the 0350 process; in
2 other words, we treated that with the same oversight
3 that we would have had we identified that issue
4 separately and characterized it as Yellow.

5 Right now, the guidance doesn't provide
6 for how do you handle those issues once you have reached
7 a restart readiness decision, closed the Confirmatory
8 Action level. Is it of value to then go in and conduct
9 another 95002 when you essentially have done all that
10 inspection by virtue of the 0350 process? So, there's
11 an example, I think, of where the 0350 process guidance
12 could be -- Manual Chapter, that is, could be enhanced
13 to address those types of situations.

14 We made the decision that we didn't need
15 -- we issued, for example, a White Finding, and we
16 decided we didn't need to do a 95001 because we had
17 essentially conducted everything we would have by
18 virtue of implementing that procedure previously as
19 part of the 0350 process.

20 COMMISSIONER MAGWOOD: Okay. Well, that
21 used up exactly my 10 minutes, so I will pass. Thank
22 you, Chairman.

23 MR. DAPAS: Sorry.

24 CHAIRMAN MACFARLANE: Commissioner
25 Ostendorff.

26 COMMISSIONER OSTENDORFF: Thank you,

1 Chairman. Thank you all for your presentations, very
2 comprehensive.

3 Laura, I'm going to start with you. I
4 appreciate your -- and Commissioner Magwood commented
5 on this. I appreciate your mentioning your reactor
6 background. I think that's a real strength in this
7 Agency where we take people and put them from one area
8 into another. The cross-pollination I think makes us
9 all better, so thank you for mentioning that this
10 morning.

11 I want to just kind of make one brief
12 comment on your slide. I appreciate your mentioning
13 that event numbers are small compared to the millions
14 of users, and I want to just draw a contrast. I think
15 radiographers do that business every day. I've been
16 around them since the '70s in shipyards with the Navy
17 with nuclear welding. And I think your messages out to
18 them are of a certain tone, but I think probably, I
19 think, I sense there's a different tone in the medical
20 community because patients making determinations as to
21 what type of medical care to seek will pay attention
22 to what we're saying, and I think I'm getting from your
23 slide we need to be sensitive to any alarmist message
24 or tone when you have 10 medical events out of millions
25 conducted every year. That's a very small numerator
26 large denominator kind of thing, so I appreciate your

1 highlighting that very important.

2 Allen, let me shift to your presentation
3 very briefly. I appreciate the work you and your
4 colleagues have done on the ROP self-assessments and
5 taking action across the board on the independent
6 assessments. I think that's real important.

7 A comment you made that resonated with me
8 that was important when you discussed the Perry, what
9 column should that be in? And I just think -- and you
10 also made a comment about you're pursuing creation of
11 more objective metrics to align with Reactor Oversight
12 Program goals which I applaud, but I also appreciate
13 that there's room still, and there will need to be room
14 for judgment, and for people to take all of these
15 equations and things, but still at the end of the day
16 have some room for senior executive judgment as to where
17 people are. So, I think that was a message I took away
18 from your slide. Is that -- am I correct in that message
19 being there?

20 MR. HOWE: Yes. Just to add to that, there's
21 always going to be situations that we have to look at
22 at the time, and make a decision on. And part of what
23 we have in the process, again, is just a feedback loop.
24 When we take an action matrix deviation, we do take
25 feedback on that to determine do we need to make any
26 changes to the program? And that's built into the

1 process.

2 In terms of the self-assessment, you know,
3 what we looked at there with the self-assessment and
4 taking stock in what we had been doing, we had been doing
5 surveys and getting information on perceptions
6 associated with the self-assessment. And what we wanted
7 to do was to move, as I indicated in my remarks, to a
8 more, you know, objective type of an approach, and to
9 get it aligned it with some things that we have that
10 are very solid right now including, as you said, the
11 ROP objectives, but also the Principles of Good
12 Regulation. So, we're going to be looking at that over
13 the upcoming year to see what revisions we can make,
14 and how we can improve our self-assessment.

15 COMMISSIONER OSTENDORFF: Mike, did you
16 want to say something?

17 MR. JOHNSON: Just one more bit of context.
18 So, when we established the ROP we were moving from a
19 process that was criticized as being overly judgmental,
20 overly subjective, and so with the ROP we sought to be
21 more objective. And the Commission at that time was
22 concerned that subjectivity not be central to the
23 process, and that deviations from the action matrix,
24 for example, would be rare. So, that's why we've
25 continued to carry that, but we do, as Allen indicated,
26 exercise judgment throughout the process, as needed.

1 COMMISSIONER OSTENDORFF: Okay, thank you.
2 I'm going to turn to our Regional Administrators. I
3 appreciate your being here, and I appreciate your
4 bringing your team that supported the Browns Ferry and
5 the Fort Calhoun, as well as the residents and senior
6 residents at all your sites, and across the entire
7 Agency. Very important for us to continue to highlight
8 what our people do out in the field in the regions and
9 on sites across the board.

10 Victor, I'm going to start out with you.
11 It struck me that you're here to brief the status of
12 Browns Ferry Unit 1, but you're also dealing with
13 Regulatory Oversight of a three-unit complex there with
14 one unit in Column 2, one in 3, and one in 4. And I'm
15 just curious, you've been around the Agency for a number
16 of years. I'm curious if you have any big picture
17 observations of are there any regulatory challenges
18 associated with providing oversight of a multi-unit
19 site?

20 MR. McCREE: No, sir.

21 COMMISSIONER OSTENDORFF: But I'm sure you
22 have something else to say.

23 (Laughter.)

24 MR. McCREE: Fortunately, we -- the program
25 allows us to be at n, which allows three residents
26 inspectors at Browns Ferry. And, quite frankly, there

1 were periods of time, quite frankly, when we were at
2 n+1 over the last four or five years because we had
3 additional workloads so we placed additional resources
4 there. And as I alluded to, and Marc noted, as well,
5 we have applied extraordinary oversight to Browns Ferry
6 since its placement in Column 4.

7 On average, the Baseline Program at a
8 three-unit site is normally about 5,000 hours of
9 inspection effort which includes direct inspection,
10 inspection preparation, and documentation. In 2013
11 alone we had almost twice that amount. And while I don't
12 have the numbers at my disposal for the previous years,
13 I can assure you that it was extraordinary, as well.
14 So, to your question, you know, are there challenges?
15 Yes. But are we equipped to handle them with the
16 resources at the Commission, and we budget, absolutely.
17 And the Staff have done a very good job in that regard.

18 COMMISSIONER OSTENDORFF: Thank you. I also
19 was comment -- I appreciate your comment on the need for
20 TVA to avoid cyclic performance, so that resonated with
21 me.

22 Marc, let me turn to you. I think, I agree
23 with Commissioner Magwood when you highlighted the
24 scope of the Fort Calhoun action. The slide shows 23,000
25 hours of NRC work. That's pretty strong.

26 MR. DAPAS: Yes, sir.

1 COMMISSIONER OSTENDORFF: So, thank you for
2 helping put it in perspective for us, and I think you've
3 been in -- this is your third Region to be in. Is that
4 right?

5 MR. DAPAS: Yes, sir.

6 COMMISSIONER OSTENDORFF: III, I, and now
7 IV?

8 MR. DAPAS: Yes, sir.

9 COMMISSIONER OSTENDORFF: Okay. So, here's
10 -- so, you've been around the block a number of times.
11 You're dealing with a licensee who has kind of a unique
12 relationship with Exelon as part of that partnership
13 to recover. Curious as to how you see at a macroscopic
14 level the Fort Calhoun OPPD/Exelon relationship
15 working?

16 MR. DAPAS: Thanks, Commissioner. I think
17 that once Exelon and OPPD signed their Services
18 Agreement and Exelon management was involved, as the
19 licensee went through an extensive state of discovery
20 there were a number of issues that were identified by
21 virtue of that extended condition. But one of the things
22 that I have talked with licensee management about is
23 to what degree are the fundamentals and standards being
24 ingrained in the first-level supervisors? Many of those
25 first-level supervisors, as I understand it, are OPPD
26 employees. And it's very important with any

1 organization that when you are trying to drive
2 organizational change, improve safety culture that you
3 focus on the first-level supervisors. And I do know from
4 my familiarity with the Exelon management model that
5 there is a strong focus in that regard. And when I'm
6 at the sites, I -- at that site, in particular, I make
7 it a point, as well as any site, to ask licensee
8 management how they're doing in insuring that the
9 first-line supervisors are setting the standard and
10 reinforcing expectations.

11 But I do think with respect to Fort
12 Calhoun, that once Exelon did get involved, we did see
13 a number of additional issues that were identified by
14 virtue of the licensee's own extended condition reviews
15 and self-assessments. And I do think our inspection
16 staff also played a significant role in some of the
17 issues that we identified.

18 You know, one of the challenges you face
19 in trying to manage resources is when you want to
20 conduct these major team inspections and you're at the
21 site, and the licensee still has some more work to do,
22 and you're trying to manage those resources, that can
23 present a particular challenge. But, overall, when
24 Exelon got involved and communicated they were ready
25 for NRC inspection, I think as a general rule we found,
26 and I'm looking over to Mike because he's nodding his

1 head, we found that the licensee was ready to receive
2 our inspection.

3 COMMISSIONER OSTENDORFF: I had one last
4 question I'm going to change into a comment because I
5 don't want to run over my time, but Commissioner Magwood
6 and I for some time have -- and others have been very
7 interested in recruiting and retaining resident
8 inspectors, senior residents. And I'll just note in
9 Region IV, two of the three sites I'm going to mention
10 I've been to, one I've not been to, but you get some
11 very remote sites. You have South Texas, Wolf Creek,
12 both which I've been to, I've not been to Grand Gulf.
13 I plan to go there. But I just hope, and I'm not going
14 to ask the question, but I would hope that you, and
15 Victor, and Cindy, and Bill would bring to the table,
16 back to Mike Johnson any suggestions you have if there
17 are problems in recruiting people especially for these
18 remote sites, because I know that we've seen some staff
19 turnover on us, some people are getting close to their
20 seven years at some sites. And I know it's not easy at
21 times, so I know the Commission is very interested in
22 this. Thank you, Chairman.

23 CHAIRMAN MACFARLANE: Thank you. Okay.
24 Laura, I'm glad that you've gotten some attention,
25 because I think the issue of Material Safety is very
26 important. It's very important to our Agency, and I

1 think hopefully that's clear to the public from the
2 attention you've gotten at this meeting.

3 When we had our meeting with Agreement
4 States folks, I recall the gentleman from Ohio, I'm
5 blanking on his name right now, said that he was seeing
6 more exposures, radiography exposures recently, partly
7 as a result of the sort of explosion in natural gas
8 exploration and drilling. So, I'm interested in whether
9 it's possible, whether you think it's possible for us
10 to be somewhat proactive when we see a rapidly expanding
11 industry and, therefore, rapidly expanding use of
12 radiography, and maybe the development of a few
13 cowboys out there, if there's a way of being proactive
14 and working with the Agreement States to be proactive,
15 to be more protective?

16 MS. DUDES: Well, I think yes, the short
17 answer is anyone -- we can always work with the States
18 to think of innovative ways. I mean, being reflective
19 of what Commissioner Ostendorff said about -- as we are
20 having more events, and we're seeing more events, but
21 we're also having an order of magnitude more activities
22 happening, too, so there's a perspective there.

