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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR REACTOR REGULATION

OFFICE OF NEW REACTORS

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

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PUBLIC MEETING ON DRAFT RIS

DISPOSITION OF INFORMATION RELATED TO THE TIME

PERIOD THAT SAFETY-RELATED SSCs ARE INSTALLED

+ + + + +

WEDNESDAY

JANUARY 20, 2016

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ROCKVILLE, MARYLAND

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The Public Meeting convened at the Nuclear  
Regulatory Commission, Two White Flint North, Room  
T3B45, 11545 Rockville Pike, at 1:30 p.m., Harold  
Chernoff, facilitator, presiding.

PRESENT:

HAROLD CHERNOFF, NRR, Facilitator

DENNIS MOREY, NRR

SCOTT MORRIS, NRR, DIRS

CATY NOLAN, NRR

1 KEN O'BRIEN, Region III  
2 ALEXANDRA POPOVA, NRR  
3 JESSE ROBLES, NRR  
4 SHELDON STUCHELL, NRR, DPR  
5 ERIC THOMAS, NRR  
6 JOHN THOMPSON, NRR

7

8 ALSO PRESENT:

9 DAVID LOCHBAUM, Union of Concerned Scientists  
10 VINCENT BACANSKAS, Entergy\*  
11 KELLY BAKER, DC Cook\*  
12 STEVE FRANTZ, Morgan, Lewis & Bockius\*  
13 SAM HARVEY, EPRI  
14 FRED MASHBURN, TVA  
15 STEPHEN MEYERS, STARS/Ameren  
16 BRUCE MONTGOMERY, NEI  
17 MARTY MURPHY, Xcel Energy  
18 JOHN PFABE  
19 JOHN SAMS, Ontario Power Generation\*  
20 RICK WEINACHT, Curtiss-Wright Corporation\*

21

22 \*Present via telephone

23

24

25

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

1:34 p.m.

MS. POPOVA: Okay, good afternoon.

First, I'd like to thank everybody for attending this meeting.

My name is Alexandra Popova and I am the Lead Project Manager for this issue in the Office of Nuclear Reactor Regulation.

So, we're here today to discuss the disposition of information related to the time period that safety-related structure systems and components are installed.

Before we start the meeting, I'm going to cover a couple of administrative topics.

For security purposes, NRC policy dictates that visitors to the Agency are required to wear and display their badges as well as be escorted at all times while within NRC controlled space.

If you are not an NRC employee, you must be escorted at all times once you enter the elevator lobby on the first floor.

Therefore, if you need to leave the room for any reason, please ensure that an NRC employee is with you.

So, there's a couple of NRC employees who

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1 are raising their hands right now and, if you need to  
2 leave the room for any reason, just grab one of them.

3 We'll make arrangements at the end of the  
4 meeting to have NRC employees escort you back to the  
5 elevator lobby on the first floor or to the bathrooms  
6 on this floor.

7 We also plan to take a break about an into  
8 the meeting.

9 Please turn off or silence all your cell  
10 phones during the meeting as a courtesy.

11 Also, for people that are at the round, so  
12 that's these tables here, the mics are always on, so  
13 if you want to mute them, you have to push the button  
14 that says push. Yes, so you have to hold it and  
15 that's how it's muted otherwise, it's always on.

16 So, there is an attendants list that is in  
17 the middle before the pews as well as one that should  
18 be circulating the round. Please fill out the  
19 information and pass the list along.

20 Once the lists are completed, please pass  
21 them back to me. Or just leave them in front of the  
22 pews.

23 For those who are participating on the  
24 phone, please send an email to axp16, so that's A-X as  
25 in x-ray, P as in Papa, 16 at nrc.gov. My email is

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1 also listed on the Public Meeting Notice.

2 I will reply to your email with the  
3 meeting summary and the slides.

4 The list of the attendees and the phone  
5 participants will become part of the meeting summary  
6 and that will be made publically available.

7 Okay, so the purpose of this meeting is to  
8 allow for open discussion between external  
9 stakeholders and the NRC regarding components that are  
10 installed past their time period.

11 NRC staff is developing a RIS to reiterate  
12 existing requirements related to dispositioning  
13 information pertaining to the capability of safety-  
14 related structure systems and components to perform  
15 the safety-related functions in nuclear power plants.

16 Once developed and aligned internally, the  
17 draft RIS will be posted in the Federal Register and  
18 open for comments. Please submit all formal comments  
19 through the Federal Register.

20 Once the public comment period closes, the  
21 NRC staff will review and disposition all formal  
22 comments received through the Federal Register.

23 Submitting comments can be done by  
24 searching for the draft RIS on [www.regulations.gov](http://www.regulations.gov).

25 This is a Category 3 Public Meeting which

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1 allows the public to participate in the meeting by  
2 providing comments and asking questions throughout.

3 Please state your name and company before  
4 speaking since this meeting is being recorded.

5 This meeting will not decide any Agency or  
6 staff positions and it will not interpret regulations  
7 other than what is current established by guidance or  
8 staff position.

9 No decisions regarding this draft RIS will  
10 be made at the meeting.

11 During the question portion of the  
12 meeting, I will first take questions here at  
13 Headquarters and then go to the phones.

14 So, if you are on the GoTo Meeting and  
15 have a question or would like to discuss, please send  
16 me a message and that way, I can queue you.

17 This is a two hour meeting scheduled from  
18 1:30 to 3:30 p.m.

19 For those who desire to provide feedback  
20 about the public meeting process, please email me.  
21 Again, my email address is [axp16@nrc.gov](mailto:axp16@nrc.gov).

22 I welcome the participants on the phone  
23 and ask that they keep their phones on mute except to  
24 discuss issues.

25 To place the phone on mute, press star six

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1 and star six again to unmute.

2 We understand difficulties encountered  
3 when listening by phone. By muting the phones, it  
4 will minimize the noise heard by all.

5 I'd like to open the meeting with  
6 introductions. We will first do introductions here at  
7 Headquarters and then move to the phones.

8 Actually, no, correction, due to the large  
9 number of participants on the phones, we are only  
10 going to do introductions here at Headquarters. And,  
11 we will be doing introductions just in the round.

12 As we go around the room, please be sure  
13 to clearly state your name, your position, your  
14 company and, for NRC staff, the office that you work  
15 for in the NRC.

16 So, I'll start off. Once again, I'm  
17 Alexandra Popova, Lead Project Manager for this issue.  
18 I'm in the General Communications Branch in the Office  
19 of Nuclear Reactor Regulation.

20 MR. O'BRIEN: I'm Ken O'Brien. I'm the  
21 Director of the Division of Reactor Safety for Region  
22 III.

23 MR. MORRIS: I'm Scott Morris. I'm the  
24 Director of the Division of Inspection and Regional  
25 Support in NRC Headquarters.

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1 MR. CHERNOFF: Harold Chernoff, I'm the  
2 Chief Operating Experience Branch in NRR. And, I  
3 would just add, the microphones at the tables are  
4 directional, so you need to be within about 6 to 12  
5 inches or the people on the phone won't be able to  
6 pick it up.

7 MR. THOMPSON: John Thompson, Lead  
8 Technical Contact for this RIS, Operating Experience  
9 Branch, NRC.

10 MR. MASHBURN: I'm Fred Mashburn,  
11 Corporate Licensing, TVA.

12 MR. LOCHBAUM: Dave Lochbaum, Director of  
13 the Nuclear Safety Project for the Union of Concerned  
14 Scientists.

15 MR. MEYERS: Steve Meyers, STARS Alliance.

16 MR. MURPHY: Marty Murphy, Director of  
17 Regulatory Affairs for Xcel Energy.

18 MR. MONTGOMERY: Bruce Montgomery, Nuclear  
19 Energy Institute.

20 MR. HARVEY: Sam Harvey, Principle  
21 Technical Leader for Electric Power Research  
22 Institute.

23 MR. MOREY: Dennis Morey, I'm Chief of the  
24 Reactor Systems Branch in Division of License Renewal  
25 at the NRC.

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1 MR. STUCHELL: Sheldon Stuchell, Chief of  
2 the Generic Communications Branch.

3 MS. POPOVA: Okay. Scott, would you like  
4 to provide some opening remarks?

5 MR. MORRIS: Yes, I'll just make a few --  
6 a couple of opening remarks and we'll turn it over to  
7 Harold and we'll just right in.

8 So, obviously, welcome everybody here.  
9 I'm, I guess, a little surprised at the quantity of  
10 folks who have come to the meeting and are on the  
11 phone. But, I guess that's a good thing. There's an  
12 interest in what we do and why we do it. So, we're  
13 looking forward to a good exchange here today.

14 Clearly, our goal, our main goal here is  
15 to listen to your feedback, comments, concerns or  
16 other thoughts on the draft Regulatory Information  
17 Summary that we attached to the Meeting Notice for  
18 this particular meeting.

19 There's a fairly substantial history  
20 associated with the rationale for developing this RIS.  
21 Some of you know what that is. Some of you know that  
22 history, some of you don't. I think Harold's going to  
23 touch on a little bit of that just to make sure  
24 everybody has a common understanding of the real  
25 reason we're here today, what brought us to this point

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1 today.

2 But, yes, I'm looking forward to a good  
3 exchange. It is a Category 3 Meeting, as Alex  
4 mentioned. So, we look forward to comments, not just  
5 from the industry, but also from members of the  
6 public, including ECS and any others.

7 So, if you feel like at some point you  
8 want to make a comment, you know, please alert us and  
9 we'll give you the opportunity to express that.

10 So, with that, I'm going to shut up and  
11 hand it off to Harold and let's move this forward.

12 MR. CHERNOFF: Again, the thanks for the  
13 opportunity to talk. We often don't get enough time  
14 to sit across the table in a room and listen. And,  
15 that's what we're going to be doing mostly as far as  
16 NRC staff. Our intent here is to listen and make sure  
17 we understand what your comments, what feedback  
18 various people have. That's our purpose.

19 We're not here to debate or espouse our  
20 beliefs. We want to hear from the people in the room  
21 that we don't work with on a day to day basis.

22 With regard to background, we have just a  
23 half dozen overview slides that we'll go through and  
24 then we'll open it up into the real purpose, which is  
25 to get some information from the folks in the room.

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1 In the Operating Experience Branch, one of  
2 the things we're tasked with is to look at large and  
3 small trends and activities in both events and  
4 regulatory actions, findings, enforcement, et cetera.

5 And, we launched into a couple of years  
6 ago, almost three years ago now, we produced a study  
7 that actually was a follow on to some other activities  
8 we had done related to implementation and vendor  
9 recommendations at the plants.

10 And, in this case, we were looking and  
11 found what we saw as a small increasing trend in  
12 findings and Licensee Event Reports involving age-  
13 related issues and failures of equipment in the field,  
14 safety-related SSCs.

