



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, DC 20555 - 0001**

November 2, 2015

**MEMORANDUM TO:** ACRS Members

**FROM:** Derek A. Widmayer, Senior Staff Scientist */RA/*  
Technical Support Branch  
Advisory Committee on Reactor Safeguards

**SUBJECT:** CERTIFICATION OF THE MINUTES OF THE ACRS PLANT  
OPERATIONS AND FIRE PROTECTION SUBCOMMITTEE  
MEETING ON SEPTEMBER 24, 2015, IN ROCKVILLE,  
MARYLAND

The minutes for the subject meeting were certified on October 23, 2015. Along with the transcripts and presentation materials, this is the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachments: As stated

cc with Attachments: ACRS Members  
E. Hackett  
M. Banks



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
WASHINGTON, DC 20555 - 0001**

MEMORANDUM TO:           Derek A. Widmayer, Senior Staff Scientist  
                                  Technical Support Branch  
                                  Advisory Committee on Reactor Safeguards

FROM:                       Gordon Skillman, Chairman  
                                  Plant Operations and Fire Protection Subcommittee

SUBJECT:                   CERTIFICATION OF THE MINUTES OF THE ACRS PLANT  
                                  OPERATIONS AND FIRE PROTECTION SUBCOMMITTEE  
                                  MEETING ON SEPTEMBER 24, 2015, IN ROCKVILLE,  
                                  MARYLAND

I hereby certify, to the best of my knowledge and belief, that the minutes of the subject meeting on September 24, 2015, are an accurate record of the proceedings for that meeting.

**/RA/**

**October 23, 2015**

---

Gordon Skillman, Chairman  
Plant Operations and Fire  
Protection Subcommittee

Dated

**ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
PLANT OPERATIONS AND FIRE PROTECTION SUBCOMMITTEE  
MEETING MINUTES  
September 24, 2015  
Rockville, MD**

The Advisory Committee on Reactor Safeguards (ACRS) Subcommittee on Plant Operations and Fire Protection met on September 24, 2015, at 11545 Rockville Pike, Rockville, MD, in Room T2-B1. The meeting was convened at 1:00 pm and adjourned at 4:33 pm.

The entire meeting was open to the public. Mr. Derek A. Widmayer was the cognizant ACRS staff scientist and the Designated Federal Official for this meeting. No requests for time to make an oral statement and no written comments were received from the public concerning this meeting.

**ATTENDEES**

**ACRS**

- D. Skillman, Chairman, Plant Operations and Fire Protection Subcommittee
- R. Ballinger, Member
- D. Powers, Member
- S. Schultz, Member
- D. Widmayer, ACRS Staff

**NRC Staff**

- C. Regan, NRR/DIRS/IRIB
- N. Sanfilippo, NRR/DIRS/IRIB
- J. Isom, NRR/DIRS/IRIB
- S. Morris, NRR/DIRS
- N. Gilles, COMM/OCM

**SUMMARY**

The purpose of this Subcommittee meeting was to review and discuss the efforts of the Office of Nuclear Reactor Regulation (NRR) to improve and enhance the Reactor Oversight Process (ROP). The staff efforts have been ongoing for about 1 and ½ years and the Commission has either recently received, or will receive shortly, several SECY papers proposing revisions to the ROP that result from these enhancement efforts.

<b><i>SIGNIFICANT ISSUES</i></b>	<b><i>Reference Transcript Pages</i></b>
Chairman Skillman called the meeting to order and provided the opening remarks.	6 – 8

<p>C. Regan and N. Sanfilippo, Branch Chiefs, NRR/Division of Inspection and Regional Support (DIRS), introduced the topic and background for the meeting.</p>	<p>8 – 10</p>
<p>C. Regan and N. Sanfilippo discussed the many inputs to the ROP through several feedback mechanisms that resulted in the enhancement projects undertaken by the staff over the last 1 and ½ years. The feedback mechanisms include the use of feedback forms and other regular ongoing feedback mechanisms used by staff, the annual ROP self-assessment process, and several external reviews, including those conducted by the NRC’s Inspector General (IG), the General Accounting Office (GAO), and an external review team chartered by staff in accordance with direction from the Commission.</p> <p>ACRS Members addressed the following issues during this part of the meeting:</p> <ul style="list-style-type: none"> <li>• The most feedback forms and requests for revisions to the ROP concern Manual Chapter 0612. (Skillman)</li> <li>• How the staff plans to benchmark the program, and what programs outside of the NRC might be appropriate to perform a benchmarking comparison or analysis against the ROP. (Powers)</li> <li>• Establishing the feedback mechanisms currently in place as a formal Corrective Action Program (CAP) for the ROP. (Skillman)</li> <li>• Maintaining knowledge of INPO information as an input to improvements to the ROP. (Schultz)</li> <li>• Including a “leading indicator” of future performance as an element of the Baseline Inspection Program, and using backlog of work inventory as such an indicator. (Skillman)</li> </ul>	<p>10 – 61 Slides 1 – 7</p> <p>18</p> <p>29 – 34</p> <p>34 – 36</p> <p>36 – 37</p> <p>43 – 53</p>
<p>C. Regan and N. Sanfilippo discussed the ROP enhancement projects being done by the staff, organized into five major topical areas.</p> <p>The first of the topical areas where enhancements are ongoing is the Baseline Inspection Program (BIP), where details of the enhancements in the Component Design Basis Inspection (CDBI) and the Problem Identification and Response (PI&amp;R)</p>	<p>61 – 86 Slides 8 – 10</p>

<p>inspections were described.</p> <p>ACRS Members addressed the following issues during this part of the meeting:</p> <ul style="list-style-type: none"> <li>• Whether the BIP could include work backlog as discussed previously. (Skillman)</li> <li>• How many inspection “samples” are adequate since the number of them is being reduced, and how the components to be sample are determined. (Powers and Skillman)</li> </ul>	<p>66 – 67</p> <p>69 – 74</p>
<p>C. Regan and N. Sanfilippo discussed the second of the topical areas being worked on, the Licensee Assessment element. The discussions included descriptions of the enhancements being done to the Significant Cross-Cutting element and to the Definition of Degraded Cornerstone. Dr. Powers provided some insights into the formulation of the ROP since he was a member of the ACRS when it was developed in the early 2000s.</p> <p>ACRS Members addressed the following issues during this part of the meeting:</p> <ul style="list-style-type: none"> <li>• Whether the work backlog which has been discussed might also appropriately be considered a Cross-Cutting issue. (Skillman)</li> <li>• If it would be appropriate for staff to evaluate the merits of including the Safety Culture assessment that NEI has asked to get “credit” for as part of the inspections. (Schultz)</li> </ul>	<p>86 – 117 Slide 11</p> <p>89 – 93</p> <p>98 – 102</p>
<p>C. Regan and N. Sanfilippo provided details of the third topical area where improvements to the ROP are being made, the Significance Determination Process (SDP). Areas of the SDP targeted for improvement are timeliness of reports and the use of proximate cause for completing the SDP rather than waiting for a licensee’s root cause analysis.</p> <p>ACRS Members addressed the following issues during this part of the meeting:</p> <ul style="list-style-type: none"> <li>• If there is a “template” in the Emergency Response arena that could be used for the SDP. (Skillman)</li> <li>• That considering numerical uncertainty after an event has occurred seems like an unnecessary focus, since</li> </ul>	<p>117 – 141 Slide 12</p> <p>123 – 125</p> <p>131 – 133</p>

<p>the event did take place. (Schultz)</p>	
<p>C. Regan and N. Sanfilippo discussed the fourth of the topical areas being worked on, improvements to Communications. The discussions included a description of a new automated program for creating inspection reports, the Replacement Reactor Program system which has not yet been rolled out.</p> <p>There were no significant issues discussed during this portion of the Subcommittee meeting.</p>	<p>141 – 147 Slide 13</p>
<p>C. Regan and N. Sanfilippo provided details of the fifth topical area where improvements to the ROP are being made, the Self-Assessment process. A significant improvement to this element of the ROP discussed was targeted in-depth assessments to go along with the normal self-assessment regimen, including an assessment of each Region.</p> <p>There were no significant issues discussed during this portion of the Subcommittee meeting.</p>	<p>147 – 150 Slide 14</p>
<p>C. Regan and N. Sanfilippo briefly discussed issues for the ROP being addressed concerning new reactor designs and implementing the changes needed to inspect these designs when they become operational. They then summarized the presentation and provided some outlook on completing unfinished items and schedules.</p> <p>There were no significant issues discussed during this portion of the Subcommittee meeting.</p>	<p>151 – 162 Slides 15 – 16</p>
<p>The Subcommittee Members provided summary comments on the issues and asked final questions about the matter. There were no significant issues discussed during this portion of the Subcommittee meeting.</p>	<p>163 – 178</p>
<p>Chairman Skillman provided an opportunity for comments from the public from the meeting room and the teleconference line. There were no comments provided.</p> <p>Chairman Skillman adjourned the meeting.</p>	<p>178</p>

<b>ACTION ITEMS</b>	<b>Reference Transcript Pages</b>
Staff will provide the ACRS Subcommittee with a one page overview of the Baseline Inspection Program (completed 10/06/2015)	176

**ATTACHMENT**

Official Transcript of Proceedings, Plant Operations and Fire Protection Subcommittee, Thursday, September 24, 2015, Rockville, MD.

**Documents Provided to the Subcommittee:**

1. U.S.NRC, SECY-13-0037, "REACTOR OVERSIGHT PROCESS SELF-ASSESSMENT FOR CALENDAR YEAR 2012," April 5, 2013. (ML13058A283)
2. U.S. NRC, SRM-SECY-12-0081, "STAFF REQUIREMENTS – SECY-12-0081 – RISK-INFORMED REGULATORY FRAMEWORK FOR NEW REACTORS," October 22, 2012. (ML122296A158)
3. U.S. NRC, "Reactor Oversight Process Independent Assessment," 2013. (ML14035A571)
4. U.S. NRC, SECY-14-0047, REACTOR OVERSIGHT PROCESS SELF-ASSESSMENT FOR CALENDAR YEAR 2013," Enclosure 2, "Staff Actions to Address the 2013 Reactor Oversight Process Independent Assessment," April 18, 2014. (ML14066A365)
5. U.S. General Accounting Office, GAO-13-743, "NUCLEAR POWER: Analysis of Regional Differences and Improved Access to Information Could Strengthen NRC Oversight," September 2013. (ML14059A299)
6. U.S. NRC, "Analysis of the Causes of Regional Differences in the Number of Inspection Findings of Very Low Significance (Green) and Non-Escalated Violations," December 2014. (ML14107A425)
7. U.S. NRC, Memorandum from Nieh, Director, Division of Inspection and Regional Support, NRR to Leeds, Director, NRR, "Reactor Oversight Process Enhancement Project - Baseline Inspection Program," April 4, 2014. (Package: ML14017A338)
8. U.S. NRC, DPO Documentation: DPO Case File for DPO-2014-003 (ML15194A444)

9. U.S. NRC, 2014 Business Process Improvement Project (BPI) Report, "*Process Improvement Review of the Significance Determination Process*," February 2014. (ML14318A512)

**Official Transcript of Proceedings**  
**NUCLEAR REGULATORY COMMISSION**

Title:                   Advisory Committee on Reactor Safeguards  
                                  Plant Operations and Fire Protection

Docket Number:     (n/a)

Location:             Rockville, Maryland

Date:                  Thursday, September 24, 2015

Work Order No.:     NRC-1917

Pages 1-168

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COMMISSION'S  
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

The contents of this transcript of the proceeding of the United States Nuclear Regulatory Commission Advisory Committee on Reactor Safeguards, as reported herein, is a record of the discussions recorded at the meeting.

This transcript has not been reviewed, corrected, and edited, and it may contain inaccuracies.

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UNITED STATES OF AMERICA  
 NUCLEAR REGULATORY COMMISSION

+ + + + +

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

(ACRS)

+ + + + +

PLANT OPERATIONS AND FIRE PROTECTION SUBCOMMITTEE

+ + + + +

REACTOR OVERSIGHT PROCESS ENHANCEMENTS

+ + + + +

THURSDAY

SEPTEMBER 24, 2015

+ + + + +

ROCKVILLE, MARYLAND

+ + + + +

The Subcommittee met at the Nuclear Regulatory Commission, Two White Flint North, Room T2B1, 11545 Rockville Pike, at 1:00 p.m., Gordon R. Skillman, Chairman, presiding.

COMMITTEE MEMBERS:

GORDON R. SKILLMAN, Chairman of the  
 Subcommittee

RONALD G. BALLINGER, Member

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DANA A. POWERS, Member

STEPHEN P. SCHULTZ, Member

DESIGNATED FEDERAL OFFICIAL:

DEREK A. WIDMAYER

ALSO PRESENT:

JIM ISOM, NRR

SCOTT MORRIS, NRR

CHRIS REGAN, NRR

NATHAN SANFILIPPO, NRR

\*Present via telephone

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     Dick Skillman

Adjourn

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

1:00 p.m.

→ CHAIRMAN SKILLMAN: Good afternoon.

This meeting will now come to order. This is a meeting of the Advisory Committee on Reactor Safeguards on Plant Operations and Fire Protection. I'm Dick Skillman. I'm Chairman of this subcommittee. ACRS members in attendance are Dr. Steven Schultz, Dr. Dana Powers, Dr. Ron Ballinger, and our designated federal official is Derek Widmayer.

The purpose of today's meeting is for the NRC staff to present and discuss the activities currently underway to enhance the ROP, the Reactor Oversight Process. The Committee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions as appropriate for consideration of the full ACRS. We have not decided yet whether to recommend the full Committee write a letter on this matter and we will determine this at the conclusion of today's subcommittee meeting.

The rules for participation in today's meeting were announced as part of the notice of this meeting previously published in the Federal

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1 Register. This meeting will be open to the public.  
2 We have received no written comments or requests  
3 for time to make oral statements. A transcript of  
4 today's meeting is being kept and will be made  
5 available as stated in the Federal Register Notice.  
6 Therefore, we request that meeting participants  
7 please use the microphones located throughout the  
8 meeting room when addressing the sub-committee.  
9 Participants should first identify themselves and  
10 speak with sufficient clarity and volume so that  
11 they can be readily heard.

12 A telephone bridge line has been  
13 established for this meeting. To preclude  
14 interruption of this meeting, the bridge line will  
15 be placed in a listen-only mode during  
16 presentations and sub-committee discussion. Also,  
17 I ask at this time that you please silence all of  
18 your personal electronic devices. We have a new  
19 procedure for speakers at the table and when  
20 speaking, please press the middle button of the  
21 microphone to turn it on when you are speaking and  
22 then push that button again to turn it off when you  
23 have completed speaking. This will minimize the  
24 propagating of background noise throughout the  
25 audio system and on to the bridge line. We will

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1 now proceed with the meeting. And I call on Nathan  
2 Sanfilippo to please make introductory remarks.

3 → MR. SANFILIPPO: Sure. Well, thank you.  
4 Chris and I are certainly pleased to be here to  
5 share with you some of the progress we've made on  
6 Reactor Oversight Process enhancements. I know  
7 that we haven't been back to the ACRS in quite some  
8 time to talk about ROP related issues. So while  
9 today we're focused on the ROP enhancement project  
10 that has been a multi-year effort, we're certainly  
11 available and able to answer any questions you  
12 might have about the inspection process, or  
13 certainly pledge to get back with you if we don't  
14 have the information that you might be interested  
15 in. So, Chris, did you want to say anything to  
16 open up?

17 MR. REGAN: Just thank you for the  
18 opportunity to come and share with you what we're  
19 doing with respect to enhancing the ROP. I'll just  
20 indicate my name is Chris Regan, for the record.  
21 I'm the Branch Chief of the Reactor Inspection  
22 Branch in the Division of Inspection and Regional  
23 Support at NRR. My colleague, Nathan --

24 MR. SANFILIPPO: Yes. I'm Nathan  
25 Sanfilippo. I'm the Branch Chief of the

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1 Performance Assessment Branch in the Division of  
2 Inspection and Regional Support in NRR. So Chris  
3 and I's two branches constitute the ROP program  
4 from here at Headquarters as the program office.  
5 We have, of course, partners in all the regions  
6 that have all the inspectors that implement the  
7 ROP. We are functionally the program office that  
8 set ROP policy and maintain the program. So,  
9 there's different responsibilities between our two  
10 branches and as you'll see throughout our  
11 presentation today, there are assessment related  
12 topics with respect to the Action Matrix that  
13 you're probably familiar with and the types of  
14 outcomes of our program and that's something that  
15 my branch really handles. And Chris's branch  
16 really handles all of the inspection details  
17 themselves.

18 MR. REGAN: In a broad sense, you could,  
19 if you wanted to simplify it, you could say I deal  
20 with all the goes ins and he deals with all the  
21 goes outs.

22 CHAIRMAN SKILLMAN: Before you begin, it  
23 would help me, just from a practical perspective,  
24 to know approximately how many years each of you  
25 has been involved in these oversight activities.

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1 MR. REGAN: Sure. So I've been in my  
2 current role as the Reactor Inspection Branch Chief  
3 position for about three years. Although I have  
4 been an inspector in the field and have worked in a  
5 regional office at some point during my career.  
6 I've been at the NRC for 25 years.

7 CHAIRMAN SKILLMAN: Okay.

8 MR. SANFILIPPO: I've been at the NRC  
9 for 13 years. I've been in my current role a  
10 little over a year, but had actually served in the  
11 Branch as a staff member for about three years  
12 past, in addition to being qualified as an  
13 inspector and having done numerous jobs throughout  
14 the NRC. I've spent time on the Chairman staff and  
15 the EDO staff, including as a member of the Near-  
16 Term Task Force back in 2011. So I've had sort of  
17 a broad range of experience within the NRC, but a  
18 lot of it's with respect to the inspection program.

19 CHAIRMAN SKILLMAN: Thank you. Okay.  
20 So please proceed.

21  MR. REGAN: All right. So we will  
22 outlay for you essentially what's going on in the  
23 way of enhancements in two fundamental pieces. One  
24 will give you some background, kind of elaborate on  
25 the structure for how we go about improving the

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1 program and enhancing the program. And then we'll  
2 talk about some of the specific initiatives that we  
3 have ongoing at the moment and what predicated  
4 them, what kicked them off, where they may have  
5 originated from, and then a little bit of details  
6 on where we are in the process as far as  
7 implementing those enhancements. All right. Oh,  
8 it's already up. Okay.

9 So, to start off, one thing we've  
10 always tried to impress is that the ROP is an  
11 effective program where we seek to improve through  
12 continuous feedback. It's been essentially a  
13 living process or a living document, a living  
14 program since its inception in 2000. The  
15 fundamental principles have all remained in place.  
16 We have several aspects to the program that we --  
17 how we break up the program.

18 These include the Baseline Inspection  
19 Program, which is the minimum level of inspection  
20 that we have that we perform on an annual basis to  
21 ensure safe operation of the plant. We look at  
22 inspection scopes and purposes as far as our  
23 feedback process. We have performance indicators  
24 that the licensees report to us regarding their own  
25 performance that we evaluate and consider. And

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1 then we have the outputs of the program relative to  
2 monitoring licensee performance in the form of our  
3 Action Matrix. When we disposition issues that are  
4 outcomes from our inspection activities, we apply a  
5 Significance Determination Process. And then we  
6 also look at outcomes to the program regarding  
7 assessment for cross-cutting issues and its effect  
8 on or its relationship to safety culture at each of  
9 the facilities.

10 MR. SANFILIPPO: And while we have  
11 really maintained the fundamental principles of the  
12 Reactor Oversight Process, being more objective,  
13 more scrutable, more repeatable than the previous  
14 oversight process. Like I said, most of these  
15 individual details of these various processes have  
16 changed throughout the years based on feedback. So  
17 it's really been a dynamic program that has been  
18 constantly evolving over the past 15 years. But it  
19 really has always sought to stay true to the  
20 principles of its founding.

21 MEMBER POWERS: When you say continuous  
22 feedback, you're talking about, what? Feedback  
23 just from doing the inspections? Or is there  
24 something more formalized?

25 MR. REGAN: So if you would allow me,

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1 I'm going to get to the specifics of that very  
2 soon.

3 MR. SANFILIPPO: That's our next slide.

4 MR. REGAN: That's our next slide. So  
5 you're being a good straight man. All right. So  
6 we have various mechanisms that we can provide  
7 feedback or input to enhancing the program. We  
8 have standing programs where feedback can be  
9 submitted and then more recently, as we'll talk in  
10 detail, there have been initiatives to look more  
11 holistically at the program from a global  
12 perspective rather than picking off issues  
13 piecemeal. I'll jump to the second bullet first  
14 because I think that's the easiest one to address.  
15 So we have a process in place where at any point in  
16 time, anyone who has interests in the program may  
17 submit feedback to the program to improve or  
18 enhance small aspects and maybe broader aspects of  
19 the program.

20 There's a form that's filled out, it's  
21 processed through management and supervision, it  
22 ends up here in Headquarters for us to disposition,  
23 a subject matter expert will look at that feedback  
24 and evaluate the merits, and then we will go  
25 through a standard revision and approval process as

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1 a result of that. And that's a standing program,  
2 it's always been in place, it's still in place now.  
3 It's a continuous mechanism for feedback.

4 MEMBER POWERS: It is not hard to go out  
5 to the regions in an unofficial capacity and hear  
6 substantial amounts of what you might know in the  
7 colloquial language as bitching among your  
8 inspectors and your onsite personnel. Does that  
9 make it into the feedback forms?

10 MR. REGAN: Yes and no. We are always  
11 in a listening mode whenever we travel out to the  
12 regions or interact with our counterparts. The  
13 folks that are inspectors, the ones in the fields,  
14 they're closest to the issues, so we try very hard  
15 to entertain if they have observations or feedback,  
16 we like to call it feedback, on how they might be  
17 implementing the program or any issues or  
18 difficulties, challenges they may be having  
19 regarding what we have in the way of our governance  
20 documents.

21 We try and urge them that if they have  
22 a concern that they feel is important that they  
23 submit a feedback form because it provides  
24 documentation and allows us to really track that  
25 feedback that's provided to us versus just word of

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1 mouth. So we urge them to institutionalize their  
2 concerns such that we can disposition it in a more  
3 structured manner. But, yes, in answer to your  
4 question, yes. We do hear that quite often.

5 MEMBER SCHULTZ: Chris, this is a  
6 process that works on a voluntary basis --

7 MR. REGAN: Yes.

8 MEMBER SCHULTZ: -- with then if there's  
9 something that you see or someone in your area of  
10 focus sees, they might urge someone to provide  
11 formal feedback --

12 MR. REGAN: Yes.

13 MEMBER SCHULTZ: -- into the process  
14 through --

15 MR. REGAN: And if some --

16 MEMBER SCHULTZ: -- the feedback form.  
17 Then what happens to the feedback forms?

18 MR. REGAN: So we have actually a  
19 database where they're all listed and tracked. As  
20 I mentioned, a subject matter expert who is  
21 responsible for that particular inspection area  
22 here at Headquarters will then review the input,  
23 look at the merits. Usually there's some aspect of  
24 coordination amongst the other regions, so if you  
25 get feedback from one region or one inspector at

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1 one plant, rather than just working with that one  
2 individual, we'll look for, does anyone else have  
3 this concern? Are you seeing any other aspects of  
4 this that we might address while we're making this  
5 revision to address this concern? So there is a  
6 fair amount of collaboration that occurs before we  
7 actually implement a revision to an inspection  
8 procedure resulting from feedback.

9 And that feedback does not always come  
10 from folks in the field. We have staff here at  
11 Headquarters that may see opportunities for  
12 improvement and to ensure we track it and document  
13 the bases for why a change may or may not be  
14 accepted, we'll write it down, put it in our  
15 feedback form process.

16 MR. WIDMAYER: So you could use whatever  
17 measure you want, but how many of these do you get  
18 in a year? Or how many do you usually have open?

19 MR. REGAN: So, I've been in this job  
20 for three years. And since I've been here, the  
21 fundamental feedback we get is roughly about 100  
22 discrete feedback forms. But they vary in detail.  
23 Some touch on large policy type issues and some are  
24 very specific, please add the following words to  
25 this section of a procedure. So it varies. Why I

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1 say I would be challenged to say what the average  
2 is, is because recently we've had, as you will see,  
3 a number of additional assessment tools that have  
4 provided a fairly steep spike in number of feedback  
5 or the amount of feedback we've had to enter into  
6 the program. So we're kind of in a little bit of  
7 an abnormal mode right now.

8 CHAIRMAN SKILLMAN: What triggered the  
9 abnormal mode?

10 MR. REGAN: The amount of -- as you will  
11 see, the amount of additional ROP assessment that  
12 we've been witnessing or been privy to over the  
13 last couple years. And we'll walk through those  
14 examples of where that additional feedback is  
15 coming from.

16 → CHAIRMAN SKILLMAN: All right. Chris,  
17 is there a, and Nathan, is there a specific area  
18 that comes to mind where there have been multiple  
19 pings from the field of approximately the same tone  
20 or perhaps the same subject, where the ROP has not  
21 been adjusted?

22 MR. REGAN: I don't know if I can answer  
23 the second part where it hasn't been adjusted, but  
24 I can tell you where a lot of the focus is.

25 CHAIRMAN SKILLMAN: Okay.

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1                   MR. REGAN: And Nathan, he has some in  
2 his areas as well. We have Manual Chapter 0612,  
3 which is the screening process for identified  
4 issues of concern. It's kind of the first step in  
5 the process on how we figure out is this something  
6 that we really need to worry about or not? I won't  
7 say it's a simple process, but I wouldn't call it  
8 overly complex either. But it's a process where we  
9 get from an identified issue of concern in the  
10 field to is this a finding where the Agency has to  
11 have a response? It is applied by every inspector  
12 in the field, it's kind of the, I won't say the  
13 Bible of how we process issues, but it is the go-to  
14 document. So everyone that is involved in the ROP  
15 has a vested interest in this document.

