

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

+ + + + +

BRIEFING ON STRATEGIC PROGRAMMATIC OVERVIEW OF THE
OPERATING REACTORS BUSINESS LINE

(Public Meeting)

+ + + + +

THURSDAY

AUGUST 6, 2015

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The Commission convened in the Commissioners Hearing Room at the Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, at 9:30 a.m., Stephen G. Burns, Chairman, presiding.

COMMISSION MEMBERS:

STEPHEN G. BURNS, Chairman

JEFF BARAN

WILLIAM C. OSTENDORFF

KRISTEN L. SVINICKI

NRC STAFF:

JAMES ANDERSEN, Deputy Director, Division of
Preparedness and Response, NSIR

BILL DEAN, Director, NRR

ISTVAN FRANKL, Chief, Corrosion and Metallurgy
Branch, Division of Engineering, RES

JOE GIITTER, Director, Division of Risk Assessment,
NRR

MEL GRAY, Chief, Engineering Branch 1, Division of
Reactor Safety, Region 1

MIKE JOHNSON, Deputy Executive Director for Reactor
and Preparedness Programs

CHRIS MILLER, Director, Division of License Renewal,
NRR

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

NATHAN SANFILIPPO, Chief, Performance Assessment
Branch, Division of Inspection and Regional
Support, NRR

TRAVIS TATE, Chief, Plant Licensing Branch 3-2,
Division of Operating Reactor Licensing, NRR

1 PROCEEDINGS

2 9:29 a.m.

3 CHAIRMAN BURNS: Okay, thank you, and I'll invite our
4 panel up to the table. The purpose of today's briefing is to provide the
5 Commission with a discussion of strategic considerations associated with the
6 NRC's Operating Reactor Business Line, and we'll hear from a panel of the
7 NRC staff, consisting of representatives from the Office of Executive Director
8 for Operations, the Office of Nuclear Reactor Regulation, Office of Nuclear
9 Security and Incident Response, Nuclear Regulatory Research, and our
10 Region I office outside of Philadelphia.

11 We look forward to today's discussion. Before we begin,
12 would any of my colleagues have any opening statement? Okay. Mike
13 Johnson, please proceed for the staff.

14 MR. JOHNSON: Thank you. Good morning Chairman
15 and Commissioners. This is the first in a series of Business Line
16 Commission briefings, this one covering of course the New Reactor Business
17 Line. It is a full briefing. The Reactor Business Line is broad and
18 comprehensive, with a full set of programs and activities.

19 I think we'll highlight in the briefing today a number of those
20 activities that we think are going particularly well. We've been focused on
21 those and we think it's a credit to the staff that they are going as well as they
22 are. We'll also highlight areas in the Business Line where it is possible for us
23 to continue to improve, to be more efficient, effective and more agile. So we'll
24 have discussions regarding those topics as well.

25 With that I'll stop and turn it over to Bill to kick in the
26 presentation.

1 MR. DEAN: Thanks Michael, next slide please. Good
2 morning Chairman and Commissioners, it's a pleasure to be with you here this
3 morning, to talk about the Operating Reactor Business Line. We last briefed
4 you on the business line in June of last year, and certainly a lot has transpired
5 since that time that we'll try and talk to you about here this morning.

6 Next slide please. So this slide is intended to show
7 resource-wise what is needed to implement the Operating Reactor Business
8 Line. The blue section of these pie charts on the left reflects the FTE, which
9 is well over half of the Agency's FTE is allocated towards the Operating
10 Reactor Business Line, and similarly on the right side, the blue portion of the
11 pie chart reflects the contract support and travel resources that are allocated
12 to the Operating Reactor Business Line. So obviously it's a pretty substantial
13 part of the Agency's overall portfolio.

14 Next slide, please. On the next few slides, you're going to
15 see a number of basically output measures. These reflect not necessarily a
16 comprehensive view of what has emanated out of the Operating Reactor
17 Business Line, but certainly a fairly representative picture of the types of
18 products and activities that the Business Line is engaged in.

19 Most of these numbers are based on fiscal year data, so
20 since the beginning of fiscal year '15 I would say that the inspection-related
21 data is based on the beginning of the calendar year, since we operate the
22 inspection program on a calendar year cycle.

23 So I mean 8,000 inspection hours since the beginning of the
24 year. You see well over 800 licensing actions and other licensing tasks have
25 been accomplished, a number of significant inspections in the field, and then a
26 number of allegations. The reason why I included the allegation piece on

1 here is that we get a lot of valuable contributions from the Office of
2 Investigations and the Office of Enforcement in supporting us in our very
3 important allegations program.

4 Next slide, please. We've briefed the Commission multiple
5 times over the years on the status of Fukushima-related activities. What I
6 want to really sort of reflect on this slide is the fact that we are making
7 substantial progress, both the Agency and the industry, in terms of putting in
8 place safety enhancements associated with Fukushima.

9 So here on this slide, we reflect on the orders that were
10 issued related to mitigating strategies and spent fuel pool instrumentation, and
11 you see that over one-third of the facilities have come in compliance with the
12 mitigating strategies order, and over two-thirds of the sites have come in
13 compliance with the spent fuel pool instrumentation order.

14 We've conducted 45 audits of the mitigating strategies, and
15 these are pretty intense, substantial efforts on the part of our staff to go out
16 into the field and assess what the licensees are doing, and I also wanted to
17 point here we did complete earlier this year the first inspection of a licensee
18 Watts Bar II and their compliance with the mitigating strategies order, which
19 was a big milestone for us in Fukushima space.

20 Next slide, please. We are a regulatory body, and so
21 making regulations is an important part of our portfolio. Here you see we
22 have 14 rulemakings underway, and one that's been completed this fiscal
23 year. Some of the rulemakings in place are or in progress include the one
24 before the Commission, the mitigating beyond design basis of that
25 rulemaking, as well as decommissioning rulemaking activities are ongoing,
26 and an important rule relative to fuel cladding acceptance criteria 5046

1 Charlie.

2 Also our generic correspondence and communications
3 activity are robust and certainly an important way in which we communicate
4 with industry and the public about things that are important to the Agency from
5 a both a policy and a programmatic and technical area, and you see the large
6 volume there in terms of generic correspondence that has been produced
7 since the beginning of fiscal year '15.

8 Next slide. Clearly, the Operating Reactor Business Line is
9 engaged in a number of policy issues. This slide is really just intended to
10 reflect a handful of some of the important policy issues that have come before
11 the Commission over the past year or so. These range from issues that are
12 oriented around internal programs, such as the qualitative factors issue, as
13 well as more technical issues as reflected by the flooding papers, both the
14 COMSECY 14-0037 and COMSECY 15-0019.

15 Next slide. So I started in the position in October, and after
16 having been here -- of last year, and after having been here for a couple of
17 months, I thought it was time for our management team to get together and
18 talk about the direction in which we wanted to take, not only NRR but the
19 Operating Reactor Business Line.

20 So what you see here on this slide is basically a vision
21 statement that was developed by the entire NRR management team, with the
22 backdrop of our backlog management issues, as well as the impending
23 project aim activities, in terms of where we wanted to take the organization
24 and take the business line.

25 It really focuses on efficiency, effectiveness and risk
26 informing the way we do our things, particularly as they pertain to our technical

1 and regulatory decision-making.

2 Next slide, please. So this led us to develop a half dozen
3 initiatives that are currently in progress. But if I was going to take these
4 initiatives and sort of distill them down to a couple of themes, one would be the
5 backlog management. You'll hear later from Travis Tate this morning about
6 the progress that we've made relative to addressing the backlog and
7 becoming more effective and efficient, in terms of how we're doing our
8 licensing work.

9 And then you're going to hear a little bit later from Joe
10 Giitter, to talk about things that we're doing relative to our technical and
11 regulatory adequacy and our decision-making, with a specific focus on how
12 we are trying to risk inform our processes.

13 Next slide. As I mentioned, these initiatives were done with
14 the backdrop of Project Aim, and so there is a strong connection between
15 some of our initiatives and what has emanated out of the Project Aim SRM.

16 I want to talk a little bit about the Centers of Expertise,
17 because it was something that we actually began work on in advance of
18 Project Aim late last year, recognizing that as we were moving forward in
19 terms of looking at potential merger of NRR and NRO at some point in the
20 future, that we thought -- both Glenn Tracy and I thought that Centers of
21 Expertise would be a key implementation tool to be able to achieve that in a
22 seamless manner.

23 And so between our two offices over the past seven or eight
24 months, we've made a lot of progress in developing an office instruction that
25 could be utilized when you wanted to try and formulate or create a Centers of
26 Expertise.

1 Obviously, Project Aim has sort of upped the game on the
2 Centers of Expertise with the Commission awareness and engagement on
3 that. And so right now, we're taking all the great work that has been done by
4 both my and Glenn's staff, to develop an office type approach towards Centers
5 of Expertise and how can we expand that agency-wide.

6 So under the auspices of Fred Brown and Dave Skeen, who
7 are leading the agency-side initiative on Centers of Expertise, we're in
8 conversation with other offices within the Agency, and we expect in November
9 to provide the Commission a paper that will be responsive both to the direction
10 that was provided in the SRM, as well as some recommendations on Centers
11 of Expertise that we would like to pursue in the near-term, that would be
12 perhaps not only just NRR and NRO, but perhaps others that involve the
13 entire Agency.

14 And then again, Travis is going to talk to you a little bit more
15 about the efficiency and effectiveness, but one of the things that's in Project
16 Aim is a Business Process Improvement Initiative. I would say that a lot of
17 the things that we are doing right now, in terms of trying to become more
18 effective and efficient and address our backlog really are probably things that
19 would have been an outcome of a business process improvement initiative.

20 So in one way, you can say we've already begun that effort
21 by implementing some initiatives in that regard, and you'll hear some more
22 about that this morning. But we do see a strong connection between our
23 initiatives and the Commission direction on doing a formal business process
24 improvement initiative.

25 Next slide, please. I can't state any more strongly than
26 this, that the regions are such an important component of this business line in

1 terms of what they do to assure public health and safety, being the eyes and
2 ears of the agency out there in the field.

3 But it's also important to recognize that they aren't out.
4 They're operating as four independent entities. There's a tremendous
5 amount of collaboration that occurs between headquarters offices and the
6 regions, in terms of how we execute and implement our programs, as well as
7 make changes to our programs.

8 So Mel Gray will be talking to you a little bit about regional
9 perspectives in terms of how they focus on safety, particularly in the changing
10 environment, and then Nathan Sanfilippo will talk to you about some of the
11 ROP enhancements. We had a chance to touch on this during the Agency
12 Action Review Commission meeting back in May. But Nathan's going to give
13 you a little bit of detail on a couple of those initiatives a little bit later this
14 morning.

15 The other thing that I want to emphasize on this page, and
16 this is just sort of highlighting just a number of high profile areas where there
17 was a lot of good collaboration and engagement between headquarters and
18 the regions, is the NOEDs or Notice of Enforcement Discretion, and the
19 connection of that to how can we become more effective and efficient.