15 And, the data actually shows a break over  
16 point of things that had been in the field more than  
17 15 years. And, just simply, there were about 17 of  
18 these type of events in 2009 and, by 2012 we'd seen an  
19 increase to about 32. And, it's a mixed set of data.  
20 It's not all Licensee Event Reports, it's not all  
21 findings.

22 Overall, the percentage of findings  
23 attributed to these kind of things was pretty small.  
24 It was about two percent of overall findings.

25 Most of the examples that we saw related

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1 to, as you might suspect, to electrical subcomponents,  
2 be that cards, relays, breakers, power supplies, et  
3 cetera.

4 MR. MORRIS: Are you on a different slide?

5 MR. CHERNOFF: No.

6 MR. MORRIS: Just checking.

7 MR. CHERNOFF: Yes, you want to advance --  
8 let's go two slides I think will get us -- thank you,  
9 guys.

10 MR. MORRIS: Just trying to help you out.

11 MR. CHERNOFF: I know. This is preamble  
12 to this.

13 So, in looking at that and we also saw  
14 that the cause was varied. There were a number of --  
15 there was no single smoking causal factor that we saw.  
16 There were some issues regarding keeping abreast of  
17 operating experience. There were issues regarding  
18 performance-based monitoring. And there were some  
19 even issues where maybe a maintenance rule  
20 miscategorization had led to the finds or the  
21 incident.

22 There were also a variety of, for the ones  
23 that were findings, a regulatory basis for those  
24 findings.

25 This led us, as one of our actions, we had

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1 a number of actions out of the study that, internally,  
2 we were taking including ones focused on staff and how  
3 staff was doing oversight focus in this area.

4 But, one of the other ones that we felt  
5 was important was to take the opportunity to  
6 communicate out what we saw.

7 The study was made publically available  
8 back in 2012 or 2013, so it's in public ADAMS and I  
9 believe it was attached to the Meeting Notice for this  
10 meeting.

11 But, in looking at, is there a need to  
12 communicate something a little broader? We felt there  
13 was and that is the purpose of the draft RIS which is  
14 to discuss dismissal, as the slide shows, of  
15 information related to how long safety-relates SSCs  
16 are installed.

17 And, there's a careful wording there, it's  
18 to discuss the disposition of the information, okay,  
19 how you go about doing it, what the processes are.

20 And, to reiterate responsibility of  
21 licensee's to maintain SSC structure systems  
22 components ability to perform their safety-related  
23 functions. And, I'm going to emphasize safety-related  
24 functions here.

25 So, can we go to the next slide, please?

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1           So, these are the main points that I hit.  
2           We had the study. We saw a slight trend. We're not  
3           talking about, you know, stoke your mattress,  
4           statistics breakdowns, we're talking about judgment  
5           calls regarding small sets of data. Okay?

6           And, we felt there was additional focus  
7           needed both within the staff and from industry  
8           perspectives.

9           Next slide, please?

10          This is a very short list of what would  
11          likely be a fairly long list if we tried to list out  
12          all the regulatory requirements that have some kind of  
13          a juncture or intersection with this activity.

14          But, these are probably the more  
15          significant ones. The NRC Approved Quality Assurance  
16          Program that each operating reactor has. Their  
17          technical specifications, and particularly within  
18          their technical specification their administrative  
19          section regarding procedures and establishment of  
20          procedures in accordance with Reg Guide 133.

21          And also, of course, the maintenance rule  
22          which is the performance-based aspect to the  
23          regulations for equipment monitoring and control.

24          Next slide, please?

25          Okay, I spoke a little bit about

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1 enforcement history. And, to be very straightforward,  
2 we have a number of examples of findings and they  
3 vary. And, how they are written up, the action that  
4 we took, also varies.

5 And, this is very typical of our ROP  
6 Program. We try to write findings close to the nexus  
7 of what we feel that the main issue is.

8 So, in one case, a problem might be  
9 written up as a failure to follow or failure to comply  
10 with Tech Spec 541 Procedures where there this  
11 procedure that's been established but it wasn't  
12 followed.

13 On the contrary, at some case, a finding  
14 might have been written up under design criteria  
15 because there was not an application of either design  
16 criteria or maybe establishment of procedures. There  
17 were no procedures written.

18 And, one of the complexities is, I don't  
19 think we have -- we've come to the consensus that  
20 there is no single formulaic way to address this issue  
21 because it's about how you disposition information  
22 that you get and that you see at the plant.

23 So, from an enforcement point of view, we  
24 have a number of findings. There were, John, how many  
25 in the overall study roughly?

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1 MR. THOMPSON: Hundred and five.

2 MR. CHERNOFF: A 105 within the scope of  
3 the study that were cited and there's a pretty good  
4 variability about what specific findings were tied to  
5 from a regulatory perspective.

6 Well, I think that's -- okay, that's the  
7 very brief introductory remarks.

8 Now, a couple of other items. Really  
9 appreciate everybody staying within the spirit of the  
10 meeting and speaking to the draft document in front of  
11 us.

12 There are a lot of ancillary related  
13 things. We're really not here to get into those in  
14 detail. So, what we're focused on is any comments,  
15 thoughts, perspectives on the draft document that was  
16 sent out. That's our primary purpose and appreciate  
17 it if we can help do that. And, the focus is on  
18 external stakeholders.

19 So, with that --

20 MR. MORRIS: Well, if I could just add to  
21 that?

22 MR. CHERNOFF: Yes.

23 MR. MORRIS: It's not -- just to echo a  
24 little bit and maybe clarify a little bit what Harold  
25 just said.

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1           It's -- we're interested in feedback on  
2           what we've provided in the draft Regulatory  
3           Information Summary, both what is in there and what  
4           may not be in there that you think should be in there.  
5           So, it's both of those things.

6           MR. CHERNOFF: Thank you. Good point,  
7           good point.

8           With that, if there are any questions  
9           about logistics before we get started and open it up  
10          for comment? Yes, Dave? Dave Lochbaum, please?

11          Just to reemphasize, when you speak,  
12          please identify yourself and affiliation so that  
13          people on the phone --

14          MR. LOCHBAUM: Dave Lochbaum, Union of  
15          Concerned Scientists.

16          I have a request. The TIA that's  
17          mentioned is not publically available. I'm not sure  
18          exactly how NEI spoke so eloquently about a nonpublic  
19          document. But, could that document, ML-15127A569, be  
20          made publically available?

21          MR. O'BRIEN: This is Ken O'Brien with  
22          Region III.

23          We originally did that TIA and I don't  
24          recall if we made that publically available when we  
25          finished it. We subsequently withdrew that TIA in the

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1 guise of finishing this issue from a generic  
2 standpoint.

3 I'm not sure there's anything that  
4 precludes us from putting it out there. It could  
5 confuse us a little bit because that same sort of  
6 information's in the RIS right now and it was focused  
7 on a single issue at a plant, specific plant, so it's  
8 more localized than I think we're trying to talk here.

9 MR. CHERNOFF: Is it okay to say that  
10 we'll take a look and make it publically available?

11 MR. O'BRIEN: Yes, yes, I think that's  
12 what I said but maybe not as clearly.

13 MR. CHERNOFF: Yes.

14 MR. MORRIS: It's nothing magic, it was  
15 like a process issue -- this is Scott Morris --  
16 process issue. We went through the TIA, so we took it  
17 off the website.

18 We withdrew the TIA in lieu of -- the TIA,  
19 as Ken pointed out, are done a retail site by site  
20 basis whereas RIS is a wholesale generic basis. So,  
21 we pulled the TIA in lieu of a RIS.

22 Yes, there's nothing we can --

23 MR. CHERNOFF: We'll look at making that  
24 happen. Thank you.

25 MR. O'BRIEN: I don't see anything to stop

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1 us from that.

2 MR. MURPHY: This is Marty Murphy.

3 If -- Xcel Energy -- if you do make that  
4 publically available again, will you make it clear it  
5 has been withdrawn?

6 MR. O'BRIEN: Oh, yes.

7 MR. MORRIS: Sure.

8 MR. O'BRIEN: Withdrawn, by the way,  
9 doesn't change the aspect of it. As I said, we  
10 withdrew it, not because there was anything in there  
11 we thought was wrong, but instead, because we were  
12 looking it more holistically.

13 MR. LOCHBAUM: Understood.

14 MR. MONTGOMERY: Yes, this is Bruce  
15 Montgomery, Nuclear Energy Institute.

16 I'll open by just saying, I appreciate the  
17 opportunity to discuss this draft RIS.

18 We have a number of questions and probably  
19 some comments that we'd like to make. And, in a  
20 process of doing that, we're really just seeking to  
21 clarify our understanding of what this RIS is  
22 communicating to us.

23 We do note a significant difference  
24 between that TIA we were just discussing in terms of  
25 the level of detail of information and positions taken

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1 and this draft RIS.

2 So, in our minds, we're trying to make  
3 sure we understand that we, you know, what's the  
4 difference between the two documents? And, exactly  
5 what is the staff trying to communicate to the  
6 industry?

7 So, from our perspective, we have Steve  
8 Meyers from Ameren, a STARS organization who's going  
9 to be our spokesperson. He was the primary author of  
10 the industry paper that was submitted October 20th.

11 So, we'll start the questioning, just in  
12 terms of trying to understand the staff's position  
13 relative to what you were talking about, Harold, which  
14 is the different citations and the bases for the  
15 citations, they do vary.

16 We have some specific concerns or  
17 questions about some of those citations that we'd like  
18 to talk about today. So, I'll turn it over to Steve.

19 MR. MEYERS: Okay, thanks. Steve Meyers,  
20 STARS Alliance again.

21 Harold, I wanted to ask you, and I  
22 appreciate your introductory comments, and we note  
23 that there's a number of CFRs cited.

24 But, I didn't hear you discuss the  
25 regulatory gap. You talked about the performance

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1 issues and some trends that you noticed. But, when we  
2 look at the paper, we're not seeing what the specific  
3 regulatory gap is, whether, for example, it would be  
4 against the implementation of the quality assurance  
5 programs or actual regulations.

6 And, if there's some weakness in the  
7 implementation of those programs versus the findings  
8 on the specific components? Or if there's some more  
9 important theme in public health and safety with the  
10 findings that you've seen?

11 MR. CHERNOFF: Harold Chernoff.

12 What we are trying to get across, quite  
13 simply, in the RIS is, again, not statistically  
14 significant, however, we saw a small trend and we  
15 think additional focus and attention is warranted.

16 And, to be very clear, in the RIS, we  
17 tried to be very clear in the RIS that we were not  
18 saying, of course, it would be inappropriate in a RIS  
19 to say that you needed to establish any kind of new  
20 program or process. We are not doing that.