16                   So we get lots of feedback on the  
17 screening process for issues of concern. If I were  
18 to look at the volume of feedback we currently have  
19 in our system, I'd say it's probably about a  
20 quarter of all of the feedback we get on the ROP is  
21 associated with this one document. So, in answer  
22 to your question, yes, we get a lot of pings on  
23 that one. Is it associated with ones that we do  
24 not take action on? No, we pretty much entertain  
25 pretty much all the feedback associated with that

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1 one in some shape or form. Did you have another  
2 example?

3 MR. SANFILIPPO: Sure. And in general  
4 too, I believe, as you'll see as we go through some  
5 of this presentation, that in particular there was  
6 a GAO audit from a few years ago that was related  
7 to regional consistency. And the Manual Chapter  
8 0612 that Chris was mentioning, is one of those  
9 areas that is an area that is prone to have  
10 differing interpretations of guidance that can  
11 propagate regional inconsistency. And so that's  
12 part of the reason we have so much feedback is  
13 there are many different views of what that program  
14 should look like and we've been, as we'll talk  
15 about, working through a lot of those challenges.

16 CHAIRMAN SKILLMAN: Let me ask one more.  
17 I understand the consistency issue and I understand  
18 the 0612 issue. Has the population of inspectors  
19 ever identified an area that should be inspected,  
20 but is not being inspected?

21 MR. SANFILIPPO: I would probably -- I  
22 mean, I would say that there's nothing obvious with  
23 respect to there. A lot of it is adjustments  
24 within the program and that's part of our feedback  
25 mechanisms and our self-assessment process where we

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1 always take a look at, do we need to divert more  
2 resources to one particular type of inspection  
3 versus another type based on what inspectors are  
4 finding, based on the feedback that we're getting,  
5 based on the number of issues that we might be  
6 unearthing at reactor sites? And every few years  
7 we go through the process of realigning resources  
8 based on where we think they need to be diverted  
9 from one area to another. And then inspectors  
10 certainly have a lot of input into how that --  
11 where those resources get realigned. But I can't  
12 think of any area where it's been a gap, so to  
13 speak, that we filled due to feedback.

14 MR. REGAN: Yes. There's material  
15 further on in the presentation where I'll speak to  
16 the effort we expended to look at the Baseline  
17 Inspection Program to ask that exact question.

18 CHAIRMAN SKILLMAN: Okay. When we get  
19 there, I've got a couple questions I'd like to  
20 explore.

21 MR. REGAN: Sure.

22 CHAIRMAN SKILLMAN: Please proceed.

23 MR. REGAN: Okay.

24 CHAIRMAN SKILLMAN: Thank you.

25 MR. REGAN: So we talked about feedback

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1 forms. We also have a self-assessment process,  
2 that's currently under review, that would occur  
3 annually and the results of that self-assessment,  
4 we would report to the Commission. We have a  
5 SharePoint or a web tool where individuals can  
6 reach out to us through the internet, through our  
7 SharePoint website, if they have issues of concern  
8 or things they want to share with us. We also do  
9 program audits where, for example, we would  
10 periodically audit inspection reports on a  
11 particular subject area to see have issues been  
12 documented appropriately? Are the regions and the  
13 inspectors in the field inspecting or implementing  
14 the program as we intended? And are they being  
15 consistent across the regions as far as their  
16 implementation goes?

17 And we also receive feedback from  
18 Lessons-Learned from significant activities or  
19 events that have occurred out in industry. Part of  
20 our process is when we have a major inspection  
21 activity, we'll do a Lessons-Learned. For example,  
22 Browns Ferry, Fort Calhoun, San Onofre, these were  
23 large activities that the Agency was engaged in.  
24 So we take the Lessons-Learned from those  
25 activities and we will look for opportunities to

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1 feed that back into the process to see if there's  
2 areas we can improve.

3 MEMBER SCHULTZ: Chris, how much  
4 information comes in on the Contact Us?

5 MR. REGAN: This actually is relatively  
6 new.

7 MEMBER SCHULTZ: Okay.

8 MR. REGAN: I don't know, Nathan --

9 MR. SANFILIPPO: Yes.

10 MR. REGAN: -- if it's -- okay.

11 MR. SANFILIPPO: It's a process we  
12 created just a few months ago --

13 MR. REGAN: Yes.

14 MR. SANFILIPPO: -- really out of trying  
15 to help fill a perceived gap that there wasn't a  
16 good way for a more informal mechanism than a  
17 feedback form to answer it. Sometimes it's just a  
18 question, it's not a piece of feedback. So we've  
19 set up both an external Contact Us, where a member  
20 of the public can, on our website, reach out and  
21 ask us a question or we also have it on our  
22 internal inspection program pages for resident  
23 inspectors, for example, that need some support or  
24 help in an area. It's a pretty new process. We've  
25 gotten very few inquiries via that method, but it's

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1 still being promulgated as a tool that's out there  
2 for people to use. So we're looking forward to  
3 seeing how successful it is.

4 MR. REGAN: Now, I would like to point  
5 out also, so what I've shared with you are the  
6 formal mechanisms. There is daily communication  
7 verbally with our counterparts in the field. We  
8 have standing meetings that occur weekly, bi-  
9 weekly, monthly, at all levels from staff all the  
10 way up to our division director level. There are  
11 periodic counterpart meetings in the regions where  
12 all of the inspectors will gather to talk about  
13 issues of importance to them. We will participate  
14 and often at times attend those as a means for us  
15 communicating to them and them communicating to us.  
16 So, the amount of interaction with our colleagues  
17 in the field is on a continuous basis and not just  
18 these specific mechanisms. But we do have these  
19 that are standing, but we do communicate with them  
20 on a regular basis.

21 MEMBER SCHULTZ: Yes. Who are -- I  
22 guess I'd say, what is the makeup of the external  
23 review team? You've got external reviews there, is  
24 that -- what is that?

25 MR. REGAN: When we're speaking of

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1 external reviews, OIG --

2 MEMBER SCHULTZ: Okay.

3 MR. REGAN: -- often will audit various  
4 aspects of our program. Nathan alluded to the fact  
5 the GAO came in and looked and audited a piece of  
6 our program. We also meet periodically with -- we  
7 have a ROP working group that is comprised of NRC  
8 and NEI and members of industry.

9 MEMBER SCHULTZ: Okay.

10 MR. REGAN: And we meet with them, we  
11 communicate with them monthly, but we meet with  
12 them in public every other month to talk about  
13 issues that they may want to bring to the table.  
14 And we provide them things that are of importance  
15 to us and where we are with respect to processing  
16 issues.

17 MEMBER SCHULTZ: Okay. Sir?

18 MR. MORRIS: I just wanted to quickly  
19 add something to that. My name is Scott Morris,  
20 I'm the Director of the Division of Inspection and  
21 Regional Support. I just now noticed my name was  
22 up there.

23 (Laughter.)

24 MR. MORRIS: I might come up, but I have  
25 to leave early. What I wanted to add was, we also

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1 had an independent assessment done by people not  
2 directly associated with the ROP. They're NRC  
3 staff and managers that did an independent  
4 assessment and I don't know if you guys were going  
5 to touch on that, but --

6 MR. REGAN: Yes.

7 MR. MORRIS: -- we got a number of --

8 MR. REGAN: We will.

9 MR. MORRIS: So that was -- I would --  
10 it's not really external, but it was independent.  
11 And getting back to your question, sir, I wanted to  
12 just mention that when there are things that are  
13 new and different that were not currently part of  
14 the existing Reactor Oversight Process or the  
15 Baseline Inspection Program, we do what's called a  
16 temporary instruction, that's basically a --

17 MR. REGAN: TI.

18 MR. MORRIS: A TI. So we'll launch a  
19 TI, which will go after some specific issue that we  
20 want to inspect at every site and then we'll use  
21 the information that we collect and make a  
22 determination -- part of the reason we do that is  
23 to make a determination, is this something we need  
24 to roll into the Baseline Inspection Program or  
25 not? Or is once and done good enough, for example.

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1 So for example, all the things that are being done,  
2 the industry's doing under their flex program, the  
3 post-Fukushima enhancements. So we've got a TI on  
4 that, for example. There's a TI under development  
5 for the Open Phase issue, which I'm sure you're  
6 probably aware of.

7 So, these are things that are not  
8 currently built in directly into the Baseline  
9 Program, but are things that as the issue is better  
10 understood, we'll put a TI together, we'll send the  
11 inspector corps out there to look at it, and then  
12 we'll make an assessment, is this something we need  
13 to keep looking at or not? And that's part of the  
14 rebalancing. Because it tends to be a zero-sum  
15 game in the resources that we have in the  
16 inspection program. So if we're going to do more  
17 somewhere, something else has to give. So there's  
18 a formal rebalancing that we go through every  
19 couple years as well.

20 MR. REGAN: And I'll just piggyback on  
21 that. The desired output of a TI is development of  
22 feedback for the ROP that will go into the feedback  
23 form process. That's how we capture any Lessons-  
24 Learned from implementing a TI formally into our  
25 process.

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1 CHAIRMAN SKILLMAN: Thank you. Okay.

2 MEMBER POWERS: When you say -- you'll  
3 never get off this list.

4 (Laughter.)

5 MR. MORRIS: It's all right.

6 MEMBER POWERS: When you say self-  
7 assessment, who is assessing themselves?

8 MR. SANFILIPPO: So I can talk a little  
9 bit about the self-assessment process. It's been -  
10 - the formal ROP self-assessment has been part of  
11 the ROP since its inception. As you know we --

12 MEMBER POWERS: I was here.

13 MR. SANFILIPPO: -- produce the SECY  
14 paper every year where we report to the Commission  
15 the results of our self-assessment. And we've done  
16 this every year. It's traditionally been -- we  
17 have a lead within my branch that's in charge of  
18 running the self-assessment program and we gather  
19 input from all of the subject matter experts that  
20 are program leads here at Headquarters as well as  
21 gathering metrics, performance metrics with respect  
22 to how the regions are performing the program and  
23 things like that. But one of the things, and we'll  
24 touch on it today, is it's a process that we're in  
25 the midst of revising and refreshing.

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1           We recognize that the way that the ROP  
2 self-assessment was designed was really for a new  
3 program. It was designed to test how the original  
4 ROP worked. And after 13, 14 years of experience,  
5 the things that it was looking at were we found  
6 really too much on the surface. And it wasn't  
7 going deep enough to enter some of these more  
8 challenging issues that we're starting to find  
9 through some of these other assessment mechanisms.  
10 So about a year ago, we wrote to the Commission  
11 asking permission to take a year off from the self-  
12 assessment and reporting it to them to revise and  
13 refresh the process, which we've been in the midst  
14 of and are about to finalize and you'll see a SECY  
15 paper that goes to the Commission later this fall  
16 that outlines our new program, which we will begin  
17 implementing next year.

18           But part of the new program is to  
19 expand the type of people and the team that looks  
20 at these issues. A big piece of the new program is  
21 a regional audit team, where each year we'll take  
22 one region and really audit how well they have been  
23 implementing the inspection program and look at  
24 places where perhaps there are inconsistencies that  
25 have been introduced because of interpretations of

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1 documents, audits of inspection reports, and this  
2 team will be both experts here at Headquarters, but  
3 involve members from all four regions to take a  
4 look at one region each year and kind of go through  
5 their program. So we're really trying to create a  
6 more insightful process that involves a broader  
7 range of folks.

8           Something we've learned is, and we'll  
9 get to a slide here shortly that shows all of these  
10 different external reviews and Lessons-Learned that  
11 have been hitting us over the past couple of years,  
12 it's been accelerated. And one of the questions we  
13 had to ask was, well, we do this annual self-  
14 assessment, why is it that we haven't identified  
15 these things as part of our self-assessment, yet  
16 whenever we have all these external reviews and  
17 other things, we are receiving all these  
18 recommendations and things that are good  
19 enhancements to the program? So part of it was to  
20 take a step back and make sure that our self-  
21 assessment program is appropriately introspective  
22 and is able to get to the depth of issues that we  
23 want to follow up on.

24           → MEMBER POWERS: When I worked for a  
25 living, my management would every once in a while

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1       lose its mind and pay for me to go off to some  
2       course on doing self-assessments with the  
3       misapprehension that I could actually be trained.  
4       And I would sit in these. And one of the elements  
5       that appeared in every self-assessment course that  
6       I ever saw was benchmarking. How do you benchmark  
7       yourself?

8                   MR. SANFILIPPO: It's a good question.

9                   MEMBER POWERS: I only ask good  
10       questions.

11                   (Laughter.)

12                   MR. SANFILIPPO: To some extent, as part  
13       of this regional audit, we're looking to at least  
14       do a better job benchmarking the regions against  
15       each other and identifying --

16                   MEMBER POWERS: Against each other --

17                   MR. SANFILIPPO: -- best practices as  
18       well as areas of inconsistency. I mean, our  
19       program is designed to have flexibility, certainly,  
20       that regions can -- there are some flexibilities  
21       within the program to allow for different  
22       situations. But it's really finding this balance  
23       between what's the appropriate amount of  
24       flexibility that we allow the regions to have  
25       versus does the flexibility introduce

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1 inconsistency? And so part of this audit process  
2 will be to benchmark against each other. Now, as  
3 far as an overall program standpoint, it's  
4 difficult with respect to -- there's no similar  
5 model out there or something to compare it against.

6 MEMBER POWERS: Well, I mean, the only  
7 one that comes to any kind of comparability that I  
8 can think of is perhaps what the Navy does for  
9 their at sea submarines. Can you learn anything  
10 from them? Or is it just too different of a  
11 culture? It's a different culture, it's a very  
12 different culture, but can anything be learned?

13 MR. SANFILIPPO: Quite possibly.  
14 Something -- another piece, I should say, that  
15 we're, as part of this new self-assessment process,  
16 is we plan to audit each region once every four  
17 years. And in the fifth year, we plan to  
18 specifically charter an independent assessment or  
19 review. We recognized that when the Commission  
20 directed this most recent independent review. And  
21 we don't know what that looks like. That might be  
22 an opportunity, we could either do an internal  
23 independent review or we could go out and attempt  
24 to benchmark against external entities. I think  
25 that's a good suggestion.

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1 MR. MORRIS: Yes, Scott Morris again.  
2 So I'm a retired Navy officer and I was the subject  
3 of many operating reactor safety examinations, ORSE  
4 Boards, from the NPEB. And --

5 MEMBER POWERS: We had a different word  
6 for them.

7 MR. MORRIS: Yes, I'm trying to be kind.

8 (Laughter.)

9 MR. MORRIS: But they -- you're right,  
10 different culture. It was a combination, as you  
11 probably know, of what I call a compliance audit,  
12 are the logs being kept consistent with the reactor  
13 plant manual requirements and the Naval reactor --  
14 so there's a whole compliance piece of those. But  
15 then there was a very performance based part of  
16 those as well. They would run drills and we'd be  
17 asked to observe how the people operating the ship,  
18 were they operating in compliance with the  
19 procedures and were they effective at combating the  
20 casualty and were the communications good and all  
21 that? And they would evaluate on a performance  
22 basis. I think it's fair to say that the ROP is  
23 analogous to that because there are a lot of things  
24 as part of the ROP, as you well know, that we try  
25 to performance base on our oversight.

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1           MEMBER POWERS: The intention was to be  
2 very performance based.

3           MR. MORRIS: Correct. And so, there's  
4 not a lot of what I would call compliance auditing.  
5 There's some. I mean, we do very little  
6 programmatic assessments, there are a few.  
7 Component Design Basis Inspections come to mind,  
8 which is where we go in and do a deep dive on a --

9           MEMBER POWERS: Well, I'll tell you what  
10 my concern is. I always get concerned that there  
11 isn't peer review. And here's the problem, if you  
12 ask me pick a peer for ROP, and I said ain't one.  
13 It's so far ahead of everybody else that it's very  
14 hard to pick one. The other one that comes to mind  
15 is -- two come to mind. INPO and the Navy come to  
16 mind. They're not precisely analogous. I just  
17 wonder, can you learn anything from that?

18           Now, one of the things that comes from  
19 peer review, it's not the review itself, it's  
20 getting ready for the review. You'd be surprised  
21 how many ideas come to mind, and probably you had a  
22 couple just coming here to talk, I ought to think  
23 about this in the future. That's your problem, is  
24 you haven't got a peer. But you've got to look for  
25 somebody to inspire you to think outside the box

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1 you've created for yourself. If I were in your  
2 positions, that's what I would worry more about  
3 than any other single thing is that I have created  
4 a cocoon for myself and I'm not thinking outside of  
5 that. Because you just don't have a peer. I mean,  
6 it's one of the most innovative and imaginative  
7 programs the Agency's ever created and there's just  
8 nothing comparable to it.

9 → CHAIRMAN SKILLMAN: Let me pile on to  
10 Dana for a minute here. I see the ROP that same  
11 way. I spent years in SAL, I spent many years  
12 before SAL, I spent a decade with ROP.

13 MEMBER POWERS: God, you're an old  
14 codger aren't you?

15 (Laughter.)

16 CHAIRMAN SKILLMAN: And then I spent a  
17 decade out in the industry basically chasing 0350  
18 plants. And so, I come with a little bit of  
19 baggage wondering why you don't have a CAP program  
20 on yourselves. To build the kind of culture Dana's  
21 talking about, in the Navy, you've got the  
22 processes that were established by Rickover for  
23 self inspection. In INPO, you've got E&As and  
24 you've got mid-terms. But once every four years,  
25 and gee whiz, you have the mid--cycle review that

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1 sometimes is more of a terror to the utility than  
2 the four year E&A.

3 It seems to me what's missing in ROP is  
4 your own -- excuse me, XVI Criterion 16, Corrective  
5 Action Program to where you are building into your  
6 program feedback where there are deficiencies. So  
7 you are continuously hoisting yourself to a higher  
8 standard based on what you're learning among  
9 yourselves. I can see myself, an inspector, at  
10 Cooper Station, saying I'm deep in 0612 and this  
11 just isn't working. So I write it down and it  
12 comes in. But it comes in, is it an actual  
13 threshold deficiency that needs to be evaluated?  
14 And gee whiz, maybe someone who's trying to lay up  
15 songs and someone up in Washington state says, I've  
16 got the same thing. And all of a sudden, you not  
17 only have a Lessons-Learned, you have your own  
18 Corrective Action Program within ROP to where  
19 you're building on a daily basis a higher standard.

20 It seems like that ought to be part of  
21 what you have and, guess what, that all hangs on  
22 the strength of your Corrective Action Program,  
23 which happens to be the strength of your cross-  
24 cutting issues program, your PI&R. So this program  
25 is really hooked deeply into Criterion 16 of

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1 Appendix B, but Appendix B is really carrying the  
2 day for you guys. So I think that there are some  
3 opportunities here that perhaps you might not have  
4 explored, at least from that maybe quirky, but  
5 maybe valuable perspective.

6 MEMBER SCHULTZ: I think you've got a  
7 very good point Dick. And that's why I was probing  
8 at the feedback form response and the Contact Us.  
9 I mean, there are certainly opportunities and the  
10 way you described your approach, it sounds just  
11 like Corrective Action Program. Although it's not  
12 formal, you didn't describe how you make sure that  
13 everything gets proper attention or how you  
14 prioritize or --

15 MR. SANFILIPPO: Slide 6, but we'll get  
16 to that.

17 → MEMBER SCHULTZ: So there's all of that.  
18 To follow on Dana's comment, and Dick's as well,  
19 are you maintaining familiarity with what INPO does  
20 sufficiently to understand how that not only could  
21 affect the program enhancements here, but also how  
22 the overall process can well connect with the ROP,  
23 the work that you do?

24 MR. MORRIS: The INPO question, let me -  
25 - I think the answer is yes. I mean, we're very

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1 familiar with what INPO's doing with their CAP  
2 Plus, I forget the latest, what they're calling it.  
3 But they're trying to really zero in on the really  
4 important stuff and let the other stuff just be  
5 part of the day-to-day grind of business. So they  
6 don't overly diffuse -- things don't get lost in  
7 the system. Just because there's so much. I mean,  
8 everybody, 15 years ago, high volume, low threshold  
9 --

10 MEMBER SCHULTZ: Yes.

11 MR. MORRIS: -- was the way to go. And  
12 I don't think anybody saying that's not the way to  
13 go, but they're trying to elevate -- things can get  
14 lost in there and managers get so wrapped up that -  
15 - the managers at the site, the first line  
16 supervisors, et cetera, get so wrapped in all the  
17 documentation and process associated with managing  
18 all those myriad issues. And their attention gets  
19 perhaps diluted on things that are truly important.  
20 And I know that's what INPO's trying to do and  
21 we've had many conversations with them. I actually  
22 have a couple guys from another peer branch or  
23 operating experience branch that's actually down at  
24 INPO today as it turns out.

25 MEMBER SCHULTZ: Okay. Yes.

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1           MR. MORRIS: So, but yes. So that's  
2 key. Because you're right, that is a fundamental  
3 underpinning of the whole oversight program, is the  
4 presumption that licensees have a vibrant effective  
5 Corrective Action Program.

6           MEMBER SCHULTZ: Yes. There's good  
7 reason that the two programs are engaged or there's  
8 common engagement. But --

9           MR. MORRIS: Right.

10          MEMBER SCHULTZ: -- there's certainly  
11 good feedback to be developed from cross-  
12 pollinating the program approaches.

13          MR. MORRIS: No question. I agree  
14 totally.

15          MR. SANFILIPPO: And we'll talk in  
16 detail about the ROP enhancement project, which has  
17 been this sort of discrete project we've been  
18 embarked on over the past couple of years. And I  
19 think in many ways, we approached it in many ways  
20 that we would more like a Corrective Action  
21 Program. And in processing, prioritize, binning  
22 issues, sort of creating a plan of attack of and  
23 triage of what's most important and what's low-  
24 hanging fruit, et cetera. And I think one of the  
25 things we've talked about and are starting to look

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1 at is, all right, well, once we sunset this  
2 project, how do we maintain those elements of how  
3 we prioritize, bin, evaluate feedback, moving  
4 forward? Because I think there's some things we  
5 learned there that are pretty effective that  
6 weren't elements of the program specifically before  
7 that.

8 CHAIRMAN SKILLMAN: Thank you. Team,  
9 can we let them go on?

10 MEMBER SCHULTZ: Yes.

11 CHAIRMAN SKILLMAN: Proceed please.

12 MR. SANFILIPPO: Okay.

13 CHAIRMAN SKILLMAN: Thank you.

14 MEMBER BALLINGER: If you're interested  
15 in the Navy side, the current issue of the U.S.  
16 Naval Institute proceedings, I think it's the  
17 current one or the previous one, has a long article  
18 on the cheating scandals --

19 MR. MORRIS: Oh, yes.

20 MEMBER BALLINGER: -- that went on and  
21 have gone on in the Navy on the nuclear  
22 qualification program. And there's some very  
23 interesting discussion about human factors and  
24 things like that.

25 MR. MORRIS: Chris just hired a

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1 gentleman who was -- actually there's two guys,  
2 another one's coming later this month, who was  
3 working down there on the moored training ships in  
4 Charleston and is very familiar with the pain and  
5 agony of that whole thing. I haven't even had a  
6 chance to pick his brain on that. But we will.  
7 And I stopped paying dues, so I don't get  
8 proceedings anymore, but I know people who do, so  
9 I'll have to read that.

10 MEMBER BALLINGER: I'll send you the  
11 article.

12 MR. MORRIS: Okay.

13 MR. REGAN: Okay. So we've alluded to  
14 the fact that we have a -- we are in the throes of  
15 conducting an enhancement project. This project,  
16 in the fundamental sense, and we'll talk about some  
17 of the peripheral activities that are also being  
18 collectively analyzed or reviewed as part of the  
19 ROP enhancement in a general sense, but we had an  
20 ROP enhancement project that was stood up in 2013.  
21 It was self-initiated for us to reflect on the ROP  
22 as a whole and look for areas where we could  
23 improve the program.

24 The goal, and the words speak for  
25 themselves, continuously improve the ROP using a

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1 framework to accomplish the various ongoing  
2 programmatic improvement activities in a  
3 prioritized, organized, and efficient manner. So  
4 this was an effort we wanted to really step back  
5 and look holistically in a structured manner at the  
6 entire ROP soup to nuts.

7 To date, we have in process for  
8 analysis 130 plus inputs from multiple sources. As  
9 Nathan alluded to, we have a process where we've  
10 prioritized, binned, categorized, all of these  
11 inputs to see if there is synergy we can obtain by  
12 looking at these issues in groups. The major  
13 breakdown of the areas we looked at, we started  
14 with the Baseline Inspection Program. Well  
15 defined, nicely packaged, that was our first area  
16 that we looked at as part of the enhancement  
17 project. But there are four other areas that we  
18 also have in process that Nathan's going to talk  
19 about specifically later.

20 They include the assessment program,  
21 the self-assessment that he talked about a little  
22 bit from a global sense. The significant  
23 determination process, our SDPs. And then  
24 communications, which is pretty much a catchall for  
25 all the other loose ends on how we communicate and

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1 work with our counterparts in the field and with  
2 internally here and externally to the public and  
3 stakeholders as well. So, inputs. I spoke to the  
4 fact that we have an enhancement project, but that  
5 there are also other external and internal inputs  
6 to what we are looking at to enhance the ROP in a  
7 general sense.

8 The ROP Baseline Inspection Program,  
9 which I alluded to, is self-initiated as part of  
10 the enhancement project. The SDP process  
11 enhancement, self-initiated part of the enhancement  
12 project. The ROP Independent Assessment, and this  
13 is what Scott mentioned earlier where it was a  
14 Commission directed third-party independent review  
15 of the ROP. Not external, still internal to the  
16 NRC, but it was comprised of staff that had great  
17 familiarity with the ROP, but that weren't  
18 currently engaged in the ROP program itself. So  
19 they took an outside look at how the program was  
20 working. So we have inputs from that analysis and  
21 that report.