23 And we do want these folks to be
24 protective, and we have done -- we have been proactive
25 in the past few years going out to conferences and
26 trying to talk about the safety culture, showing

1 photographs that aren't necessarily pleasant to look
2 at where people have lost limbs or digits. Trying to
3 -- I mean, if you on Wikipedia, and Tony Vogel from
4 Region IV actually went to a conference and provided
5 the Wikipedia definition to these radiographers to say
6 is this what you really want people to think about your
7 professional? Because it just talks about this is like
8 the most dangerous profession out there. You have
9 people out in remote locations with high, or more
10 serious sources without the supervision, so we are
11 trying to get out and do a lot more communication about
12 taking your personal safety seriously, and in
13 conjunction with that working with the States to see
14 -- actually, way back when there was a pilot initiative,
15 this is like 2001, to talk about radiographer
16 certification. And then after, you know, events of
17 September 11th and other things, the shift was towards
18 protecting the sources. So, we've been going back and
19 looking at some of the work that was done in 2000 and
20 2001 to try and move the program forward and see what
21 still is relevant that we can do? So, that's a
22 relatively long answer to your short question, but we
23 do believe yes, you can be proactive. We just make sure
24 we do so in sort of a thoughtful fashion going forward.

25 CHAIRMAN MACFARLANE: Okay, great. Thank
26 you.

1 MR. JOHNSON: Chairman, can I just add
2 quickly. Laura might have mentioned that she presided
3 over in a job before now in New Reactors a growth of
4 an industry in the supply chain, for example, where we
5 did things proactively to reach out to the community,
6 so I like the question. We'll look to leverage and be
7 proactive in this area, also.

8 CHAIRMAN MACFARLANE: Great. Great,
9 thanks. So, for the rest of you, feel free, anyone who
10 is inspired to jump in first.

11 The Reactor Oversight Process Independent
12 Assessment identified issues on NRC message
13 presentation. The public was often confused by us and
14 the Reactor Oversight Process, that there was a heavy
15 reliance on Reactor Oversight terminology. People
16 questioned the usefulness of the public meetings
17 because of that. And, frankly, I have to say, I think
18 this meeting is a clear example of heavy reliance on
19 this terminology. You know, if people don't know what
20 cornerstones are, or degraded cornerstones are,
21 they're probably lost. If they don't know what an action
22 matrix is, they're lost. You know, the jargon has been
23 pretty extensive in our discussions so far, so what are
24 your plans and your progress to address this, to make
25 what -- you know, what discussed today clearer?

26 MR. HOWE: I'll start with response to that.

1 One of the activities that we have under the Reactor
2 Oversight Process Enhancement is looking at
3 communications. And as part of that, we have done
4 outreach recently at the RIC for the last two years with
5 a poster that describes the Reactor Oversight Process,
6 and introduces people to this type of terminology that
7 you referred to.

8 It is a complex process. I will agree with
9 that, but as I said, at the RIC we are doing the
10 outreach. We also have a NUREG that describes the
11 process and what the elements are with it, as well as
12 a brochure that provides that information.

13 As a part of this we're also taking a look
14 at other inputs and other feedback that we've gotten,
15 including -- I mentioned the Fort Calhoun feedback.
16 There was actually some information in there about
17 communications that we will be taking a look at, also.
18 But we do understand that this is a difficult area, and
19 we are looking for ideas and areas for improvement.

20 MR. JOHNSON: And we've made continued
21 improvement, Chairman. I know this might be -- I know
22 you could look, and I would look and see where we are
23 and say we could go further. I'll just tell you we've
24 covered a lot of territory. And one the things that we
25 struggle with in terms of the challenges to be able to
26 communicate in clear terms with someone who may not

1 follow the process and its intricacies, to have them
2 have an understanding of where we are with respect to
3 the performance of plants. But on the other hand, we
4 need to be able to communicate in a very clear way with
5 licensees who are the recipient of our inspection and
6 oversight, and need to understand the actions that we
7 plan to take. So, it's, you know, on one hand being able
8 to talk with great precision and objectivity to someone
9 who needs that, but on the other hand be able to
10 communicate in plain terms with the public. So, we're
11 working on both of those.

12 CHAIRMAN MACFARLANE: Right. So, you're
13 exactly right, you have to be able to do both. You know,
14 unfortunately, you can't just do one.

15 MR. JOHNSON: Yes.

16 CHAIRMAN MACFARLANE: I would suggest that
17 the way to communicate with the public is not to try
18 to educate them on the Reactor Oversight Process.
19 Obviously, you know, you can and that can be part of
20 it. You can offer that, but that's not the way to
21 -- that's not going to be your solution set here. And
22 I might suggest that you might need help from outside
23 because sometimes one gets so steeped in one's own
24 jargon -- I know this -- and geology is full of jargon,
25 and you lose sight of what you're really talking about
26 after a while. It helps to have somebody outside just

1 give you, you know, a check.

2 MR. DAPAS: Just one comment, Chairman,
3 regarding the first public meeting we conducted
4 following the decision to close the Confirmatory Action
5 Letter and subsequent start of Fort Calhoun Station,
6 and I chaired that public meeting. I talked to the
7 licensee about we have members of the public, and my
8 engagement with you, I will take the opportunity to
9 explain in terms that the public could understand. And
10 recognize, licensee, that you're already aware of this
11 here. While it is meeting between the NRC and the
12 licensee, we made a concerted effort to insure in our
13 discussion with the licensee, it was conducted in a
14 manner that the public could understand. So, I ask the
15 licensee, you know, please exercise patience and
16 understanding because that's the overarching
17 objective, and that seemed to work fairly well with that
18 public meeting.

19 CHAIRMAN MACFARLANE: Okay, great. Just two
20 quick questions for each of you. For Browns Ferry, how
21 long has it been in Column 4?

22 MR. MCCREE: Browns Ferry has been in Column
23 4 since August of 2010.

24 CHAIRMAN MACFARLANE: Is this unusual for
25 a plant to be in Column 4 for almost four years?

26 MR. MCCREE: I don't - it's not usual. It's

1 unusual. It's not typical for any plant to be in Column
2 4.

3 CHAIRMAN MACFARLANE: Have there been other
4 plants that have been in Column 4 that long?

5 MR. MCCREE: There have been other plants
6 who have been in Column 4, the ROP action matrix since
7 we changed the process in April of 2001 for that long.
8 And even prior to that, there were plants that were in
9 the -- on the watch list for longer periods of time. The
10 challenge is at many sites is that the problems that
11 cause the issue of high-safety significance didn't
12 happen overnight, so the notion of a utility being able
13 to reverse the many issues associated with it overnight
14 is an illusion. It does take a while.

15 CHAIRMAN MACFARLANE: Like losing weight,
16 or something like that.

17 MR. MCCREE: Pardon? Like losing weight,
18 yes.

19 (Laughter.)

20 CHAIRMAN MACFARLANE: Okay. A quick
21 question for Marc on Fort Calhoun. Why did it take so
22 long to issue a Red Finding on the switch gear finding?
23 It took almost a year. Why did it take that long?

24 MR. DAPAS: If I may ask Mike Hay to comment
25 on that, but there was a fair amount of discussion
26 regarding determining the risk-significance and

1 insuring that we had the appropriate models. So, that's
2 basically my understanding of why it took so long. And
3 I'll ask Mike if he wanted to add anything. If you want
4 to go to the mic, okay.

5 MR. HAY: Good morning. I was not directly
6 responsible for Calhoun at that time, but I can tell
7 you like what Marc was saying, it took time to
8 understand the safety-significance of it. And I believe
9 you had to go through not only the shutdown condition
10 of the plant, but the operational state, so it took a
11 while for us to get down to what was the real safety
12 significance. And seeing as it came out Red, you can
13 imagine we took a lot of time to make sure we had it
14 right.

15 MR. DAPAS: I'll just add to that, as part
16 of our process, we make sure that the licensee
17 understands the basis for our assumptions regarding the
18 risk assessment, and they have an opportunity to
19 comment on those. And by the same token, we want to make
20 sure we understand the results of the licensee's risk
21 assessment to compare and insure that, you know,
22 there's sensitivity analysis, et cetera, because given
23 the significance we want to insure absolutely that we
24 get it right to the best of our ability regarding what's
25 the appropriate significance characterization given
26 the oversight activities, like a 95003, et cetera,

1 associated with a Red Finding.

2 CHAIRMAN MACFARLANE: I just want to -- you
3 know, a year is a long time, and I don't know that it
4 serves us, the industry, or the public for it to take
5 that long. But, anyway, I will turn things over to
6 Commissioner Svinicki.

7 COMMISSIONER SVINICKI: Well, I add my
8 thanks for everyone's presentations, and also I'll join
9 in thanking you for acknowledging some of the NRC
10 experts who work very directly. As impressive as the
11 individuals sitting across from us are, we know that
12 you're supported in the work you do by many, many
13 individuals in your own organizations, but also I
14 appreciated the acknowledgment of the
15 cross-organizational support it takes in order to
16 achieve these programs, and to accomplish them year in
17 and year out.

18 Laura, I do appreciate that you are here
19 to give us a very high-level overview, but also some
20 context setting for the diversity of Materials uses,
21 and then what we're seeing there. I join in wanting to
22 say that that's an important acknowledgment of that
23 part of our mission.

24 I was thinking about the Chairman's
25 comment on the use of jargon, and I was reflecting a
26 little bit that we leap frogged in the Staff's

1 presentations to an assumption that people have a good
2 understanding of the Reactor Oversight Process, which
3 is not going to be true of all those maybe here or tuning
4 in today.

5 Something that I've been struck by is that
6 I agree that we do need to give the public a fundamental
7 understanding of, you know, who we are, and what we do.
8 And I think it's more the way that you do that, do you
9 have to educate them in the exact nomenclature that we
10 use, or can what you convey -- is it more important that
11 that just include the broad concepts of the structure
12 of the program, and what it entails?

13 I was also struck by some of the inspection
14 hours, the numbers of inspection hours that were
15 referenced here today. I'm not sure that even I have
16 a good appreciation for what 10,000 hours, or 23,000
17 hours of inspection looks like. There was reference to
18 a 13-person inspection team that is about to be deployed
19 to look at just one narrow aspect of performance.

20 Our entire Agency underwent an
21 international peer review in the International
22 Regulatory Review Service. I doubt that team, I can't
23 remember specifically, but I'm pretty sure it was less
24 than 20 individuals. It may have been closer to 15. And
25 we, as an Agency, found that extremely labor-intensive
26 to prepare for, to respond to, to take as seriously as

1 we needed to. And that was most aspects of, not all
2 aspects of the Agency's mission, but a good portion of
3 it. So, I don't know if either of our Regional
4 Administrators have a sense from end-of-cycle meetings
5 that you've had the opportunity to sit in at various
6 stages of your careers where nearby residents and folks
7 from the community come on a yearly basis to hear about
8 our assessment of the operation of a nuclear power
9 plant.

10 Do you think that they have, or that we have
11 communicated successfully the degree of intrusiveness
12 of this Reactor Oversight Process to these folks? I'm
13 not even sure what kind of plain language ways you could
14 do that. Maybe sometimes analogies help. Are you aware
15 of any safety regulated industry or operation in the
16 U.S. that would even be equivalent in some instances
17 to the intrusiveness of our oversight program?

18 MR. McCREE: Commissioner, thank you for
19 the questions. I guess starting at the end, I'm not
20 familiar with other agencies and how intrusive and
21 extensive their engagement is with the public. But as
22 far as engaging members of the public, I'll just use
23 as an example the end-of-cycle assessment that we just
24 completed for Browns Ferry. The meeting started at 4:00
25 in the afternoon Central Time, and ended I think about
26 7:00 in the evening. The first 45 minutes or so, it was

1 actually a two-part meeting. It was the end-of-cycle
2 assessment, it was also the results of the 95002
3 Inspection Procedure Supplemental Inspection, and it
4 took about 45 minutes, an hour. The remainder of the
5 time was spent engaging members of the public, many of
6 whom had participated in the previous meetings, two or
7 three meetings every year since Unit 1 was placed in
8 Column 4. And we spent time engaging from various levels
9 from a program discussion, to just basic questions
10 about what we did, and why, and what does it mean from
11 a safety-significance perspective. And, of course,
12 responding to their perspective or their views on
13 issues.