21 What we are trying to say is, in some  
22 cases as evidenced by the findings and the dockets,  
23 the individual dockets, there have been deficiencies  
24 identified in the implementation of plants existing  
25 programs.

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1           And, those things have manifested  
2 themselves in some preventable equipment failures or  
3 actual, you know, failures in process.

4           So, we don't have a specific regulatory  
5 gap, per se. We have, I would characterize more of a  
6 noted unlevelness in implementation in some cases.

7           And, what we want to make sure is that  
8 more than just the plants that may have been affected  
9 by an individual finding or made aware of this and  
10 they can share it and inculcate it in their activities  
11 through their -- through the plant's operating  
12 experience program which will be the way most of the  
13 people would bring in the RIS and get with the RIS.

14           Did I answer your question?

15           MR. MEYERS: Yes, I think so.

16           I have a follow on question with that.

17           MR. CHERNOFF: Sure.

18           MR. MEYERS: The examples you gave there  
19 of the credible, or what I believe is the credible  
20 information that you used in the RIS to describe these  
21 findings, the failures of equipment, the items that  
22 you just discussed, is that what you really intend the  
23 credible information to the scope to include or it  
24 broader than that?

25           MR. CHERNOFF: Well, we don't have a -- we

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1 can't give you a perfect definition of what credible  
2 means. I think you know that.

3 What we mean is apply reasonable judgment  
4 as professionals to the information source and the  
5 information content and act in a responsible manner  
6 with that information.

7 And, I know that's a lot of generalities,  
8 but it's very difficult to be more specific because  
9 you may get information from a fellow licensee, a  
10 fellow license member of your fleet. You might get  
11 information from a manufacturer. You might get  
12 information from industry organizations like INPO or  
13 WANO.

14 Some people, you know, might even take  
15 internal actions based on things from trade  
16 information, industry trade information.

17 All of those could be -- we are not going  
18 to try to judge credible. It's really the licensee's  
19 responsibility.

20 You know, if you want to go back into the  
21 history, this is really kind of the root of operating  
22 experience was to not inundate the staff with  
23 everything but to sort out the chaff from the more  
24 meaningful information and take appropriate action on  
25 the more meaningful information.

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1 MR. MEYERS: I'm going to ask -- I'll turn  
2 this over to somebody else, but I could just follow on  
3 with that.

4 Generic Letter 8328 is referenced which,  
5 I think, we typically think of in terms of  
6 establishing communications with your suppliers and  
7 receiving that information and evaluating it.

8 But, it sounds like your scope of what you  
9 just discussed is broader, quite a bit broader than  
10 that to include EO, things from INPO and so forth to  
11 be informed.

12 MR. CHERNOFF: As possible sources of what  
13 we would call credible information.

14 And, please, feel free, maybe there's a  
15 better use of terminology than credible information.  
16 That's what we came up with.

17 Yes?

18 MR. MEYERS: Yes, when I read the paper,  
19 what stood out to me as credible information, to me,  
20 was discernable as information that was received from  
21 a supplier subsequent to your initial procurement  
22 documentation that, for example, provided your vendor  
23 maintenance instructions and so forth, that would  
24 provide some type of a technical condition that was  
25 previously unknown.

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1 I didn't really read this to include the  
2 other board terms of EO you discussed because we have  
3 other programs for those.

4 So, all right, I'll let somebody else go.

5 MR. CHERNOFF: Understood.

6 MR. MONTGOMERY: Harold, Bruce Montgomery.

7 Back on the discussion of the performance  
8 gap where you indicated a slight increase in trend and  
9 findings, you know, I would just observe, as you do,  
10 I'm sure, that there's a difference between the number  
11 of findings that are cited in the actual safety  
12 performance of systems.

13 MR. CHERNOFF: Sure.

14 MR. MONTGOMERY: So, could you talk a  
15 little bit about what information you have that  
16 specifically to the failure rates that you -- or trend  
17 in failure rates in safety-related equipment over the  
18 past several years?

19 MR. CHERNOFF: I'm not sure we're prepared  
20 to talk about that beyond what's in the study. We  
21 could recount a little bit of what was in the study.  
22 Is that what you're asking for?

23 MR. MONTGOMERY: It is.

24 MR. CHERNOFF: Okay. John, do you want to  
25 try to address that a little bit?

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1 MR. THOMPSON: Well, we're talking with a  
2 small data set. I mean, over the five years that the  
3 study looked at information, we had 77 inspection  
4 findings.

5 Approximately a third to a half of those  
6 involved failures. The other half did not involve  
7 failures. We weren't really focused on the failure  
8 rate in the study.

9 What we were focused on was time. How  
10 long a component, safety-related component, had been  
11 installed and, specifically, beyond what some  
12 analysis, whether that is vendor information, plant  
13 information or information from elsewhere.

14 We were interested in age, how long it had  
15 been installed. Sometimes that age length resulted  
16 directly in the failure. Sometimes it was the  
17 realization that it had been installed longer than  
18 desired by plant documentation.

19 So, that's the data set. We weren't  
20 looking for a failure trend.

21 MR. MONTGOMERY: Thank you for that.

22 A couple of points that I'd like to make  
23 is it's before we came to this meeting, we pulled some  
24 information from the Institute of Nuclear Power  
25 Operations with regard to the trends of failures and

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1 key safety systems for pressurized and boiling water  
2 reactors over the past several years and found that  
3 the failure rates in all of those key systems was very  
4 flat, for all causes, if not evidencing a slight  
5 improvement in performance.

6 The past key factors hit a record 2015 for  
7 the plants to 91.8 percent capacity factor reflecting  
8 the plants were running very well, doesn't directly  
9 correlate to safety system performance, but that's a  
10 piece of it.

11 I'd also like to comment that one of the  
12 examples, in fact, I think the key example provided on  
13 page two of the RIS which talks about that diesel  
14 failure at one of my former plants.

15 This is Dual Unit failure where there's a  
16 failure of a diesel to start and run is attributed to  
17 a failure of Agastat relay.

18 Now, I would admit that the first root  
19 cause analysis that we performed did attribute failure  
20 of that Agastat relay to a performance function. Upon  
21 further research and evidence, though, after we got  
22 the word back from the forensic review, it was not the  
23 Agastat relay that was the cause, it was the sensing  
24 line to that Agastat relay that was -- had debris in  
25 it that basically caused that Agastat relay not to see

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1 the pressure impulse that it needed to see to do its  
2 job. The Agastat relay was working fine as far as we  
3 could tell.

4 So, we would not think that that example  
5 is appropriate for this RIS and that that Agastat  
6 relay did not fail, as far as we could tell, from age-  
7 related degradation or service life.

8 Even though it was in service longer than  
9 the ten years that the -- we often refer to as a  
10 vendor recommendation for service life.

11 MR. CHERNOFF: Thank you.

12 Let me just make a couple of general  
13 comments.

14 One is, that kind of information is  
15 exactly the kind of feedback we are looking for. So  
16 we can -- we'll take this information from this  
17 discussion and I can say without much qualms or  
18 reservations, there will be changes in the document  
19 before it's published.

20 That being said, though, I want to make  
21 sure everybody understands, when it is published in  
22 the Federal Register in that form, we do need  
23 everybody who has issues they want to bring to the  
24 table to make sure and put in formal comments.

25 Because this is an informal discussion and

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1 doesn't substitute for the formal comments.

2 MR. MONTGOMERY: Yes, I think a point --

3 MR. CHERNOFF: I meant to mention that at  
4 the outset but I forgot.

5 MR. MONTGOMERY: I think, you know, it  
6 would add to the RIS if there were examples. I think  
7 one of the things we would like to see are several  
8 examples of not only failures that could be attributed  
9 to this issue, the time the equipment is installed in  
10 the plant and the area within our -- or the program,  
11 if you will, program element whether it be design,  
12 maintenance programs or whatnot that didn't prevent  
13 that failure or where there was a weakness in one of  
14 our programs that would have addressed the issues.

15 So, we have a number of citations we're  
16 looking at right now that you've written up over the  
17 past several -- that the Regions have over the past  
18 several months and we're very interested in the nexus  
19 between --

20 MR. CHERNOFF: Okay. Those are things  
21 that will have to be address on a plant specific  
22 basis. And, that's part of the difference in this  
23 document by some of the things you've seen previously.

24 This is a higher level perspective and,  
25 you know, we are not trying to say that there is an

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1 imminent safety issue, that there's a, you know, you  
2 talked about a performance issues regarding past key  
3 factors.

4 This is to try to draw a focus on things  
5 that are out there and could be done better. That's  
6 really where we're headed.

7 And, if I could at this point maybe, and  
8 we can circle back, but are there people outside of  
9 the NEI STARS that maybe want to -- Dave, do you want  
10 to provide -- Dave Lochbaum, provide some comments?

11 MR. LOCHBAUM: Dave Lochbaum, Union of  
12 Concerned Scientists.

13 I have one question to try to understand  
14 what the RIS is going towards.

15 And, several times it talks about if a  
16 system structure or component has been installed in a  
17 nuclear plant for longer than the amount of time  
18 described, yet, in some of the support documents that  
19 led up to it, there was a talk about somewhat of  
20 shelf-life and an in-service life.

21 Is the RIS mainly focused on how long a  
22 widget is installed or is it also looking at the  
23 shelf-life that may -- precedes that installation  
24 time?

25 MR. CHERNOFF: Yes, that's an excellent

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1 question and I think as we refine our discussion, what  
2 we saw is, there are a number of different terms used  
3 throughout the industry and in different standards and  
4 regulatory documents.

5 And, one of the points of, at least within  
6 the staff, debate and discussion related to, I'll just  
7 call them special terms or defined terms.

8 So, we tried in the document to get away  
9 from using any of the defined terms because we did not  
10 want to exclude or, you know, intentionally exclude  
11 anything because we wanted to be fairly general.

12 What we're really talking about are a  
13 couple of situations where, one, in some limited sets,  
14 there actually is information in the FSAR. There are  
15 not a lot of them, but FSAR level information that  
16 talks about how long something is expected to be in  
17 the plant. Okay?

18 There's the more common situation, much,  
19 much more common situation where either though the  
20 plant's own experience or one of these other sources  
21 we talked about previously, information comes into the  
22 licensee that might have a negative impact on  
23 something that's in the plant, be it a Part 21 from  
24 vendors or others, et cetera.

25 And, our emphasis in the RIS is both of

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1 those situations need to be looked at and  
2 dispositioned.

3 The program's already out there in the  
4 facilities to do those dispositions. That's -- and  
5 when you start to go to a lower level of detail, more  
6 detail, it becomes quite complex unless you're talking  
7 about one situation.

8 So, if you were to talk about a  
9 maintenance rule criteria situation, that's fairly  
10 easy to talk about in that realm.