22 We spoke briefly earlier about a GAO  
23 audit that was performed on regional differences  
24 and communications associated with the ROP. We  
25 also have had a recent OIG audit completed that

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1 talked about how we might support the resident  
2 inspectors in the field. So there was insights on  
3 the ROP that we were able to obtain from there.  
4 And there are actually a couple others that aren't  
5 on the slide. We had an OIG audit on aging of  
6 active components. We've had an OIG audit on spent  
7 fuel pool inspections. So we get --

8 MR. MORRIS: And they just kicked off  
9 another one last week.

10 MR. REGAN: And we just had a kick off  
11 meeting on an OIG audit on the Baseline Inspection  
12 Program --

13 CHAIRMAN SKILLMAN: Let me --

14 MR. REGAN: -- earlier this week.

15 → CHAIRMAN SKILLMAN: Let me ask a  
16 question here. One of the things I was really  
17 intrigued with four years ago when I was being  
18 interviewed here for ACRS is a topic that I spent a  
19 lot of time on when I was consulting. And that is  
20 leading indicator of future performance, a leading  
21 indicator at future performance. And I've always  
22 been curious why the Baseline Inspection doesn't  
23 carry something like that as part of it. And I'll  
24 give you an example.

25 If you were to have gone to Davis-Besse

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1 in the three or five years prior to 2002, the head  
2 event, if you had gone to Calhoun three or five  
3 years before their circuit breaker event, the red  
4 event, flooding was really secondary to that,  
5 although that consumed our attention, I think if  
6 the Baseline Inspection had looked at work  
7 inventory, and I'm making a distinction between  
8 inventory and backlog, in maintenance and  
9 engineering, I think even a brand new inspector  
10 would have said, something's wrong. The work's not  
11 getting done. And I would suggest anywhere you've  
12 gone in to 95003 in any of the plants, you would  
13 have found that same signature.

14 So I've always wondered why in your  
15 Baseline Inspection there isn't at least a ping  
16 over on work management, outstanding work tasks  
17 three months old, six months old, two years old,  
18 just as a statistic. Not that you would audit the  
19 veracity of that information, but that you would at  
20 least have an understanding of the population.  
21 Same in engineering for outstanding mods, mini-mods  
22 and major mods. Because the outstanding major mods  
23 really tell you where the money's going for their  
24 future and the outstanding mini-mods tells you what  
25 the maintenance people are being told to do or

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1 engineering is being told to do to support ops.

2 And almost every one of these plants,  
3 they're going to say, we're an ops run plant. That  
4 says to me, engineering, get your fanny in gear and  
5 go get something done right now. And that could  
6 mean whatever your priorities were yesterday, they  
7 aren't the same today. So that backlog and work  
8 inventory becomes a very valuable indicator of what  
9 is and is not getting done. So my questions is,  
10 why isn't that part of your Baseline Inspection?

11 MR. REGAN: So there is an element of  
12 that, that actually is in the Baseline Inspection  
13 Program. So one, we do a PI&R inspection that  
14 looks at the licensee's Corrective Action Program.  
15 It is not -- the ROP, by its very nature is not  
16 intended to be predictive. But there is  
17 programmatic -- the PI&R inspection does have  
18 evaluations of programmatic implementation as part  
19 of its objective. But it also has as part of its  
20 objective trending, looking at some degree of  
21 predictability of licensee issues that are  
22 accumulating that may reach critical mass to kind  
23 of make us aware of, okay, this licensee may be in  
24 trouble in this particular area.

25 So is it directed specifically at

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1 looking at future indicators? Not fundamentally,  
2 but it does have elements of looking at Corrective  
3 Action backlog, issue of significance that the  
4 licensee is struggling with in their Corrective  
5 Action Program, trending, is the backlog  
6 increasing, are they seeing an increasing number of  
7 issues in this particular area? And that's part of  
8 the PI&R inspection scope. So not only do you have  
9 the resident inspectors looking almost daily at  
10 what's feeding into and coming out of the  
11 Corrective Action Program that the licensee has,  
12 but there is also a periodic bi-annual PI&R  
13 inspection where we send a team of inspectors to  
14 the site to look at their program and see if there  
15 are any indicators that the licensee is struggling  
16 to handle the issues that are being fed into the  
17 program.

18 CHAIRMAN SKILLMAN: Okay. Well I -- let  
19 me challenge you there, because I understand your  
20 words. If the items are coming through as CR, and  
21 they found their way into the PI&R backlog or the  
22 Corrective Action backlog, I agree with you. But I  
23 would also submit that there is a lot of work that  
24 might not find its way into the CR program. And  
25 that becomes a work inventory that's competing with

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1 what's in the backlog that you see in the  
2 Corrective Action Program. This can be, hey, one  
3 of these days we're going to have fix the sump pump  
4 down on the second level below the turbine or back  
5 in the waste handling building, we have this rotten  
6 pipe back there, it hasn't broken yet, no one knows  
7 about it, we haven't put it in the Corrective  
8 Action Program because we really don't think it  
9 rises to that level, but it's back there.

10 What I'm suggesting is a work  
11 inventory. And that's normally going to show up in  
12 your Work Management Program, not necessarily out  
13 of your Corrective Action Program. And I'm saying  
14 that's where you've got a leading indicator that  
15 might be very valuable, but you wouldn't know about  
16 it unless you went picking back in there.

17 MR. REGAN: Yes.

18 CHAIRMAN SKILLMAN: That's what I'm  
19 saying. I think that there's other information  
20 that might be very valuable to you as a leading  
21 indicator of future performance, but it might not  
22 come up on your radar screen because a lot of that  
23 stuff might not be regulatory required. It's not  
24 finding its way into a CR, but it's still facing  
25 the staff at the station. And they're going to be

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1 driven by that.

2 MR. REGAN: That's a good point.

3 MR. SANFILIPPO: Another one of those  
4 areas, and I know it got some attention --

5 CHAIRMAN SKILLMAN: Have I said enough?  
6 I don't want to overplay my hand here, but that's  
7 really been a rub.

8 MEMBER SCHULTZ: It's good emphasis too.

9 CHAIRMAN SKILLMAN: Pardon?

10 MEMBER SCHULTZ: It's good emphasis.

11 CHAIRMAN SKILLMAN: Thank you.

12 MEMBER SCHULTZ: Because it is an area  
13 that's not normally examined and there's good  
14 information.

15 MR. SANFILIPPO: And it's one of the  
16 things we found with Browns Ferry in their issues,  
17 they're Column 4 over the past number of years,  
18 that one of their identified causes was a lack of  
19 maintenance budget.

20 CHAIRMAN SKILLMAN: Bingo.

21 MR. SANFILIPPO: And that's something I  
22 know several years ago, we engaged a lot. The  
23 challenge there becomes of course the premise of  
24 the ROP being reactive to deficient performance.  
25 And so it limits our ability to take action on

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1 things that are predictive. But in that case, I  
2 remember I was working for the Chairman at the time  
3 and we had meetings with INPO because that's easier  
4 for them to get at as a peer evaluator than it is  
5 from a regulatory standpoint. But that was  
6 something I know that they were starting to  
7 incorporate more of some of the financial aspects  
8 and how they relate to plant performance and  
9 degrade of performance. And I know it's something  
10 we've looked at.

11 MR. MORRIS: Well, I would just add that  
12 while it's not called out specifically -- I totally  
13 agree with you, by the way. I worked as a senior  
14 resident inspector at two plants under the SAL  
15 program and inspector hunches and all of the stuff  
16 that the industry hated, right? And it's not --  
17 you won't see it specifically called out in the  
18 Baseline Inspection Program, but in some tangential  
19 ways. But I will say that as part of the mid-cycle  
20 and end-of-cycle assessment process, if you've not  
21 had the opportunity to look at how we do that, how  
22 the region pulls together all the information and  
23 does their periodic assessments of each individual  
24 plant, they don't look at simply the -- and this is  
25 also not necessarily institutionalized in any

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1           programmatic governance documents.

2                         But as a practical matter, what they  
3 actually do is they pull together all of the stuff  
4 that comes out of the ROP in terms of findings and  
5 performance indicators and what all that means, but  
6 they also look at all the traditional enforcement  
7 actions. They also look at the allegations case  
8 load, they look at the latest INPO report and that  
9 actually gets reviewed and incorporated into that  
10 assessment. What actually comes out the back-end  
11 is entirely based on what the ROP and its inputs  
12 are telling the NRC to go do in terms of follow-up  
13 inspections, et cetera.

14                         But as a practical matter, a lot of  
15 other things get folded into that assessment  
16 process that the regional administrator and all the  
17 senior leaders in region and the branch chiefs  
18 associated with each site, they have a running list  
19 of things so that when they make their management  
20 visits to each of the sites, they have all that in  
21 their hip pocket. And I can assure you, they're  
22 having those conversations. They're not in the,  
23 quote, public domain and written down in inspection  
24 reports and assessment reports, but that  
25 information isn't completely lost either. It

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1 actually does get -- it actually is factored in, in  
2 an informal way.

3 And I think it's in part because of the  
4 limitations of the ROP, which these gentlemen  
5 mentioned, but also because of our -- what is our  
6 role as a regulator? Are you complying, are you  
7 not complying? Yes, we're very interested in the  
8 performance, we think that's the right way to  
9 assess. But it's tricky, I guess is what I'm --  
10 I'm not sure that we would ever do what you're  
11 suggesting, incorporate -- we certainly could, I'm  
12 just struggling here on the fly to figure out how  
13 we would factor that into our assessment process in  
14 a formal way.

15 CHAIRMAN SKILLMAN: And I can understand  
16 the delicacy of this because you're not really  
17 commissioned to be involved in their business plan  
18 --

19 MR. MORRIS: Correct.

20 CHAIRMAN SKILLMAN: -- or their  
21 finances. I know that. But if you look at the  
22 trajectory of the 0350 plants or the 95002 and  
23 95003 plants, in almost every case, I think you'll  
24 find there's a workload backlog inventory and very  
25 often, it's resources and design engineering and

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1 plant engineering. Things aren't getting done and  
2 sure as shooting, whammo --

3 MR. MORRIS: Yes.

4 CHAIRMAN SKILLMAN: -- out comes the  
5 event. And you go back and say, we knew it was  
6 coming, we just didn't know when. So from that  
7 perspective, one can almost say --

8 MR. MORRIS: Yes.

9 CHAIRMAN SKILLMAN: -- if we just kind  
10 of keep tabs on that and let them know we're aware  
11 of it, that would be sufficient.

12 MR. MORRIS: I don't know that we've  
13 ever done an assessment of kind of what you're  
14 suggesting or what you've -- it's like let's look  
15 at all the 95003s we ever did, is there a common  
16 thread in what we found? I don't know that we've  
17 ever done that.

18 CHAIRMAN SKILLMAN: And I'll assert  
19 there is and you're going to find the tracks right  
20 through work management, inventory backlog, in  
21 probably one or two organizations that was --

22 MEMBER SCHULTZ: I think you would. I'm  
23 surprised you haven't seen it when you've asked the  
24 questions once the occurrences, the events have  
25 happened. I'm sure it's there. I'm sure it's

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1 there. It's people working too hard on too many  
2 things or working too hard on the wrong things.  
3 Then things happen.

4 CHAIRMAN SKILLMAN: Yes. And so does it  
5 really have anything to do with nuclear safety?  
6 Well, kind of, yes. Because once they've fallen  
7 off the log in a 95003 and 0350, then here is this  
8 huge effort that costs many, many, many times more  
9 than it would have cost to have taken early action  
10 on some of the things that were driving them in  
11 that direction. And the licensees know that.

12 MR. MORRIS: Oh, yes. And believe me, I  
13 mean, you know this, nobody wants a 95003. Nobody  
14 wants to be in Column 4. So we kind of view this  
15 graded assessment process as, the idea obviously is  
16 as a deterrent, right? I mean, you don't want to  
17 be there. So it's in your own best interest to  
18 figure out this stuff yourself.

19 CHAIRMAN SKILLMAN: Right.

20 MR. MORRIS: A little enlightened self-  
21 interest. We provide the structure for that to  
22 occur, but it doesn't always occur and people wind  
23 up in, licensees wind up in Column 4. So, your  
24 points are all very well taken and I'll challenge  
25 these guys to go back and think about how we might

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1 be able to adopt some of those concepts more  
2 formally.

3 MR. REGAN: We actually, I was going to  
4 speak to it a little bit later, but it's probably  
5 prime time now, is one of the more significant  
6 areas that we are evaluating for enhancement  
7 related to the Baseline Inspection Program -- well,  
8 there's two actually. One was Component Design  
9 Basis Inspections. But the other was PI&R. We are  
10 just at the front end of looking at the  
11 recommendations from our enhancement project, input  
12 that we've received from industry on areas they  
13 would like to see improvements in efficiency in the  
14 PI&R area. And this is certainly a perspective  
15 that we'll consider when we're looking at the  
16 program and the objective and scope of our  
17 inspection activities when it comes to PI&R. It's  
18 a good point.

19 CHAIRMAN SKILLMAN: Great. Let's keep  
20 on going. Thank you.

21 MR. REGAN: Okay. Just to wrap up this  
22 slide. So additional inputs, we've touched on  
23 earlier that we do look carefully at the Lessons-  
24 Learned documents. Three of which specifically  
25 have been on our radar, Browns Ferry, Fort Calhoun,

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1 and San Onofre, all of which are feeding into our  
2 enhancement process. Okay. So we've got 130 plus  
3 inputs, I think it might actually be near 150 at  
4 this point. But we did go through an exercise to  
5 prioritize the inputs and determine which were more  
6 near-term, to get into the program, which ones we  
7 should look at sooner, where the effort should be  
8 expended.

9 And we used three fundamental factors  
10 in a general sense to help prioritize the inputs to  
11 the program. The program needs, gaps, safety  
12 impact, number one. Government NRC interest, if  
13 the Commission was interested in us tackling a  
14 particular issue, that was something we would have  
15 to factor in to how soon or how much resources we  
16 would expend on that effort. And then also  
17 external interests. We had recommendations  
18 regarding improving and enhancing the CDBI  
19 inspection activities.

20 And we got significant interest from  
21 industry on ways that we might improve that  
22 inspection activity. Now, they were coming at it  
23 primarily from a resource impact, because it is a  
24 very large, very burdensome inspection for a  
25 licensee to entertain when staff is onsite. And

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1 they wanted us to look at perhaps different ways we  
2 could implement that inspection activity, but yet  
3 still meet the objective. So we had significant  
4 external interest in improving that inspection  
5 activity and we weighed that into our  
6 prioritization process as well.

7 We had following questions used that we  
8 would ask ourselves when we were looking at each of  
9 the enhancement inputs. Is the ROP in any of these  
10 recommendations that we're looking at helping us  
11 achieve what we need to achieve as a regulator?  
12 Scott alluded to that earlier. Let's look at the  
13 very top tier. As a regulator, is this what we  
14 really need to be doing or feel we should be doing  
15 as a conscientious regulator? Is the ROP adequate  
16 for the current environment? We had lots of inputs  
17 regarding extended operation. We're looking at 40  
18 to 60, maybe even 60 to 80, are there things in the  
19 ROP that we need to be looking at now to set us up  
20 for success in the future for these fairly old  
21 plants? We looked at what the regulation --

22 CHAIRMAN SKILLMAN: You are the first  
23 individual I have ever heard from that side of the  
24 table mention 60 to 80.

25 MR. REGAN: Okay. Is that a good thing

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1 or a bad thing? I don't know.

2 CHAIRMAN SKILLMAN: I think it's a good  
3 thing. Just from the perspective of awareness.

4 MR. REGAN: Yes.

5 CHAIRMAN SKILLMAN: Because we're  
6 talking 40 to 60 now and we're talking about SLR,  
7 Subsequent Life Renewal, coming up and it's not a  
8 commonly discussed topic, yet.

9 MR. MORRIS: I asked Chris a question  
10 via email last night, didn't I?

11 MR. REGAN: Yes, you did. One of the  
12 things --

13 MR. MORRIS: About aging management  
14 programs and what do we have --

15 MR. REGAN: Yes.

16 MR. MORRIS: -- in our inspection regime  
17 to look at that kind of stuff for plants in  
18 extended operation.

19 CHAIRMAN SKILLMAN: And we've challenged  
20 licensees when they've been up here looking for 40  
21 to 60, are you contemplating 60 to 80 and have you  
22 considered your AMPs --

23 MR. MORRIS: One of the --

24 CHAIRMAN SKILLMAN: -- 40 to 60?

25 MR. MORRIS: And that CDBI is going to

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1 go after some of that, particular when it comes to  
2 passive components, cabling and --

3 CHAIRMAN SKILLMAN: Cabling, underground  
4 piping.

5 MR. MORRIS: Yes.

6 CHAIRMAN SKILLMAN: Yes.

7 MR. MORRIS: Exactly.

8 MR. REGAN: We had one of the -- you  
9 spoke about new aspects of the Baseline Inspection  
10 Program that we hadn't considered before and one of  
11 the key aspects was how and how well have we  
12 incorporated inspection of aging issues into the  
13 Baseline Inspection Program? We looked at the  
14 programmatic aspects and then the fundamental, does  
15 the inspection activities really zero in on those  
16 aging issues and how is that encompassed in the  
17 Baseline as a whole? So when we looked at that, it  
18 was with a mindset of, okay, there's a likelihood  
19 that this inspection activity is not only  
20 applicable now, but well into the future.

21 And we have been engaged with our folks  
22 in license renewal to look at that life beyond 60.  
23 And the nexus between their inspection activities  
24 for license renewal activities and what we are  
25 doing now in Baseline Inspection Program such that

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1 when they do get to the point of license renewal,  
2 it's nothing new. We've already been looking at it  
3 in some way, shape, or form as part of our routine  
4 ROP activities. And then the last question I think  
5 I had here on this slide is, what is working, what  
6 is not, what should be improved? I think those are  
7 global questions. We did look at leveraging what  
8 we were doing well in as much as we're looking at  
9 areas where we can improve, so it wasn't just a  
10 one-sided analysis.

11 MR. MORRIS: I would just add that the  
12 underpinning of all of this, and these guys know  
13 this, it's not in the slide deck, but it's the  
14 fundamental guiding principles of the ROP.  
15 Predictability and all the --

16 MR. REGAN: Objectivity and transparency  
17 --

18 MR. MORRIS: Objectivity --

19 MR. REGAN: -- scrutability.

20 MR. MORRIS: -- all those adverbs and  
21 adjectives. And also the principles of good  
22 regulations. It's got to be clear, reliable,  
23 independent, efficient, and all those things too.  
24 So all of the things that -- there's no end to the  
25 number of good ideas. But there is an end to the

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1 amount of resources you have, right? So, we try to  
2 use this as a rubric to help us figure out what  
3 we're actually going to go do within a reasonable  
4 amount of time to have the biggest bang for the  
5 buck, so to speak. And there are going to be  
6 things that we just simply don't do, because it's a  
7 nice idea but at the end of the day, it doesn't  
8 really add a lot of value.

9 So just because we've got 130 inputs  
10 from all these different sources doesn't mean we're  
11 going to go do all of them. And, oh by the way, if  
12 I do this one over here, it's not necessarily  
13 aligned with what this one wants you to do. And so  
14 there's a little bit of trade off even within the  
15 pile of stuff that's on the plate. And then some  
16 of them, I only have two people who understand this  
17 program in depth, I can't have them doing -- but  
18 there's 20 things that fall into their shop, I  
19 can't have them do them all at once. So that's all  
20 part of the mix on how we scheduled out how we're  
21 going to incorporate some of these enhancements.

22 → MR. REGAN: Okay. This is a real quick  
23 slide. I think a lot of this we have touched on  
24 already. Other than to mention, so the first real  
25 area we analyzed was the Baseline Inspection

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1 Program. That analysis was completed and I'll talk  
2 about the steps that we went through under that  
3 analysis. But we are targeting the end of this  
4 calendar year for addressing the majority of the  
5 recommendations from that analysis and  
6 incorporating them into the ROP, with two  
7 exceptions. They have broader implications and we  
8 have a longer time frame to really dig deep into  
9 some of these areas and ensure we have adequate  
10 engagement with stakeholders, internal and external  
11 to the Agency, to ensure we're moving in the right  
12 direction. That was CDBIs and PI&R, which I  
13 mentioned earlier.

14 CHAIRMAN SKILLMAN: What is the  
15 asterisks for at the third caret?

16 MR. REGAN: Well, when I said all  
17 actions in response to recommendation to be  
18 completed by the end of 2015, with those two  
19 exceptions.

20 CHAIRMAN SKILLMAN: Okay.

21 MR. MORRIS: Is the ISFSI piece done?

22 MR. REGAN: It's on track for completion  
23 for the end of this year.

24 MR. MORRIS: Because we're adding the  
25 independent spent field storage installation

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1 oversight --

2 MR. REGAN: Inspection --

3 MR. MORRIS: -- taken that from NMSS and  
4 putting into this process. I thought that was  
5 going to bleed over, but I guess we're on track.

6 MR. REGAN: We should be on track, yes.

7 CHAIRMAN SKILLMAN: With the PI&R piece  
8 of this, where is the necessary prerequisite  
9 Corrective Action Program review so that the PI&R  
10 piece has integrity? You really can't do a good  
11 PI&R unless you know the Corrective Action Program  
12 at the facility is on solid ground. Otherwise,  
13 your data's corrupted.

14 MR. REGAN: Okay. I'm not sure I  
15 understand the question.

16 CHAIRMAN SKILLMAN: Well, when you talk  
17 about PI&R, to what extent do you depend on the  
18 licensee's Corrective Action Program?

19 MR. SANFILIPPO: How do we evaluate  
20 their Corrective Action Program?

21 MR. REGAN: It's on a following slide.  
22 Can we -- do you want us to answer the question now  
23 or do you want us --

24 CHAIRMAN SKILLMAN: I see those  
25 connected.

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1 MR. REGAN: Oh, they are.

2 CHAIRMAN SKILLMAN: I mean, very, very  
3 tightly --

4 MR. REGAN: Yes.

5 CHAIRMAN SKILLMAN: -- and unless you  
6 have one, you can't have the other it seems.

7 MR. REGAN: And there's -- yes. I'll  
8 get to that if you --

9 CHAIRMAN SKILLMAN: Okay. Fair enough.

10 MR. REGAN: -- give me a few --

11 MR. WIDMAYER: Don't change the slide.  
12 What's the schedule on the two you have exceptions?  
13 Do you have an end date for those?

14 MR. REGAN: Yes. The CDBIs is -- and I  
15 have it on a slide with more details. We're  
16 supposed to have that enhancement effort wrapped up  
17 by the end of calendar year 2016 for full  
18 implementation starting January 1, 2017.

19 MR. MORRIS: Because we're piloting it  
20 at eight sites.

21 MR. REGAN: Yes.

22 MR. MORRIS: And then we're going to get  
23 feedback from that and then roll that in -- then we  
24 got to roll it --

25 MR. WIDMAYER: Okay, but that's in --

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1 MR. MORRIS: -- what we learned into the

2 --

3 MR. WIDMAYER: -- a future slide though?

4 MR. MORRIS: Yes, it is.

5 MR. REGAN: Yes.

6 MR. WIDMAYER: Okay. All right.

7 MR. REGAN: All right. Just to kind of  
8 give you an overview of what we did relative to our  
9 enhancement project review of the Baseline  
10 Inspection Program. We looked at the Baseline  
11 Inspection Program to look at areas for inspection  
12 relative to the current environment. We looked at  
13 redundancies in inspection activities to ensure  
14 there wasn't overlap. As in you have two  
15 inspection procedures looking at the same thing.  
16 We looked at efficiencies to gain relative to our  
17 use of resources. So there was a fiscal analysis  
18 that was also performed to determine whether or not  
19 we were expending our inspection areas in the areas  
20 where we think was most important.

21 And then we also looked at where we  
22 might incorporate greater flexibility or perhaps to  
23 tighten up the flexibility. Where we believed we  
24 weren't getting the focused review that we had  
25 intended in order to support the objective of that

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1 specific inspection activity.

2 CHAIRMAN SKILLMAN: Chris, for your  
3 first caret -- excuse me, second caret, incorporate  
4 needed inspection areas for the current  
5 environment. That sounds like an add-on. Are  
6 there some examples you could give for that?

7 MR. REGAN: As I mentioned, and it's  
8 actually the next bullet, when we talked about  
9 aging management. We wanted to make sure that the  
10 Baseline Inspection Program was addressing those  
11 areas where previously it may have been a special  
12 inspection or a stand-alone inspection and make  
13 that more of the routine. Scott mentioned  
14 independent spent fuel storage installations. Yes,  
15 there was inspection activities going on, but we  
16 wanted to roll that up into what we would consider  
17 Baseline Inspection, the inspection activities  
18 necessary to ensure plant safety at the minimal  
19 level. So that's when we talk about current  
20 environment, these are new and emerging inspection  
21 activities that we wanted to formalize into routine  
22 inspection rather than targeted inspection  
23 activities.

24 → CHAIRMAN SKILLMAN: Let me just make an  
25 observation here. For the two examples that you

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1 just provided, if I was an inspector, that would be  
2 an easy inspection. You'd be looking at AMPs and  
3 you'd be looking at the spent fuel storage facility  
4 and security and devices and cooling and those type  
5 of things. However, what you're not looking at is  
6 any backlog of resources that's going to prevent  
7 other important stuff from getting done. And  
8 that's why I made my comment about the backlog.