14 So, based on their feedback after the
15 meetings, after the cameras, and after the radio
16 stations and media leave, they appear to be very
17 appreciative and very understanding of what we shared
18 with them. And I think it's similar to what Marc
19 mentioned, is that you do take the time to interface
20 with the public, even though they're not a homogenous
21 group, they're individuals, and each have their own
22 questions or issues, and they start at a different level
23 of familiarity with this technology that we regulate.
24 But it is important to meet them where they are, and
25 answer their questions very candidly, and that's what
26 we try to do at all of our sites.

1 COMMISSIONER SVINICKI: So, do you have
2 -- do you observe that maybe to a greater or lesser
3 extent depending on the individual engagement we do at
4 times successfully communicate. And I should be clear,
5 I use intrusive in a good way. I mean, I think that our
6 regulation is intrusive by design, but it is a graduated
7 and escalated kind of thing depending on facilities
8 moving to performance categories of greater regulatory
9 concern. So, you think when we talk about these
10 thousands of hours and, again, we put in all of our press
11 releases about plants in Column 1, that they will
12 receive our very thorough Baseline Inspection Program.
13 But even that, I'm not sure we communicate how extensive
14 that program is.

15 MR. McCREE: I do believe we do, and we let
16 them know that we have resident inspectors that are
17 there, and that they're working -- they're there, they
18 live in the community, and that they're at the plant
19 every day or whenever they're needed. And we talk about
20 the fact that these hours, you can actually relate it
21 to the number of people who are on site doing these
22 additional inspections where warranted. So, I do
23 believe they get a good understanding of what we do.

24 COMMISSIONER SVINICKI: Okay, thank you.
25 Marc, did you want to add anything?

26 MR. DAPAS: Yes, just a couple of comments,

1 Commissioner. I, similar to Vic, would not be in a
2 position to comment on the degree of intrusiveness
3 regarding some of the other federal agencies and their
4 oversight processes. But one of the things that I have
5 experienced when I was Region I and trying to invoke
6 the same approach here in Region IV, is when we are
7 engaging members of the public and you talk about
8 increased oversight and you mention X number of hours,
9 putting it in context to say our Baseline Program would
10 entail Y number of hours which is the minimum hours that
11 we feel are necessary to insure the licensee is
12 identifying issues appropriately and correcting them
13 in a time frame commensurate with the issue's
14 importance to safety. And when you provide that as kind
15 of a benchmark and say so, we conducted X number of
16 additional hours focused in these areas, I think that
17 provides some additional context.

18 But, you know, your question was how
19 effective have we been in providing a perspective. I
20 think it's also a function of the degree of public
21 interest at some of these sites when we conduct these
22 annual assessment meetings. Just back on May 22nd, we
23 had a public meeting with the licensee for Diablo
24 Canyon, Pacific Gas & Electric. You know, we spent an
25 extensive amount of time engaging members of the public
26 because there was a lot of interest in that facility.

1 And there are other facilities where we take full
2 advantage of the flexibility in the Reactor Oversight
3 Process to maybe conduct specific outreach forums
4 because when we have those advertised public meetings
5 we get maybe one or two members of the public that show
6 up. So, we may proactively reach out to selected folks
7 that we know have interest and tailor our
8 communications. So, you now, that's a very good
9 question, how effective have we been in providing a
10 perspective? And I think the best answer to that is
11 asking the question well, what's your sense about what
12 all these inspection hours mean, and listen to what
13 takeaway do they have from the discussion?

14 COMMISSIONER SVINICKI: Yes. And I realize
15 maybe you're not the right folks to answer the question
16 of our effectiveness, but I do appreciate that Victor
17 at least said, you know, he has a sense from some of
18 the -- at the very end of the meeting. You do get some
19 feedback as you're there, and the NRC Staff does. I know
20 it's anecdotal.

21 I wanted to pursue the point about how long
22 a reactor licensee might be in Column 4. I think -- well,
23 there's a number of you who could respond to this, but
24 upon exiting -- I mean, upon entering Column 4, isn't
25 there a minimum period of time that you're going to be
26 in Column 4? It is not possible under the process to

1 exit extremely quickly. What would be the minimum
2 period of time given, again, the intensity of the
3 process where you need to have a Corrective Action
4 Program, an Improvement Plan, and all of those things.
5 Then we need to inspect you to the effect you need to
6 implement the actions, have the NRC inspection, and
7 then you need to continue at a level of performance.
8 And then that is -- we need to accumulate the data and
9 exit you. Once you enter it, you're not exiting it fast,
10 I mean, by design of the process.

11 MR. JOHNSON: I think you have it right,
12 there is a minimum amount of time. And it depends, but
13 there is certainly to go through the steps that need
14 to be gone through for us to be able to inspect
15 licensee's actions. We talked a lot about that
16 inspection, that Supplemental Inspection 95003, and
17 all of what it entails, for a licensee to be ready to
18 go through that, and for us to do that inspection, and
19 then be ready to move on takes -- there is a minimum
20 amount of time.

21 COMMISSIONER SVINICKI: I would just
22 conclude by saying I can't envision in my time here
23 observing the small handful of reactors that have found
24 themselves in Column 4. I think two years would be a
25 minimum on paper, and I think three years would be a
26 minimum in actual practical reality, so that's my

1 observation. Thank you.

2 CHAIRMAN MACFARLANE: Okay, Commissioner
3 Apostolakis.

4 COMMISSIONER APOSTOLAKIS: Thank you,
5 Madam Chairman. Thank you all for your presentations,
6 very interesting.

7 I want to pick up on the issue of
8 subjectivity that Commissioner Ostendorff also raised.
9 Allen, if we go to your Slide 15, you said that there
10 was a deviation - well, it's not important to have the
11 slide - a deviation from the action matrix for Perry,
12 which based on the evidence belonged to Column 4, but
13 you decided to put it in Column 3. And then you said
14 something that I don't know how to take. You said that,
15 "Because the licensee's current performance issues
16 were well understood and limited to occupational
17 radiation safety," I hope you don't mean that
18 occupational radiation safety is not important enough,
19 and you moved it down. Well, let me finish the question.

20 Then the other thing you said is that you
21 thought, I mean the Staff thought, obviously, that the
22 regulatory actions for Column 3 were more appropriate
23 than those of Column 4. How can that be? And is this
24 -- does this happen often where -- you see, the whole
25 idea of the objective of the ROP, as I remember, and
26 Mr. Johnson was one of the developers a century ago,

1 was to remove the subjectivity. And now we have the ROP,
2 and then the Staff says well, gee, it's only
3 occupational radiation safety. I'm a little confused
4 about that. Would you please elaborate?

5 MR. HOWE: Okay. Let me try to help a little
6 bit, and I'm working off of memory here. But as I recall
7 with the Perry deviation, the plant was already -- the
8 facility was already in Column 3 of the action matrix.
9 They had been there for some period of time. We have
10 actually done the follow-up inspection at Perry, and
11 the licensee was not ready for that inspection. So, we
12 closed the inspection at that point with it being an
13 unsuccessful completion of the corrective actions that
14 we were expecting to see as part of that inspection.
15 So, there's a time factor associated with this.

16 In addition to that, there were some
17 additional findings, I believe they were in the
18 security area. I'd have to go back and check to verify
19 that, but those -- that combination of issues would have
20 said if you just took the inputs for the action matrix
21 without any additional, you know, judgment or thought
22 as a part of the process it would have suggested that
23 we should move Perry over into Column 4, or the multiple
24 degraded cornerstone column of the action matrix.

25 Stepping back and taking a look at it, and
26 thinking through the process, again our reasoning and

1 our rationale was no, it's -- the area of concern that
2 had them in Column 3 was associated with the
3 occupational radiation exposure. It was relatively
4 narrowly focused in that area. We didn't see the types
5 of performance issues in other aspects of the
6 licensee's performance. And as a result of that, and
7 as a part of a well thought out and well reasoned process
8 when we go through the action matrix deviation process,
9 we documented the decision to keep them in Column 3
10 rather than moving them over -- further over in the
11 action matrix.

12 And I'll add to that that there some
13 -- there's a -- in terms of the regulatory response, the
14 follow-up inspection, I believe the hours for a
15 follow-up inspection when a facility is in Column 3 is
16 about 200 hours of follow-inspection. It goes up by a
17 factor of 10 for a 95003 up to 2,000 hours for the
18 follow-up. And as a part of that, one of the comments
19 that was made earlier was the impact on a licensee. The
20 licensee -- one of the expectations is that they would
21 need to do a fairly comprehensive assessment of their
22 overall programs, their performance, as well as their
23 safety culture as part of that. So, that was a little
24 bit more of elaboration of why we --

25 COMMISSIONER APOSTOLAKIS: Yes.

26 MR. HOWE: -- elected to keep them --

1 COMMISSIONER APOSTOLAKIS: This issue of
2 subjective evaluations in other context it says the use
3 of qualitative factors that we have discussed in public
4 meetings. How widespread is this? How frequently do you
5 do this? And, also, do you go the other way? The evidence
6 says it's Column 3, but using, again, arguments like
7 you just gave us, you say no, the Staff believes it's
8 really Column 4. Do you ever do that?

9 MR. JOHNSON: So, let me just try to answer
10 that question. First of all, they are rare, deviations
11 from the action matrix are rare as we intended them to
12 be. And there have been situations where we've looked
13 to see -- looked at a performance deficiency or the way
14 -- what the action matrix, which is fairly prescriptive
15 about what we would do, whether or not the appropriately
16 envelopes what we think the action should be. And the
17 Regional Administrators are free to propose additional
18 changes, additional inspections, or additional focus,
19 for example, based on that. So, that's our preserving
20 judgment within the process. We want to know about it,
21 we want to get it approved up through me, deviations
22 to keep them rare. But we do have that flexibility
23 within the ROP.

24 So, the action matrix is -- objectivity in
25 the action matrix is we get performance indicators and
26 measure those against the defined criteria, so a

1 performance indicator crosses a threshold, that's
2 objective information for us. We look at inspection
3 findings and use a significance determination process.
4 Sometimes we do it quickly enough, sometimes it takes
5 us a little bit longer, but we use risk tools to make
6 that as objective as we possibly can in the areas where
7 we can use those tools. And it's those two inputs then
8 that dictate where a plant would fall out in the action
9 matrix. That action matrix then prescribes things that
10 we do, things that we would expect licensees to do, and
11 how we would communicate around that. So, on occasion
12 you have to deviate.

13 COMMISSIONER APOSTOLAKIS: Okay.

14 MR. HOWE: Yes. I'll just add --

15 COMMISSIONER APOSTOLAKIS: I got my answer.

16 MR. HOWE: Okay.

17 COMMISSIONER APOSTOLAKIS: Thank you. The
18 time is limited, you understand, I mean.

19 Vic, I don't know what to make of Browns
20 Ferry. You're telling us here NRC inspections
21 identified the improved understanding of the
22 importance of strong safety culture. 95003 identified
23 no findings of greater-than-Green significance, and
24 yet all three units are in various high columns of the
25 action matrix. What's going on?