11 When you're trying to talk about it more  
12 broadly, it very quickly can become confusing with  
13 regard to the terminology and the limitations of the  
14 individual programs that are out there.

15 There's overlap on these to a fair extent  
16 which is good. And, again, what we're trying to do is  
17 draw people's attention to the need for continued  
18 focus and, for example, not assuming things beyond  
19 what you can evaluate and justify.

20 MR. LOCHBAUM: I do have one follow up.

21 I appreciate that answer. It's helpful.

22 I think the RIS is a good step of  
23 balancing what needs to be done in safety. So, think  
24 it's a -- we support the RIS.

25 I think one of the reasons we think the

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1 RIS is important or for the NRC to clarify its  
2 expectations in this area, there are many reasons.

3 I think one of them includes the license  
4 renewal rule that was revised in May 8, 1995, Federal  
5 Register 22461. Reading from the Statements of  
6 Consideration for the rule change, part of that rule  
7 change excluded active components from consideration  
8 under aging management.

9 And, it said, quote, however, the  
10 Commission does not believe that it can generically  
11 exclude structures and components that, and paragraph  
12 two is, are not subject to periodic plant maintenance  
13 or replacement, end quote.

14 You know, conceivably, waiting until  
15 something breaks or run to failure is a scheduled  
16 replacement. You know, that's probably not what was  
17 meant by that.

18 So, if there's a decision that run to  
19 failure is an option, it looks like the license  
20 renewal rule, subsequent license renewal rule, needs  
21 to go back and throw active components back in, if the  
22 game plan is to run to failure as your scheduled  
23 replacements theme.

24 Thanks.

25 MR. CHERNOFF: Thanks, Mr. Lochbaum.

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1 I think, in some circumstances, we have  
2 Agency documents that acknowledge that given proper  
3 consideration and evaluation, there are some  
4 components that have a level of significance that  
5 would make run to failure appropriate.

6 However, you know, that's not a default  
7 condition, that's a reasoned end point after review  
8 and is part of the program that the licensees have for  
9 administrative maintenance.

10 So, like many things, it's not a situation  
11 where we can say it's never appropriate or it's always  
12 appropriate. It depends. It depends, obviously, on  
13 the applications and the components involved.

14 MR. LOCHBAUM: I appreciate that  
15 clarification. I think that speaks to -- well, I  
16 think the RIS, the draft RIS, or the proposed draft  
17 RIS, whatever, is so valuable in that it doesn't  
18 prescribe that the service life is the be all and end  
19 all.

20 It says if you have an evaluation whether  
21 it's run to failure or whatever, to ensure that that  
22 component doesn't have an unusually high or unduly  
23 high chance of failure, then it's okay.

24 So, I think you spoke to the aspect rule,  
25 we think is a proposed rule, is so good is that it

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1 doesn't assume that this verily you will abide by the  
2 service-life. You just have to have something that  
3 shows that what you are relying on is thoughtful,  
4 considerate and make sure you cover all those bases.

5 MR. CHERNOFF: And the just one more --  
6 the other aspect of this is, just to be -- maybe  
7 anticipate a couple of questions is, we also very  
8 clearly understand that manufacturers have a multitude  
9 of complex reasons for how they speak to service-life  
10 of something they're selling.

11 They have warranty issues. They have  
12 production issues. They have cost issues. We  
13 understand that.

14 So, there is no automatic because a vendor  
15 says something that that automatically applies to a  
16 plant specific installation. It may not be installed  
17 in the same environment or the reasonable evaluation  
18 might determine that, in the in situ installation, a  
19 longer period of time might be warranted.

20 Again, it depends on the specifics very  
21 much so.

22 MR. HARVEY: Yes, Sam Harvey, Electric  
23 Power Resource Institute.

24 I just want to reinforce that because, in  
25 our preventive maintenance basis database, when we go

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1 through all that process, we find that the vendor  
2 recommendations aren't always technically based.

3 So, that those intervals are not  
4 necessarily always valid on a technical basis.

5 MR. CHERNOFF: Can I ask, in both  
6 directions?

7 MR. HARVEY: With both directions. I have  
8 examples, we just did a service-life evaluation study  
9 for Agastat relays, EGP. And, we took all of them out  
10 of service-life from various utilities that were in  
11 safety-related applications at the ten year interval  
12 recommended by the vendor.

13 Found nothing wrong with them, subject to  
14 accelerated thermal degradation tests, since that's  
15 the primary degradation means, and found that they  
16 would run 20 to 30 years before we had approached the  
17 end of life of those.

18 Contrary to that, electrolytic capacitors,  
19 for example, most vendors are 10 to 12 years. Our  
20 evaluation says seven's probably a good year for  
21 replacement.

22 So, it goes both ways.

23 MR. CHERNOFF: Okay. Good point, thank  
24 you.

25 Steve, I interrupted you.

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1 MR. MEYERS: That's all right. I have  
2 several things I'd like to comment on.

3 But, I just want to talk a little bit  
4 about use of the EPRI PM Basis Database and as it  
5 relates, John, to some of the findings that you  
6 discussed in your report that half had failures and  
7 half had not.

8 I wanted to ask and you can answer, did  
9 you review how licensees had or had not applied that  
10 EPRI PM Basis Database in evaluating the life that  
11 they had when you looked at those findings?

12 And, you can answer that in a minute, but  
13 my point on what Sam mentioned with use of this tool  
14 is that, you know, this is a living database that has  
15 experts participating on development of the  
16 recommended templates for nearly 40 different  
17 component types, with 300 templates.

18 And, there has been a couple mentions in  
19 the NRC -- and some of the NRC inspection findings  
20 reports were licensees that applied this. It was, you  
21 know, not really a decision on it, it's just that they  
22 have or have not applied it.

23 But, when I look at the RIS, it certainly  
24 seems like that the RIS is silent on this, which I  
25 understand. But, this is a very important tool that

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1 incorporates, I think, all the things that you've  
2 brought up that we need to -- the OE from the site,  
3 the OE from the industry, the vendor feedback, the  
4 vendor recommendations.

5           Because, frankly, when -- you know,  
6 there's two things in this RIS it seems to me like  
7 you've got going, the concern with the ongoing new  
8 developing credible information and then you also  
9 discussed the licensing basis and the documentation  
10 that has likely was developed 30 to 40 years or more  
11 ago and may not even be updated.

12           But, use of this EPRI PM Basis Database  
13 keeps this living and alive for licensees to use as  
14 one of the best tools that would be available to  
15 evaluate any deviations from that.

16           Would NRC consider accepting that as a  
17 technical -- as a tool to do the technical  
18 determinations or be interested in learning more about  
19 it from EPRI?

20           MR. CHERNOFF: Let me ask John to answer  
21 the first part of that question first. Then, let me  
22 speak to the second part of it.

23           So, with regard to what the -- the  
24 question, as I recall, was with regard to whether the  
25 study looked at the EPRI data implementation document?

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1 MR. MEYERS: Yes, if you found in your  
2 concerns in those findings, the half where there were  
3 failures and half that were not, had you looked at all  
4 use of that database by licensees?

5 MR. THOMPSON: The short answer, no.

6 MR. MEYERS: Okay.

7 MR. THOMPSON: We are aware of use of  
8 templates on -- through the reading of inspection  
9 reports during the INPO database searches and stuff.

10 We're also aware that the templates are  
11 specific to a component type, so you don't have  
12 general template.

13 So, when we look at a performance issue  
14 and a cause of failure and it's a relay, then you  
15 would have a specific template or maybe two templates  
16 or updated revised template.

17 We looked at some of those templates but  
18 we are also aware that the NRC doesn't endorse many of  
19 these EPRI templates. Many of these templates are  
20 new, 2011, 2012 date.

21 The one you talked about on Agastat relays  
22 and some of the other more general relays is new  
23 information. So, that has --

24 And, I know in Ken's case and some of the  
25 plants involved in the TIA, that came up as the center

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1 of discussion. And, you know, we just don't have a  
2 lot of inside research into the templates.

3 MR. CHERNOFF: Sam, if I could also ask,  
4 my reading of the document, it also looked for  
5 licensees to look at their own operating experience  
6 and incorporate their own operating experience into  
7 the use and appropriateness of the use of those  
8 templates.

9 And, my recollection, again, I don't want  
10 to get into a debate about all the field issues, but  
11 my recollection is, in some cases, that may not have  
12 been done as thoroughly as maybe EPRI guidance desired  
13 it to be done.

14 MR. HARVEY: I can't speak for the  
15 individual utilities, of course, but, yes, the  
16 templates, and they're all living and they're always  
17 constantly evolving.

18 And, to the point where they're even  
19 getting into subcomponents for some of these  
20 components.

21 So, that data is very specific. It still  
22 has to be evaluated for the conditions and use at that  
23 plant.

24 MR. CHERNOFF: And, this is a good example  
25 of why we try to stay at a higher level because we

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1 want to try to draw attention to what needs to be done  
2 in this case, disposition of information, not the  
3 varied tools that are out there to do it.

4 Because there's a number of different ways  
5 to approach it that could be fine. And, we're not --  
6 you know, you're not hearing us precluding things,  
7 you're hearing us make sure that it gets looked at.  
8 That's trying to be our emphasis.

9 MR. MEYERS: Yes, the exception to that,  
10 though, is that the findings and the way the RIS, the  
11 undertone in the RIS, is that it's compliance-based  
12 with a mile environment program that, you know, you  
13 replace per the manual at X, where that's 30 -- can be  
14 30 and 40 year old information that we've moved beyond  
15 and evaluated that.

16 I'm just saying, that's kind of the read,  
17 the gist. But, without that background information in  
18 the RIS, the other point you were talking to, you were  
19 leaving it kind of vague.

20 MR. CHERNOFF: I just want to be clear,  
21 you mentioned earlier about licensing basis  
22 information that hasn't been updated, and I know that  
23 was probably, you know, mixing two thoughts.

24 Because there is a requirement to keep  
25 that licensing basis information, you know, current

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1 and up to date. I know you guys are aware of that.

2 MR. MEYERS: Right.

3 MR. CHERNOFF: And, it's a mix of  
4 licensing basis information and more detailed design  
5 basis, design basis supporting information that's out  
6 there.

7 MR. MEYERS: But, you can't update it if  
8 the vendor hasn't updated it. I mean if they don't --

9 MR. CHERNOFF: I would challenge that you  
10 could update it. It's up to your engineering  
11 organization to make those decisions and to, in fact,  
12 what --

13 MR. MEYERS: And, that's where we use the  
14 tool.

15 But, I wanted -- you talked about the  
16 licensing basis in general. And, I think the general  
17 approach, while we understand that, the lack of some  
18 background information in the draft RIS on how  
19 licensees did or did not implement commitments to the  
20 IEEE standards for the qualification program of  
21 components in mild environments and ongoing  
22 prescriptive maintenance-type programs.