9           It seems like if there was one single  
10 thing you might add to your Baseline Inspection  
11 that would really enhance both the inspector's and  
12 the Agency's understanding of the direction of that  
13 facility, it would be what's not getting done? And  
14 that doesn't have to be an intensive, harmful  
15 inspection, but just get a number count. Is it 50  
16 things or 5,000 things? And if the answer's, well,  
17 there are about 31 things out there and all 18 of  
18 them are budgeted and we've got a plan, then you'd  
19 probably say, hey, fair enough. You'd say, gee  
20 whiz, we came from that culture with the Corrective  
21 Action Program where more and more with little  
22 threshold, there are 9,000 things there and we  
23 don't even know where to start, I would suggest  
24 you've found something that's really worth your  
25 having found it and it would tell you something.

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1 Okay. Thank you.

2 MR. REGAN: So the Baseline Inspection  
3 Program, as part of the exercise, and again this  
4 was a holistic, soup to nuts look at the Baseline  
5 Inspection Program, all aspects. Is it meeting the  
6 current basic philosophy of the Baseline Inspection  
7 Program? Are we expending resources in the right  
8 area? Do we need to shift our focus from one area  
9 to the other? Scott mentioned it was a zero-sum  
10 game. If we felt there was something we really  
11 needed to inspect, perhaps there was another area  
12 that wasn't as important or didn't rise to the same  
13 level of safety focus. So we might reduce our  
14 inspection in those other areas.

15 We divided that up into three phases.  
16 We analyzed the inspection areas, documented the  
17 recommendations, and then we're in the process of  
18 revising the procedures to implement those  
19 recommendations. And then, as again as I  
20 mentioned, we are targeting the end of this  
21 calendar year to have all but those two areas  
22 complete and ready for the calendar year 2016  
23 inspection cycle. All right.

24 This is the first of the areas I think  
25 that you probably might be very interested in. And

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1 I do have one of my key staff here, his name is Jim  
2 Isom, he's sitting over at the table over here to  
3 answer any detail questions. He's the lead for the  
4 CDBI Inspection Program. And he's going to bail me  
5 out if I get in trouble, right Jim? Okay. So, the  
6 following enhancement --

7 MR. MORRIS: And I'm going to be here to  
8 watch.

9 (Laughter.)

10 MR. REGAN: You're going to be here to  
11 watch, right. So as part of the enhancement  
12 project, CDBIs was included. The staff's analysis  
13 was conducted and we also considered input provided  
14 by industry. They submitted to us a white paper on  
15 CDBIs. We have had multiple public meetings with  
16 industry and other public stakeholders on proposed  
17 CDBI revisions. And we are in the process of  
18 piloting the revised engineering design basis  
19 inspections. These will occur starting in November  
20 through until June. And I think the first one is  
21 going to occur in D.C. Cook, here at the beginning  
22 of November.

23 The new program will break up that  
24 three week inspection into two pieces. It will be  
25 a two week onsite inspection similar to what we do

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1 currently, which is your deep dive into the  
2 engineering design basis for particular components.  
3 There will then be a separate one week onsite  
4 inspection, I believe they will be separated into  
5 separate years to minimize the impact on the  
6 licensee, that will look at the licensee's  
7 engineering program. So you look specifically  
8 technical and then you step back and in a separate  
9 instance, you look at their engineering program and  
10 the robustness of their engineering department at  
11 their plant.

12 → MEMBER POWERS: You say in your two  
13 week, you're going to have reduced inspection  
14 samples. And of course, the first response to  
15 that, reduced relative to what? And then you say,  
16 gee, I don't know what an adequate inspection  
17 sample is. So how do I know when I've taken enough  
18 samples to have a high confidence that there's a  
19 low probability that I have missed something  
20 egregious?

21 MR. REGAN: Well, I think, when you look  
22 at the inspections from a fundamental perspective,  
23 it's a targeted look at a particular area. And  
24 that's why we call them samples. It's not a 100  
25 percent look. We look at areas that are the most

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1 safety significant, considering risk informing our  
2 inspection samples. And actually one of the pieces  
3 of feedback we got from licensees was, well, you're  
4 looking at the same stuff over and over again.  
5 Well, there is some element of truth to that  
6 because those are the areas that are most safety  
7 significant, so that's where we want to expend our  
8 effort.

9 But we have, as part of this review,  
10 considered where the samples are that we're taking  
11 and to ensure that we're looking at the right areas  
12 for that instance that we want to make sure we  
13 don't miss anything that could be significant. One  
14 of the arguments from industry was, well, you're  
15 not really finding anything or you're finding  
16 things in the same areas on the same subjects over  
17 and over again. One could argue, well, if we're  
18 continuing to find things, that's why we're  
19 continuing to look. But then again, on the other  
20 hand, one could say, well, if we're not finding  
21 something, what's that telling us as well?

22 Licensees in preparation for these CDBI  
23 inspections do a fairly thorough and extensive  
24 self-assessment before we arrive onsite. And by  
25 their own admission, they find a lot of issues that

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1 they resolve before we even arrive. So simply by  
2 having the inspection prompts the licensee action  
3 into looking at themselves and reflecting on their  
4 own engineering and ensuring they have a good  
5 understanding of their own licensing basis and  
6 engineering basis as well. So, I don't know if I  
7 answered your question.

8 MEMBER POWERS: No. No, you have not.

9 MR. MORRIS: So the samples -- the  
10 current CDBI has, what, 17 to 25 samples. The team  
11 comes in and they pick 17 to 25 systems,  
12 structures, components and then they do their deep  
13 dive and they ask for all the documentation and  
14 they dig in. So we did 17 to 25 in a three week  
15 span. Now we're talking about doing 10 to 15 in a  
16 two week span. So that's the reduction.

17 If you're asking me statistically, is  
18 that a significant enough of a sample to determine  
19 the health of their program, well, we're not really  
20 -- our goal is not walk away from, at least the  
21 current program, the current CDBI, our goal is not  
22 to walk away and say, they got a great program.  
23 Our goal is to walk away and say, we looked at  
24 these 17 to 25 things and they got it right. And  
25 that's it. We're not passing judgment on the

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1 program in a holistic manner by doing the CDBI.  
2 You can infer that, but I don't know that we've  
3 ever done a and I'm sure we haven't done a -- have  
4 we done a statistically significant sample so that  
5 we can walk away and say, their program is great?  
6 That's just not what we do. We just -- look, this  
7 system is designed to operate and maintain in a  
8 manner consistent with their design and licensing  
9 basis. That's about all we can say.

10 Now, the new program, the new CDBI is  
11 going to have a programmatic element to it, right?  
12 So it actually gives us an opportunity to do some  
13 of the things that you talked about with respect to  
14 the inventory of engineering things and how is  
15 their program constructed and managed and all that.  
16 I mean, Jim, I don't know if you want to comment on  
17 -- I mean, it's still evolving, right? I mean,  
18 this is sort of a new element of what --

19 CHAIRMAN SKILLMAN: Well, let me ask a  
20 question before Jim cuts in. Kind of building on  
21 Dana's question, how do you know what to look at?  
22 Do you begin with your Fussell-Vesely values and  
23 your risk reduction worth and what is the highest  
24 RRW and peel down through that channel?

25 MR. ISOM: Yes. That's what we do.

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1 CHAIRMAN SKILLMAN: Is that what you do?

2 MR. ISOM: We contact --

3 CHAIRMAN SKILLMAN: Your name, please?

4 MR. MORRIS: Turn it on.

5 CHAIRMAN SKILLMAN: There you go, go  
6 ahead.

7 MR. ISOM: Okay. Yes, exactly, that's  
8 what we do. If you look at our procedure, we look  
9 at their risk achievement worth of the component  
10 and we work with our SRAs who are experts on that  
11 in the plant and ask for what samples are more risk  
12 significant. And he tells us, hey, these 50 are  
13 most risk significant. Then we look at past  
14 inspection reports. We look at which ones have we  
15 looked in the recently like last couple inspections  
16 and they get taken off the table.

17 CHAIRMAN SKILLMAN: Okay. Now let me  
18 ask one more. Is your goal to understand the  
19 health of the system and the component or the  
20 health of the configuration management system that  
21 confirms that the component and system meet the  
22 design and licensing basis? Is it a hardware or a  
23 programmatic inspection?

24 MR. ISOM: It's a hardware inspection.

25 CHAIRMAN SKILLMAN: So you're looking at

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1 pipes, pumps, and valves, pots and pans?

2 MR. ISOM: We want to make sure that  
3 component were actually designed as intended during  
4 the design basis accident it would actually work  
5 and meets all the licensing basis requirements,  
6 yes.

7 MR. MORRIS: But we've had some terrific  
8 CDBI inspection findings as a result of that.  
9 They'll look at the licensing basis, the design  
10 basis documentation and then they'll go out in the  
11 field, walk down the system, look at how it's  
12 actually been constructed, maintained, operated, et  
13 cetera. And they find discrepancies, a lot of  
14 discrepancies.

15 CHAIRMAN SKILLMAN: So it's really the  
16 engineering side of an operability determination  
17 almost?

18 MR. ISOM: There are elements --

19 MR. MORRIS: That's one way to put it.

20 MR. ISOM: It has elements of that, yes.

21 MR. MORRIS: I'll give you an example.  
22 We went to Waterford, the team went to Waterford  
23 Plant and they went up, they looked at the diesel  
24 and they looked at the diesel fuel oil system and  
25 the day tank and the vent on the day tank that goes

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1 up through the ceiling, through a concrete roof,  
2 right? And the CDBI said, oh, that's great, let's  
3 walk it down. They went up, they looked at the --  
4 they went up on the roof, who goes up on the roof?  
5 We went up on the roof, looked at this vent pipe  
6 from the day tank that comes through the roof, and  
7 this is one of these flat roofs with a, what do you  
8 call it, a berm around it, right? And it's got  
9 drains that drain rainwater away, it rains a lot  
10 down there. What they found was, this metal pipe  
11 coming up through this concrete, had actually  
12 corroded such that there was holes in it and when  
13 it rained the water went into the fuel oil day  
14 tank. CDBI found that. I mean, that's the kind of  
15 stuff they're dredging up.

16 CHAIRMAN SKILLMAN: Okay.

17 MR. WIDMAYER: Okay. So I guess, I  
18 don't know if you guys were aware of it, there's a  
19 background slide?

20 MR. REGAN: At the very end, yes.  
21 There's a background with specifics.

22 MR. WIDMAYER: Where it give you the  
23 numbers? I guess, what was the industry white  
24 paper? I mean, it sounded like you guys are  
25 wasting a lot of our resources going up on the roof

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1 and finding this hole and blah, blah, blah. And  
2 now for better or not, it looks like you're toning  
3 it down a little bit.

4 MR. MORRIS: I'm going to take this one,  
5 Derek. So the industry hates CDBIs. I don't know  
6 how to say it any more blunt. They know we have to  
7 do it, right? They're not arguing that we have to  
8 do CDBI, because the fact is, is that it's one of  
9 the very few inspections that we do that really  
10 pulls the string from beginning to end and looks at  
11 the whole. And we dig through a lot of licensing  
12 basis documentation. But it's bothersome to them  
13 and they put this in their white paper because of a  
14 couple things.

15 Number one, Chris mentioned it, we tend  
16 to go back -- a team will go out and find this  
17 issue, some issue at Plant X, right? They'll find  
18 that issue. And then they'll go to the next plant  
19 and because they know they found that issue at  
20 Plant X, they're going to look at it at the next  
21 plant. And you know what, they keep finding it  
22 over and over again. And they feel like, give us a  
23 chance as an industry to solve this problem on our  
24 own. Quit beating us over the head with the same  
25 thing over and over. That's one aspect.

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1           The other thing is, it's a huge -- the  
2 terms they use, for those of you who are former  
3 military, it puts their whole engineering  
4 organization and licensing organization at parade  
5 rest for about six weeks, right? Because we ask  
6 for all this information ahead of the inspection  
7 and they do their own self-assessment before the  
8 inspection. And then the inspectors are onsite and  
9 there's questions flying. It paralyzes their  
10 engineering and licensing organizations. That was  
11 a gripe. Another gripe is that we don't give them  
12 credit for -- that was a recommendation, never  
13 mind. What else do they gripe about?

14           MR. ISOM: Performance. They won't give  
15 them credit for performance.

16           MR. MORRIS: Oh, yes. That's where I  
17 was actually going to go. They think that and they  
18 suggested that we modify the CDBI to account for  
19 the fact that if they have a CDBI or if their  
20 engineering programs are otherwise healthy and  
21 they're identifying their own problems and  
22 everything's great and they're in the licensee  
23 response band of the Action Matrix that we should  
24 scale down our CDBI, right?

25           MR. ISOM: Performance test.

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1                   MR. MORRIS: And be more performance  
2 based. To which we said, no, the Baseline Program  
3 by definition is going to be implemented at every  
4 site regardless of performance. That's why we call  
5 it the Baseline. If we find issues in the  
6 Baseline, we ramp up from there. But we don't go  
7 below the Baseline. The Baseline is what it is.

8                   MEMBER POWERS: And that was --

9                   MR. MORRIS: And they also wanted --

10                  MEMBER POWERS: -- from the get go.

11                  MR. MORRIS: Yes.

12                  MEMBER POWERS: I mean that was the  
13 heart, that was one of the crucial elements of the  
14 --

15                  MR. MORRIS: Absolutely.

16                  MEMBER POWERS: -- ROP was that the  
17 Baseline was the Baseline, you never went below the  
18 Baseline.

19                  MR. MORRIS: So two other things. They  
20 wanted us to tell them what we were going to look  
21 at in advance so that when they did their self-  
22 assessment, they were self-assessing on the very  
23 systems, structures, and components that the team  
24 would look at. We said, no, we're not doing that  
25 either. And then lastly, they wanted --

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1                   MEMBER SCHULTZ: Give the answers to the  
2 test, right?

3                   MR. MORRIS: Right. I mean, there's  
4 some merit to the argument, but we weren't  
5 persuaded. And then what was the last -- we had --

6                   MEMBER POWERS: But you do tell them?

7                   MR. MORRIS: Oh, yes. I mean --

8                   MEMBER POWERS: Tell them it's going to  
9 be risk informed. We're going to look at the  
10 important ones and it will be out of that set.

11                   (Laughter.)

12                   MEMBER POWERS: Trust me.

13                   MEMBER SCHULTZ: Should be all you need  
14 to know, right?

15                   MR. MORRIS: Yes. So --

16                   MEMBER POWERS: Those are the ones you  
17 should be looking at too, by the way.

18                   MR. MORRIS: And what was -- there was  
19 one other thing they wanted. I don't remember.  
20 Oh, they wanted, I think it was more credit for  
21 their self-assessment.

22                   MR. REGAN: It was more credit, right.

23                   MR. MORRIS: More credit for the self-  
24 assessment.

25                   MR. REGAN: They essentially wanted to,

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1 you tell us what you're going to inspect, we'll do  
2 a self-assessment and if we do a self-assessment  
3 that you determine is sufficient to identify  
4 issues, then you can do less. Give us credit for  
5 our own self-assessment. That was the last one.

6 MR. MORRIS: We were not persuaded and  
7 what we wound up doing instead was, we were  
8 responsive to their concern about the resources  
9 impact. This acute impact that it has on their  
10 organizations. That's why we're splitting up a  
11 nominally three week intensive inspection into two  
12 disparate chunks, a one weeker and a two weeker  
13 separated in time. One that looks programmatically  
14 and one that still does the deep dive. That was a  
15 concession that we made. Again, we're going to  
16 pilot it, see how well it works. There were a  
17 couple other concessions that we made, that we  
18 said, hey, we'll pilot it and see what happens.  
19 But, yes, it's -- I don't think the industry's done  
20 trying to --

21 MEMBER POWERS: I would be surprised.

22 MR. MORRIS: -- get more out of us.

23 MEMBER POWERS: Just because I enjoyed  
24 being the victim of inspections myself. I would --

25 (Laughter.)

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1           MEMBER POWERS: Well, they're painful,  
2 but you learn stuff. And oftentimes stuff that you  
3 didn't want to learn, but okay, you learned  
4 something. I think I would prefer to have a three  
5 week than the two and the one separated. Because  
6 it does paralyze. I mean, there's no question --

7           MR. MORRIS: Yes.

8           MEMBER POWERS: -- it paralyzes your  
9 organization for the nine weeks, the six weeks you  
10 spend getting ready for it and the three weeks you  
11 endure it, it's paralyzing your organization. And  
12 there's nothing I can do about that except to tell  
13 you if you had your act together beforehand --

14          MR. MORRIS: Yes.

15          MEMBER POWERS: -- it wouldn't paralyze  
16 it as much.

17          MR. REGAN: One of the observations we  
18 had -- well, two pieces. One, this is a tri-annual  
19 inspection, so it occurs once every three years,  
20 it's not every year. But pulling that thread is,  
21 an inspection that finds nothing is not -- could  
22 still be seen as a good inspection. Okay, we  
23 accomplished our goal, we didn't find anything, the  
24 licensee --

25          MR. MORRIS: Our goal is not to go out

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1 there and have performance deficiencies --

2 MR. REGAN: No, it's -

3 MR. MORRIS: -- colored performance  
4 deficiencies. That's not why we do inspections.

5 MEMBER POWERS: Yes. And you learned  
6 something. Quite frankly, you learn a lot just  
7 getting ready for it.

8 MR. REGAN: And that was one perspective  
9 that we communicated to our counterparts was that  
10 of their concern regarding the impact on their  
11 engineering organization and the cost associated,  
12 to some degree was self-imposed. I mean, if they  
13 chose to do a two month self-assessment that  
14 wrapped up their entire engineering organization to  
15 prepare for our inspection, that was by their own  
16 choice. So when they couched this as a huge  
17 inspection that paralyzes our organization for  
18 three months, cost us \$2 million to prepare, one  
19 could argue, well, if your organization had its  
20 house in order, you wouldn't need to go through  
21 that much. So it was an interesting dialogue  
22 regarding, okay, how do we adopt our inspection  
23 program to at least entertain some of their  
24 concerns regarding the impact? And this is kind of  
25 where we came out.

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1 MEMBER POWERS: You're listening to  
2 them, I think that's great. But on --

3 CHAIRMAN SKILLMAN: I find --

4 MEMBER POWERS: -- the other hand --

5 CHAIRMAN SKILLMAN: I find this really  
6 fascinating because I've been one of the people  
7 who's been on the receiving end and I've watched my  
8 resources get consumed with an SSFI, Safety System  
9 Functional Inspection, or a deep dive. But what I  
10 always thought was interesting is, while we would  
11 carp about the intrusion of the NRC and their  
12 contractors, very commonly it's contractors --

13 MR. MORRIS: You just said it.

14 CHAIRMAN SKILLMAN: -- we would carp  
15 about. At the same time, we would have the boiler  
16 and machinery inspection come in from ANI, the  
17 American Nuclear Insurers, and we would go to the  
18 same diligence to prepare for that. And we thought  
19 that was great because it was going to reduce our  
20 insurance premium. So in the one case, we thought  
21 we were getting something for the inspection. In  
22 the other case, with the NRC, we thought all we  
23 were going to get was bloody knuckles. But Dana's  
24 accurate. We always learned something.

25 And as I look back at the many

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1 interactions I had, I think each time, the tide  
2 rose. We got safer each time because we actually  
3 found things that were deficiencies that we  
4 otherwise would not have found. And sometimes it  
5 was uncomfortable because it was a contractor that  
6 pointed it out and it should have been obvious to  
7 us. So there was some embarrassment hiding in  
8 there. Nonetheless, I think the overall process  
9 continued to notch nuclear safety in a positive  
10 direction.

11 MR. REGAN: Yes. And industry was  
12 fairly quick to point out when they proposed that  
13 they get more credit for their own self-assessment,  
14 they provided us with evidence to say, we do our  
15 own self-assessments, look at all the stuff we're  
16 finding on our own. Well, that's good. And why  
17 are you finding it on your own? Well, it's because  
18 the CDBI is coming. But that's the point. I mean  
19 --

20 CHAIRMAN SKILLMAN: Why did you just  
21 start two months ago looking for it?

22 MR. REGAN: Right. We talked a little  
23 bit, well we talked quite a bit about PI&R. Got  
24 some good takeaways from there and some  
25 perspectives, surely we will consider as we move

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1 through. I did mention we are at the very front  
2 end of addressing recommendations from our Baseline  
3 Inspection Program enhancement project. The  
4 information on the slide kind of outlines the  
5 objectives, goals of the inspection and I think  
6 you're all aware of -- and we spoke in some detail  
7 about areas to focus on.

8 I will say that we have made some  
9 changes to the PI&R inspection. And this was along  
10 the lines of ensuring that the inspection focused  
11 on the areas that it should because we had seen  
12 historically some creep on the scope of the  
13 inspection, where other inspections would get  
14 sunsetted and the elements that we wanted to retain  
15 needed a home. So they would get put in the PI&R  
16 inspection and we felt that, that inspection was  
17 getting diluted. So part of the look was to find  
18 better homes for this peripheral type stuff. And  
19 we implemented some of those changes in February.

20 But the broader scope, more  
21 philosophical, fundamental enhancements that we're  
22 entertaining, such as the ones we talked about  
23 earlier, is what we're going to be looking here in  
24 the near future with a target of having those  
25 changes implemented June, July time frame next

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1 year. All right. Moving on. I will at this point  
2 turn it over to Nathan, who has some good stuff to  
3 tell you, and give my speaking voice a rest.

4 → MR. SANFILIPPO: The next element of the  
5 enhancement project was focused on the assessment  
6 program. And the assessment program is typically  
7 what you think of in Inspection Manual Chapter  
8 0350. This is where you find the Action Matrix, as  
9 well as what used to be called the Substantive  
10 Cross-Cutting Issue Process. So the two issues  
11 that are most highlighted by the enhancement  
12 project are exactly those two areas.

13 So to touch on the first one, we did  
14 complete a major revision to what was called the  
15 Substantive Cross-Cutting Issue Process. It's now  
16 revised to just be called the Cross-Cutting Issue  
17 Process. And it was issued in April of this year.  
18 That followed a probably year and a half worth of  
19 effort behind a working group taking a look at the  
20 efficacy of the existing program. You may or not  
21 be aware, there's significant industry interest in  
22 changing this program.

23 MR. MORRIS: Killing the program.

24 MR. SANFILIPPO: Eliminating it  
25 essentially and replacing it with their own safety

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1 culture monitoring program that was developed by  
2 NEI and all of their partners. And the industry's  
3 proposal was, we've got our own program, why don't  
4 you just stop looking at it and let our own program  
5 monitor safety culture and cross-cutting issues?  
6 Long story short, we ultimately weren't comfortable  
7 with relying on that program. In fact, it was  
8 interesting because we said, well, even if we were  
9 to take that approach, we would have to inspect how  
10 you're implementing your program. And that would  
11 take probably as many resources, if not more, than  
12 just implementing our current Cross-Cutting Issue  
13 Process. So from a resources savings, we didn't  
14 quite understand.

15 But we did make some fundamental  
16 changes to the program. A team did a lot of  
17 analysis with respect to plants that had previously  
18 received SCCIs as they were called and trying to  
19 determine whether there was sort of a causal link  
20 between or whether they were really predictive of  
21 future declining performance or not. And that team  
22 was not able to, with enough certainty, show that a  
23 plant that had Substantive Cross-Cutting Issues was  
24 then likely to have more significant performance  
25 deficiencies identified or vice versa.

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1           MR. MORRIS: The plants that went into  
2           Column 4 of the Action Matrix, for example, you  
3           would have expected under the Substantive Cross-  
4           Cutting Issues, that there would have been this,  
5           you would have seen this glide path, right? And  
6           you would have start seeing an elevated numbers of  
7           cross-cutting issues popping up in our findings.  
8           Well, that just wasn't true.

9           CHAIRMAN SKILLMAN: Really? I'm  
10          surprised. I would have thought that, that  
11          trajectory would have --

12          MR. MORRIS: Yes. You would expect it.  
13          There's no correlation though. If you go back and  
14          do the data analysis, there's no -- so that's --  
15          what's the deal here? And part of it is, is we're  
16          only tagging NRC performance deficiencies with  
17          cross-cutting issue labels. But we're not tagging  
18          all the stuff that the licensee's coming up by  
19          itself by virtue of their own Correction Action  
20          Program. So it's a limited data set. So I suspect  
21          part of the reason you don't see that is because  
22          we're not tagging enough data with --

23          CHAIRMAN SKILLMAN: Yes.

24          MR. SANFILIPPO: And it gets back to us  
25          very coarse.

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1 MR. MORRIS: It's very coarse.

2 CHAIRMAN SKILLMAN: I'm surprised  
3 because I would have anticipated you would have  
4 said, there really is a one-to-one correlation --

5 MR. MORRIS: Not at all.

6 CHAIRMAN SKILLMAN: -- with the  
7 Substantive Cross-Cutting Issues and a 0350 or into  
8 95002 and 95003.

9 MR. MORRIS: In fact, there's a whole  
10 report that the working group put out on all this  
11 stuff.

12 MR. SANFILIPPO: With the analysis --

13 → CHAIRMAN SKILLMAN: I'd bet if you  
14 looked at engineering backlog, engineering  
15 inventory, but also work management, work  
16 management inventory, I think that's where the gold  
17 mine is. Because --

18 MR. MORRIS: I'm glad you came back to  
19 that. I was looking for an opportunity to revisit  
20 that. Because, again, I don't think anybody  
21 disagreed, I certainly don't disagree with what  
22 you're saying. The challenge that we have, I mean  
23 beyond what Nathan and Chris said earlier, is that  
24 as a regulator, you have to be able to do  
25 something. If you find something that's not quite

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1 right or that's an indication of a problem or a  
2 potential problem, what do we do with that  
3 information as a regulator? How do you capture  
4 that in your assessment, right?

5 And so, what we do is we either have a  
6 performance indicator, right? By the way, which  
7 are voluntarily submitted by the licensee, under  
8 99.02, I think. You either have a PI and you set  
9 thresholds, or -- which in and of itself is  
10 problematic for the issues you're talking about  
11 because some sites are dual-unit and four-loop,  
12 very complex, their maintenance load is going to be  
13 much bigger than a two-loop boiling water, BWR-2.  
14 And it's just hard to define a PI threshold to kind  
15 of get at that. It would have to be almost site  
16 specific PI thresholds.