26 MR. MCCREE: Well, Unit 1 again remains in

1 Column 4 because of White inputs to the action matrix.
2 There are actually three that stem back from the first
3 quarter of 2013, an unplanned scrams indicator, a
4 high-pressure coolant injection, mediating systems
5 performance indicator, and an emergency AC power
6 performance indicator. Because the action matrix
7 recognizes all inputs to the action matrix, both
8 findings and performance indicators, the fact that
9 there were these three White inputs in 2013, even though
10 we closed the Red Finding based on the inspection in
11 December, it met the criteria for repetitive degraded
12 cornerstone, so Unit 1 remains in Column 4.

13 Now, since we issued -- I issued the letter
14 in January closing the Red Finding and closing the
15 Confirmatory Action Letter, we have performed the
16 required supplemental inspection, the 95002 inspection
17 for those White inputs for the emergency AC power and
18 the mitigating systems performance index, performance
19 indicator. So, the only thing we're waiting for now is
20 for the hours associated with the performance
21 indicators to again roll off and revert to Green, and
22 then we can make an assessment to move Unit 1 back to
23 the left. As far as the other two units, they've had
24 inputs to the action matrix, as well, so we have to
25 respond to those.

26 COMMISSIONER APOSTOLAKIS: So, they're

1 really still trying to get out of there. I mean, things
2 may be improving but --

3 MR. McCREE: Correct. There are still
4 issues that we have to assess.

5 COMMISSIONER APOSTOLAKIS: Laura, you said
6 you have been in the fascinating world of Materials for
7 seven months, implying that the Reactor world is not
8 fascinating?

9 (Laughter.)

10 COMMISSIONER APOSTOLAKIS: You can hurt
11 some people in this room.

12 MS. DUDES: No, I would actually say -- and,
13 of course, the Reactor world is always fascinating, but
14 I do think it's a lot more linear. In the Materials
15 world, there are issues coming at you from different
16 places all the time, medical, industrial, academic,
17 research, and then working with the States and the other
18 Directors, so they're both probably equally
19 fascinating, just in different nuances.

20 COMMISSIONER APOSTOLAKIS: But do you
21 think, for example, with your background -- I'll be done
22 in a second. From Reactors, do you think you're bringing
23 anything new to this world that maybe something we are
24 doing in the Reactor arena, those guys are not doing?

25 MS. DUDES: Oh, I hope so. In fact, so we
26 had -- and as Commissioner Ostendorff said, having the

1 mix of people go and work in the different programs and
2 spend time there, too. I mean, I'm not trying to just
3 come in. You really want to get a sense of the program.
4 When we had our Counterparts meeting with my
5 counterparts in the Region a couple of months ago, we
6 talked about, some of those folks had come and spent
7 time in the Reactor world, bringing some of the
8 structure and programmatic assessment, and
9 repeatability, and predictability of the way we do
10 assessments. Those are some positive things we can
11 bring from the Reactor world to the Materials Program.
12 We don't want to be overly prescriptive, because the
13 modalities and the uses are so different, but we're
14 definitely looking to bring some of the Reactor Program
15 structure into our own programs.

16 COMMISSIONER APOSTOLAKIS: Thank you very
17 much. Thank you, Madam Chair.

18 CHAIRMAN MACFARLANE: Okay. Any other
19 questions, comments?

20 COMMISSIONER MAGWOOD: Just a quick one I
21 think for Mike. There were several -- many
22 recommendations and suggestions out of the ROP
23 Independent Assessment. What's the status plan to close
24 those out?

25 MR. JOHNSON: We have taken those
26 recommendations and added those to recommendations,

1 matched those up with recommendations from the
2 enhancement activity that Allen talked about, and we're
3 working through those. Some of those recommendations
4 were to evaluate, so we've got, again, those in a common
5 database, and we'll work through those in terms of
6 making improvements as we evaluate them.

7 COMMISSIONER MAGWOOD: Is there a general
8 target date to try to --

9 MR. JOHNSON: There are multiple target
10 dates, and we'd be happy to share that.

11 COMMISSIONER MAGWOOD: Okay, great. Thank
12 you. Thank you, Chairman.

13 CHAIRMAN MACFARLANE: Anybody else? No?
14 Okay, good. Thank you very much. We're going to take
15 a five-minute break to change panels.

16 (Whereupon, the proceedings went off the
17 record at 10:52 a.m., and went back on the record at
18 11:02 a.m.)

19 CHAIRMAN MCFARLANE: All right, I'm going
20 to get started and Commissioner Apostolakis will join
21 us.

22 So now we have the external panels. First
23 we're going to hear from the Tennessee Valley
24 Authority, and I'm going to turn the floor over to Mr.
25 Joseph Grimes who is the executive vice president and
26 chief nuclear officer of the Tennessee Valley

1 Authority. Sir?

2 MR. GRIMES: Thank you, and good morning
3 Chairman and Commissioners. We appreciate your time
4 today. I am the Chief Nuclear Officer for Tennessee
5 Valley Authority. Next slide, please.

6 With me today from Browns Ferry are Matt
7 Rasmussen who leads our work management organization,
8 Keith Polson, our site vice president at Browns Ferry,
9 and from our corporate office, David Czufin who's the
10 senior vice president of Engineering and Technical
11 Services. Keith and David are presenting today as
12 well. Next slide.

13 We're here today to discuss how Browns
14 Ferry has demonstrated clear and measurable
15 performance improvement, and Keith will share some
16 insights. I would describe this site as transitioning
17 from recovery and fundamental performance improvement
18 to setting their sights on excellence. We are
19 establishing the plans to achieve excellence, and our
20 plans will sustain high levels of performance and will
21 also put in place strong corporate oversight to
22 validate those actions and the sustainability of the
23 performance.

24 From the nuclear executive team through
25 the TVA Board, the continued support of Browns Ferry's
26 performance is a clear and high priority for us. Keith

1 will now discuss current performance and the future
2 focus for Browns Ferry.

3 MR. POLSON: Thank you for the opportunity
4 to discuss the status of Browns Ferry Nuclear Plant.
5 Before I get started with the slides, actually, I'm
6 going to start on Page 4. But as I go through the
7 presentation I'm going to talk about different
8 improvements that are going on and the different
9 efforts to get to excellence.

10 But I don't want at any point for anyone
11 to think that we've arrived and that we've achieved
12 excellence. We still have a lot of work to go although
13 we have seen a lot of improvements.

14 So some of the recent successes that we've
15 had is we do have an improved safety culture. And this
16 is evidenced by we had an independent company come in
17 2011 called The Synergy Company, and they work
18 throughout the industry. And they performed a safety
19 culture survey, and at that time we scored in the bottom
20 decile or bottom quartile in every single category.

21 We took a lot of actions based on that
22 survey, put those in place, and 18 months later we had
23 the same company, the same people, come out to the site.
24 They administered the same survey, and we scored in the
25 top quartile or the top of the second quartile in every
26 single category.

1 So the safety culture continues to improve
2 but we have more work to do. We talked about the second
3 bullet. We did close the red finding in a confirmatory
4 action letter.

5 I'd like to spend a little bit of time on
6 the last Unit 3 refueling outage, because I think
7 everybody understands that a refueling outage is really
8 a team sport and everybody has to play in order to be
9 successful.

10 And if you look at the outage from a safety
11 perspective as far as personal, nuclear, radiological
12 we did very well in all areas. As far as personal
13 safety and human performance, we had one OSHA
14 recordable and only two first aids for the entire
15 outage. And as far as human performance, there were
16 no significant human performance issues and no
17 challenges at all to our shutdown risk.

18 As far as radiological safety, we had a set
19 a goal of 200 rem for the outage, and based on behaviors
20 and different innovations we actually came in at 164
21 rem which was 36 rem less than our goal. And then the
22 real big one for me that I know that things are changing
23 is as far as nuclear safety culture.

24 We had an issue at the beginning of the
25 refueling outage, it was in the first week. Actually
26 I was at home and I got a phone call about 2 o'clock

1 in the morning. And it was our outage control center
2 saying that they had been monitoring the weather coming
3 into the area, and there were severe thunderstorms,
4 potential hail and potential tornadoes. We had
5 actually taken out of service our residual heat removal
6 systems and secured shutdown cooling for upcoming work.

7 And what the outage control center asked
8 me or recommended to me was that we go ahead and retag
9 RHR and reestablish shutdown cooling to the vessel
10 until the weather system moved through the area, even
11 though this was going to cost us probably a day or two
12 on the outage. And I said, absolutely the right
13 decision, and that's the way we went. So that really
14 tells me that people are really thinking about what is
15 the real risk to the people at that plant, what's the
16 risk of health and safety to the public.

17 And the last thing, I was mentioned
18 earlier, we did have, we've improved the safety systems
19 at the plant. And we took on a project approximately
20 three years ago called the Safety System Reliability
21 Project, and this is, we've essentially completed the
22 project, and I'll show you on the next page, a graph.

23 We have one more major modification to do
24 and that's going to occur in July. That'll be the last
25 diesel generator where we're going to install a lube
26 oil modification and that will officially end this

1 project after three years.

2 So if we can turn to Slide 5, that's just
3 the work-off curve that we had for the safety system
4 improvements. And like I said, we just have the one
5 diesel left. We can move on to Page 6. This is a chart
6 that I've used at the previous meetings that we've had
7 and it's become known as the piano chart.

8 But really what it was, was just an easy way to
9 look at the overall project as we went through the 95003
10 inspection process. And it really just, at high level
11 it's the plan that we had. And this just shows that
12 basically that we're making progress on the plan. The
13 last time I sat here, you can see the one cloud, we had
14 just completed the 95003 inspection and we were waiting
15 on the confirmatory action letter. And now where we
16 are, I believe we're at the point where we continue to
17 improve performance at the plant, but we still have to
18 drive for what we call sustained excellence, and as I
19 mentioned earlier we're not there yet. A lot of work
20 to do.

21 So if you look at the bottom green arrow,
22 it says implement the integrated improvement plan.
23 Like Joe said, we're in a transition right now. We're
24 transitioning from an integrated improvement plan to
25 an integrated excellence plan.

26 And if you turn to, or Slide 7, the

1 integrated excellence plan is really developed to
2 continue driving improvements at the plant, to continue
3 to improve the nuclear safety culture, but most of all
4 it's to ensure sustained performance improvement and
5 sustained excellence.

6 So we have five focus areas. The first one
7 is procedure and work instruction upgrade. And I'll
8 just tell you, if I look in the rearview mirror and I
9 could go back four years, because I've been at the plant
10 for four years, our procedure quality is something I
11 wish I would have recognized early. The quality was
12 not up to industry standards, and we were allowing
13 workers to go out in the field and have to try to
14 interpret procedures versus following them
15 step-by-step.

16 The second focus area is operational
17 focus. The third is work management where we've made
18 improvements. However we're not there yet, not to the
19 excellent level. And I talked about equipment
20 reliability. We're almost complete with safety
21 systems, now we're transitioning over to balance of
22 plant which has caused us numerous issues. And then
23 to tie them all together there's a training piece to
24 each one of those focus areas.

25 So with that I'm going to turn it over to
26 David Czufin.

1 MR. CZUFIN: Thank you, Keith. I'm on
2 Slide 8. Our corporate model is governance,
3 oversight, execution, and support. And in the past
4 there's been more emphasis on execution and support.

5 As Keith said, equipment reliability is an
6 important element for sustainability and there's two
7 primary focus areas. The first is robust and reliable
8 equipment, and the second is organizational response
9 to equipment issues. Lastly, we are shifting our
10 emphasis from execution and support to oversight, and
11 raising the standards for those performing the
12 oversight.