23 I think that lack of discussion in there  
24 leads you to a little bit narrow focus when you read  
25 it and go down the path of what's really required by

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1 a licensee.

2 Because, they could be in complete  
3 compliance with their quality assurance program and  
4 licensing basis by use of these EPRI tools and other  
5 things versus a strict time-based replacement.

6 So, additional discussion on possibly Reg  
7 Guide 1.89, IEEE 323 and how licensees did or did not  
8 commit to those standards, I think, would be helpful  
9 in explaining how this relates and doesn't relate to  
10 time-based requirement replacement.

11 MR. CHERNOFF: I do understand the  
12 comment. I would ask if you would think about the  
13 counterpoint to that is when we talk about something  
14 and not everything, it also is subject to criticism.

15 So, for us to talk about all the potential  
16 things that might come into play in these kind of  
17 situations would be a Sisyphean task.

18 However -- and so, our decision in this,  
19 as Dave Lochbaum put it, the proposed draft Reg Guide  
20 was to be at a higher level where we could be more  
21 certain of not leaving something out or inferring  
22 something that we didn't intend.

23 And, it is a -- we found it a difficult  
24 balance to discuss and work with. And that is part of  
25 why we're soliciting this input.

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1 MR. MORRIS: Scott Morris here.

2 I think the reason it's taken us as long  
3 as it has to move from withdrawing the TIA and  
4 producing a proposed draft RIS is precisely that  
5 issue, is what's the right level of detail to be in  
6 here to convey the message we're trying to convey?

7 And, I will tell, internally, there are a  
8 lot of different opinions about that. I mean this was  
9 the lowest common denominator, I guess, perhaps.

10 MR. CHERNOFF: Or, you know, the camel,  
11 you know the horse designed by a committee at this  
12 point.

13 MR. MORRIS: Right. So --

14 MR. CHERNOFF: And, hopefully, it'll be  
15 refined by this dialogue we're having today.

16 Let's do -- Dave had --

17 MR. O'BRIEN: One more comment.

18 I want to FYI a little on -- this is Ken  
19 O'Brien.

20 I want to FYI a little bit on Harold and  
21 Scott and something I heard both from Steve and, I'm  
22 sorry, but I apologize, I forgot your name.

23 MR. HARVEY: Sam.

24 MR. O'BRIEN: Sam, thank you. I knew it  
25 was another S in there, I lost it for a second.

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1           A piece that I heard here was a dialogue  
2 was the idea of using the EPRI methodology as another  
3 informing source of information as licensees try to  
4 discern for themselves what the appropriate frequency  
5 as replacement, modification, repair, whatever.

6           And, what I heard from Sam was a  
7 discussion not of gathering PM data, but instead,  
8 taking a whole -- in this case, the Agastats or maybe  
9 some other relay, taking a whole group of information  
10 from a lot of different utilities and figuring out --  
11 taking them out of service and looking at them, saying  
12 are these still able to perform? Are these still in  
13 good shape? So on.

14           And so, there's almost an evaluative  
15 process there as opposed to looking at a preventive  
16 maintenance program which says I haven't had three  
17 failures in the last year, so therefore, I'm good.

18           That's a new piece of knowledge of putting  
19 those two together. I just want to highlight to you  
20 that that's different than I've heard it described by  
21 many licensees to me in the past as it relates to this  
22 particular issue.

23           So, it's a little different than  
24 preventative maintenance template program and a little  
25 bit more, going back to what you said earlier or the

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1 dialogue, where a vendor gives me an answer. It's  
2 service-life is X amount of time and we're beyond X  
3 amount of time. Am I using preventative maintenance?  
4 Am I using some other evaluative process? How do I go  
5 about that?

6 There's a struggle there and so, I just  
7 want to highlight that there's a nuance there that I  
8 don't know if everybody appreciates that was a little  
9 different than on just using PM data.

10 MR. HARVEY: Yes, and this is Sam Harvey  
11 again.

12 And, there's a lot that goes into this  
13 creation of those templates including OEM, vendor  
14 recommendations and other things including some of  
15 these studies that we have conducted independently.

16 So, there's a lot that goes into and a lot  
17 of different information sources and that's what I  
18 wanted to make clear. It's just not -- there hadn't  
19 been a failure in the last three years.

20 MR. O'BRIEN: Well, I'd offer, I've never  
21 heard the program described with this aspect to it and  
22 the detail as I've talked with the licensees.

23 MR. MONTGOMERY: Well, by its nature, a  
24 preventative maintenance program is preventative, it's  
25 not reactive. And, I think I hear language often

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1 times that says that, hey, you know, like what you  
2 said, if you don't have to the past three years, you  
3 know, we don't have to do anything.

4 It's this preventative program, as Steve  
5 points out, takes into account many different sources  
6 of information. The idea is to prevent failures and  
7 maximize reliability for the type of equipment for the  
8 service it's in.

9 So, I think that we ought to be asking  
10 ourselves is, is the preventive maintenance program  
11 and the staff's oversight process for the maintenance  
12 rule working for us or not? If it's not, what is the  
13 specific gap and what do we need to do to close that  
14 gap is there is one?

15 And, I think that information or that  
16 discussion, so far, I think, has been lacking. The  
17 slight uptick in findings, I can explain that probably  
18 in a couple of different ways.

19 So, again, we have data that indicates our  
20 performance trends are either flat or improving and at  
21 very high levels of reliability rates. So, I'd like  
22 to get into that sort of a discussion at some point in  
23 time because we struggle with, what's the problem  
24 we're trying to solve?

25 MR. O'BRIEN: I'll offer a history, that

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1 way I don't have to go outside the bounds of what's  
2 already on the docket. This is Ken O'Brien.

3 So, we've issued unresolved items, so at  
4 least three utilities in Region III. And, the issues  
5 that are associated with components in service beyond  
6 the vendor recommended service-lives and asking the  
7 question, so why is that okay?

8 And, I think that's a question that  
9 reasonable to ask as an inspector, why is that okay?

10 And, I think often, we're not getting a --  
11 we've looked at, here's an engineering evaluation. We  
12 often we're an answer that's documented in the  
13 inspection report, so I'm not going outside -- that  
14 says well, we haven't had a failure.

15 For components where you're relying upon  
16 them to perform a safety function, I think we all  
17 would agree that there's probably a higher level of  
18 expectation that we all have in terms of the knowledge  
19 as to why we're taking specific actions.

20 And so, that's what we're trying to get at  
21 and that's where I think the gap that you're talking  
22 about comes to. Is it a 50.65 issue? Is it a  
23 preventative maintenance program issue?

24 Is it a Criterion 3, the program isn't  
25 there? Is it a Criterion 5, the program's there but

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1 we're not following the procedures? Or, is it a  
2 Criterion 5, the procedures are there, but they're not  
3 comprehensive enough?

4 Or, is it I forgot it completely and it's  
5 not covered or it's a subcomponent so far down that I  
6 hadn't thought about it? Or, is it OEM not aware of?  
7 Or, is it a case where I don't have the vendor's  
8 information? And, to be very frank with you, it's not  
9 something that was on our list and we don't have  
10 information to demonstrate it's good, bad or  
11 otherwise.

12 Usually, when we're coming at something of  
13 this nature, you find the vendor information is an  
14 easy one to go at. But then, you also find, as Harold  
15 and John have pointed out, we have OE that we look at,  
16 both your OE internally and our OE.

17 And then, you also have events that we  
18 look and we say, well, gee, this brings to light a new  
19 issue and we try and go out and look at that.

20 So, I think that's a little bit of where,  
21 Bruce, the gap is. We're trying to figure out how  
22 these different pieces fit together and that's why I  
23 see -- I think you see, and I've heard it before, you  
24 know, the citations are different.

25 And, part of the reason, as Harold

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1 articulated, the citations are different is, often,  
2 we're trying to get at different answers. Because  
3 some licensees have phenomenal programs but didn't do  
4 a real good job of implementing it in a procedure.

5 Or, they have phenomenal programs that are  
6 implemented well in a procedure but somebody didn't  
7 follow the procedure.

8 Or, they're thinking they're covering it  
9 under X and really, it needs to be covered under Y.

10 And so, that's why I think you see a  
11 little bit of the difference and that's why I think we  
12 struggle a little bit here, as Harold pointed out  
13 earlier, that to define a very specific, singular  
14 regulatory requirement, because I think it's a host of  
15 requirements. It's a host of issues and we're trying  
16 to --

17 There's so many that it's very difficult  
18 to get them all -- all the horses in the barn at the  
19 same time, but I think that's where the regulatory gap  
20 is when we're trying to figure out the overarching  
21 answer without prescribing the absolute answer to the  
22 industry.

23 Because, if you look at the NRC's  
24 regulations, they're intended and focusing on you come  
25 up with the answer. Here's the performance that's

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1 expected. And that's part of where the problem is  
2 here, I think.

3 MR. CHERNOFF: And, that's also  
4 perspective. This is a RIS, it's not a bolt and it's  
5 not a generic letter. There's no inference of a  
6 significant imminent safety issue that needs, you  
7 know, immediate attention of those levels.

8 MR. O'BRIEN: Thanks for the  
9 clarification. You're absolutely correct.

10 MR. CHERNOFF: It's an improvement area  
11 that we're focused on.

12 Let me do two things because I want to  
13 make sure we give everybody an opportunity to  
14 participate.

15 Mr. Lochbaum, I think you had one comment  
16 and then let's go to the phones and see anybody on the  
17 phones has anything after that, then we'll circle  
18 back.

19 MR. LOCHBAUM: Dave Lochbaum with the  
20 Union of Concerned Scientists.

21 It was an interesting discussion on time-  
22 based replacements. My understanding of the NRC's  
23 position in the draft RIS, is it if a component's  
24 within its vendor recommended service-life, you've got  
25 to meet tech specs and all of the other things, if

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1 it's beyond that, there needs to be some explanation  
2 of why that still okay.

3 And, that could take any number of forms  
4 but, you can't just have that it hasn't failed yet as  
5 the reason why it's still -- those components are  
6 still operating.

7 Is that my -- do I have a correct  
8 understand of what the RIS is seeking to accomplish?

9 MR. CHERNOFF: I think that's a  
10 generalization that's fairly accurate that you -- if  
11 and there are a lot of ifs here, but if the  
12 information, the vendor information that you were  
13 citing, is specific to your component in your plant,  
14 that you have multiple programs that would tell you,  
15 you need to assess that.

16 And, it's not okay to say, that was a  
17 plant in a different part of the country or it was a  
18 BWR instead of a PWR.