17 Setting that aside, if you have an  
18 inspection insight that says, gee, the maintenance  
19 backlog is really high or there's a lot of design  
20 change packages that are just sitting there and not  
21 getting funded or whatever, how do we -- because  
22 there's no regulation on that, how do you devise a  
23 significance determination? Because the only way  
24 you capture that in an inspection report and in our  
25 assessment process is by tagging it as a

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1 performance deficiency. Under the current  
2 construct. And then once you've determined that  
3 you have a performance deficiency, okay, now you  
4 need a tool to assess how significant it is, green,  
5 white, yellow, red, using the Significance  
6 Determination Process.

7 So I really -- as we've been talking  
8 and in the back of my mind, I've been thinking, how  
9 would we do that? How would you actually take that  
10 insight, which is very real, and turn that into a  
11 performance deficiency and then assess its  
12 significance so that it could be somehow captured  
13 in our overall assessment process?

14 CHAIRMAN SKILLMAN: My thought is, none  
15 of the above.

16 MR. MORRIS: Okay.

17 CHAIRMAN SKILLMAN: Just an observation.  
18 Just an observation.

19 MEMBER BALLINGER: Yes. That's a good  
20 point.

21 CHAIRMAN SKILLMAN: Just simply, we  
22 observe.

23 MEMBER BALLINGER: Yes.

24 CHAIRMAN SKILLMAN: Without assigning  
25 any pejorative meaning to it. We just see it, for

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1 what it's worth.

2 MR. MORRIS: And document it? Or just -  
3 -

4 CHAIRMAN SKILLMAN: I would.

5 MR. MORRIS: Okay.

6 CHAIRMAN SKILLMAN: I'm reminded, I was  
7 driving from Charlotte going home to Hershey and I  
8 took the Route 77 up to 81, which goes over that  
9 huge cut in the mountain and it was terrible  
10 weather and I was way over the speed limit. I  
11 really was. A lot of people were.

12 MR. MORRIS: This is being recorded.

13 CHAIRMAN SKILLMAN: And there was --  
14 (Laughter.)

15 CHAIRMAN SKILLMAN: -- a State Trooper  
16 and he was facing us and his lights just blinked  
17 and stopped. And that was enough. I went back to  
18 the speed limit. It was an observation, I didn't  
19 get a ticket. I could have gotten a ticket. But I  
20 always remind myself of that. That, that blink was  
21 simply enough to say, hey, Dick, slow down. To  
22 those who work in these plants, they know when the  
23 inspectors say, I saw something there, you really  
24 ought to take a look at it. And that one comment  
25 is normally sufficient.

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1                   MR. MORRIS: Okay. And as you well  
2 know, we used to, under the old program, we used to  
3 document findings, observations. And we also used  
4 to talk about things in a positive light, the  
5 things that we saw that they were doing well. We  
6 used to document -- now it's only performance  
7 deficiencies and that's it.

8                   CHAIRMAN SKILLMAN: I --

9                   MR. MORRIS: Okay.

10                  CHAIRMAN SKILLMAN: I said enough. But  
11 I appreciate it.

12                  MR. MORRIS: No, thank you. I  
13 appreciate it.

14                  CHAIRMAN SKILLMAN: I appreciate you  
15 hearing me. Thank you. Go ahead.

16                  MR. SANFILIPPO: So the new process, we  
17 implemented a number of changes from the old SCCI  
18 process to the new process. A lot of the concerns  
19 with the old process. One was the threshold. As  
20 you may be aware, there are these different cross-  
21 cutting aspects, the elements that get tagged to  
22 each inspection finding. We would look at a  
23 threshold of four over the past 12 month period to  
24 create what we call a theme in that area. And then  
25 we'd have to evaluate, somewhat subjectively,

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1 whether or not we felt the licensee was adequately  
2 addressing that theme. And then we would decide  
3 whether or not to open a Substantive Cross-Cutting  
4 Issue based on our assessment of whether we felt  
5 the licensee had it under control or not.

6 Part of this effort, there's a number  
7 of different revisions. One of them was to change  
8 that threshold, was to raise that threshold from  
9 four to six. That number and that was based on  
10 some statistical analysis that took a look at  
11 historical crossing of this threshold to determine  
12 what truly constituted a theme in this area. But  
13 we also wanted to marry that up with a more  
14 objective way of then whether or not we promulgated  
15 to the licensee. So now, while we've raised the  
16 theme threshold to six, we've made it completely  
17 objective as to, if you reach that threshold, we  
18 document it in the assessment letter that we've  
19 identified this cross-cutting theme. No longer do  
20 we say, well, they had the threshold, but we're  
21 comfortable that they have it under control, so  
22 we're not going to pursue it from a regulatory  
23 aspect.

24 So we really took that process and  
25 tried to go through the steps and make it more

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1 objective. Likewise, when the old Substantive  
2 Cross-Cutting Issue was opened, there was a sort of  
3 a -- there was no set way to close it at the end.  
4 Again, it would be a fairly subjective evaluation  
5 of when we as the regulator felt that the licensee  
6 had the issue under control, the numbers had come  
7 down. Now, we're developing, and it's still under  
8 development, a much more structured inspection that  
9 would be more uniform and to looking at what they  
10 have done and providing an objective closure of  
11 that issue.

12 So, this new process, we implement this  
13 evaluation during our mid-cycle reviews and our  
14 end-of-cycle reviews for the plant. So it was  
15 first -- application of this new process was done  
16 this past August during the mid-cycle reviews. And  
17 so we're still in the early stages of seeing how it  
18 goes and evaluating it. Of course, the industry  
19 has asked us to take a few years of run time and  
20 reevaluate whether we can get rid of the program  
21 all together, which is -- and rely on their safety  
22 culture monitoring program which they've  
23 established. But I think we feel like we're in a  
24 pretty good place with this program and basically  
25 we just need some run time to see where we're at.

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1           We also set up some backstops in this  
2 program that did not exist in the previous program.  
3 Whereas we're looking at the human performance,  
4 problem identification resolution in particular,  
5 those two cross-cutting areas, and then there's all  
6 these individual aspects, those are the areas that  
7 we're looking for a four to make a theme, now it's  
8 six to make a theme. We've instituted some  
9 backstops across that entire area. So we have a  
10 number, I believe it's 19 or 20, if there are 19 or  
11 20 across all of the aspects of human performance,  
12 then we consider that to have met the criteria.  
13 Since they could have five in every individual  
14 element and not have hit that six threshold, we  
15 wanted to make sure --

16           MR. MORRIS: It's not like --

17           MR. SANFILIPPO: -- that there was --

18           MR. MORRIS: Human performance has like  
19 eight or ten sub-elements.

20           MR. SANFILIPPO: Yes.

21           MR. MORRIS: Like failure to follow  
22 procedure or whatever. Instead of waiting for six  
23 in failing to follow procedure to open a theme, if  
24 there's 20 in sum of all the areas in human, then  
25 we would open a theme on that is really what --

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1 MR. SANFILIPPO: And we really set those  
2 backstops somewhat historically in looking at  
3 plants that we have had identified and real issues  
4 in cross-cutting and safety culture areas in the  
5 past, we wanted to make sure that those plants  
6 would have been captured one way or the other under  
7 these new thresholds. Because we kind of know what  
8 that looks like and wanted to have that backstop  
9 just in case.

10 CHAIRMAN SKILLMAN: So does that  
11 calibration fit the bill? Does that work?

12 MR. SANFILIPPO: It seems to, yes.

13 CHAIRMAN SKILLMAN: Okay.

14 MR. SANFILIPPO: I mean, that's the way  
15 we set it up --

16 MR. MORRIS: And it's --

17 MR. SANFILIPPO: -- and then we just  
18 need some run time --

19 MR. MORRIS: Yes. We've only been doing  
20 it since, what, May?

21 MR. SANFILIPPO: Yes.

22 MR. MORRIS: So we're going to through a  
23 couple of assessment cycles. We do an assessment  
24 every six months, right? And so we'll see.

25 MEMBER SCHULTZ: So this is more than a

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1 pilot? This is an introduction of a --

2 MR. MORRIS: We actually put it in place  
3 and then we said, check and adjust. So, yes.

4 → MEMBER SCHULTZ: Given that the  
5 industry's recommending or pushing or suggesting  
6 that their safety culture monitoring program could  
7 be an alternative, is that being examined in  
8 parallel with what you're doing in some fashion?

9 MR. SANFILIPPO: We did examine their  
10 program --

11 MEMBER SCHULTZ: But, I mean --

12 MR. SANFILIPPO: -- when we developed  
13 this program to either learn what we could from it,  
14 ultimately decide whether or not we could accept it  
15 as a --

16 MEMBER SCHULTZ: I meant in terms of  
17 findings and I'm not familiar with their program,  
18 but --

19 MR. MORRIS: You mean does it pull  
20 things out of there?

21 MEMBER SCHULTZ: Yes.

22 MR. SANFILIPPO: No, I don't --

23 MEMBER SCHULTZ: Not doing it?

24 MR. SANFILIPPO: -- think we go there.

25 MR. MORRIS: They would stop doing it if

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1 we did that.

2 MEMBER SCHULTZ: No, no, not pull things  
3 out. I mean come up with some comparative  
4 evaluation --

5 MR. MORRIS: Oh.

6 MEMBER SCHULTZ: -- to determine if -- I  
7 mean, it's nice for them to say, well, you could  
8 use ours.

9 MR. MORRIS: Yes. No, that's a good --

10 MEMBER SCHULTZ: Depend upon ours.

11 MR. MORRIS: It's an interesting  
12 thought.

13 MEMBER SCHULTZ: Well, you'd have to do  
14 some comparison before you'd want to move forward -  
15 -

16 MR. SANFILIPPO: And that's where we  
17 were looking at to say, well, we would have to  
18 inspect that program at each site. We couldn't  
19 just say, you've got it handled. We would have to  
20 have assurance that the program's actually working.

21 MEMBER SCHULTZ: Very much, let us know  
22 how it works.

23 MR. SANFILIPPO: Yes.

24 MR. MORRIS: Yes.

25 MR. SANFILIPPO: So that was a --

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1                   MEMBER SCHULTZ: But clearly there's  
2 something there.

3                   MR. SANFILIPPO: Yes.

4                   MEMBER SCHULTZ: And it would be nice to  
5 try to assess how it's doing.

6                   CHAIRMAN SKILLMAN: Well, I'm not  
7 comfortable that we've really ventilated this. I  
8 can understand the notion of letting the industry  
9 do their own policing on safety culture is fox in  
10 the chicken coop. I mean, that doesn't make any  
11 sense to me at all. But if they say, we have a  
12 program that's robust, it's healthy, it's strong,  
13 it's inspectable, we've put a lot of resources into  
14 it, we think it's at least as good and maybe better  
15 than what you might be considering. Like Steve  
16 says, there would probably be value in looking at  
17 that and then agreeing with them or saying, we  
18 don't agree at least at a very fundamental level  
19 because the independence is not there.

20                   MR. MORRIS: Right.

21                   CHAIRMAN SKILLMAN: But it seems that a  
22 good examination is worthwhile. If for no other  
23 reason, just to ventilate it.

24                   MR. SANFILIPPO: And something we've  
25 committed to do is --

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1 MR. MORRIS: And I think I agree with  
2 you.

3 MR. SANFILIPPO: -- in about three  
4 years, revisit this. And their own program is  
5 fairly new. One of the challenges we found, at  
6 least initially, was this program was very heavily  
7 adapted in site specific ways depending on the  
8 licensee so that this program was not the same at  
9 any two sites.

10 MR. MORRIS: The industry program.

11 MR. SANFILIPPO: The industry program.  
12 So we had, at this point, at least identified the  
13 challenges with it being a new program and it being  
14 somewhat spread out. But we are committed to re-  
15 looking at, one, how successful is this change that  
16 we made in giving us what we think we need, but  
17 also to retake a look at as the industry gets more  
18 run time with their process, is it something that  
19 we can move the bar more towards looking at what  
20 they're doing versus our piece.

21 CHAIRMAN SKILLMAN: And I think that  
22 there's another piece. There is a recognizable  
23 objectivity that a licensee would exhibit in  
24 inspecting structures, systems, components,  
25 devices, things you can put your hand on, things

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1 you can take a picture of, things you can provide  
2 evidence of with a camera or cell phone. It's  
3 something different when you're assessing human  
4 behaviors. And at least for my money, that's where  
5 the independence is so important. And that's why  
6 having somebody other than the licensee assessing  
7 this is so valuable. Excuse me, Ron, I cut you  
8 off.

9 MEMBER BALLINGER: You would think that  
10 ultimately, both the licensee and the regulator  
11 have the same top level concepts in mind. So there  
12 should be some continuity between your overlap, if  
13 you want to call it, between these two programs.  
14 And ultimately, if the iteration takes place, you  
15 would think that with the exception of the site  
16 specific related stuff, there should be a sort of  
17 common group, which when you go there, they've  
18 already done it, if you will. And so it works out  
19 to be a pretty good arrangement, except for some of  
20 the site specific or some of the human factors  
21 things maybe.

22 MR. SANFILIPPO: And I should say, an  
23 element of this too, based on these changes, is we  
24 are allowing a bit more time for licensees to  
25 correct these trends before we engage as a

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1 regulator compared to the old process. And part of  
2 that is the recognition that they do have their own  
3 process, they should be finding these things on  
4 their own long before we find them. Of course, as  
5 we mentioned earlier, we're only binning inspection  
6 findings. They have the opportunity to bin all  
7 sorts of other things that they identify, trends  
8 within their own programs.

9 MEMBER SCHULTZ: I'd agree with you  
10 completely, Nathan. I think the organization needs  
11 to be constantly investigating and reinforcing  
12 their safety culture. And that's not something  
13 that the NRC should be doing. Your programs  
14 monitor a number of elements that directly connect  
15 to safety culture, but it's the responsibility of  
16 the --

17 MR. MORRIS: It's not --

18 MEMBER SCHULTZ: -- licensee to both  
19 build, drive, monitor, and reinforce the safety  
20 culture.

21 MR. MORRIS: And it's not until they get  
22 into Column 4 of the Action Matrix, I mean a 95003,  
23 where there's an expectation that the licensee does  
24 an independent safety culture assessment.

25 MEMBER SCHULTZ: Well --

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1 MR. MORRIS: That isn't a mandate until,  
2 in our oversight program, until they hit Column 4.

3 MEMBER SCHULTZ: Oh, I see. Yes. From  
4 that perspective, that's right. That's right. And  
5 in three years, maybe that will move up.

6 MR. SANFILIPPO: And in this case --

7 MEMBER SCHULTZ: To prevent that from  
8 happening, the licensee must have --

9 MR. MORRIS: Sure.

10 MEMBER SCHULTZ: -- a safety culture --

11 MR. MORRIS: Yes.

12 MEMBER SCHULTZ: -- program that's  
13 appropriately developed and reinforced.

14 MR. MORRIS: I think the takeaway here  
15 is we should, in our ongoing dialogue with  
16 industry, maybe in our ROP working group meetings,  
17 we can talk to them about how we can benefit from  
18 looking at the license site's individual safety  
19 culture program assessments.

20 MEMBER SCHULTZ: Yes, absolutely.

21 MR. MORRIS: That's the takeaway I got  
22 anyway.

23 MR. SANFILIPPO: The second element of  
24 the assessment program, and it's one that you may  
25 be familiar with, it's currently a SECY paper

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1 before the Commission, SECY-15-0108, is a policy  
2 issue that we've raised regarding what we call the  
3 definition of degraded cornerstone.

4 CHAIRMAN SKILLMAN: Nathan --

5 MR. SANFILIPPO: Yes.

6 CHAIRMAN SKILLMAN: -- let me interrupt  
7 you. Just for the congregation here, would it be  
8 prudent to a take a ten minute bio break?

9 MR. SANFILIPPO: Sure.

10 CHAIRMAN SKILLMAN: Because this could  
11 be a fairly intensive discussion, as it should be.  
12 Let us take a recess until ten minutes after 3:00  
13 on that clock.

14 (Whereupon, the above-entitled matter  
15 went off the record at 2:55 p.m. and resumed at  
16 3:10 p.m.)

17 CHAIRMAN SKILLMAN: We do have a quorum,  
18 Dana's here. Let's go. Please continue.

19 MR. SANFILIPPO: All right. So this  
20 next topic, as I mentioned, we'll talk about is,  
21 this policy issue that we've analyzed over the past  
22 year or so with respect to the definition of  
23 degraded cornerstone. And this is an issue -- a  
24 lot of folks ask us the question, well, why are we  
25 looking at this? We get the question, well, what's

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1 the problem? What's wrong with the current  
2 program? And there's a couple different inputs.  
3 That ROP Independent Assessment Report that was  
4 commissioned by the Commission to look at the ROP,  
5 this was one of the recommendations, was suggested  
6 to reevaluate the threshold of what we call a  
7 degraded cornerstone, which gets you to Column 3 of  
8 the Action Matrix.

9 They had come to that recommendation  
10 hearing external comments. Certainly the industry,  
11 this is something that they're very interested in.  
12 The question of -- basically the way the current  
13 Action Matrix works is two white inputs in the same  
14 cornerstone are what we define as a degraded  
15 cornerstone and that gets you to Column 3. And the  
16 question has been raised, should that number be  
17 different than two? A lot of people have always  
18 said, well, should it be three? We put together a  
19 working group to take a look at just the open ended  
20 question of what should the number be? Not  
21 specifically targeting three.

22 To our -- as we started to look at the  
23 history of this, this question was actually asked  
24 in the early days of the ROP, 2003, 2004 time  
25 frame. There was a similar question, almost the

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1 exact same question that was asked to say, is two  
2 really the right number? At the time, at least  
3 what was documented of that review, they came to  
4 the conclusion that they didn't have any  
5 information to suggest that it wasn't the right  
6 number, so they put forth the recommendation that  
7 it stay at two. Of course there was fairly limited  
8 historical data as far as plants and the ROP, it  
9 had just been a few years. There had been a number  
10 of plants that had moved to Column 3 at that point,  
11 but they saw no reason to change it at that point.

12 With that said, we're over ten years  
13 since that last assessment and we have a lot more  
14 data. So we took a fresh look at what the right  
15 number is. The working group looked at it from a  
16 couple different standpoints. Of course, we've got  
17 three cornerstones that are based largely in PRA  
18 and quantitative inputs. And then we have the  
19 remaining four cornerstones that are largely  
20 deterministic. And so what we did was take that  
21 input and try to make an assessment, both from a  
22 PRA aspect for the quantitative cornerstones, as  
23 well as a deterministic from the others.

24 And our risk analyst took a look and  
25 basically felt comfortable that saying three white

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1 inputs was more equivalent to one yellow input,  
2 which is the other criteria that gets you to Column  
3 3, rather than two white inputs. We looked a lot  
4 at the history of white violations or white  
5 findings over the years, where the delta CDF was of  
6 those, where it fell in the band of white,  
7 certainly the band is an entire order of magnitude.  
8 Most of -- I think the majority of those findings  
9 were in the lower end of that order of magnitude.

10 The question really was, if you had --  
11 one of the fundamental premises is if you two white  
12 findings that were at the mid-point of that order  
13 of magnitude, well, you're then only at the white  
14 to yellow threshold. And the yellow threshold is  
15 then a whole other order of magnitude. So you  
16 really need a third one to put you squarely into  
17 the same realm as what might be a typical yellow  
18 finding. So some of it is looking at it from that  
19 perspective.

20 There's a lot of history with respect  
21 to the early founding of the ROP, a lot of analysis  
22 to ask this question. Numbers as much as, I  
23 believe five white inputs to be considered a  
24 degraded cornerstone was considered at the founding  
25 of the ROP. The documentation we have stated that

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1 it was a conservative decision amongst members,  
2 especially given a new assessment process that had  
3 been untested, to go with two as being the number.  
4 So, we use this PRA analysis or statistical  
5 analysis to evaluate the more quantitative  
6 cornerstones.

7 We then asked the owners or the subject  
8 matter experts in our more deterministic  
9 cornerstones whether two or three seemed like the  
10 right value based on the experience that we've had.  
11 That's radiation protection, emergency  
12 preparedness, and security. And the general  
13 consensus was that three seemed reasonable and that  
14 we wouldn't lose a significant degree of  
15 differentiation within our assessment program.

16 MR. MORRIS: It was a little more  
17 sophisticated an assessment than just asking what  
18 do you think the right answer is? I mean, they  
19 went back and looked at all the 95002 reports that  
20 got written for plants that actually went to Column  
21 3 on the basis of two white inputs and said, when  
22 we did that 95002 and we went back read all those  
23 inspection reports, was there information presented  
24 or was there information extracted during those  
25 supplemental inspections that would validate that

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1 in fact that cornerstone was truly degraded or not?  
2 And we couldn't -- obviously those reports weren't  
3 written at the time for that purpose, but  
4 nonetheless, that's what we did as part of our  
5 qualitative assessment of this. And so that was  
6 another reason to say that, well, maybe three is a  
7 better number.

8 MEMBER BALLINGER: In your analysis --

9 MEMBER POWERS: I can --

10 MEMBER BALLINGER: Whoops. Go ahead.

11 MEMBER POWERS: Well, I can say from  
12 memory that when we were setting up the original  
13 outline for the ROP, there wasn't that kind of  
14 resolution.

15 MR. MORRIS: Yes.

16 MEMBER POWERS: That had the discussion  
17 been after lunch instead of been before lunch, it  
18 could well have been three instead of two. I mean,  
19 it was that kind of a situation of setting up what  
20 became called -- was called the algebra of --

21 MR. MORRIS: Right.

22 MEMBER POWERS: -- ROP. How do you add  
23 colors of findings? I mean, it had -- an algebra  
24 was created. And I don't think there was that kind  
25 of resolution in mind there that would -- and

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1 remember too for the risk assessment, that the risk  
2 analyses that we had were very good for five plants  
3 and very crude for all the rest. Okay. At the  
4 time. So I don't think there's anything sacrosanct  
5 about two.

6 MR. SANFILIPPO: And that's what we  
7 found was that there wasn't certainly anything  
8 technical basis written down with respect to why  
9 two is technically the correct answer.

10 MEMBER POWERS: Yes. I can attest that  
11 it was discussed at length --

12 MR. MORRIS: But not --

13 MEMBER POWERS: -- and the weight. But  
14 I --

15 MR. MORRIS: -- the basis that actually  
16 yielded two as the outcome is pretty sketchy.

17 MEMBER POWERS: Those people advocating  
18 two and those people advocating three had the same  
19 sets of data and I don't think they felt wounded  
20 when it went one way or the other. I think the  
21 clear intention was that those numbers would get  
22 adjusted for the risk-based cornerstones when we  
23 had better risk information for those plants that  
24 at the time we only had very crude. And we only  
25 had five plants that we had anything that we had

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1 any confidence in at all.

2 MEMBER SCHULTZ: Now you not only have  
3 that, as you said, you have comparative information  
4 from experience base that can be used to evaluate.  
5 Still somewhat qualitative, but --

6 MR. MORRIS: Oh, there's no question. I  
7 mean, at the end of the day it's --

8 MEMBER SCHULTZ: -- appropriate to  
9 perform such reevaluation and draw some conclusions  
10 and if the conclusions turn to be different, then  
11 that's a good way to move forward.

12 MR. SANFILIPPO: There's a whole report  
13 that documents a lot of the analysis that we did  
14 behind this. And we sliced and diced this a lot of  
15 different ways, looking at, well, if this had been  
16 the standard from the beginning, which plants would  
17 never have made it to Column 3? And does there  
18 anything about those give us pause? And a lot of  
19 the plants that got there by two would have gotten  
20 there another way, so that there was no -- there  
21 maybe was a delay in entry to Column 3, but they  
22 would have gotten there because there were  
23 subsequent findings. There's a lot of different  
24 ways you can look at it. Ultimately --

25 CHAIRMAN SKILLMAN: Does that timeliness

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1 make a difference in this riddle?

2 MR. SANFILIPPO: That's a question that  
3 has been raised, certainly. And I note here there  
4 were many differing views amongst the staff with  
5 respect to which is the right approach. And the  
6 timeliness was one of the views that was raised to  
7 say, is it acceptable that we wouldn't have engaged  
8 for an additional six months or a year until then?  
9 That's somewhat subjective. Ultimately --

10 CHAIRMAN SKILLMAN: Yes, it is. But at  
11 least one fundamental principle that has served me  
12 well for my whole career is bad news doesn't age  
13 well. And if it's bad, it's probably going to get  
14 worse and it's probably going to get worse sooner.  
15 Kind of like an operability determination, once  
16 you've lost your confidence, it's time to call it.  
17 Don't dilly dally. So I can understand those who  
18 would say, sooner's better and erring on the side  
19 of safety is also better. So I can certainly  
20 understand that logic.

21 MR. SANFILIPPO: It's raised a  
22 philosophical question certainly about the Action  
23 Matrix and the question of timing as to say, Column  
24 1 in our view is safe, Column 4 is safe to operate.  
25 In all four Columns, we determine the plant is safe

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1 to operate. The question is, is it our -- from a  
2 regulatory standpoint, do we want to engage as  
3 early as possible to help guide the licensee to  
4 return their performance to Column 1 as soon as  
5 possible? Or where do you -- how to gradate those  
6 transitions to either encourage sooner correction  
7 of issues?

8 Even though fundamentally we say Column  
9 3, Column 4 are still safe to operate, it's got  
10 that fundamental question of, we asked this of one  
11 of the differing view is, well, this is a reduction  
12 in regulatory oversight. We're lowering the bar  
13 with respect to how the NRC engages with a  
14 licensee. And really the question there is just  
15 there's no -- it's like the Baseline. The Baseline  
16 is what we define as the minimum inspection  
17 required. Well, what's the Baseline?