20 The NOED process is a really intense level of activity
21 between headquarters and the regions, when there's an issue that emanates
22 out in the field that requires the Agency to make some sort of determination
23 from a technical and compliance perspective, as to whether or not a licensee
24 can have some additional time to address an emergent issue.

25 It takes up a lot of resources, but many times we find that
26 these things are already entered around probably low safety significant

1 compliance-type issues. So you're going to hear some more again from Joe
2 in terms of some of the things that we're looking at, in terms of how can we
3 better risk-inform some of our processes and the NOED process is one that
4 we're looking at. So you'll hear more about that in the future.

5 Next slide. So decommissioning has been a bit of a growth
6 area for the Agency over the past few years, as five units have entered
7 prematurely into decommissioning because of either technical or economic
8 reasons.

9 I'm pleased to say that despite a fairly complicated
10 regulatory framework that currently exists, we've made great progress and we
11 expect by the end of this year to have all five of those units transferred over to
12 NMSS for their responsibility and oversight.

13 So I felt pretty proud about the effort that has been done to
14 get to that point, and that's involved a lot of different parts of the organization.
15 You'll hear from Jim Anderson later this morning what NSIR's role has been in
16 that, as well a role in terms of pursuing the rulemaking that the Commission
17 set a pretty aggressive schedule for us on.

18 I will say that I think right now, I feel actually pretty
19 comfortable that we'll be able to meet the time frame that the Commission
20 provided us, to have a rule in place by 2019.

21 You'll see in September an advance notice of public
22 rulemaking going out, a proposed rulemaking going out, so that we can assure
23 that we get in this area, which has a lot of public interest, good feedback as we
24 develop the regulatory basis. So we expect to issue that in September.

25 Next slide, please. The Office of Nuclear Regulatory
26 Research is another valued partner in the Operating Reactor Business Line,

1 and they do a lot of great work for us in a number of technical areas. I've
2 listed four on this slide, but again, this is not comprehensive of the
3 contributions that we get from the Office of Research.

4 The one that I wanted to highlight here is one that we'll talk a
5 little bit more this morning. Steve will talk to you about the progress that's
6 been made relative to the four technical issues that have been identified
7 relative to subsequent license renewal, and I think the last time we briefed on
8 this was May of last year, so there has been a lot of good progress made on
9 those technical issues.

10 I will say that I think that this point, I feel a good degree of
11 confidence that with the anticipation of applicants potentially coming in at
12 2018-19 time frame, that we will have the appropriate guidance in place to
13 support subsequent license renewal by then. So I feel pretty comfortable
14 there.

15 So before I turn it over to Travis to talk to you about licensing
16 stuff, I do want to personally thank Trent Wertz, my technical assistant who did
17 a lot of great work in terms of helping to pull all of this together, and help us
18 develop a great sense of slides and briefing material to you. So I just want to
19 use this opportunity to publicly thank Trent, and with that, Travis, right over
20 there.

21 MR. TATE: Thank you, Bill. Good morning Chairman and
22 Commissioners. I'm Travis Tate, branch chief in the Division of Operator
23 Reactor Licensing. My presentation today will provide a summary of our
24 program activities and performance since our Commission briefing in June of
25 2014, provide a summary of efforts to address the licensing backlog, and a
26 summary of activities to improve licensing workload management.

1 Next slide, please. The licensing program plays a key role
2 in ensuring the safe and secure operations of the operating power reactor
3 fleet. Licensing activities are categorized into two types: licensing actions
4 and other licensing tasks. Licensing actions include activities such as
5 amendments, relief request, exemptions and license transfers. Other
6 licensing tasks include activities such as 2.206 petitions, commitment audits
7 and updated final safety analysis report reviews.

8 Our licensing inventory includes approximately 1,550
9 licensing actions in and other licensing tasks. Approximately 25 percent of
10 licensing activities are in the inventory associated with Fukushima. The
11 licensing action inventory consists of a range of actions from routine to
12 complex reviews.

13 The National Fire Protection Association or NFPA-805
14 reviews is an example of a complex review which results in safety evaluations
15 of approximately 200 pages in length. We continue to utilize a prioritization
16 scheme across the business line, to ensure we give priority and focus to the
17 most significant and important safety and security issues.

18 Next slide, please. Since our briefing to the Commission in
19 June 2014, we have made substantial progress in the licensing performance
20 trends. We have improved the trend in the number of completed licensing
21 activities, as compared to when we initiated our efforts.

22 Our performance in completing licensing actions in less
23 than one year has improved by four percent since we initiated our efforts,
24 increasing from 83 percent last year to an average of 87 percent.

25 The number of completions in less than two years has
26 essentially remained steady at 98 percent. The one year metric was most

1 impacted by the backlog. However, we are focused on closing actions that
2 are currently greater than two years old, and preventing other actions for
3 exceeding the two year metric.

4 Next slide, please. We have implemented aggressive
5 strategies aimed directly toward reducing the licensing backlog. It is
6 important to note that within this strategy, we continue to ensure actions that
7 are prioritized in accordance with their safety significance.

8 For example, we reassigned staff from lower priority work by
9 shifting resources from the Office of New Reactors to NRR, and shifting staff
10 within NRR. We extended the use of contract support to help develop the
11 technical basis for licensing activities.

12 The Operating Reactor Business Line was allocated \$4
13 million for licensing activities to support reducing the backlog. The staff has
14 identified a number of additional activities that are helping to improve the
15 performance and process in licensing actions, and has made significant
16 progress toward executing the \$4 million for contract support in the licensing
17 area, to support reducing the backlog.

18 We have also utilized and rehired annuitants to augment the
19 staff with specific skills and expertise, and we've established a stress code to
20 reduce the licensing action backlog inventory in half by the end of calendar
21 year 2015.

22 Further, we're utilizing efficiencies available in established
23 processes. For example, we established greater focus on the use of our
24 work management tools. We are providing more discipline and management
25 attention to requests for additional information, and we are utilizing public
26 meeting, teleconferences and audits to gain efficiencies in completing our

1 reviews.

2 Next slide, please. This slide provides the improving trend
3 in our licensing action backlog inventory over the period established by a
4 stretch goal. The red or horizontal line in the graph represents the target
5 inventory of 56 to be reached by the end of calendar year 2015, and as you
6 can see, we are just above the target at this point.

7 An updated report was created earlier this week, which
8 shows a backlog inventory at the end of July to be at 58, which is just above
9 our target, and also remaining consistent with the trend indicated by this
10 graph. As shown by the trend, we are making good progress and are
11 projecting to achieve the target before December.

12 Next slide, please. We have implemented activities to
13 continue to apply a strong focus to managing our licensing workload. We've
14 established routine management meetings to monitor our activities and make
15 adjustments to our strategies as needed.

16 We issued a regulatory information summary requesting
17 licensees to submit their plans for submitting licensing actions over the next
18 three years. As we verify the data received, our goal is to better inform our
19 skill needs to support work planning and budget and processes. We plan to
20 use lessons learned in issuing a follow-up request later this fall.

21 We've also improved the licensing workload planning
22 system to make reports available to management, to monitor and forecast the
23 licensing workload and performance.

24 Next slide, please. We're also achieving progress in
25 important licensing activities. For example, we have made substantial
26 progress for processing licensing actions to support the transition of plants to

1 decommissioning.

2 NRR successfully transferred Kiwanis to the Office of
3 Nuclear Material Safety and Safeguards in March of this year, and expects to
4 transfer Crystal River, San Onofre and Vermont Yankee by the end of the
5 calendar year.

6 Going forward, the staff is proceeding with the development
7 of a reactor decommissioning rulemaking. James Anderson will discuss this
8 more in his presentation later. The staff has also made significant progress
9 in completing NFPA-805 reviews, and we are seeing an increase in
10 risk-informed license amendments that could potentially result in efficiencies,
11 both on part of the industry and on the staff, as Joe Giitter will explain next.

12 Thank you, and I'll turn it over to Joe.

13 MR. GIITTER: Thank you, Travis. I'm Joe Giitter, the
14 Director of the Division of Risk Assessment in NRR.

15 Next slide, please. It's been over 20 years since the
16 Commission issued the policy statement on its use of PRA. The statement
17 endorsed an overall policy on the use of PRA methods in nuclear regulatory
18 activities, so that the many potential applications of PRA can be implemented
19 in a consistent and predictable manner, that would promote regulatory stability
20 and efficiency.

21 In addition, the policy statement says that the use of PRA
22 technology in NRC regulatory activities should be increased to the extent
23 supported by the state of the art in PRA methods and data, and in the manner
24 that compliments the NRC's determinative approach.

25 Over the last 20 years, the staff has been moving towards a
26 more risk-informed approach to decision-making. In the oversight area, we

1 rely on the significance determination process to determine the appropriate
2 level of inspection effort. When available, risk information is used to inform
3 the technical content of proposed requirements, the level of regulatory
4 assurance that should be applied to the proposed requirements, and the
5 implementation schedule of rules.

6 In the licensing area, we have made strides in risk-informing
7 fire protection requirements from NFPA-805. Many plants have made
8 significant safety improvements based on the risk insights obtained from fire
9 PRA, such as the additional of new trains of auxiliary feed water, and making
10 system modifications to lower station blackout risk.

11 Now that the staff and industry have made progress in
12 implementing NFPA-805, we're beginning to see a number of applications for
13 risk-informed technical specifications. Many of the new applications are
14 requesting approval of risk-informed allowed outage times, which will
15 provide licensees flexibility in determining how long equipment can be out of
16 service based on the current risk profile of the plant.

17 This will result in resource savings on the part of the
18 licensee, who will no longer be required to submit emergency NOED requests
19 or emergency license amendments, as well as resource savings for the NRC
20 staff, who will no longer be required to review these requests.

21 Next slide, please. Even though we have made some
22 important strides in becoming more risk-informed, the vast majority of our
23 licensing decisions are still based on prescriptive and deterministic criteria.
24 While that philosophy has served us well, it is important to remember that a
25 typical licensing basis is derived from stylized accidents that may not be
26 realistic or risk significant.

1 As this table from the recent Vogtle 50.69 pilot shows, a
2 significant fraction of structure systems and components, originally classified
3 as safety-related, may not be highly safety significant when evaluated from a
4 risk perspective. Just as important, there are some systems that are safety
5 significant from a risk perspective, that were not originally classified as
6 safety-related.

7 In the spirit of Project Aim, it will be increasingly important
8 for us to use risk insights, to better focus our resources on the issues of
9 greatest safety significance. One way of doing this is to use risk insights to
10 ensure there is less churn on decisions related to compliance issues below
11 safety significance.

