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COMMISSION'S
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS

(ACRS)

+ + + + +

PLANT OPERATIONS AND FIRE PROTECTION SUBCOMMITTEE

+ + + + +

REACTOR OVERSIGHT PROCESS ENHANCEMENTS

+ + + + +

THURSDAY

SEPTEMBER 24, 2015

+ + + + +

ROCKVILLE, MARYLAND

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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

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

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

2 1:00 p.m.

3 CHAIRMAN SKILLMAN: Good afternoon.
4 This meeting will now come to order. This is a
5 meeting of the Advisory Committee on Reactor
6 Safeguards on Plant Operations and Fire Protection.
7 I'm Dick Skillman. I'm Chairman of this sub-
8 committee. ACRS members in attendance are Dr.
9 Steven Schultz, Dr. Dana Powers, Dr. Ron Ballinger,
10 and our designated federal official is Derek
11 Widmayer.

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

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

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

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

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

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

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

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

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

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

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

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

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,

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

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

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

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

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

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

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

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.

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

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

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

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

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

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

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

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

MR. REGAN: Sure.

CHAIRMAN SKILLMAN: Please proceed.

MR. REGAN: Okay.

CHAIRMAN SKILLMAN: Thank you.

MR. REGAN: So we talked about feedback

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

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

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

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

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

MR. REGAN: Yes.

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

MR. REGAN: We will.

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

MR. REGAN: TI.

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

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

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

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

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 themself?
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.

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

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

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

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.

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.

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

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

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

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

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.

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

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

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

MEMBER SCHULTZ: Yes.

CHAIRMAN SKILLMAN: Proceed please.

MR. SANFILIPPO: Okay.

CHAIRMAN SKILLMAN: Thank you.

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

MR. MORRIS: Oh, yes.

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

MR. MORRIS: Chris just hired a

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

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

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

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

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

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

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

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

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

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

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

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

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

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

be able to adopt some of those concepts more formally.

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

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

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

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

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

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

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

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

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

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

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

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

oversight --

MR. REGAN: Inspection --

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

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

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

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

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

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

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

CHAIRMAN SKILLMAN: I see those connected.

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 --

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

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

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

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

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

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

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

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

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

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

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

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.

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

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

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

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.

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.

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 --

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,

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.)

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

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.

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

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

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

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

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.

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.

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

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

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

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

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

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.

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,

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

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.

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

MR. MORRIS: It's not like --

MR. SANFILIPPO: -- that there was --

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

MR. SANFILIPPO: Yes.

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

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

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

MR. SANFILIPPO: It seems to, yes.

CHAIRMAN SKILLMAN: Okay.

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

MR. MORRIS: And it's --

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

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

MR. SANFILIPPO: Yes.

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

MEMBER SCHULTZ: So this is more than a

pilot? This is an introduction of a --

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

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

MR. SANFILIPPO: We did examine their program --

MEMBER SCHULTZ: But, I mean --

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

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

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

MEMBER SCHULTZ: Yes.

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

MEMBER SCHULTZ: Not doing it?

MR. SANFILIPPO: -- think we go there.

MR. MORRIS: They would stop doing it if

we did that.

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

MR. MORRIS: Oh.

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

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

MEMBER SCHULTZ: Depend upon ours.

MR. MORRIS: It's an interesting thought.

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

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

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

MR. SANFILIPPO: Yes.

MR. MORRIS: Yes.

MR. SANFILIPPO: So that was a --

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 --

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

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

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 --

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

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

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

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

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

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

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

MEMBER BALLINGER: In your analysis --

MEMBER POWERS: I can --

MEMBER BALLINGER: Whoops. Go ahead.

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

MR. MORRIS: Yes.

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

MR. MORRIS: Right.

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

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

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

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

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 --

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

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

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

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

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

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 --

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

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

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

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

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

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.

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

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

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

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.

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 risked 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

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

MR. MORRIS: Well, and it --

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

MR. MORRIS: Yes.

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

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

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

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

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

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

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.

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

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

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

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

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

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,

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

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

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

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

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

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

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-

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

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

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

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,

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

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

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

CHAIRMAN SKILLMAN: Yes.

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

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

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

MR. REGAN: There has --

MR. MORRIS: -- that issue.

MR. REGAN: Well, the only --

MR. MORRIS: I don't know.

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

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.

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.

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.

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

nearest one in the pipe. And point taken. We are essentially four years out from these things actually making power. But in the big picture of things, the sooner we get it, the sooner we put this on our radar, the better position we are later on to really tackling the hard issues if we can at least get some of the simple stuff out of the way and maybe set up a framework. But ask the question now and, okay, well, maybe the answer will come later, but we at least got the question on the table.

MEMBER POWERS: Seems to me one of the biggest problems that you as a management team has to worry about is change management in the sense that the pointy head of the spear is your inspectors out in the field and you hit them with too much change, then they go into fibrillation.

(Laughter.)

MEMBER POWERS: And so you have to -- I mean that seems to me --

MR. MORRIS: Oh it's -- this is more --

MEMBER POWERS: -- it's easy --

MR. MORRIS: -- than a theory. This is -- we're actually seeing it.

MR. REGAN: It's very real.

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 --

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

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

MEMBER POWERS: Probably --

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

MR. MORRIS: And sometimes the answer is no.

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

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

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

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,

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

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

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 --

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.

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

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

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

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

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

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.

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

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.

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.)

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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 licensees 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