13 I'll turn it over to Joe for his closing
14 remarks.

15 MR. GRIMES: Okay, Slide 9, please. In
16 closing, we've established clear goals that are based
17 on top industry performance and want to implement the
18 action plan to help achieve that performance. We'll
19 also provide the corporate oversight to ensure that we
20 can sustain the performance moving forward.

21 We're committed to both the investment and
22 to the resources necessary to ensure that we are
23 sustainable in achieving that performance. Thank you
24 for your time this morning. This concludes our
25 remarks, and we're available for your questions.

26 CHAIRMAN MCFARLANE: Great. Thank you.

1 Commissioner Magwood?

2 COMMISSIONER MAGWOOD: Thank you,
3 Chairman. I feel like I spend a lot of time with Joe
4 and Keith and this team in the various sites, visits
5 I've made to TVA sites and the various times you've been
6 to NRC headquarters. It seems like we've had a lot of
7 these conversations already. So I appreciate the
8 support for the various site visits I've had since
9 you've been there.

10 MR. GRIMES: Thank you. Appreciate you
11 coming, Commissioner.

12 COMMISSIONER MAGWOOD: You know, let me
13 ask you a big picture question. Because I was thinking
14 about a long time ago I knew an experienced, use that
15 term, experienced site operations guy in the DOE system
16 who used to tell me that he could tell a good site as
17 soon as he came on site because he would look around
18 and see how the grass is mowed, and he would know
19 immediately if there were operational problems or not.

20 It's not that easy to detect issues at
21 sites, but I wonder, since you've come into this
22 relatively recently, when you were looking at some of
23 these TVA sites that have had issues, were there some
24 clear signs that you saw very early on that told you,
25 yes, there's problems here, without looking at all the
26 performance indicators, looking at all the reports?

1 Were there some clear signs that you saw when you got
2 on site?

3 MR. GRIMES: I think the clearest sign for
4 me was not necessarily the physical signs,
5 Commissioner, but in conversations with the various
6 senior staffs, really, their understanding of where
7 they stood relative to the rest of the industry, how
8 their performance metrics measured up, and whether they
9 were implementing best practices and their ability to
10 share why that was. I think that was probably the most
11 telling sign for me early on.

12 I think if I could comment on Browns Ferry
13 in terms of its, you know, the physical appearance of
14 the plant, Keith and his staff have invested a lot over
15 the last several years in upgrading the plant, as Keith
16 noted, a lot of the safety systems. Just about all the
17 major components have been replaced.

18 And the appearance of the site, I think,
19 will go a long way towards establishing and holding the
20 right standards with the work forces. They appreciate
21 that kind of support.

22 COMMISSIONER MAGWOOD: So as you look
23 forward to trying to sustain excellence in the long
24 term, because one of the conversations you and I have
25 had, and I think we've already heard come up today from
26 the first panel, is the cycling that we see sometimes

1 at TVA facilities, where, you know, for a while things
2 are going very well and then a few years later things
3 aren't going as well and then you have this trend.

4 Is this philosophy of comparing yourselves
5 against the industry, overall, is that in your view the
6 key to the sustained excellence? Is that the right
7 guidepost that TVA will be, we'll be seeing used in the
8 future?

9 MR. GRIMES: I think there are several
10 keys, Commissioner. I think that's one of them. I
11 think being very clear about where you stand in the
12 industry and that you're implementing best practices
13 gives you a fairly accurate picture of your
14 performance.

15 I think secondly, it's really ensuring
16 that you get good external views of the performance of
17 the different stations and what those challenges look
18 like. We've made some changes on our external safety
19 review board and other things to ensure that we have
20 the right eyes on that.

21 And then lastly, I believe sustainable
22 performance, you know, is an everyday thing, you know,
23 day in and day out for each of the sites. And we're
24 establishing the appropriate oversight measures that,
25 you know, work from a daily perspective through a
26 monthly and a yearly perspective to know where our

1 performance is.

2 COMMISSIONER MAGWOOD: What do you do to
3 provide an independent point of view? I mean I think
4 that's something that's often very helpful with sites,
5 and even at sites where things are going well, maybe
6 even especially in sites where things are going well,
7 to have someone outside the system come in and give
8 perspectives and review. What have you done? Most
9 sites have something like that. What are you doing?

10 MR. GRIMES: Well, I think what we're
11 doing has been somewhat typical. The one thing I would
12 comment on that's been different, you know, I've been
13 there about nine months as you know, Commissioner, and
14 fundamentally I've rebuilt the entire senior, nuclear
15 senior executive team, and three of the four members
16 of that senior executive team are from outside TVA.

17 They're from other parts of the industry
18 from multiple of the big operators, and so we had the
19 advantage of bringing both those viewpoints to bear as
20 well as the experience that comes with that.

21 COMMISSIONER MAGWOOD: Okay, great. All
22 right, thank you very much. Thank you, Chairman.

23 CHAIRMAN MCFARLANE: Okay.

24 Commissioner Ostendorff?

25 COMMISSIONER OSTENDORFF: Thank you,
26 Chairman.

1 Thank you for your presentations. Dave,
2 I'm going to start out with you. I'd be interested in
3 any, what you can share with us as the top two or three
4 examples of where TVA corporate oversight has been
5 enhanced or increased. Can you give us specific
6 examples of how that's manifested vis-a-vis Browns
7 Ferry?

8 MR. CZUFIN: Okay. I've been with TVA for
9 about seven months now, and the two examples I would
10 give you is, first off, I talked about the equipment
11 reliability and I talked about the two areas. One is
12 robust, reliable equipment, and the second is the
13 organizational response to those issues.

14 Since I've been there we've held what we
15 call equipment reliability management review meetings,
16 where we go to the station, sit across the table and
17 we talk to in particular Keith's team, and we talk
18 through what are we doing for equipment reliability.

19 And primarily focused at, are we aligned,
20 are we working as a team, what are our priorities and
21 what are we doing? And there's also an index in the
22 industry called Equipment Reliability Index, and we
23 have not done well in Equipment Reliability Index at
24 TVA, historically.

25 So what we did is we committed as a
26 corporation and a station to set targets for where we

1 were going to be at the end of the year for Equipment
2 Reliability Index. And I review those every month, and
3 if we are not meeting our targets I call Keith or I call
4 the other site VPs and we talk about why we're not
5 meeting them and what we're doing to change that.
6 Those are two areas specifically.

7 COMMISSIONER OSTENDORFF: Is there any
8 specific interface that TVA has had with INPO where INPO
9 has provided other suggestions or approaches that you
10 had not considered?

11 MR. CZUFIN: Yes, in particular to the, if
12 I just stick with equipment reliability, INPO provided
13 us input on what we call the plant health committee.
14 They provided us input on some ways that we could
15 actually enhance plant health committees and do
16 increased monitoring and oversight on plant health
17 committee.

18 COMMISSIONER OSTENDORFF: Okay, thank
19 you. Keith, I appreciated your communications with
20 the Commission for the past four years. I know we've
21 had a lot of meetings, as Commissioner Magwood has
22 mentioned.

23 I wanted to ask you just one specific
24 question and it deals with employee morale. I know
25 it's been a long journey and sometimes those long
26 journeys can be difficult and sustaining interest can

1 be a challenge. I'm curious as to what leadership
2 challenges you might have faced in trying to keep your
3 work force going, motivated, enthusiastic about
4 improvement.

5 MR. POLSON: Well, it has been a challenge
6 over the four years, but I will say, and I've gotten
7 opinions from externals that have come in is that the
8 employee morale is very high. That the whole entire
9 team is poised and ready to drive for excellence.
10 They're just looking for the clear cut direction which
11 I think we've laid out for them in the excellence plan.

12 But some of the challenges that I came up
13 against I'd just say it was a deep embedded culture.
14 It was a culture of knowing that there was a constant
15 churn in the management team and they were just waiting
16 for the next leader. It was a culture of taking the
17 minimalistic approach.

18 And I think by taking the high road and
19 making the right decisions and then communicating it
20 and then listening and taking action, I think that we've
21 got a very high, the morale is very high right now and
22 I do believe it's sustainable.

23 COMMISSIONER OSTENDORFF: Thank you.
24 Did you want to comment, Matt?

25 MR. RASMUSSEN: Oh, I was just going to
26 add, so I've been at Browns Ferry 12 years. I started

1 there right out of college. And I worked in
2 maintenance, as a senior reactor operator and
3 operations shift manager, and most recently worked in
4 management.

5 And my view is this is the most invigorated
6 the work force has been in my 12 years that I've been
7 there. They believe that the plant's getting better,
8 the equipment's getting better. And I look at my
9 peers, the operations manager and the maintenance
10 manager, and these are all people that I grew up with.

11 So we're developing our talent on site and
12 really developing it, and people believe in the
13 leadership team and that has made a huge difference in
14 the work force and the attitudes.

15 COMMISSIONER OSTENDORFF: Okay. Thank
16 you. Thank you, Chairman.

17 CHAIRMAN MCFARLANE: I recently had the
18 opportunity to visit Palo Verde in Arizona, and I was
19 very impressed by their employee engagement program.
20 I was talked to by one fellow who talked about he was,
21 he wasn't a manager, and he talked about how when he
22 first started at the site it was just another job, it
23 wasn't that meaningful to him.

24 But through the employment engagement
25 program that they instituted there a few years ago, he
26 now sees the place very differently and it's, you know,

1 he understands the importance of safety of the mission.
2 So I was impressed with that. I don't know if you guys
3 have had contact with them or do that kind of thing,
4 but it seemed to be effective.

5 You know, when you say morale is high, how
6 do you know? I'm interested in how you measure these
7 things, okay. Being here in management at the NRC, we
8 also have to have metrics for different programs that
9 we have. And so I'm interested in how you measure your
10 morale, how you measure your progress to excellence.
11 How do you know if you're not continuing to improve?

12 MR. POLSON: As far as morale, it's you
13 have to really get out and see it, and then you also
14 see that the employees are getting engaged in more
15 activities. You see them volunteering to be engaged,
16 where before they were kind of stuck in a cubicle just
17 doing their job for eight hours.

18 We did actually benchmark Palo Verde years
19 ago when we first started into this process, and we took
20 pretty much carte blanche what they had done to turn
21 things around.

22 So as far as performance improvement, the
23 integrated excellence that we have, the five focus
24 areas actually have five feeders and each of those
25 feeders have indicators. And we share those
26 indicators with the employees so that they can see as

1 we're making progress.

2 And also we get out and communicate with
3 the people a lot, and I do what I call town hall meetings
4 and I do those every three months. And then I actually
5 go to the shops in the morning and so does the senior
6 managers.

7 But the town hall meetings, we have pretty
8 close to 2,000 people on site, and the meetings that
9 we just finished up there were over 1,500 people that
10 attended the meetings. And the reason they're
11 attending them, because they are interested in what's
12 going on and they're interested to hear, you know, where
13 we're going.

14 CHAIRMAN MCFARLANE: Okay.

15 MR. GRIMES: Chairman, if I could add just
16 a little bit. We also have some objective evidence
17 with the culture surveys we've been doing. In fact,
18 Keith's site just, over the past two weeks finished up
19 a survey, submitted the survey information for an
20 upcoming evaluation from the Institute of Nuclear Power
21 Operations, and we're looking forward to those results
22 to give us a good midyear view here of how the site's
23 continuing to progress.

24 CHAIRMAN MCFARLANE: Okay.

25 So Browns Ferry's had a past history of
26 fire issues, now you have applied for a license

1 amendment for transition to NFPA 805, right? So what
2 are some of the modifications you're planning at the
3 plant to improve the shutdown strategies in the case
4 of fire?