12 A recent example is a concern that was raised relative to
13 tornado missile protection. Next slide, please. Recent inspections identified
14 some vulnerabilities, especially in older plants, to missiles generated by high
15 winds or tornadoes. For example, at one plant it was observed that the
16 exhaust stacks for the emergency diesel generators were not enclosed in a
17 protected structure like the rest of the diesel generator, and could theoretically
18 get crimped if struck by a tornado-generated missile.

19 The Division of Risk Assessment was tasked to evaluate
20 this non-conformance from a risk perspective. We conducted a conservative
21 generic risk assessment of this non-conforming condition using the integrated
22 decision-making framework shown in this view graph.

23 This generic risk assessment was a useful tool to help in the
24 decision on whether and how long to grant enforcement discretion, to allow
25 plants to come into full compliance. Additionally, the fact that the risk was
26 higher for plants in the Midwest and South led to a graded approach in the

1 enforcement guidance memorandum, that allows three years for plants in the
2 Midwest and South to come into compliance, versus five years for plants
3 outside of those regions.

4 While this one example highlights the benefit of applying
5 risk insights, there are many more opportunities to leverage risk insights to
6 help us focus our resources on issues of greatest safety significance, and not
7 on issues of compliance that add little or no safety benefit.

8 Consequently, we plan to continue to look for areas where
9 risk insights will allow us to be more efficient and effective in our regulatory
10 decisions. As Nathan will discuss, this effort extends to our oversight
11 process, and how we can make more timely and effective decisions in the
12 significant determination process. Nathan.

13 MR. SANFILIPPO: Thanks Joe. Good morning,
14 Chairman and Commissioners. My name is Nathan Sanfilippo and I'm chief
15 of the Performance Assessment Branch in NRR's Division of Inspection and
16 Regional Support. My branch is responsible for the policies and programs of
17 the reactor oversight process that monitor and assess nuclear power plant
18 licensee performance.

19 I'm here this morning to speak to you about some of the
20 current hot topics related to the reactor oversight process, and to continue the
21 discussion on some topics that we presented to you at the Agency Action
22 Review meeting, Commission meeting that was held in May.

23 I'll start by picking up where Joe left off, regarding how we
24 use risk information in making inspection program decisions, and how we can
25 improve overall timeliness of the inspection process.

26 Next slide, please. In September 2014, the Commission

1 directed the staff to streamline the significance determination process, and
2 establish appropriate timeliness metrics for finalizing inspection findings, due
3 to increasing concerns over the timeliness of Agency decisions.

4 At the May Commission meeting, we updated you on the
5 status of changes to the SDP. We discussed that while some efficiency
6 changes have been completed regarding the current process, the staff was
7 looking more holistically at the issue of streamlining significance
8 determination and timeliness.

9 The fundamental question raised by the Commission is how
10 long it's appropriate from discovery of an issue to final regulatory action. It's
11 important to note that significance determination is only one piece of that
12 process. The staff must also consider efficiencies that can be gained in the
13 inspection process as well.

14 The staff's plan for the holistic review of streamlining the
15 SDP and timeliness was recently sent to the Commission via note to
16 Commissioner's assistants.

17 Next slide, please. As the state of the art of probabilistic
18 risk assessment has increased, so has its complexity. While one might
19 assume that with the advancement of tools would come increased efficiency
20 and timeliness, however that assumption has not been completely realized,
21 because of the complexity of the tools and the growing range of possible
22 inputs and assumptions producing reliable, quantitative results is taking
23 longer than the earlier days of the ROP.

24 The staff fully intends to continue to place emphasis on the
25 quantitative risk-based analyses when they can be achieved with an
26 appropriate expenditure of resources and an acceptable level of uncertainty.

1 For instance, when quantitative analyses inherently
2 uncertain and untimely results, which have historically contributed to SDP
3 timeliness challenges, the staff is looking to implement a more risk-informed
4 method that considers PRA insights along with safety margins and defense
5 in-depth, rather than the more risk-based mindset that we prone to use today.

6 Fundamentally, many of these concepts have always been
7 part of the SDP since ROP inception. But we've been challenged to
8 implement them consistently. In exploring this issue, the staff will ensure that
9 an integrated risk-informed approach to Agency decision-making will retain
10 the appropriate level of objectivity and repeatability, consistent with the
11 original ROP principles.

12 As part of this review, staff is seeking to ensure that
13 decisions are consistent with the Commission's policy to be risk-informed.
14 Analyses are targeted towards decision-making and not open-ended, data
15 gathering exercises. Agency actions are more timely. Agency resources
16 are better aligned with risk significance of issues. Unnecessary regulatory
17 burden is minimized, and regulatory independence is maintained.

18 Next slide, please. Both internal and external stakeholders
19 note that the ROP continues to be a mature and effective program. It's
20 remained effective due to continuous feedback and adjustments that have
21 been made to the program since its inception in the year 2000.

22 While its fundamental principles have remained the same,
23 changes have been made to most aspects of the inspection program,
24 including the scope of inspection procedures, performance indicators, the
25 action matrix, significance determination methods, safety culture and how we
26 inspect cross-cutting issues.

1 The pilot inspections will consist of two parts. The first part
2 is a two week onsite inspection similar to the approach of the current CDBI,
3 but with a reduced number of inspection samples than the previous three
4 week inspection. In addition, a one week onsite inspection conducted in the
5 year following the first inspection will focus on implementation of a licensee's
6 engineering program.

7 For example, the environmental qualification program has
8 been selected for the pilot inspections. The split to create two inspection
9 activities over the three-year cycle is designed to achieve the same safety
10 focus, while lessening the burden a three-week onsite inspection can have.

11 Once lessons learned from the pilot inspections are
12 incorporated, a revised engineering inspection will be in place to begin the
13 inspections at all sites for the three-year triennial cycle starting in 2017.

14 Next slide, please. Finally, I'd like to talk about the
15 forthcoming revisions to the ROP self-assessment process. As a refresher,
16 the staff asked the Commission for permission, which was subsequently
17 approved, to forego the calendar year 2014 self-assessment, to retool the
18 process to become more effective at evaluating mature oversight programs.

19 At the May Commission meeting, we updated you on the
20 status of changes to the self-assessment process. In addition, in June, the
21 Commission approved the staff's request to eliminate three previous annual
22 reporting requirements that were part of the previous self-assessment
23 process.

24 Since that time, the staff has been finalizing this new
25 process that will consist of three major elements. The first element uses
26 objective performance metrics to assess compliance with and drive

1 accountability to ROP governance. We expect these metrics will help us --
2 will help give us confidence that the program is being implemented as
3 intended.

4 The second element involves an annual evaluation of the
5 efficacy of recent changes to the ROP. This portion of the self-assessment
6 will discuss changes to the ROP since the previous year's self-assessment,
7 and take a look back at changes made over the past several years, to ensure
8 intended results of implemented changes are being realized and unintended
9 consequences are addressed.

10 The third element will consist of targeted in-depth audits and
11 assessments. Each year, the staff will select an ROP topic to do an
12 agency-wide in-depth assessment. In addition, the staff will also perform an
13 audit of regional implementation of the ROP for a specific region on a rotating
14 basis, one region per year.

15 The primary purpose of these audits is to ensure consistent
16 and reliable program implementation across the regions. The staff is also
17 considering that a comprehensive independent evaluation of the ROP would
18 be performed every fifth year, to get an unbiased review of ROP effectiveness
19 on a periodic basis.

20 As such, over a five-year cycle, each region would receive
21 one audit and the overall program would be subjected to one independent
22 evaluation. Once finalized, the staff will provide the new process to the
23 Commission via SECY information paper this fall, and will implement it for the
24 calendar year 2015 self-assessment due in April 2016.

25 The staff is confident that this revised process, once
26 implemented, will appropriately focus our efforts and result in actionable

1 metrics, meaningful program insights and audits that enhance our ability to
2 monitor and maintain regional reliability.

3 That concludes my remarks on some current programmatic
4 reactor oversight topics. I'll now turn it over to Mel Gray to discuss reactor
5 oversight from a regional perspective.

6 MR. GRAY: Thank you, Nathan. Chairman and
7 Commissioners, thank you for the opportunity to provide regional perspectives
8 regarding NRC's oversight of operating reactors. My name is Mel Gray. As
9 a branch chief in Region I's Division of Reactor Safety, I manage a very
10 capable staff of inspectors who specialize in reactor vessels, pipes, steam
11 generator tubes and concrete structures.

12 Next slide, please. While there are challenges before the
13 Agency, our focus remains on the safety and security of the operating fleet.
14 Although we say it often, inspectors really are our eyes and ears for safety.

15 Next slide, please. To illustrate, let me highlight a recent
16 inspection. At the a plant in the Northeast, an emergency diesel generator
17 fan shaft failed during a monthly test. The shaft break and location are
18 shown on the slide.

19 The licensee concluded the shaft failed due to high cycle
20 fatigue. When a crack initiated at a postulated minor scratch location, the
21 scratch acted as a stress riser, and the crack propagated to failure after the
22 licensee increased the fan belt tension a number of years earlier.

23 NRC inspectors completed independent reviews that called
24 into question this conclusion. Our inspectors determined the problem
25 resulted from increasing the belt tension, and issued an appropriate finding of
26 moderate safety significance.

1 Next slide, please. Regional staff worked closely with our
2 program office counterparts, to maintain and enhance the ROP, by sharing
3 technical information in lessons learned from the field. This slide highlights
4 several ROP feedback processes, with the first being operating experience.

5 NRR staff systematically collect, evaluate and communicate
6 operating experience or Op E, as it is called. Sources of Op E include NRC
7 inspection reports and information from U.S. and international industry
8 databases. Headquarters staff produce Op E products that include
9 inspection smart samples, the reactor Op E Gateway web page, and quarterly
10 industry inspector newsletter.

11 I observe -- I've observed firsthand how the NRC's Op E
12 process supports safety. Regarding the inspector newsletter, an article
13 described an inspector's walkdown of the alternate decay heat removal
14 system. The system was not in service at the time. A section of the system
15 penetrated the reactor building, and was required to be leak tight.

16 The inspector noted a blocking flange known as a spectacle
17 flange was not installed to isolate the line. See the photo on the right. The
18 issue was described in the next quarterly inspector newsletter, and inspectors
19 at another plant promptly identified a similar condition involving an emergency
20 service water cross tie.

21 Next slide, please. NRC headquarters and regional staff
22 also participate in scheduled counterpart discussions, to share perspectives
23 and technical issues. The Director's biweekly call, as it is known, includes
24 regional division directors and their office counterparts. Similar touch points
25 occur in the technical disciplines. For example, my branch participates in
26 the monthly materials engineering counterpart conference, MECC, or the

1 MECC call as it is known.

2 It's led by NRR, with participation from Office of Research
3 staff. These calls serve as a sounding board for technical issues and in
4 process findings from the regions. Finally for this slide, headquarters staff
5 and the regions work collectively on specific ROP improvements.