19 It doesn't mean that that assessment needs  
20 to be complex. It doesn't preclude, for example,  
21 avail you of EPRI's activities properly used. And,  
22 I'm emphasizing the properly used because there's a  
23 long discussion about using plant-based OE and  
24 informing those templates with plant-based operating  
25 experience.

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1           And, I just wanted to, you know, add  
2 emphasis. I think that's a good -- that information  
3 is good. It's very similar to what we do a lot of  
4 time when we're looking at topical reports. We  
5 approve a general concept in a topical report, but we  
6 always almost exclusively have implementation  
7 conditions. And, that's often where the rub comes in  
8 in following those implementation conditions.

9           So, I think, you know, in a broad sense,  
10 Dave, your comment is correct. What we're trying to  
11 say is those situations where that information comes  
12 through need to be addressed.

13           And, it could be the obvious choice is  
14 corrective action program, operating experience  
15 programs, another aspect of your quality assurance  
16 program to disposition those besides those.

17           All those are okay, engineering  
18 dispositions, there's a plethora of ways it could be  
19 appropriately addressed.

20           MR. LOCHBAUM: Could I ask that question  
21 in a slightly different way?

22           MR. CHERNOFF: Sure.

23           MR. LOCHBAUM: The examples that the NRC  
24 provided up to this date, but led into this, the  
25 findings or violations or however, weren't that the

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1 licensees evaluations were inadequate, is that they  
2 were just not there and the component was beyond its  
3 vendor service-life. Is that a fair statement?

4 MR. CHERNOFF: Is that accurate, John?  
5 Within the study, is that accurate?

6 MR. THOMPSON: In some cases.

7 MR. LOCHBAUM: Partial credit.

8 That's fine. There were a lot of examples  
9 in that study, so that's a fair question. I withdraw  
10 the clarifying question.

11 MR. CHERNOFF: Fred, if you could hold for  
12 just a second and we could pulse the phone bridge and  
13 see if anybody's --

14 MR. MEYERS: Can I just comment on that  
15 last point before we move off of it? I think it's  
16 important to recognize, however, I appreciate what  
17 you're saying, but under a licensee's quality  
18 assurance program, the requirement to develop  
19 maintenance schedules does not require the licensee to  
20 formally document a deviation from a vendor  
21 recommendation.

22 You have to consider many factors under  
23 your quality assurance program and vendor  
24 recommendations are one of them.

25 But, a deviation from a vendor manual,

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1 unless you've committed to it in your licensing basis,  
2 does not require a formal evaluation.

3 It's sound engineering practices and it's  
4 a determination of a maintenance schedule, but it's  
5 not a documented evaluation of why you're not doing  
6 something.

7 MR. CHERNOFF: Okay.

8 MR. MEYERS: It's an evaluation of --

9 MR. CHERNOFF: So, help me understand,  
10 every plant out there either is under a Confirmatory  
11 Order or part of their licensing basis under IC5, TMI  
12 Action Item, they have an operating experience  
13 program. Okay?

14 Now, my question is, when you get  
15 operating experience that comes in from whatever  
16 source that says this widget is only good for six  
17 years, tell me, what do you do with that?

18 MR. MEYERS: New information would be  
19 processed. If it was from a vendor, it would go  
20 through your V-TIP and then it gets ultimately entered  
21 into your CAP program, if it's applicable, just like  
22 your site OE or industry OE that we read about.

23 If it's vendor information that was  
24 already in the manual, that type of information is the  
25 type of documentation that I'm talking about that you

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1 considered in the development of your maintenance  
2 schedules, but you don't have to evaluate a deviation  
3 from it.

4 MR. CHERNOFF: When the information comes  
5 in and you put it in -- your next step was you put it  
6 in your vendor or your --

7 MR. MEYERS: If it was from a vendor, it  
8 would probably start with the V-TIP Program.

9 MR. CHERNOFF: Okay. If it was not from  
10 a vendor, it would go into your broader operating  
11 experience program? Okay.

12 And, you look at that for -- your next  
13 step was applicability? Okay. And then, what's your  
14 next step?

15 MR. MEYERS: If you determine it's  
16 applicable, it would wind its way into the CAP  
17 Program.

18 MR. CHERNOFF: Okay. And then, what do  
19 you do in the CAP Program?

20 MR. MEYERS: It would be evaluated to  
21 determine what potential impact that would have.

22 MR. CHERNOFF: That's exactly what our  
23 point is. That's simply, that's our point. It's the  
24 processes, process the information, make a decision  
25 based on processing the information.

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1 MR. MEYERS: Well, but what I'm hearing,  
2 though, is you're expecting to see documented  
3 evaluations of where you have deviated from something  
4 that you got long time ago.

5 MR. CHERNOFF: What you describe is  
6 producing documentation of your consideration and your  
7 determination.

8 MR. MEYERS: On a current time going  
9 forward basis, not historical, not past.

10 MR. CHERNOFF: Yes, no one has mentioned  
11 going back and trying to look at all the equipment in  
12 the plant and producing extemporaneous contemporary  
13 documents for all the equipment that's already out  
14 there.

15 MR. MEYERS: But, right now, that's what  
16 the RIS would, I think, lead most people to conclude  
17 is necessary.

18 MR. CHERNOFF: Okay, we'll look at. I  
19 mean that certainly was not our intend. There is, of  
20 course, a RIS cannot create a new requirement or  
21 process. So, that was certainly not our intent.  
22 We'll look at the wording.

23 But, what you described is the point we're  
24 trying to get at.

25 MR. O'BRIEN: So, Steve, I guess I'd ask

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1 you the question as part of this purpose for us to  
2 understand. So, if you are trying to get at the point  
3 that Harold was making, and I'll avoid using the word  
4 maintenance because I'm not sure I'm necessarily in  
5 alignment with that dialogue, but if you were trying  
6 to get to the point of dispositioning information that  
7 comes available to you from whatever venue to  
8 determine whether it has an impact and whether or not  
9 you want to continue to use a component in service in  
10 the plant.

11 How would you propose we word that to  
12 ensure that's what's occurring? That's what I don't  
13 -- I don't need an answer now, but that's what I'd  
14 offer you. And, that's part of what we're trying to  
15 get at.

16 I'd offer you -- I used to inspect at one  
17 in time, but I'll tell you that I'm not qualified to  
18 do that anymore -- but I'd offer you Criterion 3,  
19 Criterion 5, Criterion 16, 50.65. I can quote a bunch  
20 of them off the top of my head, all of which have  
21 probably some aspect to it.

22 And, Criterion 17, I think is the one, if  
23 I'm not mistaken, would tell me I need to document  
24 things that are important to safety.

25 When I make a decision that I'm going to

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1 do something different than somebody that sold me a  
2 component or somebody that's used a component a long  
3 period of time or something else, it would seem that  
4 it would be necessary for me to document why that's  
5 okay because, otherwise, it would be difficult.

6 What we're asking here is a part of this  
7 and that's why we're looking for your insight and your  
8 feedback is, if there's a better way of describing  
9 what you just described, by the way, being led by the  
10 quiz guru over here, we've both decided he was leading  
11 the witness.

12 If there's a better of describing that, I  
13 think that's what we're trying to look for. We're not  
14 looking to create a new requirement. We're not  
15 looking to create a different requirement. We're  
16 looking to make sure that we both have a similar  
17 understanding of how best to ensure the components  
18 that you rely upon in the plant are able to perform  
19 their intended function when called upon.

20 And, any time we get information that  
21 potentially call that into question, and that can come  
22 from a lot of different means and a lot of different  
23 measures, we want to make sure that you're properly  
24 evaluated.

25 And, any time you properly evaluate

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1 something, since it's important to safety, I think  
2 Criterion 17, if I'm correct, it's been a long time  
3 since I was allowed to inspect, but I think that's one  
4 that requires you to document activities important to  
5 safety.

6 MR. CHERNOFF: Let's go to the phones.  
7 And then, after we do that, let's take a short break.

8 MS. POPOVA: Okay. So, anyone that's on  
9 the phones that has a question or a comment, just  
10 please state your name and your company.

11 MR. FRANTZ: This is Steve Frantz from  
12 Morgan Lewis.

13 And, the RIS seems to suggest that you  
14 have to use the Corrective Action Program and you have  
15 to do operability determinations any time you receive  
16 information, for example, from a vendor.

17 I think as we've been discussing, there  
18 are other programs out there besides the Corrective  
19 Action Program and the operability determination  
20 program that can be used, such as the operating  
21 experience program, the engineering program, the  
22 maintenance program.

23 And, if you go forward with this RIS, I  
24 suggest you identify that these other programs are  
25 also available to be used to evaluate vendor

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1 information, that you don't necessarily have to use  
2 the Corrective Action Program, although that may be an  
3 option.

4 MR. CHERNOFF: Thank you.

5 I think we do not disagree that there are  
6 other programs than, I'll just say, the three that are  
7 the majority of the discussion in the RIS. So, I  
8 appreciate that comment.

9 MS. POPOVA: Are there any other questions  
10 on the line?

11 MR. BACANSKAS: Yes, this is Vincent  
12 Bacanskas. I'm Chief Engineer with Entergy Nuclear.

13 And, I wanted to offer something for  
14 Harold to take a look at. Mr. Lochbaum referred back  
15 to the active components in the license renewal rule.

16 And, I'd like to remind you that, in the  
17 early '80s through the early '90s, the NRC conducted  
18 a research program resulting in numerous NUREG  
19 documents being issues regarding nuclear plants aging  
20 research program where both accident passive  
21 components were studied with respect to failure rate,  
22 failure modes and what the operating history had been  
23 to date.

24 My understanding at the time, I authored  
25 probably five or six of those documents was that this

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1 was in support of license renewal rule for these  
2 components.

3 So, I think it would be most interesting  
4 to look at the current study and compare it to the  
5 failure rates that the NRC staff, through publication  
6 of the NUREGs already identified 30 years ago. Just  
7 a thought.

8 MR. CHERNOFF: If I could just ask a  
9 question with regard to looking at that and it being  
10 interesting, can you help me relate that to the draft  
11 document in what regard? Because we're really  
12 structured around failure rates.

13 MR. BACANSKAS: I understand. But, what  
14 you're saying is, that is the result of the operating  
15 experience study that you saw an uptick or a slight  
16 increase.

17 MR. CHERNOFF: In findings.

18 MR. BACANSKAS: In findings, okay, as well  
19 as failures. And this kind of goes back to what Bruce  
20 Montgomery was saying as well. Have we changed the  
21 capability of the equipment to protect the health and  
22 safety of the public? Which is a thought of mine.

23 MR. CHERNOFF: Yes, just --

24 MR. BACANSKAS: And, that goes back to the  
25 failure rates. And, there's also numerous AEOP

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1 studies in the past that looked at failure rates of  
2 equipment and I think this could be correlated to  
3 vendor recommendations at the time, this hopefully  
4 addresses it.