18 CHAIRMAN SKILLMAN: Well, doesn't it --

19 MR. SANFILIPPO: It's whatever we define  
20 it to be. It's --

21 MR. MORRIS: This is exactly why this is  
22 a Commission policy decision. I mean, it is.  
23 Because it is philosophical.

24 CHAIRMAN SKILLMAN: But it's a  
25 perception issue and so it needs --

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1 MR. MORRIS: Yes.

2 CHAIRMAN SKILLMAN: -- to be addressed  
3 that way.

4 MR. WIDMAYER: There was also an aspect  
5 of it, when I was looking in the background, is as  
6 far as the industry fighting white findings and  
7 whether or not they would --

8 MR. SANFILIPPO: Fight less?

9 MR. WIDMAYER: Fight less, yes.

10 MR. SANFILIPPO: Yes. I mean, that's  
11 been one thing we've heard from the industry is  
12 that, one of the reasons we spend so many resources  
13 and contest every white violation or finding as  
14 much as we do is because then we're only one more  
15 away from Column 3. And that's such a significant  
16 resource impact to the site and so that's been an  
17 argument that the industry has made. And it's one  
18 that very few folks, at least of staff --

19 MR. MORRIS: Believe.

20 MR. SANFILIPPO: -- believe that they  
21 would fight any given finding less because there's  
22 a little bit more margin to future -- it's funny  
23 that in looking back at the analysis that was done  
24 in 2003, 2004 time frame, the first time this  
25 question came up, there was a reference to an

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1 industry white paper that had almost the exact same  
2 statement. It said, well, hey, you should go to  
3 three and we'll fight less if you go to three. And  
4 there was a statement that said, the staff  
5 evaluated that and --

6 (Laughter.)

7 MR. SANFILIPPO: It potentially could  
8 result in less push back, but we don't think that,  
9 that's going to be a tangible --

10 MR. MORRIS: There are other --

11 MR. SANFILIPPO: -- savings.

12 MR. MORRIS: There are other compelling  
13 reasons why licensees would push back on a  
14 potential greater than green finding that go beyond  
15 just what the Action Matrix might dictate.

16 CHAIRMAN SKILLMAN: Oh, yes.  
17 Absolutely.

18 MR. SANFILIPPO: And even --

19 MR. MORRIS: Bond ratings and --

20 CHAIRMAN SKILLMAN: Oh, yes.

21 MR. MORRIS: -- all kinds of things.

22 MR. SANFILIPPO: Yes. And I think  
23 Column 2 -- yes. That white finding is still going  
24 to send them to Column 2, and that still has a  
25 tangible impact on their operations. So it's not

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1 something that we put a lot of credit into saying,  
2 well, we're really going to save a lot of resources  
3 if we make this change because licensees will  
4 contest violations less.

5 MR. MORRIS: But we put it in the paper  
6 --

7 MR. SANFILIPPO: Yes.

8 MR. MORRIS: -- because that was  
9 something we heard.

10 MEMBER BALLINGER: It's always better to  
11 win by 30 points than to go into overtime.

12 MR. MORRIS: Triple overtime.

13 CHAIRMAN SKILLMAN: Okay. So status at  
14 this time is?

15 MR. SANFILIPPO: Status at this time is  
16 it's with the Commission and they're currently  
17 voting on it.

18 MR. MORRIS: Yes.

19 CHAIRMAN SKILLMAN: Okay. Thank you.

20 MR. SANFILIPPO: Yes.

21 CHAIRMAN SKILLMAN: Okay.

22  MR. SANFILIPPO: Next topic. Another  
23 one that is becoming fairly high profile and  
24 generating a lot of Commission and external  
25 interest is changes we're looking at making with

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1 the Significance Determination Process. As Chris  
2 mentioned, SDP enhancements have been part of the  
3 ROP enhancement project since the beginning, nearly  
4 two years ago. But it's taken on a little bit of a  
5 new twist based on some Commission direction. I  
6 note here on the slide, response to this SRM from  
7 COMSECY-14-0030, we got direction from the  
8 Commission, and this was shortly after the Agency  
9 had issued the yellow findings for the ANO stator  
10 drop incident. And that was a decision that was  
11 not made in a very timely way by the NRC. The  
12 findings were issued nearly two years, I believe,  
13 after the actual incident.

14 And it raised a lot of questions to  
15 say, with such a significant incident, why did it  
16 take so long for us to document our final  
17 conclusions? And some direction then made its way  
18 into this SRM, essentially asking us to streamline  
19 the SDP to make its results more timely and develop  
20 metrics that better monitor how timely we are with  
21 processing SDP actions. But of course, we had  
22 already begun an effort to look at SDP enhancements  
23 long before that SRM. And it's what we call a  
24 Phase 1 here on this slide. And we completed a  
25 business process improvement on these existing

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1 process.

2           And you're probably familiar with these  
3 that the Agency has done that have basically used  
4 the Lean Six Sigma method and look at generating  
5 efficiencies in processes. And we did this effort,  
6 the team wrote a report, and we have since made a  
7 number of efficiency changes to our current SDP  
8 process. And that is, essentially, complete. But  
9 that was all under the presumption that our current  
10 process is an acceptable process philosophically as  
11 far as timing goes and outcome goes.

12           Based on the Commission direction, we  
13 wanted to take a step back and say, well, if we're  
14 really going to become more timely with these  
15 actions, we need to shake up the way that we do SDP  
16 as usual. And we were directed by the Commission  
17 to provide a plan of how we were going to evaluate  
18 this issue by the end of June. So on June 30 of  
19 this year, we issued a CA Note to the Commission  
20 that outlined this plan. So obviously, some time  
21 has passed since June 30 and we've been marching  
22 forward with what we're taking a look at.

23           On a high level, and we can get into  
24 specific details, but we're taking a look at, one,  
25 developing metrics that monitor timeliness of

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1 Agency actions from the point of discovery of the  
2 issue of concern or the, for instance, for the ANO  
3 stator drop, it would be the date of the incident  
4 itself, to when the final action takes place. And  
5 that was not a metric that we used in the past  
6 because there's really a lot of different things  
7 that have to take place during that time. There's  
8 inspection activity that has to occur, the  
9 inspector has to look at the issues, they have to  
10 define if there are performance deficiencies.

11           Once that performance deficiency is  
12 defined, then they pass that off to the folks that  
13 evaluate the significance of that finding,  
14 including SRAs that are running that PRA models.  
15 And then there's a decision making and enforcement  
16 window where then our decision makers decide, all  
17 right, do we believe this to be a white issue, a  
18 yellow issue, and then go through the aspect of  
19 documenting it --

20           MR. MORRIS: Well, and then there's --

21           MR. SANFILIPPO: -- throughout the  
22 process.

23           MR. MORRIS: -- engagement with the  
24 licensee itself on preliminarily what we've --

25           MR. SANFILIPPO: Throughout that --

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1 MR. MORRIS: -- come up with.

2 MR. SANFILIPPO: Throughout that entire  
3 process.

4 MR. MORRIS: What was the root cause and  
5 all those things.

6 MR. SANFILIPPO: Trading information,  
7 assumptions that are going into the models, et  
8 cetera, et cetera. So we had looked at those -- in  
9 the past we had always looked at the overall time  
10 limits in discrete chunks. But we had never looked  
11 at it as, well, is there an expectation that we  
12 have from date of discovery to date of Agency  
13 action that, that only be a limited amount of time?  
14 So we're working to set up a new metric that looks  
15 at it more holistically.

16 But beyond that, we're looking at ways  
17 to fundamentally then shorten the process to be  
18 able to achieve that more timely outcome. And what  
19 we're looking at, and we've done a lot of analysis  
20 looking at the resources that we spend on these  
21 issues, the amount of time, and the ones that  
22 really exceed timeliness metrics, break the bank on  
23 resources, et cetera, are ones that involve very  
24 detailed, often PRA analyses that involve issues of  
25 large uncertainty. Certainly ones that have

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1 involved external flooding have been problematic.  
2 A number of different --

3 MR. MORRIS: Or that they're not -- the  
4 finding was not discovered during power operations.  
5 It was either a shutdown, which we don't have a lot  
6 of models for shutdown PRA. And we don't -- in  
7 recent times, even sort of in between. Like during  
8 a shutdown. The models assume 100 percent  
9 operation over X amount of time. So where we get  
10 hung up is when the models don't reflect the actual  
11 what was presented. And then you have to either  
12 reengineer the model or you have to make a lot of  
13 assumptions and then you get into these large  
14 disagreements about, well, what's the right  
15 assumption that we should make?

16 So that's what really kills us when we  
17 get into those. But like flooding, for example,  
18 flooding is a tough nut because, okay, well -- and  
19 it's a cliff edge thing, right? I mean, you can  
20 flood all the way up to here and everything's  
21 hunky-dory, but the minute it goes up another  
22 centimeter, you're in deep trouble. So I mean --

23 CHAIRMAN SKILLMAN: Let me just push  
24 back a little bit. I understand what you're saying  
25 and I'm pushing back for the sake of this

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1 discussion.

2 MR. MORRIS: Please.

3 → CHAIRMAN SKILLMAN: So there you are,  
4 you're an emergency director, you're emergency  
5 support director and the plant hands you a  
6 condition. And you go very quickly from an unusual  
7 event to an alert and now you're facing the  
8 potential for a site area emergency call or a  
9 general. Hopefully you'll never get to a general  
10 because you degraded your core and you've had a  
11 massive offsite release or a reasonable offsite  
12 release. So you're sitting there between an alert  
13 and a site. And you have a couple of documents  
14 that describe your EALs and you're trained to march  
15 through that very quickly based on pre-engineering  
16 that allows you that swiftness.

17 Why isn't there such, rhetorical  
18 question, why isn't there such a process here based  
19 on apparent cause? I mean, at ANO, a man is dead,  
20 there is flooding, there is massive damage. The  
21 flooding was not anticipated and no one certainly  
22 anticipated that a young man would lose his life.  
23 I mean, gee whiz, it's pretty simple at the  
24 beginning.

25 So it seems to me that there is a way

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1 to cut through this that perhaps has its template  
2 in the emergency planning. I mean, those of us who  
3 spent those days and years on watch know how to go  
4 through that and the reason we were able to go  
5 through it and make our calls in 15 minutes to the  
6 local agencies and to the state is because we had  
7 done all this work in advance. It seems like this  
8 is almost a perfect situation for that.

9 MR. SANFILIPPO: It's a great segue  
10 because what we're looking at is trying to develop  
11 a new approach that implements a more integrated  
12 risk informed decision making model. What we've  
13 found is the Agency, for better or worse, and a lot  
14 of this is driven by decision maker behavior, has  
15 been looking for and hanging their hat on that  
16 point estimate PRA result. And the question is,  
17 well, there's all this uncertainty, that the  
18 response has been, well, keep analyzing and reduce  
19 the uncertainty. Where as --

20 MR. MORRIS: Keep working with the  
21 licensee and let's zero in on exactly what the  
22 cause was. And then what happens is you get,  
23 especially with these external hazards, you really  
24 get hung up on what's the initiating event  
25 frequency? And you could say, well, it happened at

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1 this site, so it's one. Oh, no, we don't use CCDP,  
2 we use delta CDF, which you have to look at over  
3 the length of one year. What's your exposure time  
4 over -- I'm tell you, you get hung up, you get  
5 wrapped around the axle very, very quickly when  
6 you're strictly focused on producing a point  
7 estimate from a risk model.

8 CHAIRMAN SKILLMAN: Yes.

9 MR. MORRIS: And that was never the  
10 intent. The intent of the program and the SDP was  
11 intended to be risk informed, right? So we have  
12 been on a slow march to risk based on the three  
13 reactor safety cornerstones and SDP for the last 15  
14 years. And not because it wasn't worthwhile to try  
15 to continue to enhance the models and the state of  
16 human understanding and all these things. But what  
17 happened is, is over time, as Nathan pointed out,  
18 the decision makers in the Agency became more and  
19 more and more demanding and relying, give me a  
20 number, I need a number and I need a number I can  
21 defend. And they lost sight of all the uncertainty  
22 and, frankly, subjectivity that's inherent in the  
23 SDP model itself.

24 And so what we're trying to do in this  
25 Phase 2 is extricate ourselves from that narrow

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1 path that we've -- this box that we've painted and  
2 pull ourselves back and look at it in a much more  
3 integrated risk informed decision making framework  
4 that considers other things like what you're  
5 talking about. The challenge that, frankly, we're  
6 having and we're having this challenge even in  
7 discussions with the Commissioners and their  
8 assistants, the challenge we're having is, is how  
9 do you explain that in a way that doesn't sound  
10 like we're moving off into some SALP like  
11 qualitative judgmental process?

12 It sounds much better -- without  
13 understanding all of how we arrive at these SDP  
14 results for these quantitative cornerstones, it  
15 sounds much better to be able to say, yes, the  
16 delta CDF was ten to the minus -- 5.3 times ten to  
17 the minus five. That sounds -- oh, well, that's,  
18 oh. That's better than, well, the -- we have to  
19 move to be able to say, well, the distribution of  
20 the outcome of that model, right, crosses three  
21 different cornerstones. The point estimate or the  
22 peak of the curve or the distribution or whatever,  
23 however you want to determine it, whether it's --  
24 is kind of in the yellow band.

25 But you know what? They killed a guy.

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1 They violated three tech specs in the process.  
2 They've had lots of flooding related degradations  
3 and we told them before -- we told them after  
4 Fukushima, we said, hey, you guys need to go out  
5 and look at all your flood penetration seals and  
6 they did a lousy job of that. And as a  
7 consequence, they had this other problem. So, as  
8 you factor in all those other criteria, along with  
9 the distribution that you get that cross multiple  
10 colors, you can say, okay, well, that's nice, thank  
11 you for that risk output, I'm going to take all  
12 this other criteria and my answer is, it's a yellow  
13 finding. And I don't have to spend a ton of man-  
14 hours and a lot of time trying to squeeze the  
15 distribution of that curve into a tight little box  
16 where it comes up as a spike. And that's what  
17 they're trying to do. And you can't do it. You  
18 just can't do it.

19 CHAIRMAN SKILLMAN: I guess, I think  
20 we're saying virtually the same thing. What my  
21 thinking is, is in so many of these cases, I'm not  
22 sure that the precision is as essential as coming  
23 to a relatively timely decision. And timely is  
24 certainly not measured in months or years, it's  
25 weeks. So it would seem to me that from an

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1 incident to a color, could be four or five meetings  
2 and an agreement among the principals that would  
3 communicate, we know it was bad, we know it was  
4 serious, we've broken these barriers, we've  
5 certainly intruded into this territory in the PRA,  
6 and we are not going to spend the next six months  
7 analyzing this thing. We're going to call it the  
8 way we see it, later on we might revise it, but  
9 this is where we are today.

10 MR. MORRIS: Well, and if you document a  
11 basis --

12 CHAIRMAN SKILLMAN: Bingo.

13 MR. MORRIS: -- that says this is why we  
14 arrived at the decision that we did, that's  
15 defendable. And oh, by the way, the SDP, there's  
16 an appeal process. The licensee can come in and  
17 say, we totally disagree, your logic is flawed,  
18 we're appealing it to a higher level of management.  
19 I mean, so that's already inherent in the process.  
20 Have they every used it? I don't think so.

21 MR. SANFILIPPO: Occasionally, but --

22 MR. MORRIS: I mean, very rarely.

23 MR. SANFILIPPO: -- pretty rarely.

24 MR. MORRIS: So, in addition, there's  
25 another practical manifestation of having these

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1 delayed outcomes from the SDP. And that is this,  
2 you have an event in, I don't know, we'll say 2012,  
3 right? You don't characterize the significance of  
4 the findings from that 2012 event until 2014.  
5 Well, that finding and that color existed in 2012.  
6 So now you've got to sort of figure out how to  
7 backdate the Action Matrix and account for what you  
8 would've, could've, should've done way back when,  
9 but you didn't because you didn't -- it gets very  
10 complicated and painful.

11 CHAIRMAN SKILLMAN: Yes.

12 MR. MORRIS: And it's real hard,  
13 frankly, to stand up in front of a microphone, in  
14 front of reporters and explain yourself.

15 CHAIRMAN SKILLMAN: Yes.

16 MR. SANFILIPPO: It's really, we're  
17 taking a step back and it's an attempt to balance  
18 the timeliness as well as the resources. I mean, a  
19 big piece of this too is resources and the amount  
20 of time and effort we're spending on some of these  
21 cases is extraordinary. And with ROP objectives  
22 like objectivity and repeatability and scrutability  
23 and we --

24 MR. MORRIS: And principles of good  
25 regulation like let's make timely and effective

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1 regulatory decisions. I mean, we're not there in  
2 this particular case. So that's what we're trying  
3 to fix.

4 CHAIRMAN SKILLMAN: I would just remind  
5 you of the fire truck example. For the family that  
6 called in a false fire alarm, the fire truck comes  
7 down the street and there's a lot of pandemonium  
8 and hysteria and the fire fighters go in and they  
9 say there's no fire and everybody says that's  
10 great. But for the event where there is a fire and  
11 the fire truck doesn't show up, there's the dickens  
12 to pay. So, it seems to me that if there's an  
13 alarm, you just say, we're going to call it the way  
14 we see it and we're going to call it within 30 days  
15 or within 28 days or within two weeks and we're  
16 going to let the chips fall where they may. But  
17 that's what it's going to be.

18 If they want to go back later and say,  
19 you shouldn't have called it that, it should've  
20 been something else, dandy. But at least it's been  
21 called. But it sets in motion other processes that  
22 are intended to do things, protect that licensee,  
23 but also raise the bar for safety. So it seems  
24 like timeliness ought to be a major driver in this  
25 discussion.

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1 MR. MORRIS: So that's our challenge and  
2 I think we have a really solid basis for doing what  
3 we're doing. It's difficult to explain to folks  
4 sometimes because it sounds like we're not being  
5 risk informed. And we are. We're trying to be.  
6 We want to -- we absolutely want to remain risk  
7 informed. But we don't want to be risk based,  
8 because that's killing us.

9 → MEMBER SCHULTZ: So let me try a couple  
10 of things. And it's based upon as you talked about  
11 the way you think things ought to be or the way  
12 things are but not exactly in terms of plant  
13 implementation with regard to the program. A  
14 couple of things came to mind. And one was, you  
15 were talking about risk, but you were also talking  
16 -- and that feature being something that is argued  
17 about back and forth between the licensee and the  
18 NRC.

19 MR. MORRIS: Absolutely.

20 MEMBER SCHULTZ: But then you also, and  
21 we came up to this in the first place, there are  
22 also consequences. So the consequences are there  
23 in terms of a death or violation and you enumerated  
24 those, so all of that has to be considered. And  
25 the consequences are right there. You can argue

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1 about the risk. Now the other thing that occurs, I  
2 think appropriately, is you say, well, we talk a  
3 lot about the uncertainty, different perspectives  
4 on uncertainty. Well, when the event happens, that  
5 uncertainty is there. If someone comes in and  
6 says, well, I think we can reduce this uncertainty,  
7 no. The uncertainty was there when the event  
8 happened. So to sharpen your pencil and do a  
9 reevaluation to reduce uncertainties, I don't think  
10 that --

11 MR. MORRIS: Well, and it --

12 MEMBER SCHULTZ: -- is an appropriate  
13 approach. That goes along with another issue that  
14 we were talking about yesterday. Which is, well,  
15 if you've got an operability determination, that  
16 you need to come up with an evaluation. You may do  
17 a very conservative evaluation immediately to  
18 determine that you're operable and then later on  
19 you have a chance to go back and review the design  
20 basis and submit a topical report with a revised  
21 calculation and so forth --

22 MR. MORRIS: Yes.

23 MEMBER SCHULTZ: -- and move forward to  
24 determine how you're going to address the issue in  
25 a more holistic way. I think we need to come up

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1 with a way that incorporates some of those features  
2 from the outset. Say, we're going to make a call  
3 and these are the --

4 MR. MORRIS: Right.

5 MEMBER SCHULTZ: -- principles upon  
6 which we're going to do that. And we don't have  
7 six months or a year or two years to do it. The  
8 first phase is a month. Or whatever you think is  
9 appropriate. And put down some ground rules about  
10 --

11 MR. MORRIS: Yes. It's --

12 MEMBER SCHULTZ: -- how that evaluation  
13 will be.

14 MR. MORRIS: Yes. You're --

15 MEMBER SCHULTZ: And --

16 MR. MORRIS: That's exactly what we're  
17 thinking --

18 MEMBER SCHULTZ: Yes.

19 MR. MORRIS: -- and just, you triggered  
20 a thought of mine while you were talking. One of  
21 the -- you talking about what's the uncertainty,  
22 but the event happened. So forget -- one of the  
23 challenges that we have is the yardstick and risk  
24 space for the SDP is delta CDF, the change in core  
25 damage frequency. Well, the frequency that we're

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1 talking about is per annum, right, it's per year.

2 But if I go down and I'm an ox operator  
3 or I'm maintenance technician -- this actually  
4 happened. I'm a maintenance technician and I'm  
5 directed to go de-energize Channel A of the Reactor  
6 Protection System in advance of these maintenance  
7 guys coming in and doing whatever they're going to  
8 do and I screw up and I do the wrong one and the  
9 plant trips, the initiating event frequency was  
10 that.

11 MEMBER SCHULTZ: The consequence was  
12 that.

13 MR. MORRIS: How do you spread that over  
14 a year and come up with a --

15 MEMBER SCHULTZ: Right.

16 MR. MORRIS: -- frequency?

17 MEMBER SCHULTZ: No that's --

18 MR. MORRIS: In a year, you'd say, well,  
19 the frequency is one. I mean, I would say. Which  
20 is a CCDP outcome, right? A change in probability  
21 not frequency. But the industry is -- our  
22 governance documents, the SDP Bible says we're  
23 using delta CDF. Delta CDF, so that -- yes, we  
24 tripped the plant and we had all these  
25 complications, but the risk of that was really

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1 pretty low because -- these are the issues that  
2 we're running -- I mean, that actually, that's a  
3 real event. That happened at Browns Ferry.

4 And these are the kinds of discussions  
5 we get in. And so that's when want to say, okay,  
6 stop. Let's look at this from an integrated risk  
7 informed standpoint. Let's not get wrapped around  
8 the axle about CCDP and delta CDF and all this  
9 other nonsense. It's not nonsense. But all this  
10 other stuff, right? Let's focus on what actually  
11 happened. What were the conditions on the ground?  
12 And let's use the risk as a data point. And it's  
13 still risk informed, but let's look at some of  
14 these other factors that would yield a much more  
15 timely regulatory outcome. That's what we're  
16 trying to do.

17 MR. SANFILIPPO: And that's one of the  
18 things that, sometimes when we're having these  
19 conversations with the industry during our public  
20 meetings, is we're using this process to determine  
21 a regulatory response. We're not trying to  
22 determine -- it isn't a research project to  
23 determine the specific details of the risk that was  
24 there. Ultimately, we're trying to decide whether  
25 we need to do supplemental follow-up and whether

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1 that licensee's performance is degraded to a  
2 certain level. And that's where the timeliness  
3 comes in. I mean, that's important to be a timely  
4 decision. And it's got to be this balance between  
5 the two. And the process -- one of the things  
6 we're asking is, should we cap the world of  
7 information to what we knew at the --

8 MR. MORRIS: On the day of the event?

9 MR. SANFILIPPO: -- time of the event?  
10 Or should we allow further analysis and information  
11 to be gained --

12 MR. MORRIS: Right.

13 MR. SANFILIPPO: -- ad nauseam after  
14 that? And even though our process --

15 MR. MORRIS: And we've been doing that.  
16 I mean, we've actually been doing that. The event  
17 happens or whatever, the finding, and we, in some  
18 cases, allow the licensees to figure out what the  
19 exact root cause was --

20 MR. SANFILIPPO: Before the preliminary  
21 finding.

22 MR. MORRIS: -- before we even determine  
23 whether there's a performance deficiency, we wait  
24 for the licensee to tell us what the root cause  
25 was. That can take months. A long time. So

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1 that's what Nathan was saying is, why don't we just  
2 go with proximate cause? We're not going to  
3 analyze this thing forever, just get what -- the  
4 state of information on the day the event happened  
5 or the finding was identified and just use that  
6 information and move forward. Just cut it off,  
7 move forward.

8 MR. SANFILIPPO: And a lot of these  
9 principles that we're talking about are actually --  
10 we've been going through this process and coming  
11 up, oh, well, we should do it this way, that way.  
12 And when you take a look back at what the SDP  
13 actually says, those elements are already in there  
14 and they've always been in there since the  
15 beginning of the ROP. A lot of it has been  
16 decision making behavior and other practices that  
17 have got us away from that.

18 MR. MORRIS: Right.

19 MR. SANFILIPPO: So to some extent, this  
20 is 50 percent a process issue and about 50 percent  
21 a --

22 MR. MORRIS: Behavioral issue.

23 MR. SANFILIPPO: -- behavioral issue.

24 MR. MORRIS: So we're doing --

25 MR. SANFILIPPO: We're not following the

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1 principles of our process. And so that makes it a  
2 little bit easier in that we're not trying to  
3 reinvent the entire --

4 CHAIRMAN SKILLMAN: What I always keep  
5 in mind is that the plants were designed to trip.  
6 They were designed to shut down.

7 MR. MORRIS: Yes.

8 CHAIRMAN SKILLMAN: Good examples,  
9 lightning strike in switch yard. There's nothing  
10 you can do about that. Bango, there it goes. Your  
11 breakers are open, whammo, you're on emergency feed  
12 water or you're, what do the boilers have, their  
13 iso-condensers very, very quickly. And you hope to  
14 have a smooth shutdown and cool down. If that is a  
15 complicated follow-up because they had a thousand  
16 action items in their work management program --

17 (Laughter.)