6 An example includes the component design basis
7 inspection working group, previously described by Mr. Sanfilippo.

8 Next slide, please. The NRC staff is taking action to
9 ensure consistent ROP implementation related to the differences in the
10 number of very low safety-significant findings issued across regional offices.
11 As background, in October 2013, the GAO issued a report that analyzed NRC
12 enforcement data. The GAO concluded that while there were relatively fewer
13 differences in the number of escalated findings, there were notable
14 differences in the number of green findings.

15 The GAO report made several recommendations, with
16 which there NRC largely agreed and the NRC is taking action. To better
17 understand reasons for these differences, NRC headquarters and regional
18 staff participated in a table top exercise comprised of scenario-based
19 questions.

20 These questions were intended to gather insights into the
21 inspector thought process for developing findings. At a high level, the study
22 showed the inspectors who are trained in the regions have interpreted and
23 implemented the Agency's written guidance somewhat differently with regard
24 to the more than minor screening questions.

25 The staff is working to develop procedure enhancements
26 and training to help reduce these differences. Follow-up actions will involve

1 assessing the effectiveness of these changes and making adjustments.

2 Next slide, please. Recognizing uncertainties in reactor
3 workload going forward, the regions are taking action to ensure continued
4 success in achieving our safety mission, with a more flexible organization.
5 The goal is to have the right person with the right skills in the right place at the
6 right time. Training is a vital component.

7 Next slide, please. An example from my branch illustrates
8 in the past I've had a cadre of specialists, ISI or in-service inspectors. We
9 have been moving toward growing our own ISI inspectors versus hiring from
10 outside the NRC. Recent hires have drawn from region-based project
11 engineers and resident inspectors.

12 This practice entails a very high investment in training to
13 qualify under the NRC's ISI-specific qualification guidance, including well over
14 a year of formal and on-the-job training. The significant benefit of this
15 approach is that it results in ISI specialists who have the necessary skills and
16 broad experience to complete most of the baseline ROP inspections.

17 This slide shows a current example of this process, where a
18 former senior resident inspector who transferred into my branch is completing
19 a hands-on NRC-sponsored two week welding technology course. With
20 these flexible skills, this individual recently contributed to ISI inspections, the
21 Watts Bar operational readiness team inspection, where he reviewed the
22 corrective action program, and license renewal reviews.

23 Finally, the regions are working with diligence towards a
24 more flexible organization, using rotations and temporary assignments.
25 Region I is expanding the number of cross-divisional rotational opportunities,
26 with reactor inspectors completing qualifications as independent spent fuel

1 storage installation inspectors, operator licensing examiners and in-service
2 inspectors.

3 Region III and IV are pursuing similar initiatives. Region
4 II's resource management strategic initiative similarly works towards this goal,
5 by estimating likely variability and workload going forward, identifying key
6 skills and promoting and supporting cross-qualification of staff in their
7 construction, reactor and materials divisions.

8 In conclusion, while these activities have a significant
9 organizational cost in time and commitment to staff training, they serve to
10 broaden staff skills and support a more agile regional organization going
11 forward. Thank you. At this point, I'd like to turn the presentation over to Jim
12 Andersen.

13 MR. ANDERSEN: Thanks Mel, good morning. My name
14 is Jim Andersen. I'm the deputy director in the Division of Preparedness and
15 Response in NSIR. Thank you for the opportunity to discuss some of NSIR's
16 contributions and activities relating to the Operating Reactor Business Line.

17 Next slide, please. As Bill and Travis mentioned, NSIR
18 staff has been reviewing a number of emergency preparedness and
19 security-related licensing actions to support the decommissioning of four
20 nuclear sites, Kiwanis, Crystal River, San Onofre and Vermont Yankee.

21 To date, the NRC staff has issued the final emergency
22 preparedness exemptions for three of the sites, and is currently working on
23 the Vermont Yankee exemptions and associated licensing actions. NRR
24 staff has also completed a number of other licensing actions associated with
25 the plant decommissioning, including revised technical specifications to reflect
26 the permanently defueled condition and appropriate security changes.

1 NSIR staff has recently issued interim staff guidance for
2 plants decommissioning in the emergency preparedness area, and is
3 finalizing the security interim staff guidance for publication. These two
4 documents can be used by licensees who may transition to decommissioning
5 prior to the implementation of the future decommissioning rulemaking.

6 With respect to the rulemaking, NRC staff has begun work
7 as directed by the Commission, and is in the final stages of issuing an
8 advance notice for public rulemaking or ANPR. The ANPR will provide
9 external stakeholders with an opportunity to submit thoughts and suggestions
10 on the scope and direction of the future rulemaking.

11 The staff has also been pulling together lessons learned
12 from the past two years, to inform the rulemaking and licensing processes.

13 Next slide, please. In an August 2014 Commission paper,
14 the staff proposed enhancements to the force-on-force inspection program,
15 based on a lessons learned review and the staff's responses to nine specific
16 questions posed by the Commission. The staff provided options and
17 recommendations in three areas: adversary tactics, techniques and
18 procedures; exercise realism via revision to the multiple integrated laser
19 system or MILES software; and consideration of unattended openings.

20 In addition to the options and recommendations, the staff
21 committed to a number of additional actions, to make the program more
22 efficient and effective. In the staff requirements memorandum, the
23 Commission directed the staff to establish a working group to determine how
24 to better integrate these areas and keep the Commission informed of the
25 status of the force on force program.

26 The staff has actively engaged in all the

1 Commission-directed and staff-committed tasks. The tactics, techniques
2 and procedures working group was established early this year, and it
3 periodically meets
4 with interested parties and external stakeholders to gather insights.

5 The outcomes of this working group will be provided to the
6 Commission in a June 2016 SECY paper. The group has recommended a
7 revision to the significance determination process for unattended openings, to
8 provide a more repeatable and predictable tool to characterize inspection
9 findings.

10 It is looking at several approaches to improve the realism,
11 efficiency and effectiveness of both NRC and licensee conducted force on
12 force exercises, and has drafted a regulatory issues summary to provide
13 licensees with guidance on when an immediate compensatory action
14 assessment is needed to address potential deficiencies in security equipment,
15 systems and components.

16 Next slide, please. Cybersecurity regulations, which were
17 issued in 2009 for power reactors, apply to safety, security and emergency
18 preparedness functions. In order to prevent dual regulation, the Commission
19 by policy included critical visual assets in balance of plant systems within the
20 scope of the rule.

21 The scope of the nuclear power plant cybersecurity
22 programs now includes digital assets that range from high risk significant to
23 lower risk significant systems and components. To meet NRC requirements
24 for the now in-scope balance of plant components, licensees began using a
25 common approach for assessing cybersecurity control applicability, as they
26 did for safety system and component digital devices.

1 Subsequently, industry noted that this approach resulted in
2 a higher than expected level of effort to implement the program and prevent
3 inappropriate focus on risk-significant digital assets. Based on this industry
4 feedback, the staff devised a concept which would allow licensees to meet
5 their cybersecurity plan requirements using a graded approach, with varying
6 levels of cybersecurity controls based on the consequences of a cyber
7 compromise to the system function.

8 Staff engaged industry through the Nuclear Energy Institute
9 and other stakeholders, and proposed development of guidance to address
10 the issue. A number of options were considered and ultimately the industry
11 adopted the staff's consequence-based graded approach and published it in
12 an NEI document.

13 The guidance enables industry to focus resources on more
14 consequential digital assets, significantly reducing the burden of power
15 reactor cybersecurity programs, while continuing to ensure adequate public
16 health and safety.

17 Staff continues to work with industry to further develop
18 guidance in NEI-1310, including development of templates to simplify its
19 application. Based on information provided by industry, staff anticipates that
20 the guidance should significantly reduce the burden to meet cybersecurity
21 plan requirements for approximately 80 percent of the critical digital assets.

22 Next slide, please. On July 21st to 23rd, the NRC
23 participated with the state of South Carolina, Duke Energy's H.B. Robinson
24 nuclear plant, FEMA, DOA, NNSA and other federal agencies in Southern
25 Exposure 2015. The exercise examined the nation's ability to respond to and
26 recover from a nuclear plant emergency, which results in widespread

1 contamination beyond the site boundary.

2 The exercise was unique in the magnitude of federal agency
3 involvement, and tested the federal government's ability to establish and
4 maintain unified command and coordination in accordance with the National
5 Response Framework and the National Disaster Recovery Framework.

6 The exercise allowed NRC staff and the licensee to gain a
7 better understanding of the roles and expectations of other federal agencies
8 during a nuclear power plant accident, based on real play simulated
9 discussions. Planning for this exercise started in earnest last year, and many
10 of the lessons learned and coordination issues were identified early in the
11 discussions, and improvements have already been implemented.

12 The exercise also provided an opportunity for the federal
13 government to practice different aspects of the draft nuclear radiological
14 incident annex, and EPA's protective action guideline documents. The
15 experience gained during the exercise as well as the discussions prior to the
16 exercise will make these documents better and easier to implement if they are
17 ever needed in the future.

18 Lastly, the exercise is not yet finished. In September,
19 many of the participants will gather again in South Carolina to hold a table top
20 exercise simulating six months and 18 months after the radiological event.
21 This will test federal and local governments' ability to coordinate and integrate
22 response and recovery activities for the economic and housing core
23 capabilities.

24 This will include NRC actions, including our Price Anderson
25 responsibilities, and how we would organize and staff our recovery group.
26 Before I turn it over to Steve, I would like to publicly acknowledge and thank

1 Duke Energy for hosting the exercise at their H.B. Robinson facility. Steve.

2 MR. FRANKL: Thank you, Jim. Thank you for the
3 opportunity to brief you regarding research support to the Operating Reactor
4 Business Line. My name is Steve Frankl. I am the branch chief responsible
5 for subsequent license renewal and research. Research will provide update
6 on the following four key technical issues, as identified in the SRM to SECY
7 14-0016, with focus on aging effects during the SLR period:

8 Reactor pressure vessel neutron embrittlement at high
9 fluence, irradiation assisted stress corrosion and the cracking of reactor
10 internals and primary system components, concrete and containment
11 degradation, and electrical cable qualification and condition assessment.

12 The U.S. nuclear industry and DOE have larger and more
13 comprehensive research programs. We briefed you on these programs,
14 along with NRC's research activities supporting SLR on May 8, 2014.

15 Next slide, please. Research support to the Operating
16 Reactor Business Line is approximately 80 percent of the Office of Research
17 budget. Our support to SLR is substantial. Research support is broader
18 than just the four technical areas identified in the SRM.

19 For example, Research has directly supported activities
20 within NRR, to develop the technical basis and regulatory guidance
21 documents associated with SLR. This has included substantial participation
22 and leadership on the technical expert panels that revise the license renewal
23 guidance documents, which consist of the generic aging lessons learned,
24 GALL (phonetic) report and the standard review plan for license renewal.

25 Research confirmed adequacy of aging management
26 programs through effectiveness audits that have developed lessons learned

1 during the license renewal period, and the review of international periodic
2 safety reviews from several countries.