5 So, my premise is, maybe in the small area  
6 that we're looking, there's an increase in findings,  
7 but not necessarily in any real material effect when  
8 operating the unit.

9 MR. CHERNOFF: Okay, thank you for that  
10 clarification.

11 And, just to reiterate, you know, the  
12 study did not look at failure rates of equipment or  
13 tried to ascribe any kind of a trend positive or  
14 negative to actual equipment failure rates.

15 But, I have a better understanding of what  
16 your point is. Thank you.

17 MS. POPOVA: Are there other -- any other  
18 questions online?

19 MR. WEINACHT: This is Rick Weinacht. I'm  
20 with Curtiss-Wright. I'm the Manager of the Equipment  
21 Qualification Data Bank.

22 I have three points that I'd like to make.

23 One is that, in these discussions of  
24 service-life, we seem to be omitting the corresponding  
25 service condition. A service-life cannot be assessed

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1 unless the service condition is known.

2 And so, when we find, for example, a  
3 service-life statement in a vendor document that says,  
4 an Agastat relay can only be used for 20 years. And,  
5 a 1968 document, that has no context for the operating  
6 plant because the service conditions are not the  
7 stated with that service-life.

8 The other two points I'd like to make are  
9 with regard to the draft RIS and the lack of clarity  
10 about the regulatory issues that it contends that can  
11 be summarized.

12 I think there are two areas we have the  
13 opportunity to provide some clarity. And, one is when  
14 does vendor information become part of the plant's  
15 current licensing basis or design basis documentation?

16 I think the RIS does a very poor job to  
17 provide any clarification on that issue.

18 The second is, there seems to be a jump  
19 that when a vendor service-life exceeds it, that  
20 constitutes a nonconforming condition. And, the  
21 Commission paper pointed this out and I think that's  
22 a technical error that still exists in the draft RIS.

23 We need to recognize that exceeding a  
24 vendor recommended service-life does not in and of  
25 itself constitute a nonconforming condition.

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1 MR. CHERNOFF: Okay. Could you, on that  
2 last point, I think our language actually in the draft  
3 RIS talks about the potential to be a nonconforming  
4 condition. And, if you would help us, if we've got  
5 other language in there some place, can you point us  
6 to that?

7 MR. WEINACHT: I think I could. I could  
8 provide that in formal comment.

9 MR. CHERNOFF: Or you could email it in  
10 would be fine.

11 MR. WEINACHT: Okay.

12 MR. CHERNOFF: But, our intent in the  
13 language and, I'm looking at page two of five, I  
14 happen to have it open to that, where we talk about  
15 documenting a potential nonconforming condition.

16 So, again, it depends. We are one --  
17 you're right, we don't speak directly to when things  
18 become part of the licensing basis. That was really  
19 not our intent to try to define that. And, in and of  
20 itself, you could write a long document about that.

21 But, certainly, on your last point, we  
22 wanted to be sure that our language indicates that  
23 something like that might be a nonconformance rather  
24 than try to be predictive that, in all cases, it would  
25 be.

1           So, this is that balancing act we're  
2 talking about because, depending on what it is, what's  
3 it's relied on for, where it is in the documentation,  
4 all those things matter.

5           So, if you wouldn't mind, we'd certainly  
6 appreciate -- you could use Alex's email address, but  
7 also certainly, if there's some language that similar  
8 to what you described in the item that gets published,  
9 please ensure that you follow up with some formal  
10 comments on that, too.

11           MR. WEINACHT: I'd be glad to.

12           And, just to point out one other thing  
13 regarding this whole balance. I am aware of a finding  
14 that occurred during one inspection where the licensee  
15 had a documented evaluation that demonstrated the life  
16 of a component was 27 years.

17           And, the NRC inspector provided a document  
18 that was not in the licensee's current licensing basis  
19 or even the possession of this licensee that said the  
20 item was only fault like for 20 years.

21           And, the licensee did not have an  
22 evaluation that showed why that document presented to  
23 him was invalid because they had never seen the  
24 document before.

25           But, they did have a documented

1 engineering evaluation that demonstrated a life longer  
2 than that and they still received a fine.

3 Those are the kinds of balances where the  
4 NRC is overplaying its hand in terms of saying vendor  
5 recommended service-life takes precedent.

6 MR. CHERNOFF: Okay. And, just in the  
7 interest of time, if we can -- we've got a couple more  
8 -- at least a couple more comments on the bridge,  
9 we'll try to get those in and then take a very short  
10 break.

11 MS. POPOVA: Yes, I'm seeing a couple of  
12 comments coming through the GoTo Meeting. So, if  
13 you'd like to ask those, now would be a good time.

14 MR. BAKER: This is Kelly Baker. I'm from  
15 DC Cook. I'm the Design Engineering Manager.

16 And, I kind of inherited one of the  
17 unresolved items from the NRC design inspection. We  
18 were one of the three recipients of the TIA that has  
19 turned into this RIS draft.

20 And, our position has been approaching  
21 this has been a very difficult one because guidance  
22 that was provided in the TIA that we received seems to  
23 suggest that, what I believe someone said earlier,  
24 that since we have no basis for not performing time-  
25 based replacements on any of our relays that are

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1 installed, that we have to evaluate each one of those  
2 as a nonconformance.

3 So, basically, looking at the vendor  
4 service-life as a design requirement that we're not  
5 meeting.

6 And so, we'd have a huge evaluation  
7 required to go through the number of components we're  
8 talking about which is on the order of thousands of  
9 relays with hundreds of different individual model  
10 numbers that might be in different service conditions  
11 to evaluate whether even the nonconformance exists.

12 And, this was just basically not the way  
13 the plant was licensed. And, not a consideration at  
14 the time, even finding a service-life for many of  
15 these components is going to be extremely difficult.

16 So, that's kind of the position I'd like  
17 to present to those who are drafting this guidance.

18 My understanding from what's intended is  
19 that we only need to look at new information received  
20 on vendor service-life that would call into question  
21 any evaluations or time-based replacements we have if  
22 new information is provided that changes -- that would  
23 change our evaluation.

24 But, that's not the way it reads to us  
25 currently.

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1 MR. CHERNOFF: Okay. And, obviously,  
2 Kelly, I know you appreciate that we're, you know,  
3 we're not in this forum going to go into details of  
4 the incidents that you're talking about. But, I think  
5 I understand your comment and appreciate it.

6 MR. MURPHY: Harold?

7 MR. CHERNOFF: Yes?

8 MR. MURPHY: Marty Murphy from Xcel  
9 Energy.

10 I think, and maybe this is something we  
11 can talk about when we come back and I think you've  
12 touched on it already, that the RIS is being written  
13 at a high level.

14 However, I think, you know, industry can  
15 read this as very much still aligned with what's in  
16 the TIA. And, I think we just heard that from DC Cook  
17 and I think the rest of us have that concern that  
18 this, essentially, just continues to espouse the  
19 position that's in the TIA.

20 MR. CHERNOFF: And, Marty, what I've asked  
21 is, help -- not necessarily right now in this room,  
22 but help us with some specifics of what are the points  
23 that you're seeing that are particularly problematic  
24 and, you know, make some suggestions. That's what  
25 would be most helpful.

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1 MR. MEYERS: And, you know, I think the  
2 reason you have so much participation and concern in  
3 understanding this because of, you know, the potential  
4 impact with all the evaluations that was just  
5 discussed on the phone is that, in one plant that was  
6 looking at this while they had over 3,000 components  
7 under 50.49 for a harsh environment, they had over  
8 27,000 components that were in a mild environment and  
9 over 200 million estimated to do evaluations and  
10 replacements.

11 MR. CHERNOFF: Yes.

12 MR. MEYERS: So, there's a lot of concern  
13 and I know your message is different than what we read  
14 and it's different that what's in the TIA, but as  
15 Marty says, it's like the precedence, at least out  
16 there, that this is getting back to where you're  
17 evaluating 27,000 components.

18 MR. CHERNOFF: I mean, the messages can be  
19 difficult at times, but if there is information that  
20 brings into question a broad category of equipment  
21 installed in the plants, it needs to be dealt with in  
22 disposition still. And, that could, at times, be, you  
23 know, very large.

24 I can't speak to the specifics. I wasn't  
25 involved in any of those and probably wouldn't be

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1 appropriate in this forum anyway.

2 But, we are focusing in this document on  
3 things that you become aware of, not trying to impose  
4 additional documentation on things that are already  
5 out there.

6 MR. MASHBURN: So, let me make that --

7 MR. CHERNOFF: You go ahead, absolutely,  
8 yes.

9 MR. MASHBURN: -- very clear since I've  
10 been sitting on my hands here for a moment. This is  
11 Fred Mashburn, TVA.

12 That plant that he was mentioning is  
13 rather near and dear to my heart. And, it may not be  
14 one of the cats that you were intending to herd in  
15 this TIA, but we've been talking in terms of becoming  
16 aware of information from a vendor or credible  
17 information that calls into question the capability of  
18 the components that do their safety-related function.

19 The other side of this that's near and  
20 dear to my heart is the question of, is this intended  
21 to imply that, when we go out and purchase new  
22 components, shall we say, let's say a multi--case  
23 circuit breaker is going into a safety-related  
24 component that is not in a harsh environment that we  
25 have to request the vendor to provide us with service-

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1 life information.

2 MR. CHERNOFF: Okay, very direct answer to  
3 that, it depends. It's your decision, it's your  
4 obligation to ensure the suitability of the purchased  
5 item for its intended purpose. So, you guys have to  
6 make decisions in your engineering process as to how  
7 much information you need to ensure that it can  
8 perform its function.

9 MR. MORRIS: Yes, there's an EPRI PM  
10 template that's already factored in a lot of stuff.  
11 And, you take that and you adapt it to your particular  
12 application at your particular site that, in my mind,  
13 ought to be good enough.

14 MR. MASHBURN: So, I've heard --

15 MR. CHERNOFF: And, I've heard it also  
16 before, no one at this table is saying you need to  
17 have akin to a queue listing out the service-life of  
18 every component in the plant. That's not what we're  
19 --

20 MR. MASHBURN: Well, especially for  
21 equipment that we are purchasing or intending to  
22 purchase at that point in time.

23 MR. CHERNOFF: Right. But, your  
24 obligation is that you do enough engineering work to  
25 assure that it will function suitably for its mission.

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1 MR. MASHBURN: Okay, I heard it depends,  
2 but my definition was no, not necessarily.