5 MR. CZUFIN: I'll start with that. They
6 range from cable routing, fuses, circuit isolation,
7 fire wrap. Those are some of the primary ones we're
8 doing. We actually, the license amendment is not
9 approved yet, but we have started some modifications.
10 We have 20 modifications that we have identified before
11 the submittal that we identified as good risk
12 opportunities to eliminate, and about 50 percent of
13 those are complete right now.

14 MR. RASMUSSEN: And so just to kind of go
15 along with that, this is something that's been ongoing
16 for some time now. We've laid out these modifications
17 over the next three refueling outages, and I've been
18 fairly aggressive with executing them. But they're
19 not solely confined to refueling outages. Over the
20 last few weeks as a matter of fact, we've been executing
21 consecutive modifications to our RHR system to remove
22 single-point vulnerability associated with fire.

23 So it is an ongoing process. We're
24 tracking each one of those modifications in our
25 corrective action program as OFFA (phonetic)-level
26 actions, and we monitor those as a management team and

1 ensure their execution goes flawlessly.

2 CHAIRMAN MCFARLANE: Okay, great.
3 Thanks.

4 MR. GRIMES: I didn't want to leave you
5 with that we were only doing 20 modifications. We have
6 over a hundred that we'll eventually do.

7 CHAIRMAN MCFARLANE: Okay.

8 Commissioner Svinicki?

9 COMMISSIONER SVINICKI: Well, thank you,
10 gentlemen, for your presentations. My colleagues have
11 covered a number of areas already. The stage of your
12 process that you're in now where you're moving from
13 recovery activities more to a sustained higher
14 performance level, do you agree that it's important
15 that you have tools and measures that you're using to
16 make sure that all station personnel are invested in
17 this level of sustained performance?

18 And then what would be some of the
19 mechanisms that you use to both assure that that's
20 happening and also to get, as the Chairman said, some
21 sense of measuring it and knowing whether it's real and
22 will allow for sustained performance?

23 There have been as you note a number of
24 leadership changes, so how is the, you know, continuing
25 and enduring station personnel as a whole? How are you
26 making certain that they have a personal ownership

1 stake in this process?

2 MR. POLSON: Well, I talked about the
3 integrated excellence plan. And the way the plan was
4 developed, the focus areas were derived at the senior
5 level, but then when we came up with the feeders and
6 the actual actions that went into the plan, that was
7 developed at the site level.

8 So there was engagement in coming up with
9 the plan. It wasn't just a top down driven plan,
10 because we find that, you know, as we were going through
11 the 95003 process, that was necessary, but I think to
12 reach the excellent level you have to have all of that
13 engagement from every level of the organization. And
14 we have that, and as we start going through the plan
15 and executing and completing those actions they'll see
16 the improvements through the indicators.

17 MR. RASMUSSEN: Additionally, so more
18 from a tactical aspect, each of the senior managers have
19 touch points that they've established programmatically
20 with their work force. So I have a two Cs meeting every
21 Tuesday with my work force, that's a Compliments and
22 Concerns meeting.

23 We go over and talk about the status of our
24 recovery, talk about the status of our action plans.
25 We go through a metrics review with certain key leaders
26 in the organization at the FLS level and all the way

1 down at the worker level for some of the meetings.

2 So we do have programmatic touch points
3 that we've established with the work force to make sure
4 that they understand and they've bought into where
5 we're going as a site and as a fleet.

6 COMMISSIONER SVINICKI: Okay, thank you.
7 Those specifics are very helpful. Thank you,
8 Chairman.

9 CHAIRMAN MCFARLANE: Commissioner
10 Apostolakis?

11 COMMISSIONER APOSTOLAKIS: Thank you.
12 Thank you very much for your presentation. Over the
13 years I've seen organizations that are performing very
14 well all of a sudden deteriorate and have problems like
15 Browns Ferry has problems, or Fort Calhoun and other
16 units in the past.

17 And I've been wondering, what is it that
18 makes these organizations deteriorate? I mean things
19 are going well and then all of a sudden you hear all
20 sorts of terrible things. Can you give us your
21 thoughts on that? I mean is there anything one can do?
22 Is it complacency? What is it?

23 MR. POLSON: Well, to start off, and Joe
24 and David can jump in, but I think a lot of it has to
25 do with corporate governance and oversight. Every
26 plant out there is going to come into some point where

1 performance may take a small dip, but if you're doing
2 the governance and the oversight correctly, as soon as
3 there's a small dip it gets corrected immediately.

4 And I think a lot of the plants that have
5 the issues, their governance model and their oversight
6 model is not well established and they allow those
7 plants to take that dip in performance.

8 And if you look at the history of TVA, going
9 back five years ago, prior to that we really didn't have
10 a corporate governance and oversight model set up or
11 the people established at the corporate organization.
12 And each site was allowed to, you know, basically run
13 on their own without oversight.

14 And as got mentioned several times in a
15 previous meeting and this meeting, the history of the
16 TVA and especially Browns Ferry was very cyclic. And
17 I think the organization that we have in place now will
18 not allow that to happen.

19 MR. CZUFIN: I would add, in addition to
20 governance and oversight I would add what Joe started
21 with and that was industry comparison. Comparing
22 ourselves to industry top performance and not where
23 we've been.

24 And then secondly, the external viewpoint.
25 I think it's always vital to get an external viewpoint
26 of what the organization may not be seeing in the, and

1 it's important to have that external view.

2 COMMISSIONER APOSTOLAKIS: But didn't you
3 always have a nuclear safety, what's called review
4 board? You've always had that so you've had external
5 input, right?

6 MR. CZUFIN: Yes.

7 COMMISSIONER APOSTOLAKIS: I guess it
8 didn't work. Did it work?

9 MR. GRIMES: I think at times,
10 Commissioner, the challenges haven't been
11 appropriately targeted. And I think that the key in
12 our industry is that both the organization has strong
13 processes they follow, the oversight ensures that those
14 processes are in place and followed, and then the
15 challenge that, you know, constantly is trying to raise
16 standards. And I think if you're not doing those three
17 things then you're going to be challenged
18 performance-wise at some point.

19 COMMISSIONER APOSTOLAKIS: Thank you.
20 One last question. What do you think of the reactor
21 oversight process? Is it good? Is it working? Do we
22 need to improve it? Do we need to do something?

23 MR. POLSON: I think the process is good
24 and I do think it works.

25 COMMISSIONER APOSTOLAKIS: On that happy
26 note, thank you very much.

1 CHAIRMAN MCFARLANE: Okay. Thank you
2 very much for your presentations and the discussion.
3 I'm going to let you guys go and invite Omaha Public
4 Power District.

5 (Pause)

6 CHAIRMAN MCFARLANE: Okay, ready? Good.
7 Okay, so I will turn the floor over to Mr. Gary Gates
8 who's the president and chief executive officer of the
9 Omaha Public Power District.

10 MR. GATES: Thank you, Chairman and
11 Commissioners. Glad to be here this morning. We're
12 going to talk about the drive into excellence for Fort
13 Calhoun Station and through OPPD.

14 I have here with me today, Lou Cortopassi
15 who's our site VP and chief nuclear officer. Tim
16 Hanley is the senior vice president for West operations
17 of Exelon. Also with us today is Mo Doghman who's our
18 vice president of energy delivery and chief compliance
19 officer. He's here in the back. Our
20 commitment -- and if I could have the slide on, it starts
21 with our commitment, please. I want to assure you that
22 OPPD and our board remains committed to a continued safe
23 operation of the plant and driving to sustained
24 performance. And that's an excellent performance.

25 Some of the key lessons learned have been
26 discussed already this morning, but to highlight three

1 of them. For our sustained focus going forward is an
2 active corrective action system, one that provides
3 value to the organization and is robust. Aggressive,
4 independent oversight of our facility. And of course,
5 the fleet operations. And as been mentioned, our
6 partnership with Exelon and that model has allowed us
7 to have a large depth in engineering and challenges in
8 all aspect of our organization, as well as providing
9 a very healthy tension in competition. Because we're
10 now right in the fleet and we have an idea of what top
11 decile and top quartile performance is, and that's the
12 competition we like and we're looking forward to moving
13 Fort Calhoun down that path.

14 So with that I'll let Lou talk about plant
15 status and engineering, and then Tim will talk about
16 our integration with Exelon.

17 MR. CORTOPASSI: Yes, thank you, Gary.
18 And again good morning, Chairman and Commissioners.

19 Next slide, please. Plant status. Thank
20 you.

21 I'm going to begin with a brief plant
22 status and we'll start with safety culture. And we do
23 continue to monitor and make improvements in safety
24 culture with a myriad of different tools that we use.
25 You've heard the term compliments and concerns.
26 That's a meeting that I hold with a broad group of

1 employees, direct face-to-face communication
2 facilitating, actually, what's on their mind,
3 real-time feedback from my employees.

4 We also do monthly pulse surveys. We've
5 been doing those for about two years now, and that
6 really provides me, as well as the senior leadership
7 team, meaningful feedback. Both at the department
8 level and for the departments of ten or greater we get
9 statistical feedback that we can use.

10 For example, what I might use from a
11 communication or a feedback or a corrective actions
12 with a security officer may be different than what I
13 do with design engineers. And we've shared that tool
14 with our industry peers.

15 And probably the two biggest feedback
16 items that we're getting right now is on integration
17 because that does touch everybody on site, as well as
18 our transition to online work management. You heard
19 earlier the term "team sport" during refueling outage,
20 you know, that whole team sport is built very similarly
21 to what the behaviors as an organization works well
22 together performing online maintenance.

23 I also did want to touch on industrial
24 safety and human performance that hits the element of
25 supervisory engagement. It certainly hits the element
26 of employee engagement. And I would get questions in

1 the public forum, last year in particular, about, you
2 know, how are we compare against a running facility,
3 you know, whether I'm talking about industrial safety,
4 human performance, or at least some of the other
5 metrics, while we were in a shutdown state?

6 I am happy to say since we have returned
7 the plant to service, zero first aids, zero recordable
8 injuries, zero lost time. And that is each and every
9 day, each and every employee that's engaged with that.
10 And I'm very confident, similar here is a challenging
11 environmental conditions that we had, you know,
12 especially at the power plant.

13 Also with respects to human performance,
14 and I'll use the term "department level clock resets,"
15 so it's our lower level precursor type issues that we
16 track very closely, lessons learned from a department
17 standpoint as well as how we transmit those to the rest
18 of the departments, significant or noteworthy
19 reduction so far in clock resets at the department
20 level.

21 Talking just broader plant performance,
22 since restart we've been at 94-1/2 percent capacity
23 factor. That's through the month of May. I will
24 highlight though two noteworthy events that we dealt
25 with and dealt with effectively, and I'll talk a little
26 bit about operator performance through that.

1 In the January time frame we had, I'll say, a
2 confluence of low river water level. We had a small
3 leak on a section of non-safety related piping combined
4 with the extreme cold. We ended up with a large block
5 of ice on one of our traveling sluice gates that ended
6 up being damaged.

7 One of the other questions I would get in
8 the public forum last year is, you know, with the
9 operators and with the plant having been shut down, how
10 do you know? How do you know that the operators are
11 going to make the right decision at 3 o'clock in the
12 morning?

13 This happened overnight, was detected by
14 a non-licensed operator doing his rounds. The shift
15 manager appropriately engaged the rest of the
16 organization, and I'll say, lo and behold, at about 3:05
17 in the morning we commenced an orderly shutdown to deal
18 with the ice and to deal with the sluice gate.
19 Corrective actions have been taken to prevent a
20 recurrence of that activity or of that issue.

21 The other plant status piece that I'll talk
22 about is in March of this year we did have an unplanned
23 automatic reactor trip due to an issue with our stator
24 water cooling system.