3 Next slide, please. Before embarking on SLR research,
4 research conducted on expanded material degradation assessment, in
5 cooperation with DOE and industry to identify the areas where research is
6 most needed.

7 Next slide, please. Subsequently, NRC research activities
8 are focused on a small number of topics or issues that have the greatest
9 uncertainty or potential safety impact. Significant contributions have been
10 made to developing -- in developing the regulatory guidance documents,
11 which are on target for public release at the end of 2015.

12 Next slide, please. Each of the four technical areas have
13 unique challenges related to impact on SLR. The research in each of these
14 areas is being structured to continue reactor pressure vessel research, focus
15 reactor internal research and uncertainties, implement research on concrete
16 and understand effects of electrical cable aging.

17 I will cover these on the next two slides. Next slide, please.
18 The objective of current NRC research on reactor pressure vessel materials is
19 to enable the prediction control and management of embrittlement
20 mechanisms through the SLR period. The results of these activities will
21 support SLR by developing the technical basis to support updating regulatory
22 guidance and consensus codes and standards.

23 Within the next several years, it is anticipated that important
24 codes and standard activities will be completed and the staff will have
25 reviewed the continued adequacy of existing regulatory guidance on
26 embrittlement trend predictions. The objective of current NRC research on

1 reactor internals and primary system components is to assess the effects of
2 irradiation assisted stress corrosion cracking and void swelling during the
3 SLR period, and investigate combined thermal and irradiation embrittlement
4 of cast austenitic stainless steels.

5 The results from the IASCC evaluations will be used in part
6 to provide reasonable assurance that the inspection plans and other proposed
7 AMPs are appropriate. The results of the cast research will be used to
8 confirm screening criteria for cast components when aging management is
9 required to address the combined thermal and irradiation effects on fracture
10 toughness.

11 Over the next year, the initial testing and evaluation of the
12 ex-plant internal materials will be completed. Fracture toughness testing of
13 the cast materials at high irradiation levels will be also completed. Finally,
14 there are plans to conduct additional irradiation of ex-plant internal materials
15 to levels representative of the end of the SLR period.

16 Next slide, please. The objective of NRC research on
17 concrete and containment is to understand the evolution of the degradation
18 due to both irradiation and alkali-silica reaction, ASR, and the significance of
19 these mechanisms on structure or performance. Results will be used to
20 inform the development of the aging management criteria, necessary to
21 provide assurance that the required functions of the concrete structures are
22 maintained during SLR.

23 Over the next year, it is expected that the harvesting and
24 transportation of ex-plant concrete materials will be completed, and testing will
25 be initiated. The aging of the ASR concrete samples at representative
26 temperatures and humidity levels is also planned to begin.

1 The objective of NRC research in electrical cables is to
2 confirm the adequacy of condition monitoring methods, and to explore
3 alternative harsh environment qualification methods. It is intended that the
4 findings of this research will be used to update the NRC's guidance on
5 acceptable AMPs for SLR.

6 Over the next year, the certification of the environmental
7 chambers for aging the cables will be completed, and the 18-month aging
8 process will commence.

9 Next slide, please. Research collaboration -- research
10 collaborates with domestic and international organizations. NRC, EPRI and
11 DOE are collaborating and cooperating to appropriately leverage resources
12 and materials. We also engage with IAEA, NEA and the individual countries.
13 The focus of these efforts is to facilitate revision of reactor embrittlement
14 surveillance programs, collaborate on ex-plant material testing to support
15 research on aging of reactor internals.

16 Next slide, please. Lead research on concrete pathologies
17 and cooperate with industry and cable testing.

18 Next slide, please. Finally, we would like to leave you with
19 the following key messages. Significant progress on addressing key
20 technical issues has been made since the last Commission briefing, and it will
21 be discussed more fully with the Commission in the upcoming
22 Commissioner's assistance note in late August.

23 Results from NRC research we'll be using part to confirm
24 the adequacy of industry's technical basis for SLR, to support and increase
25 the efficiency and effectiveness of the staff review of SLR applications, and to
26 confirm adequacy of the aging management programs throughout the SLR

1 period.

2 Next slide, please. Some research will yield near-term
3 results, and do the long time needed to evaluate material degradation out to
4 80 years, some research will continue beyond when the first SLR applications
5 are anticipated.

6 The staff is collaborating on research activities with both
7 domestic and international partners, to ensure that important research topics
8 are being addressed, and to effectively leverage both resources and
9 knowledge. This concludes my presentation. I'd like to turn over the
10 presentation to Bill Dean for closing remarks.

11 MR. DEAN: Thank you, Steve. Chairman,
12 Commissioners, I think you've heard this morning from our presenters that the
13 Operating Reactor Business Line encompasses a pretty wide portfolio of
14 substantial safety and security issues. I think you've also heard that we have
15 internalized the Project Aim environment into a proactive approach, towards
16 looking at becoming a more efficient, effective and risk-informed regulator.
17 With that, that concludes our presentation and I look forward to your
18 questions.

19 CHAIRMAN BURNS: Okay. Thanks very much and this
20 morning we'll have Commissioner Svinicki to lead off with questioning.

21 COMMISSIONER SVINICKI: Good morning and thank
22 you all for your presentations. It was a very content-rich presentation this
23 morning, as Mr. Dean has indicated. I know that today we address the
24 Operating Reactor Business Line, but I want to -- which is much more than
25 simply the Office of Nuclear Reactor Regulation, and all of you have made that
26 clear, and by your presence here you are exhibiting that, because we have

1 other organizations here.

2 I want to talk about NRR for a moment though. Two things
3 I want to make a comment on. The first is I think that you have somewhat --
4 you've been somewhat modest about the efforts on reducing the licensing
5 backlog. I think that that is impressive. It is I daresay inspirational and
6 motivating, as we look at this rather dazzling set of tasks under Project Aim.

7 I think that the progress that NRR made on the licensing
8 backlog exhibits for us that we are, as an organization, really capable of taking
9 on these challenges. So NRR is someone, I think I've been fairly forward
10 about this view that I have that might be singular to me, but there are
11 sometimes very large components of organizations that you think to yourself
12 as goes NRR, so goes the Nuclear Regulatory Commission.

13 I think it is the preponderance of our people and our
14 resources. So therefore, I think that we can reside some motivation and
15 inspiration in what Mr. Dean you've done under your leadership. You've
16 been modest about that, but it is also the individuals you have at the table here
17 and all other branch chiefs, individual contributors, first line supervisors, that
18 are really as great as you are, Bill.

19 But they are the reason why the progress has been made,
20 and it requires a lot of really hard work. So I wanted to mention that. I also
21 commend you on the development of Slide 8, which says, you know, an
22 overarching kind of maybe thematic motivator for NRR staff is to be better
23 positioned as an efficient and effective regulator using risk-informed
24 principles, while improving how we set expectations, obtain alignment, make
25 timely decisions and implement our plans.

26 I think this umbrella could be stretched very comfortably

1 over a lot of what the Agency is looking at under Project Aim. So again, as
2 goes NRR, so goes, I think, the larger organization. This is very
3 encouraging. So thank you for that work and for all the individual contributors
4 in NRR who are represented today.

5 But as we know, you don't do this singularly. You have a
6 lot of other organizations in key support roles, and although I may not have
7 direct questions for the other presenters today, I really do thank you, the Office
8 of Research, NSIR and others for the OGC for other key roles that they play in
9 achieving NRR's core mission areas.

10 I think I've confessed in the past that I read my horoscope.
11 I know in a technical organization that's profoundly objectionable to most
12 people. But I do that with the caveat that I do it for my amusement, okay. I
13 have technical background myself; it's rather ironic that I would do such a
14 thing.

15 My horoscope for today said you are reluctant to address an
16 issue, but you must involve yourself and you must be more outspoken than
17 you've been. Now the first thing out of my mouth, quite literally aloud, even
18 though I was alone was "well, I don't think that's possible." But let's talk about
19 the proposed changes to what you might guess, the significance
20 determination process, which I did raise previously with the staff.

21 I think that the presentations the staff has given today
22 exhibit beautifully for me the dynamic tension that is going on here on this.
23 We have Mr. Giitter, who has talked about, he says, for the last 20 years, the
24 staff has been moving towards risk-informed approaches. We rely on the
25 significance determination process, and he has talked about the hard work,
26 the hard analytics that go into that.

1 And then we have Nathan, and Nathan, I'm not picking on
2 you. You knew that you had the toughest topic for today or among the
3 toughest. But Nathan, you made this statement. The staff intends to
4 continue to place emphasis on quantitative risk-based analysis -- I'm good
5 with that so far -- when they can be achieved with an appropriate expenditure
6 of resources.

7 Now we get some of your talking points the night before.
8 Reading this the night before, I started to think about what if the Internal
9 Revenue Service came to me, I'm very fastidious, about my taxes? I actually
10 do them myself. I know most people don't, but I'm extremely fastidious about
11 it.

12 If the IRS came and said "Svinicki, we've looked at your last
13 return and you owe us \$50 more and you've made an error." Now if I am
14 determined that I did not make an error and that I'm innocent of the error of
15 which they accuse, it's my choice under a kind of, sort of a due process, I need
16 to have and government processes need to provide me with some avenue to
17 prove my innocence of that error.

18 If I want to expand \$500 or \$5,000 to prove that I don't owe
19 \$50 and that I did not make the error of which I'm accused, I need to have a
20 process that -- now not an endlessly open-ended process, but I need a
21 process that allows me to do that. If the IRS said, you know, we're so sick of
22 dealing with you and you are making the IRS spend resources well in excess
23 of \$50, we're going to pass the hat in the lunch room and we're going to pay
24 your fine.

25 They can't pay my fine for me. They can't do that if I assert,
26 and it's the same term the courts love, that the government processes cannot

1 be arbitrary and capricious, and we can't make that kind of decision-making.

2 So I've been following this development closely of these
3 proposed changes, and I know I've differed on their overarching impact. I
4 view this as a fundamental pivot away from what Mr. Giitter talked about and
5 our drive towards, you know, doing the analytical work.

6 It is hard, it is resource-intensive in some instances. But
7 engaging on the basic question of what problem are we trying to fix, I've been
8 told in other engagements, not in the meeting today that listen Commissioner,
9 you know, we're spending in some instances so much money on the licensee
10 side and our side of green versus white, and I think traditionally that's the one
11 we're arguing about the most, that you know what? If we could just truncate
12 the whole thing and call it white, we're just going to cut it off and say it's white.

13 The result is there's a 40 hour inspection that we do, and
14 what difference does it make? And so I think I'm back to that. I have a
15 problem with the arbitrary and capricious nature of that, of us just cutting it off
16 and calling it -- and I know we're not saying that publicly that we're going to call
17 it white. We're just saying we're going to truncate it at some point and just
18 make a decision.