18 MR. MORRIS: Yes.

19 CHAIRMAN SKILLMAN: -- and they didn't  
20 get anything done, then it would certainly cause me  
21 to have a different view --

22 MR. MORRIS: Yes.

23 CHAIRMAN SKILLMAN: -- of that  
24 licensee's performance.

25 MR. MORRIS: Yes.

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1                   CHAIRMAN SKILLMAN: But underneath it  
2 all, the plant is designed to trip and to shut down  
3 and to cool down. And so it -- now in the case of  
4 ANO 1, where the man was killed, that was a very  
5 different event. And it seems like this process  
6 could and should be flexible enough to distinguish  
7 between those types of events. But also to be able  
8 to do it very swiftly. I mean, it's not magic. I  
9 mean, we know how this stuff works.

10                   MR. MORRIS: The process allows for that  
11 already. What we've discovered is, is that the  
12 behaviors of the folks who are in the decision  
13 making roles are allowing a lot of other things to  
14 occur to try to -- I want that point estimate, I  
15 want that number. And that's a lot of what's  
16 driving this.

17                   MR. SANFILIPPO: And the question of how  
18 much time do you give a licensee to provide  
19 supplemental information for us to consider as part  
20 of making that decision? And willingness to allow  
21 an excessive amount of time to be provided  
22 additional information before we make a decision.

23                   MR. MORRIS: Just another factoid, since  
24 we're talking about Arkansas. When we got to the  
25 point where we had the regulatory conference with

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1 the licensee, they brought in two or three, I  
2 forget how many, experts on flooding and hydrology  
3 experts. And the reg conference lasted, I think,  
4 11 hours. Eleven hours. And it was one argument  
5 after the next about why this wasn't as significant  
6 as we had suggested that it was. And it was all  
7 about the number. It was all about the number.

8 MR. SANFILIPPO: So it --

9 MR. MORRIS: But I think we came out --  
10 I mean, in spite of all that, I think we came out  
11 in the right place with ANO, I absolutely do. But,  
12 again, it took us a long time to get there.

13 MR. SANFILIPPO: As far as, so what are  
14 we doing with all of this? The path forward, this  
15 fall we're in the process of getting input from  
16 everyone that's involved in the process, the  
17 industry, the public, we're going around to all of  
18 our regions, the folks that practice this stuff,  
19 and getting the input to try to determine what a  
20 potential change to our process might look like.  
21 With the idea that next year, hopefully sometime  
22 early next year, we would start a pilot of this new  
23 process to determine whether or not it's something  
24 that we want to institute as final or need to  
25 modify. And recently, we were directed by the

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1 Commission as part of this effort to ensure that we  
2 have the public engagement and engagement with the  
3 industry as well as to pilot any potential changes.

4 MR. MORRIS: Yes.

5 MR. SANFILIPPO: So that's the path  
6 we're on. We're in the formative stages of  
7 determining what changes do we need. Some of this  
8 is changes to the SDP process, some of it is  
9 changes to behaviors or reinforcing or making sure  
10 we're clear on what those sort of ground rules are  
11 coming in to the process. Part of it is  
12 establishing these new metrics that help measure  
13 how successful we are. And so that's where we  
14 really are now. We're in the formative stage with  
15 a pilot to come sometime in 2016.

16 MR. MORRIS: Yes.

17 CHAIRMAN SKILLMAN: Okay. Thank you.

18  MR. SANFILIPPO: This slide talks at a  
19 high level about a number of different  
20 communication enhancements. I think the main point  
21 to take away here is throughout the years and a  
22 cross-cutting element of every recommendation and  
23 every aspect of the ROP is there are always  
24 communication elements to it. With respect to  
25 internal communications, how we communicate to our

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1 inspectors, how we train. How we communicate to  
2 the public, our public website, how we make  
3 information available. There's all of these sort  
4 of individual communication enhancements.

5           Something that we did to help address  
6 all of this is to create a single ROP  
7 communications lead to help bin, prioritize, and  
8 address all the communication enhancements in a  
9 holistic and comprehensive manner. So sort of in  
10 parallel with all of the changes we're making to  
11 the program and considering, we've also been in the  
12 process of updating our public website,  
13 incorporating better use of plain language, more  
14 access to useful information, redesigning the  
15 website to be much more user friendly. That's  
16 nearing completion. We've already made changes to  
17 our internal websites, changed the way that we make  
18 information available to our inspectors to try to  
19 make it easier and more available.

20           And then we're also looking at how we  
21 communicate. So all of the public documents,  
22 products that we have, our mid-cycle and end-of-  
23 cycle assessment letters, our inspection report  
24 cover letters, our inspection reports themselves,  
25 our significance determination letters. The

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1 primary audience, the addressee, is the licensee.  
2 And they, of course, understand what we're talking  
3 about from a technical aspect and a jargon aspect.  
4 But we're taking a more concerted effort to ensure  
5 that even though that is a communication tool for  
6 the licensee, it is also the public result of what  
7 we're doing.

8 And we need to make special effort to  
9 ensure that we're also communicating in a way that  
10 can be clear or more clear to the public than in  
11 the technical aspect. So we're embarking on a lot  
12 of these communications enhancements. A big one  
13 that's to come is taking a look at our inspection  
14 reports. I don't know, Chris, if you want to --

15 MR. REGAN: Yes. So --

16 MR. SANFILIPPO: -- share any more?

17 MR. REGAN: So we have an effort to look  
18 at the inspection reports. And when you look  
19 historically, the format and types of language,  
20 information contained in the inspection report has  
21 remained largely unchanged for well over a decade.  
22 We have tools at our disposal today that didn't  
23 exist ten, 15 years ago. So we're looking at means  
24 of ways we can streamline, not only the process for  
25 developing the report, but the kind of information

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1 that goes into the report.

2 We have several interim milestones  
3 we're looking at. One, simplifying the language,  
4 making it more understandable and readable.  
5 Secondly is looking at the types of information  
6 that goes in because the bulk of the inspection  
7 reports as they are now not only repeats a lot of  
8 information over and over again, but they also just  
9 cuts and paste information that can be found  
10 elsewhere. So is it necessary to repeat that again  
11 in the inspection report itself? And then a longer  
12 term vision is --

13 MR. MORRIS: There's a lot of  
14 boilerplate too.

15 MR. REGAN: A lot of boilerplate. A  
16 longer term vision is we are in the process of  
17 developing a Replacement RPS system, which you may  
18 be aware of, and part of that effort is to look at,  
19 can we use this RPS, which is the database where we  
20 track and account for --

21 MR. MORRIS: I forget what the R is, but  
22 it's something Planning System.

23 MR. REGAN: Yes.

24 MR. MORRIS: It's sort of electronic --

25 CHAIRMAN SKILLMAN: Just for the record,

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1 what is acronym and what does it mean, please?

2 MR. SANFILIPPO: RPS is Reactor Program  
3 System.

4 MR. REGAN: Reactor Program System,  
5 thank you.

6 MR. SANFILIPPO: So RRPS is the  
7 Replacement Reactor --

8 MR. REGAN: Replacement, right.

9 MR. SANFILIPPO: -- Program System.

10 MR. MORRIS: It's an IT system.

11 CHAIRMAN SKILLMAN: And these are --  
12 there is active effort to upgrade --

13 MR. REGAN: Yes.

14 MR. MORRIS: Oh, yes.

15 CHAIRMAN SKILLMAN: -- is what you're  
16 saying?

17 MR. MORRIS: Oh, yes.

18 MR. REGAN: It's currently the largest  
19 IT project that the NRC has on the books on the  
20 moment, I believe.

21 CHAIRMAN SKILLMAN: And this is to make  
22 that information clearer and more available to all  
23 users?

24 MR. REGAN: One aspect that we are  
25 pursuing as part of the larger Replacement RPS

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1 project is to look at it, can we leverage the  
2 Replacement RPS IT system to develop and track and  
3 produce inspection reports? So, if you think, in a  
4 general sense, an inspector in the field at his  
5 desktop manually writing an inspection report using  
6 boilerplates that he has on his C drive on whatever  
7 to now we have an IT system where he can open that  
8 up and he has several fields to fill in with  
9 applicable inspection activities, details of his  
10 findings, enters it into a database, and then the  
11 database, he can hit the print button, print  
12 report, and it will generate the bulk of the report  
13 for him. And it also allows the information he's  
14 entering into the system to be searchable,  
15 trackable. You can use it for analyzing the types  
16 of information versus just the hand --

17 MR. MORRIS: It's all manual now.

18 MR. REGAN: -- the manual --

19 MR. MORRIS: To do that now, it requires  
20 hand over hand through --

21 CHAIRMAN SKILLMAN: Okay.

22 MR. REGAN: So it's all part of a larger  
23 effort to streamline our inspection report process,  
24 if you want to look at it that way.

25 MR. SANFILIPPO: And a piece of it is

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1 from a public communication aspect. But a big  
2 piece of it is in our current project environment,  
3 looking for efficiencies within the program, a huge  
4 amount of effort goes into the documentation of our  
5 inspection effort. And if we can even shave that  
6 by a small amount, we'll see a significant resource  
7 savings. So there's something that can really pay  
8 dividends in a number of different ways.

9 CHAIRMAN SKILLMAN: Okay. Thank you.  
10 Let's go.

11 → MR. SANFILIPPO: The next slide is self-  
12 assessment program enhancements. A lot of this, I  
13 touched upon in the introduction when we were  
14 talking about self-assessment. I already mentioned  
15 how the Commission approved our request to forego  
16 the 2014 assessment to develop a new process. We  
17 are finalizing development of this new process.  
18 It's got three main elements, as I mentioned  
19 before. The first element is there are objective  
20 metrics that we'll use to assess whether or not  
21 we're complying with the objectives of the ROP.

22 The real introspective pieces are the  
23 second and third part. The second part is where we  
24 will evaluate the efficacy of recent program  
25 changes. For instance, we're always making

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1 adjustments and programs to the program. After  
2 we've had some run time with that change, we want  
3 to take a look back and say, did it achieve what we  
4 expected it to achieve? For instance, like this  
5 cross-cutting issue area. In a few years, take a  
6 look back and say, well, we made this change from  
7 SCCIs to this new process. Did we get what we  
8 thought we were going to get by making that change?  
9 And then, is further change necessary? So we want  
10 to build in this automatic self-assessment feedback  
11 loop to constantly take a look at recent changes  
12 that we made and are we seeing the results that we  
13 thought we see.

14 MR. REGAN: A good element of a  
15 Corrective Action Program, check and see if the  
16 change you made actually is working the way you  
17 intended it to be.

18 CHAIRMAN SKILLMAN: Okay.

19 MR. SANFILIPPO: And the third element  
20 is really the largest piece. Where we have here on  
21 the slide, perform targeted in-depth assessments.  
22 And this includes both -- each year we will choose  
23 one specific element of the ROP that we'll do a  
24 deep dive into. Maybe it's a specific inspection  
25 procedure, maybe it's the performance indicator

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1 program, maybe it's security inspection. So we'll  
2 do a programmatic in-depth assessment each year.  
3 But then this is also where we would do that  
4 regional audit that I had mentioned earlier, where  
5 each year we would pick one region and send a team  
6 out and have a -- we're working on developing what  
7 the audit procedure might look like and the things  
8 that we would assess in that region.

9 Both to identify best practices from a  
10 benchmarking standpoint to say that Region 3 really  
11 does this in a fantastic way, you other regions  
12 might want to model what you do this way. And then  
13 also saying, well, but they also aren't quite  
14 achieving what we're trying to achieve with respect  
15 to this procedure. And then we can help correct  
16 some of those inconsistencies.

17 So this is the framework of the new  
18 process. We're still in the final stages of  
19 finalizing what that looks like. We have committed  
20 to provide that new process to the Commission,  
21 which will be an information SECY that comes up  
22 probably in the Novemberish time frame. And we'll  
23 implement that new process starting, in part for  
24 the self-assessment that's due to the Commission in  
25 April 2016, but then in full with respect to full

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1 regional audit and those things as part of the  
2 following self-assessment. Chris, did you want to  
3 address this?

4 MR. MORRIS: By the way, just to add one  
5 thing on that. That all of this -- this whole new  
6 program is captured in our governance documents and  
7 Inspection Manual Chapter, so it's formalized, it's  
8 available, the public can look at it. It's right  
9 there and it's all laid out.

10 CHAIRMAN SKILLMAN: Okay.

11 → MR. REGAN: Okay. So this is where  
12 we're kind of in a summary mode where you may see  
13 some of the information we've talked about earlier,  
14 but we wanted to just touch upon. So in the global  
15 sense of enhancing the ROP, separate from the  
16 enhancement project which we talked about, there  
17 are other initiatives that we have ongoing in  
18 parallel to that associated with improving the ROP.  
19 We mentioned the Commission directed independent  
20 assessment yielded a number of recommendations from  
21 that external third-party review assessment of the  
22 ROP. We have a number of recommendations that we're  
23 in the throes of addressing right now and those  
24 will be fully dispositioned by the end of this  
25 calendar year for implementation if there are

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1 changes in the next inspection cycle next year.  
2 And we do intend to issue a final report  
3 summarizing our response to the recommendations  
4 from that report.

5 We spoke earlier about a GAO audit on  
6 regional differences. The staff, in response to a  
7 recommendation of identified inconsistency across  
8 the regions with the number of green findings, the  
9 staff did an independent tabletop exercise amongst  
10 inspectors and staff in the region and Headquarters  
11 to look at the validity of the GAO's findings, but  
12 also to see if there was insights we could gain  
13 ourselves. And determined there was enhancements  
14 that we could make to the program, primarily in the  
15 area of clarification in Manual Chapter 0612, how  
16 we actually screen issues of concern and determine  
17 whether or not they are in fact more than minor  
18 and/or would result in a green finding. And also  
19 to provide training out to the regions to help  
20 clarify and make sure there's a common  
21 understanding of what the intent of 0612 screening  
22 processes indicate.

23 We have Lessons-Learned recently from  
24 plant decommissioning. A number of plants have  
25 decided to cease operations. We've taken Lessons-

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1 Learned as the plants prepare for their  
2 decommissioning to determine whether or not we can  
3 modify our inspection -- well, I wouldn't say  
4 modify, but focus our inspection activities on  
5 areas where we get the most value from for a plant  
6 approaching decommissioning and do that  
7 consistently.

8 For example, if we are in the first  
9 year of the tri-annual cycle for a CDBI and it's  
10 scheduled for October and the plant is going to  
11 cease operations in December, how could we focus  
12 that inspection on areas or components that may be  
13 used in the period during decommissioning rather  
14 than focus on a component that's only going to be  
15 used for the next two months? The value of  
16 inspecting in an area for a plant that's going to  
17 cease operations in a couple months, we would like  
18 to see a more focused or at least cater or target  
19 our inspections in areas where we believe would be  
20 the most safety significant and have usefulness  
21 into the period where the plant begins to  
22 decommission.

23 CHAIRMAN SKILLMAN: Do you have the  
24 tools to allow you to do that?

25 MR. REGAN: Within the Baseline

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1 Inspection Program, and this is an area where the  
2 flexibilities in the program, we can leverage that.  
3 For example, each inspection procedure's going to  
4 have a sample range. Please look at between six  
5 and -- take between six and ten samples on this  
6 procedure. Well, maybe in one area, we want  
7 inspection to be at the upper end of the limit  
8 because we feel it's more important versus another  
9 inspection procedure, well, maybe it's not so  
10 important, we want you to look at it, but maybe  
11 inspection at the lower end of the band may be more  
12 appropriate given the plant's going to shut down in  
13 a couple months. So it's still within the premise  
14 or the scope of the range of activities for  
15 ensuring completion of the Baseline Inspection  
16 Program, but we can shift resources and focus  
17 depending on where the plant is as it approaches  
18 decommissioning.

19 CHAIRMAN SKILLMAN: Thank you.

20 MR. REGAN: We talked about -- well,  
21 actually we haven't touched on this. ROP for new  
22 reactor designs. We also have on our planning  
23 horizon essentially standing up an ROP for the new  
24 reactor designs. We have taken preliminary steps  
25 to look at the scope of PIs, performance

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1 indicators, for the new plant designs. We are  
2 beginning to look at what Baseline Inspection  
3 Procedures may be appropriate for the new plant  
4 designs, leveraging ones we have in place right  
5 now, modifying them to what the new plant designs  
6 may be. Or even generating new inspection  
7 procedures depending on the equipment that needs to  
8 be inspected. There is also SDP that's been, help  
9 me out Nathan, completed as far as --

10 MR. SANFILIPPO: Yes. I mean, we're  
11 working on --

12 MR. REGAN: -- how we focus our effort?

13 MR. SANFILIPPO: Yes. I mean, the ACRS  
14 has been involved in several papers over the past  
15 number of years with respect to the risk metric  
16 question and how we're going to assess the  
17 performance of new reactors versus the current  
18 reactors. So we have direction from the Commission  
19 with respect to being told the existing the ROP  
20 framework remains the same.

21 But that said, we need to create SDP  
22 tools for areas like digital INC or passive  
23 components that don't currently exist. We have to  
24 look at PIs with respect to -- the current MSPI  
25 concept isn't one that will translate well to a

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1 passive safety system plant. But that said, there  
2 are still a lot of elements of the inspection  
3 program that will need to be tailored to an AP1000  
4 vice a current plant. And we're at the very  
5 beginning throes of that evaluation, but we owe the  
6 Commission a product one year prior to the expected  
7 operation of a new plant.

8 MR. MORRIS: Is that 2017 at this point?

9 MR. SANFILIPPO: 2019 --

10 MR. MORRIS: 2019?

11 MR. SANFILIPPO: -- I believe is when  
12 they're looking at operations. So 2018ish is when  
13 we're looking at having a paper to the Commission.  
14 Really the fall/winter of 2017 is our target date.  
15 So we've got about two years. We're working on  
16 charting out a course of what this looks like, how  
17 we're going to march through all these different --  
18 I mean, if you think fundamentally the ROP, we have  
19 cornerstones, we have cornerstone objectives. Each  
20 cornerstone objectives have to be met either by a  
21 performance indicator or we devise an inspection  
22 procedure to look at that objective.

23 So the first step is to say, well, are  
24 there performance indicators, new ones, we could  
25 create? And then the question is, if there's not,

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1 then do we need to write different inspection  
2 procedures to look at what we're interested in?  
3 All of this, of course, getting to a final  
4 endpoint. And we certainly envision engagement  
5 with the ACRS throughout that process. Certainly  
6 there's an interest in new SDPs, new Baseline  
7 Inspection concepts with respect to new reactors.  
8 And we'll plan on factoring that into our  
9 discussions as we move forward.

10 CHAIRMAN SKILLMAN: Nathan, let me ask  
11 this. The ROP is really designed for an active  
12 core plant where there are megacuries, risk of  
13 release, the potential for an accident, risk to the  
14 health and safety of the public and to the workers.  
15 Is there any thought -- and what triggers this is  
16 the ROP for new reactor designs. At Vogtle and  
17 Hatch, we're in a multi-year building program. Is  
18 there any thought of applying some part of the ROP  
19 to the construction process?

20 And here's why I ask, you pour the  
21 concrete in the wrong place or you pour concrete  
22 that's not conforming. You would think that, that  
23 gets caught in the construction oversight  
24 activities. But there's a huge risk there if that  
25 work is not done properly. And that risk continues

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1 on into the ultimate build out of that facility.  
2 Around the table, we've been involved in a couple  
3 of activities where as we look at the design  
4 certification and the assumptions and calculations  
5 that have been made, what's coming out in design is  
6 not what was sold in the design certification.  
7 We've got some major concerns about heat transfer  
8 in one of the designs. Is there any overlap or  
9 impact of the construction or on the review of the  
10 design certs for ROP?

11 MR. MORRIS: Well, I mean, I presume  
12 you're aware that there is a construction ROP,  
13 right? You're aware of that.

14 CHAIRMAN SKILLMAN: Yes.

15 MR. MORRIS: And there is a whole --  
16 we've devised a whole transition protocol to get  
17 from one to the other.

18 CHAIRMAN SKILLMAN: So the answer's no  
19 and --

20 MR. MORRIS: But I don't think we're  
21 necessarily getting at --

22 MR. REGAN: There has --

23 MR. MORRIS: -- that issue.

24 MR. REGAN: Well, the only --

25 MR. MORRIS: I don't know.

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1                   MR. REGAN: The only example that comes  
2 to mind that's known as the way we worked our way  
3 through the process for Watts Bar and the  
4 transition of them from construction into  
5 operation. And the transition plan that we  
6 developed for that had some overlap in some areas,  
7 both inspection and assessment prior to and as they  
8 are ramping up to commercial operations. And also  
9 into commercial operations, where there's some  
10 aspects that we fully can't measure --

11                   CHAIRMAN SKILLMAN: Yes. But that's  
12 where you have a live core plant adjacent to a new  
13 building or a continuation of a build. So that's  
14 truly a unique situation.

15                   MR. REGAN: It is. It is. But you'd  
16 asked about is there some opportunities for overlap  
17 between construction and operation. And what I was  
18 hoping to convey is the one current example we have  
19 right now, Watts Bar, although it is unique, there  
20 have been some areas where we see some ROP start to  
21 engage while they're still in a construction phase.  
22 And then there's still some aspects left over,  
23 frankly, from construction that go into operating  
24 reactor ROP phase. So there is some overlap during  
25 the transition. But as far as the AP1000 and the

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1 new reactor designs, I think we're right at the  
2 very beginning of the analysis of what we need to  
3 do as far as transitioning them from construction  
4 to operating. It's a good question. I don't know  
5 if we've gotten there yet.

6 CHAIRMAN SKILLMAN: Well, and I would  
7 agree that the processes are very different and  
8 you've got your design cert process under Part 52,  
9 you've got your construction oversight process that  
10 should take care of the kind of things I'm talking  
11 about. But just as you put that development of ROP  
12 for new reactor designs, seems to me that ROP for  
13 new reactor designs must necessarily dig into some  
14 of the design features of the new designs.

15 MR. MORRIS: Yes.

16 MR. REGAN: Oh, yes.

17 CHAIRMAN SKILLMAN: In addition to some  
18 of the admin stuff of the new designs.

19 MR. MORRIS: Yes. I guess, I mean,  
20 maybe I've been thinking about this too  
21 simplistically. But I've kind of hung my hat on,  
22 hey, the design cert and then they build it and  
23 then there's ITAAC and we look at that and all the  
24 construction ROPs. So we're covered. I mean,  
25 that's kind of -- I've just kind of, okay, good.

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1 Well, now let's talk about how we're going to  
2 transition from one to the other. That's where  
3 our, well, my focus has been. But you raise an  
4 interesting point. I'll --

5 MEMBER SCHULTZ: And here's another  
6 reason why it might be even more interesting. And  
7 that's because these are new designs --

8 MR. MORRIS: Yes.

9 MEMBER SCHULTZ: -- AP1000, new designs,  
10 and we will have that same circumstance when we go  
11 from the first unit one operating to unit two under  
12 construction and to be operated in two to three  
13 years, hopefully less. So we will -- and there  
14 will be Lessons-Learned over that time frame. So  
15 in that transition period, let's call it maybe four  
16 year time frame, when unit one goes into operation  
17 and unit two goes through the rest of the  
18 construction, the ability to take full advantage of  
19 that process, there may be an imprint that this  
20 oversight process could leave on that to optimize  
21 or figure out how is that all going to work so that  
22 when you get to year five with two units, you've  
23 actually added some value in a different way than  
24 just what we have now, which is an isolated part  
25 one and part two. May be some opportunity.

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1 MR. SANFILIPPO: There's sort of a  
2 bigger fundamental policy question too that we're  
3 looking at as part of this is saying, well, what  
4 does the Baseline look like for an AP1000? Is the  
5 going in assumption that the Baseline is the same  
6 with a few adjustments based on uniqueness to  
7 technology? Or is the going in assumption, we  
8 start from scratch and build it up from zero  
9 because this is a fundamentally different plant  
10 with a fundamentally different safety approach?  
11 And in theory, perhaps the Baseline is less than it  
12 is for a current generation plant. But then again,  
13 we have no operating experience. It's --

14 CHAIRMAN SKILLMAN: Now's a good time to  
15 start thinking about it because we got the AP1000,  
16 we got NuScale, we got mPower --

17 MR. REGAN: Yes.

18 MR. MORRIS: Right.

19 CHAIRMAN SKILLMAN: -- we got a couple  
20 of different concepts out there that are --

21 MEMBER POWERS: But those things are so  
22 far out, you really want to divert them from --

23 CHAIRMAN SKILLMAN: No.

24 MEMBER POWERS: -- these other things?

25 CHAIRMAN SKILLMAN: No.

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1 MEMBER POWERS: I mean, it seems to me  
2 like they've got more than enough. I mean we've  
3 gone through --

4 MR. MORRIS: But he has a vacancy --

5 CHAIRMAN SKILLMAN: I agree with you,  
6 Dana --

7 MR. MORRIS: -- in his staffing plan to  
8 do this work, right, Chris?

9 CHAIRMAN SKILLMAN: -- I was thinking  
10 about, since we're thinking about it in a process  
11 and it's appropriate to be thinking in that --

12 MEMBER POWERS: Yes. And it's just that  
13 --

14 CHAIRMAN SKILLMAN: No, no, not to --

15 MEMBER POWERS: I mean, he's got pages  
16 and pages and pages of stuff, I'm going to do this,  
17 I'm going that --

18 MR. MORRIS: Broad shoulders.

19 MEMBER POWERS: -- I mean, I'm willing  
20 to doubt this. And I'm further willing to think  
21 that when NuScale starts turning swell and building  
22 a foundation, maybe I'll think about thinking about  
23 it.

24 MR. REGAN: Well, our primary focus  
25 right now obviously is on AP1000 because that's the

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1                   MR. MORRIS: We're seeing it and it's  
2 very palpable and very real.