25 And on line maintenance activity that we
26 can do on line, a combination of equipment failure and

1 human performance, but really, as we stood back and
2 looked at accelerating some aspects of fleet on line
3 risk management, while we can do the activity on line
4 we think we had a much better opportunity, I'll say,
5 to strengthen the contingency planning such that if an
6 equipment issue happened we'll set up not only the
7 technicians' supervision but the rest of the
8 organization to have better contingency actions. And
9 that's one of the things that we've accelerated with
10 respects to fleet status.

11 All right, next slide please. Before I
12 get into the details of the engineering products, and
13 it's really a focus on as you can see in the items up
14 there. But if I stand back and just give some
15 perspective on the recovery work scope, and it might
16 be a corollary to some of the discussions we've had on
17 inspection hours, but just some of the, I'll call them
18 some of the statistics.

19 We have about eight million person-hours,
20 about 69,000 task completions, and that's, you know,
21 actual physical work that we did, you know, with either
22 modifications or improvements in the plant. We
23 mentioned the 20-year operating agreement with Exelon,
24 the more than 450 restart checklist items, and it may
25 be germane to the earlier discussion, about 474
26 radiography shots and that was due to the piping

1 replacements that we did both on safety related piping
2 replacements both on a primary and the secondary
3 system, and all from my perspective still maintaining
4 industry-leading measurements of safety culture.

5 All right, with respects to corrective
6 action products, significant reduction on the post
7 restart backlog and that's primarily and designed and
8 in program engineering, and we monitor that very
9 closely with fleet metrics.

10 And in the two areas in particular because
11 they were both restart items, 10CFR 50.59 evaluations
12 and operability evaluations, very close focus where I
13 maintain an independent engineering assurance group
14 independent on both the site, independent of the fleet
15 that gives 100 percent feedback on those products.

16 We take that feedback, we provide it
17 directly back to the operators, directly back to the
18 engineers, real-time on a weekly basis as well as we
19 do roll-ups and look for opportunities to feed that back
20 into the training programs, or if nothing else feedback
21 to the individuals that are performing.

22 We have seen improvement in the 10 CFR
23 50.59 evaluations. Frankly, we just don't do as many
24 right now in this phase of operations so we do monitor
25 each one of those closely. And probably more so on the
26 operability evaluations because those take place every

1 day, every night in the control room that we're seeing,
2 I'll say, improvements in those areas, but being very
3 critical of performance and ensuring that we don't miss
4 operability calls.

5 The last piece that I'll touch on is the
6 design and license basis control and use. As we
7 mentioned that is a large commitment that we made post
8 restart. We have completed the vendor selection and
9 that will be, really, a significant effort to perform
10 risk based reconstitution of the design basis,
11 licensing basis, and the updated safety analysis
12 report.

13 We selected the raw water system as the
14 risk significant system that we will pilot this year
15 to ensure not only that we can do a solid job with it
16 but that we can manage the output, as well as really
17 what we're looking for is a very easily retrievable
18 system that our operators and engineers going forward
19 can use to make the right technical decisions.

20 So it's a blended team of outside expertise
21 as well as internal both new and experienced employees
22 across operations and engineering corrective action
23 program so that we own the product that comes out of
24 the longer term commitment as we mentioned that we'll
25 complete in the fourth quarter of 2018.

26 And with that I will turn the presentation

1 over to Tim Hanley.

2 MR. HANLEY: Can I have the next slide,
3 please? So a cornerstone of our plan for sustained
4 improvement is to integrate Fort Calhoun into the
5 Exelon fleet. And, you know, over the last several
6 months since the plant's been up and running, we've seen
7 kind of a shift in the view of the people at the plant
8 who kind of viewed integration before as an optional
9 thing that might happen or parts that might happen to
10 believing that integration is going to fix everything
11 or implementing the Exelon procedures is going to fix
12 everything, which we obviously know is not the case.

13 You can have the best processes in the
14 world, if you don't change the behaviors you're not
15 going to get there. So we're trying to realign the site
16 to recognize integration is more than just implementing
17 new procedures.

18 The integration plan itself has over
19 12,000 activities, 4,000 that we've completed already
20 this year, another 6,000 are scheduled to be completed
21 by the end of the year, and we're actually a little bit
22 ahead of our integration schedule right now.

23 We have again using extensively the fleet
24 resources particularly in the area of engineering to
25 provide an independent review of engineering products
26 or independent review of troubleshooting plans which

1 has helped the station get through a number of technical
2 issues that have come up over the past couple of months.

3 As mentioned earlier, you know, it's more
4 than just implementing the processes. Part of the
5 management model is to supply certain touch points
6 which include management review meetings that occur
7 monthly, the fleet phone call that occurs every
8 morning, the peer groups that all of the managers at
9 Fort Calhoun are now fully functioning members of, and
10 also including our business planning process and goal
11 setting meetings, which Lou just attended last month,
12 which will give Fort Calhoun establishing goals that
13 will get them towards top quartile performance in the
14 industry. Thanks.

15 MR. GATES: Thanks. The startup of the
16 unit was a significant milestone but it was just that,
17 a milestone on our journey. We're committed to
18 excellence and we're on track to getting there. And
19 we look forward to your questions.

20 CHAIRMAN MCFARLANE: Great. Thank you.

21 Commissioner Magwood?

22 COMMISSIONER MAGWOOD: Thank you,
23 Chairman.

24 And thank you for coming today, I know
25 you're happy to be here, right? They always say that
26 don't they? A couple of questions and I'll aim those

1 at Gary and you can distribute them as you see fit.

2 We heard the earlier panel, the staff
3 indicated that the review of the 0350 process that the
4 guidance was clear and, you know, the staff had clear
5 understanding of what the requirements were.

6 From your perspective, when you first
7 realized you were going into the 0350 process and you
8 looked at that process, was it clear to you what was
9 going to happen when this began, and have you had
10 clarity throughout the process as to what to expect as
11 this proceeded?

12 MR. GATES: Yes, we quickly of course
13 looked at the 350 process as we talked to the Region
14 about entering that. The criteria are very specific.
15 I think the biggest advantage of the 350 process with
16 Fort Calhoun being in the situation it was, was the
17 checklist and the basis document that Mr. Dapas
18 mentioned, the regional administrator.

19 I think as we've gone through this process
20 and reflecting on it, as you get into the bigger issues,
21 which again Mr. Dapas mentioned, for example, tornado
22 missile, those are the ones that within the process
23 could probably use more definition of how you frame
24 those in the process, but definitely not, that's an
25 enhancement to it, but it's very clear what the process
26 is and there's no doubt what you have to do.

1 COMMISSIONER MAGWOOD: Okay, thank you.
2 One of the interesting things that came out of all this
3 is your decision to go forward with a complete, or a
4 risk based as you put it, license basis reconstitution.

5 And I wonder if you can give us, sort of
6 step back for a moment and think more broadly is, when
7 you think about your time with the facility you came
8 to that conclusion after going through this long
9 process, but do you look at this as something that would
10 have been useful to do before getting into this? Is
11 this something you would recommend others to consider?

12 MR. GATES: I think design basis is always
13 a subject you should look at. Going back, I would say
14 for us being a 40-year facility, as you consider the
15 time frame when the plant was built in '68 to '73,
16 retrievability of records had a whole different
17 definition to it at that point. And so we've worked
18 through that process, and part of our design basis
19 reconstitution will focus on that information
20 availability.

21 But you always want to have your design
22 basis to be easily understood by your engineering group
23 and your operations group and very easily accessible
24 to them. And that's the key learnings for us out of
25 this as well as making sure of course that you're
26 complying with it at the same time.

1 COMMISSIONER MAGWOOD: Appreciate that.
2 And just one last question. You mentioned the
3 engineering assurance group that you've created to help
4 with the 50.59 process and oversee or to review the
5 operability determination work that you're doing.

6 Who are those people? How are they
7 trained? Can you just give us a little bit of --

8 MR. GATES: Yes, a combination of ex
9 engineering expertise, ex operations expertise, and we
10 used quite a few individuals during the recovery phase
11 that we were able to, one, evaluate their skill set,
12 their standards, et cetera.

13 So that group has stayed fairly consistent
14 as we got into the operational phase this year. It's
15 four individuals that we keep on retainer, and it is
16 a regulatory commitment in that what we expect to be
17 able to do as we see performance stabilize and continue
18 to improve that we'll slowly peel products off of that
19 group and into the Exelon process that will be running
20 in parallel.

21 But I've been quite satisfied with the
22 level of feedback, the level of intrusiveness, and the
23 level just good, collegial discussions with my SROs and
24 engineers.

25 COMMISSIONER MAGWOOD: So that process
26 will phase out --

1 MR. GATES: Yes.

2 COMMISSIONER MAGWOOD: -- over time. And
3 can you describe exactly what process will take up after
4 that's over?

5 MR. CORTOPASSI: Yes, the Exelon process
6 is called the quality review team. It's a selected
7 group of individuals on a rotating basis that review
8 the engineering products. They are actually part of
9 the line, but they're removed from that responsibility
10 of completing the products when they're part of the
11 review team.

12 COMMISSIONER MAGWOOD: So this is
13 something fleet-wide?

14 MR. CORTOPASSI: Yes. Yes, it's standard
15 process.

16 COMMISSIONER MAGWOOD: Okay. Excellent.
17 All right, thank you very much.

18 MR. CORTOPASSI: Thank you.

19 CHAIRMAN MCFARLANE: Commissioner
20 Ostendorff?

21 COMMISSIONER OSTENDORFF: Thank you,
22 Chairman.

23 Thank you for your presentations. Gary,
24 I have a question for you. You've been there
25 throughout the process interfacing with this
26 Commission. If you look at the impact of the

1 integration with Exelon and the oversight assistance
2 provided by Exelon throughout the last few years, are
3 there one or two big picture changes of ways of doing
4 business that have been brought to bear at Fort Calhoun
5 as a result of Exelon's direct involvement?

6 MR. GATES: Yes, I can name two very
7 quickly. One is the increased independent oversight.
8 Our NSRB has changed in format as well as membership.
9 And the oversight period has changed a great deal from
10 the fleet approach.

11 The second is the fleet approach for the
12 CFAMs, which I know is jargon, but it's the experts in
13 each area. For example, in radiation protection the
14 fleet has an expert across all the plants. So when the
15 radiation protection manager at Fort Calhoun has a
16 question he has an immediate person to call that has
17 a fleet-wide experience basis to give him advice on.

18 That's proving to really improve the
19 performance at Fort Calhoun, and it really addresses
20 a lot of single plant vulnerabilities. Not that you
21 can't be a single plant, but as I reviewed it and
22 recommended to our board that we go to the Exelon
23 partnership, I felt that that really addressed all
24 those vulnerabilities for us now and going forward for
25 the next 20 years of our license extension. So those
26 two areas really garnered it.

1 COMMISSIONER OSTENDORFF: Thank you.
2 Now I'm going to ask a symmetrical question to Tim and
3 Lou from your Exelon experience and I'll start with Tim.
4 What was the single biggest area for improvement that
5 you thought Fort Calhoun needed based on Exelon fleet
6 practices?

7 MR. HANLEY: I'd jump on what Gary said.
8 It's probably the first one, our corporate functional
9 area managers which is what we call CFAMs, their ability
10 to get in, find big gaps at Fort Calhoun against
11 industry standards and very quickly get corrective
12 actions then, I think, was key. It kind of goes to the
13 idea that Fort Calhoun had become somewhat isolated
14 from the industry.