19 But I think that is in complete opposite direction of the
20 20-year journey that we've been on, to be risk-informed in considering these
21 measures. So I think it's a significant pivot away. So my questions about
22 this are the staff is piloting other aspects of the ROP improvement process.

23 Why is it that you have not made any kind of plan to pilot the
24 SDP and can you commit to doing a public meeting/workshop with the
25 regulated community and other stakeholders, where you would table top this?
26 And if you can't make a commitment to do that, what could be your possible

1 basis for that?

2 MR. GIITTER: I'd like to take a shot at answering Nathan's
3 question, because my group does the DSP analysis for Phase 3 at
4 headquarters. Nathan and I talked about this very question when we
5 compared notes, because we thought it might come up.

6 The first thing I would say is we want the SDP process to be
7 more efficient and effective, and what we end up doing a lot of times is --

8 COMMISSIONER SVINICKI: And again, but you know, my
9 example with the IRS is not efficient at all. It's not an efficient use of my
10 resources or theirs. But there is some element of due process and fairness
11 here.

12 MR. GIITTER: Yeah. So I guess what I was going to say
13 is the SDP process is supposed to be a risk-informed process, not a
14 risk-based process. That was the intent all along, and where we find
15 ourselves a lot of the time when we have an SDP, we might end up with, and
16 I'm going to use a hypothetical example to make my point.

17 But we might end up with a low white, let's say it's 1.02E to
18 the minus 5, and the licensing ends up with a high red which is just, you know,
19 just below that. I'm sorry, a high green. The difference between those two
20 numbers, given the quantitative analysis and the uncertainties to go in the
21 PRA, those two numbers -- there's not a huge difference between those two
22 numbers.

23 So when you're in a situation like that, there's been a
24 tendency for the NRC and the licensee to go back and spend a lot of
25 resources to try to refine that number. In fact, in some cases licensees have
26 spent millions of dollars trying to make, you know, to say okay, this is -- this is

1 a high green and not a low white.

2 The process, if you step back and you do sensitivity analysis
3 and look at what the net effect is going to be, changing some of the key
4 assumptions that go into that SDP, that's one of the ways we can make a
5 better decision, is to look at what those inputs are, because that's really what's
6 driving the number, the color.

7 And the other -- the other aspect is to look at defense
8 in-depth and safety margin, which were part of the risk-informed
9 decision-making process, and not spend a lot of time trying to come up with a
10 perfect answer, because there is an uncertainty associated with that point
11 estimate.

12 COMMISSIONER SVINICKI: And I understand that, and
13 I'm over my time, so I don't want to test my colleagues' patient. But I will just
14 say that the statement was made, again in Nathan's presentation, "The
15 public's health and safety is best served when the most effort is put into
16 understanding and correcting the known deficiency, rather than
17 over-analyzing the significance."

18 My question turns on who decides -- what is the definition of
19 over-analyzing and who decides that? It sounds like we just decided,
20 subjectively, when we've had enough and it's over-analyzed. So I think that I
21 would like the staff -- I would like the staff to follow up and answer my two
22 questions about a public meeting/workshop to table top through this, and why
23 you're not going to do any piloting.

24 When you're piloting the CDBI changes, which arguably are
25 much, much more straightforward than what you're talking about here with
26 SDP.

1 MR. DEAN: So Commissioner, with respect to the second
2 part of that, the public meeting and the workshop, Nathan can correct me, but
3 I think that is a part of our plan, is to go through a process in a public way, to be
4 able to once we develop, you know, what this Phase 2 SDP might look like, to
5 actually be able to test that out with real cases and get, you know, all the
6 public feedback.

7 So that's been a hallmark of the reactor oversight process
8 since its beginning with the public, has been this transparency, and we will
9 continue the same. We'll talk about piloting and how a pilot could be
10 implemented or executed on this. But you know, we certainly take your
11 feedback seriously, and I think that's something that we'll strive for.

12 COMMISSIONER SVINICKI: Well, I appreciate that. But
13 again, I just differ as I differed with Scott Morris at the previous meeting, that
14 there are no elements of the Commission's involvement here. I noticed it with
15 the redesign of the self-assessment program as well as a threshold issue,
16 there's a SECY information paper coming.

17 So we took a full Commission vote to suspend the
18 self-assessment for one year, and yet an entire redesign of the program
19 doesn't require any Commission involvement. I question that, so I'll close
20 with that. Thank you Tim.

21 CHAIRMAN BURNS: Commissioner Ostendorff.

22 COMMISSIONER OSTENDORFF: Thank you all for your
23 presentations. I agree with Commissioner Svinicki on the value to the
24 Commission of having the broad scope of topics covered today, and the
25 content was very rich and substantive. I also note and am pleased to look
26 around the room and see office directors from other offices.

1 I see Cathy Haney, Brian Holian, Brian Sheron, obviously
2 Margie and others around the room that are a key part of the Operating
3 Reactor Business Line. So I want to thank the entire agency for their support
4 of what you're doing.

5 I'll also add my thanks to Commissioner Svinicki, to Bill
6 Dean for his leadership since he took the job last October. I can't in a lighter
7 moment let this opportunity pass. I know that you're a big San Diego Charger
8 fan, and I appreciate the open collaborative work environment aspect with Mr.
9 Tate, to my left, who has my Dallas Cowboy lanyard around his neck. I think
10 Travis, thank you for being here today, for that display of support.

11 (Laughter.)

12 MR. DEAN: I asked him to wear that today.

13 COMMISSIONER OSTENDORFF: I figured that.

14 (Laughter.)

15 DD Thank you. I have some comments, maybe just a
16 couple of questions. But there's a lot of things that haven't been covered on a
17 comment, just to indicate my personal interest as a Commissioner in a lot of
18 things that are said.

19 I'm going to start out with Bill Dean's discussion, some of the
20 rules on Slide 6, and I'm going to make a couple of comments on rules, that I
21 think that provide a cross-cutting aspect for how the Agency does business,
22 as well as, as Bill noted, mindful of the Project Aim direction from the
23 Commission.

24 I note that the mitigation of beyond design basis event
25 rulemaking shortly. I'm not going to predict when the Commission direction
26 to the staff will come out. We've had great exchanges with colleagues on this

1 very key vote. We had a good meeting last month on that topic, and I think
2 it's a big success, as far as the staff's efforts to bring all those efforts together.

3 I applaud Mike Johnson for his leadership in appropriately
4 integrating and consolidating into this effort a lot of disparate efforts and
5 elements that I think made the whole much greater than the sum of the parts.
6 So Mike, thank you for your leadership in that.

7 But I also note, and I said this last month, I'll say it again now
8 because I think it's important for you bring where we can the Tier 2/Tier 3
9 Fukushima action items to closure, and I think that that is a key part of being
10 an efficient regulator with predictability and stability, as well as mindful of the
11 resource expenditures, with chasing things that might be of marginal or no
12 safety benefit.

13 The second I'll comment on is the IEEE 603 rule. I've been
14 watching this very carefully the last two years. Bill Dean and Mike Johnson
15 and I have had a lot of discussions with Commissioner Baran. I've had
16 briefings with staff on digital I&C. I've spent a lot of time looking at this
17 personally with Amy Cabbage from my office, and I will just note that we had to
18 come to some closure on this issue.

19 I know you're working hard on it. The staff is still trying to
20 bring it to a final product. But I'll also note that some of the issues associated
21 with Aim on NRO-NRR merger issues are manifested in some of the different
22 opinions on this rule.

23 So I'm not going to -- I pass no value judgment on the
24 content, but I would say that it's noticed by me that this is a big rule. It says a
25 lot about how there's different approaches to safety issues between the
26 NRR-NRO organizations, and I believe it's important for us to get this rule

1 right.

2 I'm not going to define what right is, but I think it deserves a
3 lot of time and attention by leadership, as I know it has.

4 The third piece, Bill, I looked at the 14 rulemakings that you
5 were referring to in your Slide 6, and I know that there's been some
6 Commission action and Project Aim votes on rulemaking, and the Chairman
7 has taken an initiative in this area as well.

8 I would just comment that I think in the Part 26 piece of this,
9 where we have three different parts associated with the technical issues and
10 editorial changes, HHS guidelines and the QC/QE personnel, I hope that the
11 staff is looking at ways.

12 How might we be more efficient in the spirit of Project Aim in
13 trying to bring these things to closure in a reasonable time period?

14 Let me shift briefly to Bill's discussion of Centers of
15 Expertise, and I was encouraged about what he had to say. I had a very
16 good discussion beginning this week with Brian Sheron on this topic, in
17 looking at how research and other elements of the Agency come together in
18 the spirit of Project Aim and Centers of Expertise.

19 So I'm very excited about what you're looking at, and I'm
20 very encouraged by the discussions that are happening with the staff, and the
21 leadership as you're looking at how to bring that to some actionable status.

22 Travis, let me shift to you briefly, and I am going to ask you a
23 question. I appreciated the efforts. As Commissioner Svinicki, I think a big
24 success on the backlog, and I'm very pleased, and I think there is a lot to be
25 learned across the entire agency from what steps you've taken.

26 Quite frankly on your own, though separate and apart from

1 anything the Commission told you to do in Aim. So that's on -- that's on your
2 own initiative that you and your colleagues and team mates have done. So
3 that's a big Atta boy, Atta girl from Ostendorff here.

4 I know that two years ago we had a meeting in this room,
5 where there was a topic about shifting of NRO personnel over to NRR for
6 licensing, and there was some question about how the integration was going,
7 training of personnel from NRO to assume licensing action responsibility with
8 NRR.

9 I was going to ask either you or Mike or Bill to comment on
10 that. How is that going now as far as integration of personnel? Whoever
11 wants to talk about it is fine.

12 MR. TATE: I think it's worked pretty well. We have, you
13 know, we've taken a look and picked specific people with specific skills to help
14 in the areas where we were needing to address the backlog. So I think we
15 were able to bring those people over. In the cases where we had individuals
16 that needed to get qualified in that area, we had a process where we worked
17 directly -- we put them to work directly, and they worked with qualified project
18 managers or technical reviewers.

19 So they came in and were actually able to, you know, be
20 productive but until they got the qualification, they had to work under a
21 qualified individual. But I would say that it's worked pretty well. That's been
22 big part of our success.

23 MR. DEAN: Commissioner, I would offer that so we went
24 through an evolution last year, where we assigned a number of people from
25 NRO to NRR, and there were some, I think, some lessons learned from that,
26 and I would say that perhaps some mixed results. But we had the

1 opportunity to do that again this year, when the AREVA situation occurred.

2 So they had assets that just didn't have work to do. So we
3 took it as an opportunity with Mike's leadership to go through that process
4 again, and I think -- I think the second time around, I think it went a lot better.

5 I think it's been a more seamless transfer this time, I think,
6 using the lessons learned from the first go-round and of course the leadership
7 from Glenn and Gary and NRO and Michelle Evans and Brian Holian for a
8 period of time when he was my deputy, in trying to manage that.