3                   MEMBER POWERS: I mean, it's easy for  
4 Commissioners and managers to say, change this.

5                   MR. MORRIS: Yes.

6                   MEMBER POWERS: And tomorrow, I'll think  
7 up another change order to send out to you. It's  
8 pretty hard for people on the receiving end then --  
9 and it introduces a perturbation on the system that  
10 has to ring out before you hit them again. And  
11 that seems to me a big challenge. You guys got  
12 more ideas than I can keep up with.

13                   MR. MORRIS: We've been ringing --

14                   MEMBER POWERS: I guarantee your  
15 inspectors are having a hard time.

16                   MR. MORRIS: We're ringing a bell about  
17 once a week and they're all --

18                   (Laughter.)

19                   MR.           SANFILIPPO:           Challenging,  
20 communicating and training 65 satellite offices of  
21 inspectors.

22                   MR. MORRIS: It truly is herding cats.  
23 It really is.

24                   MR. REGAN: Well, it's more than that  
25 because --

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1 MEMBER POWERS: I mean, you've got to  
2 put yourself in their shoes.

3 MR. MORRIS: Yes. There's no question.

4 MEMBER POWERS: They got -- I mean those  
5 guys are my heroes in this world because I don't  
6 know how they do their job. It's just a really  
7 tough job and if you keep changing the ground rules  
8 on them --

9 MR. MORRIS: Yes.

10 MEMBER POWERS: -- you ain't making life  
11 easier for them.

12 MR. REGAN: We're trying -- it's  
13 interesting this issue of change management. We've  
14 already looked at ways we meter out the changes so  
15 that it's not this, where's the change occurring  
16 now? It's not this continuum. So we're moving  
17 towards we only really effect or implement a change  
18 twice a year in the field to give them that  
19 opportunity to catch up rather than this constant  
20 stream of what's changing next?

21 MEMBER POWERS: That's an area that I  
22 would really figure out a way to solicit feedback  
23 from them. Not wait for them, but to solicit  
24 feedback, is change coming too fast?

25 MR. REGAN: Yes. We've had

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1 opportunities to work -- well, we work regularly,  
2 Nathan and I, with our counterparts in the regions  
3 at the branch chief level to ask that question.

4 MEMBER POWERS: Probably --

5 MR. REGAN: Are you able to keep up with  
6 the change? How could we best --

7 MR. MORRIS: And sometimes the answer is  
8 no.

9 MR. REGAN: Yes. And how can we best  
10 meter out the changes so that you don't get  
11 swamped? Are you seeing an impact on your  
12 inspectors in the field? Are they -- do you have  
13 data that indicate that they're actually using the  
14 current version of the inspection procedure or  
15 something that was three years old? So we do have  
16 that engagement and one of the outcomes of that is  
17 just what I mentioned, where we are only  
18 implementing change twice a year. Because it was  
19 too much, they couldn't keep up with the rate of  
20 change.

21 MEMBER POWERS: At least when I was in  
22 that role, I had the flaming duck theory, which is  
23 management would generate a flaming duck, they  
24 would send it to me, I would ignore it, they would  
25 forget about it, and both of us would be happy.

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1 (Laughter.)

2 MEMBER POWERS: Because they'd be off  
3 generating another flaming duck and forget that  
4 they'd sent me one and I would just ignore it. And  
5 you really run into that problem.

6 MR. REGAN: And this is part of --

7 MR. MORRIS: Well, we're trying to  
8 squeeze them with the self-assessment process by  
9 adding in these compliance audits and the  
10 accountability on the back-end. Because that does  
11 happen. If we don't have the accountability on the  
12 back end, you're right, that's exactly what  
13 happens.

14 MEMBER POWERS: You bet. I mean, I'm  
15 going to make my life easy. If you are going to  
16 make it hard, I'm going to make it easy.

17 MR. REGAN: And there's two pieces to  
18 this change, there are the changes that the  
19 inspectors might welcome or might understand and  
20 ones they fundamentally don't agree with. And  
21 that's another hurdle that we're trying -- of  
22 course, you're never going to get every inspector  
23 in the country to agree with every change. So it  
24 is a huge management challenge.

25 MEMBER SCHULTZ: And I've cheated, I've

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1 gone ahead to the next slide. Chris just turned  
2 over. And you may only be providing these on a six  
3 month basis, but there are a half a dozen changes.  
4 And these are the high level ones. We've talked  
5 about a number of lower level ones to be  
6 incorporated and so there's plenty to be thinking  
7 about on the receiving end. And they're not always  
8 additive. Some of these are multipliers.

9 MR. REGAN: So anecdotally, we talked  
10 about the feedback form process earlier and you  
11 asked me how many do I typically see in a year.  
12 I'll offer that when I started in this job three  
13 years ago, we had a backlog of about 250 discrete  
14 pieces of feedback for the ROP. We typically get  
15 100 per year and we work through about 100 per  
16 year. However, in the last year and a half, we've  
17 added to that an additional 130 items that we  
18 mentioned earlier, plus the 100 that we get per  
19 year. So it is a significant amount of information  
20 that we're attempting to process to enhance the  
21 program. It's all good information. It's all  
22 going to result in a better program. But you're  
23 right, it is a lot that we have on our plate right  
24 now.

25 MR. SANFILIPPO: And as Scott mentioned,

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1 there's no shortage of good ideas. It's just we  
2 have to be careful about how we bin and prioritize  
3 and draw the line at what is an acceptable amount  
4 of change. As we led in at the beginning, an  
5 effective and mature program that fundamentally  
6 folks believe is a successful program, so that's  
7 always that overlying question of, well, what's  
8 broken? This is a great program, why don't you  
9 just leave it alone?

10 MR. MORRIS: Right. Yes. We get a --  
11 there is all that. But, you mentioned it briefly,  
12 but I -- and it's not on the last slide and I'm not  
13 even sure you're ready to go to the last slide, but  
14 I'm just going to, this project AM 2020 and the  
15 rebaselining initiatives that we're going through  
16 right now, right now today and over the next few  
17 weeks, the ROP and the oversight product line is  
18 about 400 FTE Agency wide. We're being asked to  
19 find a 40 FTE, the ten percent of that, that's low  
20 priority. That's 40 FTE, right?

21 So, here's another exercise where we're  
22 looking at, of all of the things that current exist  
23 that we do as part of the Reactor Oversight  
24 Process, what are the things that are the bottom  
25 ten percent from a risk importance? And offer them

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1 up for sacrificial whatever. So that's going on at  
2 the same time. And we're -- it's tough. I mean,  
3 so a struggle with rebaselining the ROP in the  
4 sense that -- in this project AM context, I  
5 personally struggle with it because we've examined  
6 the ROP up, down, back, and forth, and sideways for  
7 15 years, right? And everybody, it works, right?  
8 It's the "gold standard." You asked about  
9 benchmarking, well, people come to us to benchmark  
10 against our program, not the other way around.

11 And so, it's -- we're not going to  
12 rebaseline the program in the sense of rehashing  
13 all the elements of the program. We're just going  
14 through, if we have to risk rank every aspect of  
15 what we do in the ROP and number them 1 through N  
16 and take the bottom ten percent and serve them up,  
17 that's what we're doing. And so, I don't know  
18 what's ultimately going to survive. But we're  
19 going through a very deliberative process engaging  
20 our regional counterparts. And I'm just throwing  
21 that out there because that's another dynamic  
22 that's at play.

23 CHAIRMAN SKILLMAN: Yes. Scott, what is  
24 your target end date for that assessment?

25 MR. MORRIS: I have to deliver a product

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1 by October 9.

2 CHAIRMAN SKILLMAN: Oh my gosh, you're  
3 down to three weeks.

4 MR. MORRIS: I was given the rubric to  
5 implement last week.

6 CHAIRMAN SKILLMAN: Okay.

7 MR. MORRIS: So, I mean, it's going to  
8 be a challenge. And so we'll do the best we can  
9 with what we've got. We're not going to fight it.  
10 I mean, we're just going to do it. But it could be  
11 that there are things that we offer up that just  
12 are -- I mean, ultimately the Commission will  
13 decide. I mean, this is -- the Commission said in  
14 their SRM, go do this. We made a recommendation,  
15 they agreed, let's go do this. So we're doing it,  
16 I mean, Agency wide, soup to nuts, the whole 3,800  
17 plus FTE. It could very well be that our bottom  
18 ten percent is still more important than the top  
19 ten percent of somebody else's product. I don't  
20 know. We'll see.

21 (Laughter.)

22 MR. MORRIS: We'd like to be able to  
23 figure it out and get apples to apples. But it's  
24 hard. It's just hard. That's what -- I just, I'm  
25 not throwing that out there just to seek input --

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1                   MEMBER SCHULTZ: You haven't been able  
2 to do that evaluation though.

3                   MR. MORRIS: No. I'm not throwing it  
4 out there to seek input, I'm just telling you  
5 that's a dynamic that's in play.

6                   MR. WIDMAYER: The bottom ten percent of  
7 ROP might end up above all of ACRS's is what he's  
8 saying.

9                   CHAIRMAN SKILLMAN: That's what I heard.

10                  MR. MORRIS: I didn't --

11                  CHAIRMAN SKILLMAN: What I really hear  
12 is --

13                  MR. MORRIS: I absolutely did not say  
14 that.

15                                 (Laughter.)

16                  CHAIRMAN SKILLMAN: No, Scott, what I  
17 heard you say is, there is another dynamic on the  
18 horizon --

19                  MR. MORRIS: That's all I'm trying ---  
20 correct.

21                  CHAIRMAN SKILLMAN: -- it's going to  
22 affect everybody so everybody stand by until the  
23 dust settles.

24                  MR. MORRIS: Right. So there's another  
25 change in the wind.

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1           MR. REGAN: So for instance, we've  
2 mentioned the --

3           CHAIRMAN SKILLMAN: We had not made this  
4 issuance with respect to a biography here. But it  
5 doesn't seem like it would hurt for us in a  
6 discussion of the ROP to draw attention to both the  
7 enhancements that are going on now and the  
8 challenges that new reactors coming on line --

9           MR. MORRIS: May have.

10          CHAIRMAN SKILLMAN: -- may pose to the  
11 manpower and resources that is currently devoted to  
12 the program. That doesn't seem like a -- I mean,  
13 we cannot get involved in your problem of October  
14 9. That is proscribed from us. But it doesn't  
15 seem like it would be foreign for us to discuss the  
16 challenges that this particular program faces in  
17 the coming year with respect to modifications of  
18 the existing program and accommodation of new  
19 systems coming on line.

20                 And we can try to dispel the notion  
21 that the program has now become routine and static.  
22 That it in fact has a certain dynamicism to it  
23 that's meriting the continuous -- qualifies for the  
24 idea of continuous improvement. So that one  
25 doesn't get the idea that anybody can come in and

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1 do it. And that seems to me to be the biggest  
2 misperception, that I now have a script that I  
3 simply follow and anybody can do. And in fact, I  
4 think they're very, very, special people that do  
5 this.

6 MR. MORRIS: Well, I appreciate that.  
7 All that being said, there are things that we do as  
8 part of the ROP that we're going to be very --  
9 we're asking tough questions about. Like, for  
10 example, do we really need an industry trends  
11 program? Do we? I mean, it costs us a lot of  
12 money, do we really need it? Do we really need to  
13 do a mid-cycle assessment? Or can we just rely on  
14 a once per year assessment? We're asking ourselves  
15 those questions.

16 MEMBER POWERS: And those are legitimate  
17 questions for you guys to ask.

18 MR. MORRIS: So we're looking at our  
19 budget assumptions for supplemental inspections.  
20 We make an assumption, we know we're going to do  
21 the Baseline Inspection everywhere. That's easy, I  
22 know how much that's going to cost me to do that.  
23 What I don't know is how many supplemental  
24 inspections I'm going to have to do based on  
25 licensee performance. So we make assumptions. And

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1 then we look at the assumptions we made, right, and  
2 then we go back and look historically to see how  
3 well our assumptions matched reality. And,  
4 frankly, we're finding some disparity. So that may  
5 be an opportunity to just simply change our  
6 assumptions for what the program requires.

7 I mean, so we're doing all that. So  
8 we're trying to be true to the process. We're not  
9 trying to be protective of our turf or any of that.  
10 We're legitimately -- but it is a distraction and  
11 it's a lot of work and it's painful. So we're  
12 doing it and I'm just throwing that out there,  
13 that's just another dynamic that may result in some  
14 changes down the road. That's for the Commission  
15 to decide.

16 CHAIRMAN SKILLMAN: Good. Okay.

17 MR. REGAN: So the last slide here, I  
18 think, is a summary. We've covered all these  
19 bullets and that would conclude our formal  
20 presentation.

21 CHAIRMAN SKILLMAN: Chris and Nathan and  
22 Scott, thank you very much.

23 MEMBER POWERS: Thank you, Chris, Nathan  
24 --

25 MR. MORRIS: You're welcome.

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1 MEMBER POWERS: -- and Scott.

2 MR. MORRIS: Very, very welcome.

3 CHAIRMAN SKILLMAN: Before --

4 MR. MORRIS: These two guys are top  
5 notch. Keep me out of trouble.

6 CHAIRMAN SKILLMAN: -- the staff leaves  
7 the front of the table, members, do you have any  
8 further questions for Scott or Chris or Nathan?  
9 None?

10 → MEMBER POWERS: Well, I'm just going to  
11 make a request, if it's easy, to give me a view  
12 graph that's like a one page summary of what the  
13 Baseline Inspection is?

14 MR. MORRIS: Yes.

15 MEMBER POWERS: I mean, I literally want  
16 something that you could write on a view graph.

17 MR. MORRIS: Sure.

18 MEMBER POWERS: If it's longer than a  
19 view graph, then you're giving me too much.

20 MR. MORRIS: We can do that in about 15  
21 minutes, I think.

22 MEMBER POWERS: That's what I'm -- I  
23 have a motive here. Let it go at that.

24 MR. MORRIS: Okay. Happy to do it.

25 CHAIRMAN SKILLMAN: Team, any other

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1 questions for the staff? If none, the telephone  
2 line is open. Can we confirm that --

3 MR. WIDMAYER: I believe the only person  
4 on the telephone line is staff.

5 MEMBER SCHULTZ: We should find out.

6 CHAIRMAN SKILLMAN: Let's find out.

7 MR. WIDMAYER: Okay.

8 → CHAIRMAN SKILLMAN: And in the meantime,  
9 is there anybody in the room?

10 (Laughter.)

11 CHAIRMAN SKILLMAN: Seeing none, we're  
12 going to check the phone line.

13 MR. MORRIS: Oh, there's somebody behind  
14 the glass, that's right.

15 MEMBER POWERS: Well, in the interim,  
16 I'll definitely say I really enjoyed this meeting.  
17 And I go along -- I seldom agree with Scott, but on  
18 one I'll agree with him.

19 MR. MORRIS: That is true.

20 MEMBER POWERS: Chris and Nathan, you  
21 did a bang up job --

22 MR. REGAN: Thank you.

23 MEMBER POWERS: -- and you're confidence  
24 inspiring in your presentation.

25 MR. SANFILIPPO: I appreciate that.

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1 MR. REGAN: Thank you.

2 CHAIRMAN SKILLMAN: Hi. Good afternoon.  
3 This is the sub-committee meeting for the Revised  
4 Oversight Process. Is there anybody on the line  
5 that wishes to make a comment, please? If someone  
6 is there, please indicate your presence. Hearing  
7 none, we can close the phone line please. I want  
8 to thank you gentlemen for a very thorough  
9 presentation and for just giving us a couple of  
10 really solid hours of interesting discussion. And  
11 so I'm going to ask you to leave if you wish and I  
12 now wish to have dialogue with my teammates.

13 MR. MORRIS: Thank you very much.

14 CHAIRMAN SKILLMAN: Thank you very much.  
15 So ACRS colleagues, what I'd like to do is to ask  
16 your opinion --

17 MEMBER POWERS: You want to go off the  
18 record?

19 CHAIRMAN SKILLMAN: Yes, sir. I do.

20 MEMBER POWERS: Okay.

21 CHAIRMAN SKILLMAN: We are now off the  
22 record.

23 (Whereupon, the above-entitled matter  
24 went off the record at 4:33 p.m.)

25

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# Reactor Oversight Process Enhancements

Christopher Regan/Nathan Sanfilippo  
ACRS Subcommittee Briefing  
September 24, 2015

# The ROP continues to be a mature and effective program

- ▶ It's remained effective due to continuous feedback and adjustments made to the program since its inception in 2000
- ▶ While its fundamental principles have remained the same, changes have been made to:
  - ▶ Baseline inspection procedures
  - ▶ Inspection scopes and focuses
  - ▶ Performance indicators
  - ▶ Action Matrix
  - ▶ Significance determination methods
  - ▶ Safety culture and cross-cutting issues

# ROP Feedback Mechanisms

- ▶ Self-Assessment
- ▶ Feedback forms
- ▶ ROP “Contact Us”
- ▶ External reviews
- ▶ Program audits
- ▶ Lessons learned

# ROP Enhancement Project Scope

- ▶ Self-initiated in 2013 to take a fresh look at the ROP
- ▶ Goal
  - ▶ To continuously improve the ROP using a framework to accomplish the various ongoing programmatic improvement activities in a prioritized, organized, and efficient manner
- ▶ 130+ inputs from multiple sources
- ▶ Process and prioritization
- ▶ Major topical areas
  - ▶ Baseline inspection
  - ▶ Assessment
  - ▶ Self-assessment
  - ▶ Significance determination process
  - ▶ Communications

# Inputs

## ▶ Programmatic Reviews

- ▶ ROP Baseline Inspection Program enhancement (self-initiated)
- ▶ Significance Determination Process enhancement report (self-initiated)
- ▶ ROP Independent Assessment (Commission-directed)
- ▶ ROP self-assessment process enhancement as proposed in COMSECY-14-0030, "Proposed Suspension of the Reactor Oversight Process Self-Assessment for Calendar Year 2014" (self-initiated)
- ▶ GAO-13-743, "Analysis of Regional Differences and Improved Access to Information Could Strengthen NRC Oversight"
- ▶ OIG-14-A-12, "Survey of NRC's Support Provided to Resident Inspectors"

## ▶ Lessons-Learned Activities

- ▶ Browns Ferry Column 4 lessons learned (self-initiated)
- ▶ Fort Calhoun Inspection Manual Chapter 0350 lessons learned (self-initiated)
- ▶ San Onofre steam generator tube degradation lessons learned (self-initiated)

# Process and Prioritization

- ▶ Items were screened and prioritized using three factors
  - ▶ Program needs, gaps, and the safety impact of changes
  - ▶ Government/NRC interest
  - ▶ External interest
- ▶ The following questions are used to help guide this effort:
  - ▶ Is the ROP helping us achieve what we need to achieve as a regulator?
  - ▶ Is the ROP adequate for the current environment (e.g., external event uncertainties, plants entering the period of extended operation, effects of power up-rates, new corporate/financial structures, etc.)?
  - ▶ What is the nexus between the ROP and industry safety performance?
  - ▶ What is working? What is not? What should be improved?

# Project Status as of September 2015

- ▶ Significant progress being made towards program enhancements
- ▶ Baseline Inspection Program Enhancements
  - ▶ All actions in response to recommendations to be complete by end of 2015\*
  - ▶ BIP enhancements with broad scope/longer schedules:
    - ▶ component design basis inspection (CDBI) revisions
    - ▶ problem identification and resolution revisions

# → Baseline Inspection Program Enhancements

- ▶ Enhance BIP to:
  - ▶ Incorporate needed inspection areas for the current environment
  - ▶ Eliminate redundant areas
  - ▶ Ensure efficient and effective use of agency resources
  - ▶ Incorporate flexibility where appropriate
- ▶ Early indicators, for example
  - ▶ Aging management and effective knowledge transfer in some programmatic areas
- ▶ Provide for validation of the current basic philosophy and key principles of the BIP
- ▶ 3 phases - analysis of inspection areas, documentation of recommendations, and procedure revision
- ▶ Completion of majority of enhancements by end of CY2015

# CDBI Revisions

- ▶ Reviewed engineering inspections as part of the ROP enhancement project and considered input provided by the industry
- ▶ Several public meetings with industry and other public stakeholders on proposed CDBI revisions
- ▶ Developing pilot Engineering Design Inspections that will be performed in lieu of CDBI inspections at two sites in each region from November 2015 to June 2016
- ▶ Two parts:
  - ▶ 2-week onsite inspection similar to current CDBI, but with a reduced inspection samples
  - ▶ 1-week onsite inspection will focus on implementation of a licensee's engineering program
- ▶ Motivation behind changes
  - ▶ Reduce any unnecessary regulatory burden on the licensee while retaining Agency's ability to independently verify that the licensees are maintaining their licensed design basis.
- ▶ Finalized new engineering inspection will be implemented at all sites starting in CY 2017 after lessons-learned from the pilot inspections are incorporated

# PI&R Revisions

- ▶ PI&R: “provides for early warning of potential performance issues that could result in crossing thresholds in the Reactor Oversight Process (ROP) Action Matrix...”
- ▶ Not specifically addressed by other inspections or PIs. PI&R
  - ▶ routine PI&R reviews,
  - ▶ semiannual trend reviews,
  - ▶ annual follow-up of selected issues,
  - ▶ and biennial team inspections; IP 71152B is IP - programmatic assessment
- ▶ IP 71152 recommendations from 2014 ROP BIP enhancement initiative. P&IR is ~25-30% of BIP effort.
- ▶ The NRC formed an IP 71152 internal working group. Engagement with public/stakeholders
- ▶ Changes in February 2015 revision. Further enhancements expected June-July 2016
- ▶ Scope may indicate benefits of a “pilot.” Further assessment/enhancement may be warranted beyond the June/July 2016 changes

# → Assessment Program Enhancements

- ▶ Completed major revision to “substantive cross-cutting issue” process
  - ▶ Revised “cross-cutting issue” process issued in April 2015
  - ▶ First application of new guidelines will be during mid-cycle assessments in August
- ▶ Policy issue regarding definition of “degraded cornerstone”
  - ▶ Working group evaluated how many White inputs should be considered equivalent to 1 Yellow input for the purposes of the definition of “degraded cornerstone”
    - ▶ Working group found no compelling technical basis for the current value of 2 White inputs
    - ▶ Working group recommended change to 3 White inputs
  - ▶ Many differing views among staff whether 2 or 3 is appropriate
  - ▶ Commission currently voting on SECY-15-0108

# → Significance Determination Process Enhancements

- ▶ Response to SRM-COMSECY-14-0030 to “Streamline the SDP”
- ▶ Phase 1 - Completed “Business Process Improvement” on existing process
- ▶ CA Note issued on June 30, 2015 outlining staff’s plan for Phase 2
  - ▶ Address overall timeliness from issue discovery to regulatory action
  - ▶ Default approach will continue to use quantitative data if timely and uncertainty is acceptably low
  - ▶ Seeking to ensure:
    - ▶ Decisions are risk-informed
    - ▶ Analyses are targeted towards decision-making, not open-ended data gathering
    - ▶ Agency actions are more timely
    - ▶ Agency resources are better managed and balanced
    - ▶ Unnecessary regulatory burden is minimized
    - ▶ Regulatory independence is maintained

# → Communications Enhancements

- ▶ A number of recommendations have focused on various aspects of ROP communications (including plain language)
- ▶ Staff has a central point of contact for all ROP communications initiatives (previously fragmented)
- ▶ Strong momentum towards enhancements and positive feedback from regions
- ▶ Refining language used in all public ROP communications (i.e., assessment letters, final significance determination letters, inspection reports)
- ▶ Developing new knowledge management-style NUREG on ROP Commonly Asked Questions
- ▶ ROP external and internal webpage redesign
- ▶ New and better ways of obtaining internal and external stakeholder feedback

# → Self-Assessment Program Enhancements

- ▶ Commission approved request to forgo 2014 self-assessment to:
  - ▶ Develop new self-assessment process
  - ▶ Implement ROP enhancements
- ▶ Staff finalizing development of new process comprised of 3 major elements
  - ▶ Metrics to assess compliance with and drive accountability to ROP governance
  - ▶ Evaluate efficacy of recent program changes
  - ▶ Perform targeted, in-depth assessment(s)
- ▶ Staff will transmit the new process to the Commission this fall via Info SECY
- ▶ Plan to implement new process for CY 2015 (without an in-depth assessment since ROP enhancements are still ongoing)
  - ▶ Next Self-Assessment Information SECY due in April 2016

# → Associated ROP Improvement Initiatives

- ▶ ROP Independent Assessment
  - ▶ All recommendations to be dispositioned by the end of 2015
  - ▶ Final report will be issued summarizing and documenting disposition of each item
- ▶ GAO Audit of Regional Differences
  - ▶ Enhancement to IMC-0612
  - ▶ ROP /Traditional Enforcement Integration
- ▶ Integration of lessons learned from plant decommissioning
- ▶ Development of ROP for new reactor designs
  - ▶ Performance Indicators
  - ▶ SDP
  - ▶ Baseline Inspection Program
- ▶ Event response Lessons Learned
  - ▶ Browns Ferry Lessons Learned
  - ▶ San Onofre Lessons Learned

# ROP Priorities – Next 12 months

- ▶ CDBI revisions
- ▶ SDP revisions
- ▶ Regional reliability/consistency enhancements
- ▶ Exercise new self-assessment process
- ▶ Industry Trends Program revisions
- ▶ Early stages of development of ROP for AP1000

# Additional Background

# Proposed CDBI Changes

	Current CDBI	Proposed CDBI	Comments
Total Inspection Weeks	7 weeks	5 weeks	30% reduction
Inspection Scope	15 - 25 components	10 - 17 components	34% reduction
Onsite Weeks	3	2	34% reduction
Team size	4 NRC inspectors 2 contractors	4 NRC inspectors 2 contractors	No change
Program Inspection	None	One to Two Programs	3 NRC inspectors one week onsite