15 So I think that was a huge benefit to them.
16 I think, actually, even getting on the morning phone
17 calls, the morning fleet phone calls, hearing the
18 interaction, hearing the type of questions that are
19 being asked, caused the people at the site to start
20 asking those questions internally that, you know, they
21 weren't thinking about before.

22 So I think those are probably two things
23 that very quickly got people thinking differently about
24 the way they were operating the plant or the way they
25 were looking at what excellence is or where they wanted
26 the station to be.

1 COMMISSIONER OSTENDORFF: I just want to
2 comment before, but your comment on the fleet phone
3 calls resonates with me. I know when I was a captain
4 on a submarine many years ago and going to weekly
5 management meetings where you heard all other
6 submarines' repair and material problems, and you
7 oftentimes went back and said, well, do we have that
8 kind of same issue on our boat? So I think that's, I
9 appreciate your highlighting that.

10 Lou, do you want to comment here?

11 MR. CORTOPASSI: Yes, I was just going to
12 echo what Tim said and it's, I'd call it just the daily
13 cadence from what it looks like at 6 o'clock in the
14 morning, which mirrors what's going on in the other
15 plants, to the engineering morning meeting to the
16 engineering morning phone call, you know, building up
17 as Tim mentioned to the broader fleet piece, which is
18 an accountability aspect but for us it really is a
19 teaching moment.

20 We get to hear, you know, not only what's
21 going on and challenge for what we're doing for the day,
22 what we're doing for the week, but we get to hear it
23 in that broader sense, you know, as we go on to our daily
24 activities where, you know, the corrective action
25 program firmly embedded into the management team's
26 daily activities.

1 So that daily just cadence and routine for
2 us is really strengthened. And the management
3 leadership team's intrusiveness not only into our own
4 issues but broadening, you know, our questioning
5 attitude and perspective as we look across the fleet.

6 COMMISSIONER OSTENDORFF: Thank you.
7 Thank you, Chairman.

8 CHAIRMAN MCFARLANE: Great. I trust with
9 all those radiography experiences there weren't any
10 events.

11 MR. CORTOPASSI: That is correct.

12 CHAIRMAN MCFARLANE: Okay. So I'm
13 interested in understanding from Omaha Public Power
14 District's point of view and from Exelon's point of view
15 what you think are the most challenging issues to
16 sustain the improvements that you've made.

17 MR. GATES: I'll take a start at that Tim,
18 and then Tim or Lou can jump in. I think the biggest
19 challenges are probably the challenges to any
20 organization and that is maintaining your focus and
21 maintaining a healthy tension on the organization.
22 That's fundamental going forward. We have that
23 commitment.

24 And if we maintain that healthy tension,
25 we maintain the competition, it's a natural competition
26 when you're looking at your numbers compared to 18 other

1 plants. I find that in this industry, and I include,
2 broadly, everybody, we're very competitive
3 individuals. I'm not sure how that ended up that way.
4 But I think in your organization, Chairman, and in ours
5 that's just true.

6 So we see those numbers, and it's a healthy
7 competition. And so I've watched the plant as I go
8 around talking to people. They see it and they say we
9 can be in that top decile. We can put the plant there.
10 That's what will sustain the performance is that kind
11 of attitude, that kind of tension.

12 MR. HANLEY: I think the biggest challenge
13 will be people being happy with the progress they've
14 made, comparing themselves to their past performance
15 as compared to industry excellence. And, you know,
16 I've had some discussion with Lou already. When you
17 go into the plant there's still a lot of posters, a lot
18 of communications about the restart. Well, that's in
19 the past, right? We need to be focused on where we're
20 going to be next.

21 And it's constantly wanting to get better,
22 comparing yourself to the best not to your past
23 performance. And getting people in that mindset of
24 doing that is, I think, always, no matter what plant
25 you're at, the biggest hurdle to keep performance
26 improvement going.

1 MR. CORTOPASSI: Yes, and I'd echo Tim. I
2 use the illustration with the employees, we would, kind
3 of operating on the wide range, right, and we've gotten
4 off the, you know, of the lower portion of the wide
5 range, but now the level of precision, whether it's
6 management decisions, whether it's alignment at the
7 station, whether it's performing an activity in the
8 field, just that level of precision is what we're
9 driving towards right now because we've been operating
10 in such a broader band of performance.

11 And the tools, like I said, as we populate,
12 you know, not only the indicators for the ROP but the
13 indicators for the fleet, you know, our own internal
14 indicators as, you know, we'll start to get a real clear
15 view where we stay in amongst our peers. And that is
16 the fun part, as Gary mentioned.

17 CHAIRMAN MCFARLANE: Okay, thank you.

18 Commissioner Apostolakis? Sorry,
19 Commissioner Svinicki?

20 COMMISSIONER SVINICKI: Gentlemen, thank
21 you for your presentation. Lou, I wanted to follow up
22 on one point you made. You indicated that prior to
23 restart when you were out in the community, a primary
24 concern people had, or they asked for assurance of
25 whether operating crews that hadn't operated in three
26 years at 3 o'clock in the morning would make

1 appropriately conservative decisions or do the right
2 thing. And you gave an example of the ice build-up on
3 the sluice.

4 And so, but that happened after you were
5 operating. How did you answer that question prior to
6 restart?

7 MR. CORTOPASSI: Yes, we had touched on
8 some of the, I'll call the innovative things that we
9 did in operator requalification training that we did
10 in the, I'll say, the middle latter part of 2013, as
11 well as we've discussed, you know, taking the operators
12 and having them at operating facilities just to have
13 that healthy operating tension or at least remember
14 what that operating tension looks like, recognizing
15 that a fair number of the employees, not only in
16 operations but across the site, had not seen the plant
17 run.

18 So a lot of focused training at the
19 departmental level, simulations, everything from what
20 a containment entry will look like for a radiation
21 protection technician to what the sampling techniques
22 will look like for a chemistry technician as well as,
23 you know, very similar to the NRC and INPO even, seven
24 day a week, 24 hour a day, you know, oversight over the
25 period of operation before plant startup.

26 You know, we had the same with our nuclear

1 oversight and our operations managers, again with very
2 pointed feedback during the shift, during the mid-shift
3 briefs on the behaviors that we observed. And as I
4 mentioned, you know, both the heat-ups that we've done
5 and the reactor startups that we've done subsequent to
6 the two issues I've mentioned we've seen, I'll call very
7 solid operator performance.

8 But even that said, you know, one of the
9 fleet techniques that we use is even when things go
10 well, a 4.0 critique that's put in the corrective action
11 system that's either tracked at the crew level, tracked
12 at the department level, rolled back into training so
13 that we're keeping that tension that the operators, you
14 know, we expect very, very high performance from them,
15 and even when things go well that we know there's
16 continued areas for improvement. And that's really
17 what we've been driving, especially with the shift
18 managers.

19 COMMISSIONER SVINICKI: When you collect
20 these things that worked well or maybe things you would
21 have done differently in terms of restarting after a
22 long period of shutdown, do those go into any kind of
23 INPO or industry-wide database of recommended
24 practices?

25 I know this doesn't occur at all stations,
26 but for a station where did occur, I would think having

1 your experiences documented would be beneficial.

2 MR. CORTOPASSI: Yes, in aggregate we've
3 worked with a recent document that's come out that's
4 looked at broader organizational risk, but for each of
5 the sub-elements the corrective action process drives
6 that. Typically, and especially if it's a root cause
7 or an apparent cause evaluation on a significant
8 technical or human performance issue, it'll drive us
9 to put out timely operating experience to the rest of
10 the industry.

11 MR. GATES: From the people side of it,
12 I've been down to INPO once and I'll go back down in
13 August to talk to the senior managers' courses down
14 there, and the executive senior managers' courses to
15 share my experiences and lessons learned from them.

16 COMMISSIONER SVINICKI: Okay, thank you.
17 And my last question is just we hear these numbers of,
18 we have 12,000 items in the integration plan, we have
19 many items in a corrective action program. How do you
20 manage and prioritize that so the work force doesn't
21 look at that and just get kind of discouraged?

22 MR. CORTOPASSI: I have, I'll say, a
23 pretty simple message when it ties directly to our
24 vision and mission statement. Safe, reliable plant
25 operations, that takes precedence. And so if we need
26 to defer and actually need to defer a meeting because

1 we've either got an emergent activity or something that
2 we, you know, is taking management's attention away
3 from the power plant, then we'll make that conscious
4 decision to the plant manager or to the senior
5 leadership team.

6 That said, the next tier is regulatory
7 commitments of which we have a number of post restart
8 commitments. Those have a special pedigree, a special
9 oversight if they're going to get moved, adjusted,
10 deferred, you know, that gets, I'll say, daily
11 attention and daily monitoring through the corrective
12 action program.

13 And then the subset of that which is one
14 of our regulatory commitments is the integration
15 schedule. So as Tim kind of mentioned, you know, on
16 schedule, overall, right now a little rough for the
17 first couple of months as we, you know, kind of stood
18 back and say, do we really have all of this sequence
19 to write, you know, loaded correctly, and seen much more
20 stronger performance over the past couple of months
21 with significant support from the fleet.

22 So I keep it in pretty simple terms on those
23 priorities for the station, and we've been able to
24 manage the workload, I'll say, fairly effectively given
25 that principle guidance.

26 MR. HANLEY: But I think the other part of

1 it is communicating when you have successes. So as you
2 complete various milestones, making sure the plant
3 understands that hey, we've gotten through this, here's
4 what we've got left. We're ahead on integration.
5 Show them the workdown curves, showing some significant
6 equipment, long term equipment issues that have been
7 fixed recently and publicizing that, I think, keeps the
8 employees engaged in recognizing that it is doable,
9 they can get through it and that they're making
10 progress.

11 MR. GATES: Interestingly enough, what
12 adds to the desire to complete these, the rest of our
13 corporation is looking at what's happening there and
14 they're taking those practices into the rest of the
15 corporation, both our transmission distribution,
16 fossil generation, they're doing support/refute
17 matrixes (sic), some of readiness. So when they see
18 the rest of the corporation absorbing those that helps.

19 COMMISSIONER SVINICKI: Okay, thank you.

20 CHAIRMAN MCFARLANE: Okay, Commissioner
21 Apostolakis, now.

22 COMMISSIONER APOSTOLAKIS: No questions,
23 Madam Chairman.

24 CHAIRMAN MCFARLANE: Okay. Yes,
25 Commissioner Ostendorff?

26 COMMISSIONER OSTENDORFF: Very briefly.

1 I agree with Commissioner Svinicki that the number of
2 corrective actions gets my attention. And I had spoke,
3 and I think I talked to you guys about this yesterday.
4 I was talking to Bob Willard last year about this.

5 I don't know how in looking at, and it's
6 not a criticism of Fort Calhoun or Browns Ferry, but
7 just when we're talking numbers in thousands or in
8 perhaps tens of thousands in a given year trying to make
9 some management sense of that, I'm still trying to get
10 my hands around how one looks at it a, you know,
11 submarine.

12 I'm talking strictly material
13 deficiencies not training issues, but the submarine
14 typically would have maybe a few hundred equipment
15 deficiency items, and there it was called ESL,
16 equipment status log. And so I appreciate you raising
17 that because it's something that we need to continue
18 to perhaps question and better understand.

19 CHAIRMAN MCFARLANE: Okay, anything else?
20 No? All right, thank you. I want to thank the staff
21 for their presentations in the discussion. I want to
22 thank both our external panels, Tennessee Valley
23 Authority and the Omaha Public Power District for your
24 presentations and for the discussion, and the meeting
25 is now adjourned.

26 (Whereupon, the foregoing matter was

1 concluded at 12:03 p.m.)
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