9 So I think the second time we did a much better job and it's
10 been more seamless.

11 COMMISSIONER OSTENDORFF: Thank you for that,
12 and again, the reason for my asking is a broader message. I think consistent
13 with what was said earlier about achieving the improvements in the licensing
14 backlog, there's no better case study for agility of personnel and reallocation
15 of assets across the Agency in the context of Project Aim than this real life
16 case study that's already in place.

17 So rather than go out and -- and I'm not saying you might do
18 this -- and hire a consultant group, or go and try to have some academic group
19 look at some theoretical exercise, you have before us a great example of hey,
20 here's things that worked well, here's things that didn't, and here's the course
21 corrections you made. So I encourage you to do that as you go forward with
22 Aim.

23 I know I'm going to run out of time before I get through the
24 other things I wanted to cover. So I'm going to make some very brief
25 comments. I want to applaud the efforts to enhance and improve and make
26 more efficient the CDBI program. I think that's really important. I think the

1 piloting process makes a lot of sense, and I think that's a good news effort. I
2 was pleased to hear that.

3 Mel, I appreciated your comment on the efforts in the region,
4 the inspectors, and the specific examples you provided as the inspectors, both
5 in the resident offices as well as the regions, regions around the country, are
6 our eyes and ears. I pay attention to the inspector newsletter. I find it very
7 valuable as a former practicing engineer on submarines.

8 I was really pleased to see the effort to develop your own
9 in-service inspection team cadre. My experience in the Navy was that people
10 who've been on the Board of Inspection Survey or the Nuclear Propulsion
11 Examining Board that administered the operational reactor safeguards
12 examinations, those folks not only were a very professional team during the
13 course of their functional performance on those teams, but later on when they
14 went to other jobs, they took that experience with them in a very rich way.

15 So I think it's a win-win. So I was really pleased to hear
16 what you're doing in that area. Jim, I was going to ask you a question. I'm
17 out of time, but I'm very interested in perhaps do it offline on the Force on
18 Force Working Group efforts, and I'm out of time. But we'll follow up later on,
19 but thank you all.

20 CHAIRMAN BURNS: Thanks, Commissioner.

21 Commissioner Baran?

22 COMMISSIONER BARAN: Well, thank you all for your
23 presentations. I was impressed and frankly a little surprised that eight of you
24 could fit on that side of the table.

25 (Laughter)

26 COMMISSIONER BARAN: That's really quite something.

1 I wanted to start with the reactor oversight process changes and ask a few
2 questions there. Obviously over the years, over the last 15 years there's
3 been feedback from stakeholders and changes have been made to the
4 process. And the staff is currently considering proposing, depending on
5 which it is, some additional changes. Some of this can kind of come across
6 as a little bit piecemeal, I guess, because I guess not all of it is going to come
7 up to the Commission in papers, but some changes have been made. It's
8 possible we'd get a paper on one or more additional changes.

9 How is the -- and I'll direct this question to Bill, but on all of
10 these ROP questions others can jump in if you want to. How is the staff going
11 to ensure that individual changes to the ROP are assessed for aggregate
12 impacts so that we avoid any unintended consequences?

13 MR. DEAN: So thanks for that question, Commissioner. I
14 think in your sort of opening statement you recognized the fact that the reactor
15 oversight process has not been a static process, but it's one that has changed
16 over time. As we've collected feedback, one of the sort of founding
17 paradigms of the radiation protection process was that we would continually
18 seek feedback and make course adjustments as we learned more. And so I
19 would offer that.

20 The changes that we're making now to the ROP
21 enhancement process have probably been a more concentrated set of
22 changes and of some significance to the reactor oversight process because of
23 the fact that we had so much effort to develop -- we had the independent
24 assessment. That was requested by the Commission. We had GAO and
25 OIG audits. We had a couple of significant plant issues: Browns Ferry and
26 Fort Calhoun, that allowed us to learn some lessons.

1 So I think what you're seeing now, we're kind of in a period of making several
2 significant changes.

3 So your question about assessing sort of the collective
4 impact of all that is certainly a good one. I don't necessarily have a great
5 answer in terms of how do we measure that. I think it's something that is
6 unmeasurable. But I think where we take comfort is that when we make
7 these changes, we do it in a collaborative way, that we talk to all of our
8 stakeholders, both external and internal, and get all of that feedback and input
9 in the considerations before we make the change.

10 So I don't know, maybe Nathan has a little bit more to add to
11 that, but -- or Mike, actually, but I can't say that we have a specific process that
12 does that.

13 MR. JOHNSON: And I was just going to add that -- and Bill
14 and I have had a number of conversations about that very issue, including the
15 regional administrators. We are mindful of the fact that as we work off that
16 entire list of things that are in that enhancement activity, some of which could
17 be characterized as maybe minor tinkering, that we recognize the ones that
18 have a greater than minor impact and how do we make sure that we look at
19 those collectively. So we've been struggling with making sure that we pull
20 those together or that we think about the collective impact.

21 We certainly, as Nathan pointed out in his presentation,
22 want to make sure that from an assessment perspective that we look, as
23 we've put in place these changes appropriately approved by the
24 Commission -- that we go back and make sure that we haven't broken
25 something or caused some other effect that we didn't intend.

26 So, we'll take out of the questions a re-invigorated -- I

1 guess, commit activity to make sure that we are in fact being appropriately
2 mindful of the collective as we move forward.

3 COMMISSIONER BARAN: I appreciate that. And how
4 does senior management make a determination about whether or not a
5 change to the process is significant enough to have the Commission weigh in
6 versus the staff taking the action?

7 MR. JOHNSON: Thanks, Commissioner. I wish I had a
8 really -- I've been actually thinking about an answer that I could give when the
9 question was raised and I haven't come up with one.

10 Typically what we do, at least one of the things we do is to
11 look at previous impacts of the Commission and direction in SRM as it
12 touched various aspects of the program as an indicator about whether the
13 Commission either gave direction or had an interest in something. And we
14 don't always get it right, but that's where we start. Was there an SRM on the
15 SDP that for example carved out an area that we needed to be responsive to
16 or that we want to tweak? That's where we start.

17 But we consider almost every one of those. We'll go back
18 and think about -- I've been sort of envisioning a discussion about the
19 self-assessment process and what is the level of involvement that the
20 Commission desires. We'll be responsive to whatever direction we get from
21 the Commission regarding that. But we struggle sometimes on every one of
22 these, but that's where we start.

23 COMMISSIONER BARAN: And after a change is made, I
24 mean, briefly -- I guess this could probably go on for a while answering this
25 question, but how do you all evaluate the efficacy of that change and have
26 there been cases where you all made a change to the ROP process and

1 looked at it and said, boy, we really should reverse that, it wasn't a good idea,
2 it didn't work the way we thought it would?

3 MR. SANFILIPPO: Yes, that's a great question in that it
4 really is a more fundamental element of what we plan to add to our
5 self-assessment processes to have that more targeted look back to say what
6 have we implemented over the past several years? What has the impact
7 been of that change? What are perhaps unintended consequences? And a
8 lot of times a lot of these issues it's hard to say up front, well, what's the criteria
9 that we might want to look out for or that might trip to say this is now an
10 ineffective change or an inappropriate change?

11 But as long as we have into our process an annual
12 look-back to take a look at what's happening, what are some intended
13 consequences, what are some unintended consequences, and have that
14 feedback mechanism. And that's really how the ROP has always functions is
15 via that feedback mechanism. We of course can't always predict exactly
16 what might happen in advance. We do our due diligence to try to figure out
17 what everything will be and then we go from there.

18 COMMISSIONER BARAN: Scott is emerging over your
19 shoulder.

20 MR. MORRIS: I would just simply add --

21 CHAIRMAN BURNS: Scott, please identify yourself.

22 MR. MORRIS: Yes, Scott Morris, Director of the Division of
23 Inspection and Regional Support.

24 I just want to simply add we have monthly meetings, public
25 meetings on the ROP that are pretty well attended broadly with the industry
26 and non-governmental organizations. And those also give us feedback

1 about where sensitivities are and where there may be controversy that might
2 elevate the issue. That's an issue.

3 And then the last thing is any time we evaluate changes or
4 consider changes, and as we look back at changes we've made, we go back
5 to first principles. Is it performance-based? Is it risk-informed? Is it
6 understandable, scrutable, repeatable? All those things. First principles are
7 very important to us as we assess any changes we make. I just wanted to
8 add that. Thank you.

9 COMMISSIONER BARAN: Thanks. Nathan, I was
10 looking through -- we get a lot of materials in preparation for these
11 Commission meetings, and there were some background slides in there that
12 you had that mentioned an effort to refine language used in all public ROP
13 communications. And I was hoping you could just tell us a little bit more
14 about that.

15 MR. SANFILIPPO: Sure. Thanks for the question. Our
16 communications initiative is really something that we're proud of and we've
17 been moving out on over the past year. In all of these enhancements there's
18 always opportunities along with the technical aspects of programs of how we
19 then communicate the ROP. So we've set out on a number of efforts to
20 address improving our internal web sites that our inspectors use, our public
21 web site, and both of those are nearing completion. Not only the content of
22 the public web site, but the language. We use plain language trying to
23 address issues, improving search tools on the public web site so that people
24 that are interested in a particular issue can search inspection reports on a
25 specific topic. Just improving the accessibility of information is a big one.

26 Another one is we've been developing a draft NUREG

1 document that is going to be sort of a frequently asked questions about the
2 ROP, meant to be written in plain language, that really steps through the
3 history of the program, why the pieces, the performance indicators, action
4 matrix are the way that they are. And that is a tool that can be used for
5 knowledge management here at the NRC, but as well as providing more
6 detailed information to the public. Our inspectors, when they have their
7 annual public meetings near each plant site, they can hand that material out.

8 So really just looking at developing a lot of new ways to
9 communicate the ROP, improving the templates of -- you know, we write
10 letters, assessment letters, inspection reports to the licensee. They are the
11 primary recipient and audience, but we are mindful of the fact that that is also
12 how the public is receiving information about what's going on. And we're
13 trying to improve also the way that we use language in those letters so that we
14 can communicate what we need to the licensee, but also do it in a transparent
15 way that the public can understand as well. So we should be seeing some
16 fruits of a lot of those efforts here in the next few months.

17 COMMISSIONER BARAN: Okay. Great. Thanks for
18 your work on that. That's great.

19 Bill, I'm almost out of time, but I just wanted to ask, on the
20 decommissioning rulemaking you gave a brief update on that. I'm glad to
21 hear that it's on track still -- it's early yet, but on track for 2019 when we would
22 expect Oyster Creek to shut down. I think that's an important timeline to
23 maintain.

24 I wanted to ask about the Advance Notice of Proposed
25 Rulemaking and how that fits into the process. Is that something that's
26 overlapping with other steps, or is that going to slow down the overall effort to

1 do an ANPR here?

2 MR. DEAN: So thank you for the question. I think the
3 ANPR, particularly for this rulemaking, given the fairly strong interest of a
4 number of external stakeholders is an appropriate and -- and in the long term I
5 think will help us relative to completing the rulemaking in an efficient manner.

6 We've had good success using ANPRs for other fairly
7 complex or highly visible rulemakings which then allows us to collect the
8 public feedback and develop I think a stronger regulatory basis that has
9 already taken into consideration a lot of the concerns that external
10 stakeholders may have.

11 So, I think while it adds a step to the process, I think it's an
12 important step. And assuming that we don't get long extension requests for
13 time to do public comments, I think it will serve us well. And right now the
14 time frame would have us completing the rule in 2019.

15 COMMISSIONER BARAN: Okay. So basically given that
16 it's a -- the scope of the rulemaking is pretty broad, there are a lot of issues
17 that it looks at and you'd want to get public comment on, there's probably a lot
18 of stakeholder interest in a lot of those issues, that's basically what led you to
19 go with the ANPR?

20 MR. DEAN: Yes, sir.

21 COMMISSIONER BARAN: Okay. Great. Thank you.

22 CHAIRMAN BURNS: Thank you. Again, I want to echo
23 the sentiments of my fellow Commissioners in terms of I appreciate the
24 presentation and of course across the breadth of activities in the operating
25 reactor area it really does I think -- having the large panel in effect touches on
26 every aspect of our regulatory program, whether it's standard setting which is

1 informed by research to the undertaking of basic licensing functions and
2 maintaining licenses as well as the oversight through inspection, and then the
3 feedback through operating experience into the program. And as that
4 diagram that we've had on -- we have on our web site shows, and I know in a
5 lot of presentations I made internationally is an illustration of basically the
6 functions of the regulator, an effective regulator. I think it's a good diagram
7 and you've I think well represented today how we try to integrate that.

8 I've got a few questions that will probably hit on a number of
9 the areas. I'll start a little bit maybe with inspection. In terms of my own
10 visits to the regions and some of the plant sites -- and I think we well know this.
11 There are some areas that we have particularly challenges for the Resident
12 Inspection Program. Most recently I was out in Region IV and talking to Mark
13 Dapas and that and talking about those challenges. Actually it reminded me
14 of going to my college reunion, 40th college reunion, because I went to a
15 school in rural Upstate New York and the way the dynamics of professorships
16 and faculty in the university actually has changed, at some point I was hearing
17 someone talk and it sort of actually reminded me of the resident program and
18 some of the challenges we've had.

19 Maybe Bill or Mike could -- or Mel could
20 -- anyone -- one or any -- all of you maybe comment on what we're doing to
21 sort of address the challenges. I know it's not at a every site, but there are
22 some -- and I know Region IV particularly has had some challenges in that
23 regard.

24 MR. DEAN: So, thanks for that question. And I'll want Mel
25 to weigh in on this, too, given Mel's role in the region.

26 But the Agency has put in place, as I know you're fully

1 aware of this, Chairman, given your long history with the Agency relative to the
2 Resident Inspector Program and challenges that we had in the past in terms of
3 sustaining individuals at the sites and the level of experience. And so the
4 Agency put in a number of both financial and quality of life aspects into the
5 Resident Inspector Program. I mean, it used to be you had to rotate after just
6 several years. Now it's a seven-year period of time. There's retention
7 bonuses, three-step increase, relocation and so on. So we've put in place a
8 lot of incentives.

9 But that being said, there are plants that are challenging,
10 and I know that Mark Dapas in Region IV has had a couple of sites that have
11 had some chronic issues. And we've been working with Mark and OCHCO to
12 be able to leverage things, like through the FEPCA process, that might be able
13 to provide incentives that would be appropriate to use to help them staff. And
14 I know that Mike sits on the FEPCA panel and has been involved with that.

15 But maybe Mel can talk a little bit about things that we've
16 done in terms of the resident inspector pool.

17 MR. GRAY: Sure. In Region I, I know the other regions,
18 we do have certain sites which just aren't that attractive. And I don't know
19 where in Upstate New York you came from, Chairman, but that's one of the
20 unattractive areas.

21 (Laughter)

22 CHAIRMAN BURNS: Now, now.

23 (Laughter)

24 CHAIRMAN BURNS: It's a beautiful area --

25 MR. GRAY: It is. It is beautiful.

26 CHAIRMAN BURNS: -- except those gray piles of snow on

1 the side of the road in May.

2 (Laughter)

3 MR. GRAY: So, some of the practical approaches are we
4 try to target schools where individuals are from that area already, have family
5 and they have a predisposition to going there. That's one way.

6 We do also have a resident inspector pool. It is where we
7 target individuals out of college or Navy or industry that come in. They want
8 to be out in the field. They have that desire. And they're in a pool and we
9 train them. They're in the region. They get qualified and then we try to
10 equitably have them ready to go out.

11 And that's proved to be -- it's more effective than being
12 reactive, but it's really targeting areas and being proactive with your program.

13 And the third is that FEPCA has been helpful. At Indian
14 Point there's a group incentive. Indian Point is very expensive, and that has
15 been effective I think in keeping that office staffed. Thanks.

16 CHAIRMAN BURNS: Just to deal with the acronyms, if
17 one of you could -- I can't remember it. I can't pull it out of my head. FEPCA
18 is -- just for the general audience.

19 MR. GRAY: I don't remember.

20 CHAIRMAN BURNS: Here's a quiz. Right?

21 (Laughter)

22 CHAIRMAN BURNS: It's Federal Employees -- anyway,
23 it's a system by which certain incentives and things like that can be provided.

24 MR. JOHNSON: Yes, so the panel is made up of the
25 EDOs and OGC and OCHCO, as you would anticipate, and the CFO. And so
26 we do in fact meet on incentives in exceptional cases.

1 And I did just want to add to the conversation that we've
2 had. There has been very recently an effort to go back and look at relocation
3 bonuses to address some of the things that Mel has indicated. And there
4 was a working group OCHCO led with the regions and a proposal actually
5 that's working its way through the process that will provide for greater
6 incentives.

7 And then just to close, I have to tell you I heard from a very
8 happy Mark Dapas about a couple of sites in his region last night and a rich
9 applicant pool based on the incentives that we've been able to put in place and
10 the work that we've been able to do. So we are making progress. It's
11 something that we need to continue to stay on top of.

12 CHAIRMAN BURNS: Yes, thanks, Mike. I appreciate
13 that. And it just is a continuing challenge, I know. So keep up the work on
14 that.

15 I'm going to turn to a quite different subject, talk a little bit on
16 subsequent license renewal. And I understand the research. I think it's
17 important, the research we've done. What I'm trying to get a picture of is in
18 effect the -- I'll call it I guess the integration of the research, when we expect
19 we might get application. Because again, our nominal thing in terms of
20 setting objective is for ourselves; and I forget what it is, about I think a
21 36-month, or something like that, objective on a renewal, and how that might
22 integrate if we're still doing ongoing research.

23 MR. DEAN: So, maybe I can start. Maybe Steve can
24 weigh in. But from a programmatic view it is important to know that if there's
25 aspects of the research that aren't complete, even though I think at this point
26 in time we're positioned to be in that, there's nothing that prevents us from

1 relying on site-specific Aging Management Programs, whether it's increased
2 surveillances or assessment of the condition of some of the things that are
3 under question like aging cables or concrete and so on.

4 So, what research is doing is helping us establish a
5 generic -- a GALL-type product for SLR, but that doesn't preclude us that on
6 case-by-case or plant-specific instances leveraging plant-specific Aging
7 Management Programs if the research isn't done.

8 I don't know, Steve, is there anything --

9 MR. FRANKL: What I would like to just add to that is that
10 we have near-term goals and we have longer term goals, meaning that
11 research that can be completed before the first applications are expected.
12 Definitely we are moving ahead of that, but as I presented, there are certain
13 research activities that just simply cannot be completed within a short time
14 period such as your irradiating samples. That will go on for years and years
15 and years. And that kind of challenge and difficulty is facing obviously not
16 just us, but the industry. So we are having -- we are working very, very
17 closely and collaborating with NRR in assuring that the confirmatory tools, the
18 data is available in a timely manner to review the applications.

19 CHAIRMAN BURNS: Oh, yes, Chris? Identify yourself
20 for the record.

21 MR. MILLER: Thank you, Chairman. Chris Miller,
22 Director of the Division of License Renewal.

23 We work closely with the industry, as Steve was saying.
24 We have had periodic meetings with NEI, with EPRI. And while they
25 understand that it's the industry, the applicant's responsibility to prove that
26 their Aging Management Programs, for whatever system or component it

1 is -- it's their responsibility to show.

2 What we're trying to do is work towards a consensus on
3 what are the generic issues that have to be solved. I think we understand,
4 research understands, NRR understands and the industry understands that
5 we're not going to solve every one of those issues. So there's some generic
6 issues we can work through, but come the first applications in 2018, 2019,
7 should they come then, we won't be ready with every one of them. So there
8 will be plant-specific Aging Management Programs. And we'll review those
9 just like we have done in the past.

10 CHAIRMAN BURNS: Okay. Thanks. And my time is up.
11 I just wanted to say in terms of the Chairman, I appreciate the support I got
12 from all of the staff in terms of participation in Southern Exposure. It was an
13 interesting exercise and actually it was more interesting even for me coming
14 from NEA because all of my work in nuclear third-party liability, which in effect
15 we wound up doing, or are still in process of doing in terms of the
16 Price-Anderson Act and all.

17 And I think we're going to try to re-use the results or
18 contribute what we can into the INEX, the International Exercise, which I think
19 they are actually just starting, but we were able to get some work done there.
20 And I think we're going to try to contribute some of our learnings and results
21 into that, if I recall.

22 MR. JOHNSON: Yes, that is correct.

23 CHAIRMAN BURNS: Yes. Good. Because I know both
24 on the side of working through the exercise, but also the learning in terms of
25 how you do recovery and move through things like compensation.
26 Relocation and all that are important aspects I know people are kind of very

1 interested worldwide.

2 With that, I have the answer to today's acronym question.

3 (Laughter)

4 CHAIRMAN BURNS: And it's the Federal Employees Pay
5 Comparability Act, which is otherwise known as FEPCA. But that's just for
6 those of you -- the non-cognoscenti here, including myself for that.

7 Do my fellow Commissioners have anything else they'd like
8 to say?

9 (No audible response)

10 CHAIRMAN BURNS: Well, again I thank you all for an
11 excellent briefing and keep up the good work, particularly as we go through
12 looking ourselves in the context in Aim. And in that regard, too, I encourage
13 you to engage all the staff in terms of thinking through the improvement and
14 ways for us to carry out our mission in an effective manner.

15 With that, we're adjourned.

16 (Whereupon, the above-entitled matter went off the record
17 at 11:20 a.m.)

18

19

20

21

22