3 MR. CHERNOFF: I'm an old licensing guy,  
4 so it depends is like --

5 MR. MASHBURN: It sounds more like a --

6 MR. CHERNOFF: -- you get every paragraph  
7 with that. Right?

8 MR. MASHBURN: Thank you.

9 MR. CHERNOFF: Okay. We probably need to  
10 take a break shortly.

11 Okay, let's take -- I've got 2:54 on my  
12 clock and let's come back in ten minutes, 2:55, so in  
13 ten minutes, let's come back.

14 Let me remind everybody, you need escorts  
15 if you are not an NRC employee, badged employee, you  
16 need escorts to leave the room and we will come back  
17 to the people on the phone when we come back.

18 Thank you.

19 (Whereupon, the above-entitled matter went  
20 off the record at 2:55 p.m. and resumed at 3:06 p.m.)

21 MR. CHERNOFF: I appreciate everybody  
22 wrapping up the side conversations and taking seats so  
23 we can get back under way.

24 All right, so our IT assistant is going to  
25 be unmuting the bridge. Assistant is probably not an

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1 adequate term to describe his help for us today.

2 Just a couple of -- before we get back  
3 into the comments on the phone, I think it's pretty  
4 clear we've gotten a lot of good feedback and good  
5 info so far from a variety of people. This is what we  
6 wanted to do.

7 I want to remind people the focus of the  
8 document is on raising awareness and focus and  
9 attention on dispositioning of information that comes  
10 in. I think it's clear we probably won't have time to  
11 get everybody that wants to speak today the  
12 opportunity.

13 And, what I'd like to do is make sure that  
14 people please, if you don't get the opportunity or you  
15 think of something you didn't add to the dialogue,  
16 email it to Alexandra ax16 -- no?

17 MS. POPOVA: It's axp16@nrc.gov, but it's  
18 also on the Public Meeting Notice.

19 MR. CHERNOFF: So, please email any  
20 additional thoughts you have to her reasonably  
21 promptly, within a week or so would be great so that  
22 we can take those under consideration.

23 We will also add those to publically  
24 available ADAMS so that everybody can take a look at  
25 it and we'll figure out a way to do that so it's

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1 identifiable as associated with this document.

2 With that, if we can go back to the phone  
3 bridge?

4 MS. POPOVA: Any questions still on the  
5 phone?

6 MR. SAMS: This is John Sams with Ontario  
7 Power Generation.

8 MR. CHERNOFF: John --

9 MS. POPOVA: Can you speak up?

10 MR. CHERNOFF: Yes, we're having trouble  
11 hearing you, if you could speak up or move closer.

12 MR. SAMS: I'm on a headset, so hopefully  
13 it actually picks up.

14 As far as the safety-related systems, I  
15 guess the main question about the RIS here, we looked  
16 at as part of our AP-913 INPO document for equipment  
17 reliability.

18 We're looking -- some of the safety-  
19 related equipment that, you know, it's in the safety-  
20 related system but its failure really doesn't result  
21 in an, you know, really much of an impact on the  
22 safety related system.

23 And, not the special safety systems like  
24 containment, but on some of the safety support  
25 systems.

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1           And, basically, the toss to, say, do the  
2 Agastat relay replacement is significant if we do it  
3 as a PM. But, if we're looking for, you know, when is  
4 the right time and we've looked through the EPRI  
5 templates and, you know, that gives the basic  
6 guideline around where we believe, you know, from an  
7 industry, we may -- are seeing failures but, you know,  
8 we now have a new tool within that that actually looks  
9 at what the risk of, you know, not doing certain time-  
10 based maintenance.

11           And, if we have an evaluation like that in  
12 our system, would that be adequate for what the  
13 inspectors would be looking for?

14           MR. CHERNOFF: Thank you.

15           I don't know that we're in a situation  
16 where we could answer that. It's a very specific  
17 question and I think you understand the components of  
18 the application, the installation and whether or not  
19 you follow through on the implementing requirements of  
20 the EPRI templates for plant specific information as  
21 well. All those things factor into that.

22           So, I don't think we can give you, you  
23 know, it's not our purpose here to try to give  
24 specific answers.

25           But, if it runs through your processes

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1 and, like everything else you do at the plants, it's  
2 incumbent upon the licensees to follow their  
3 processes, provide sufficient documentation.

4 And, that first standard is your own self-  
5 assessment and self-scrutiny as to the adequacy of  
6 that documentation.

7 And, I know that's a lot of generalisms,  
8 but I think that's all we could do in this forum on  
9 that.

10 MS. POPOVA: Are there other questions on  
11 the line?

12 MR. CHERNOFF: Okay.

13 MR. PFABE: Can you hear me?

14 MR. CHERNOFF: Yes, go ahead.

15 MR. PFABE: I have a question along  
16 similar lines about the violation and challenges.

17 A few findings in the field and practical  
18 experience, the --

19 MS. POPOVA: Could you please state your  
20 name and the organization you work for?

21 MR. PFABE: Oh, I'm sorry. I'm sorry, let  
22 me just pull over.

23 This is John Pfabe, the Licensee Engineer  
24 Consultant.

25 A few times in the past, I've noticed an

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1 inspector may be particularly knowledgeable or have a  
2 particular focus in an area and he may not necessarily  
3 accept the licensee's position on an item.

4 It may be reasonable and we go back to the  
5 old discussions of engineering judgment and it depends  
6 who the engineer is, that type of thing.

7 Is there a way of minimizing impacts or  
8 going off on another science project or even, you  
9 know, minimize the chance of receiving a violation on  
10 another process because when difference of opinion,  
11 whether or not something's strict enough or there's  
12 enough scrutiny's been done to the studies or  
13 documentation.

14 MR. CHERNOFF: Let me -- this is Harold  
15 Chernoff, let me address just a piece of that and then  
16 I think Ken O'Brien would like to address part of it.

17 One aspect we mentioned at the very  
18 beginning of this was, some of our findings, poor  
19 choice of words.

20 Some of our observations in our study were  
21 internally focused on things that we can do better.  
22 So, we have some actions, you can go to the study and  
23 you can see generally what some of those are. They  
24 are directed at improving our guidance documents to  
25 our inspectors and providing some orientation and

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1 training to try to improve that activity which you're  
2 speaking of.

3 But, Ken, if you want to speak beyond  
4 that?

5 MR. O'BRIEN: Yes, I'll just kind of  
6 articulate, as in any inspection activity, our  
7 inspectors, as they go through the evolution, they  
8 have a nice open dialogue, hopefully, with the  
9 licensees and the individuals they're interacting  
10 with.

11 And then, from there, they'll propose at  
12 an exit meeting their potential findings which, as a  
13 standard statement as a part of that dialogue, are  
14 always open to management review.

15 And, that's one of the things that occurs  
16 to make sure that there's a clarity and an  
17 understanding, hopefully, a consistency between all  
18 the inspectors throughout the Agency and we act as a  
19 single voice and those things will come back to the  
20 Region for review and evaluation by management.

21 And, if there's a disagreement, we'll  
22 raise it up even higher to make sure that there's an  
23 understanding of what the particular issues are and  
24 that we're being consistent across the Agency.

25 Another reason that you're seeing this

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1 dialogue here today is to try and make sure we're  
2 doing things in a singular voice with a consistent  
3 manner in seeking input from those that we regulate.

4 MR. MORRIS: Well, and in truth -- this is  
5 Scott Morris -- this is exactly what happened in this  
6 case and it went to the next level which was the  
7 Region, who was considering these issues, reached back  
8 to Headquarters and said, hey, help us. What's the  
9 right answer here? What else -- have we got it right  
10 or was there something we're missing?

11 And, so that's why Headquarters is having  
12 as part of this and why ultimately we're having this  
13 meeting.

14 (Whereupon, the above-entitled matter went  
15 off the record at 3:14 p.m.)

16 MR. PFABE: Right. And I understand that  
17 it's a great challenge, but sometimes you get  
18 differing professional opinions and then the item just  
19 drags out for a year or so. Whether it's a study or  
20 additional data has to be gathered or developed. You  
21 know, so, we're going into a new area where vendors  
22 may be going out of business that make these elite  
23 components. Similar to others in the commercial  
24 field, but the data may not be available. Sometimes  
25 the level of review may vary across different

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1 licensees or it's very costly for programs. You just  
2 -- you have a pretty good challenge ahead of you.

3 MR. MORRIS: Thank you.

4 MR. PFABE: Trying to focus this correctly  
5 going forward the next 20/40 years.

6 MR. CHERNOFF: Thanks. I think we  
7 understand this is not an easy, simple fix or  
8 necessarily a major significant problem either. It's  
9 something that we want to --

10 MR. MORRIS: Okay. I mean I think --

11 MR. CHERNOFF: -- tune and focus attention  
12 on.

13 MR. MORRIS: I think at some level maybe  
14 at its foundational level this is really operating  
15 experience 101 discussion. Is really what this is.  
16 Right. I mean it's not a whole lot more than that and  
17 we have an operating experience organization internal  
18 to the Agency who's charged with among other things to  
19 assess, you know, equipment issues, performance issue,  
20 all kinds of things and look for -- as Harold pointed  
21 out, separate the wheat from the chaff and if there's  
22 wheat, you know, what does it mean and how can we use  
23 that information to modify our inspection programs, to  
24 communicate observations to the industry, et cetera,  
25 et cetera, et cetera. So.

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1 MR. CHERNOFF: And just to emphasize, the  
2 most important part of what we're trying to do is  
3 communicate out information. Okay. And that -- I  
4 purposely am not talking about enforcement. I'm  
5 talking about getting messages out in a broad sense so  
6 people are aware. That's the most important thing we  
7 do. The operating experience.

8 MR. PFABE: Yes, I understand. Thank you.

9 MS. POPOVA: Okay. So, let's go back to  
10 the room for any more questions or discussions.

11 MR. MEYERS: This is Steve Meyers, STARS  
12 Alliance back to -- this is really operating  
13 experience and recapping that, Harold, you discussed,  
14 you know, this is really time zero going forward with  
15 credible information.

16 And the draft RIS is silent on the 50.2  
17 discussion, design basis information that was in the  
18 TIA. So, I still just find it confusing.

19 Is this really like time zero going  
20 forward with new credible information that's coming in  
21 or can you just discuss why this is silent on 50.2  
22 and, you know, this old documentation that may or may  
23 not even be in your CLB? The change there.

24 Because, again, you know, I think, the  
25 industry and the inspectors have started down this

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1 path and it sounds like you've made an adjustment  
2 here.

3 MR. CHERNOFF: Well, the -- okay. We --  
4 50.2 design, it's a regulatory definition. Okay. You  
5 can go in. You can look if there's additional  
6 guidance on what it means. It's a very specific  
7 subset of information within a licensing basis.

8 The important part of that is it has some  
9 additional requirements on it beyond the more broad  
10 general information. You've got the general licensing  
11 basis information which was really defined in the  
12 regulations for the first succinct definition with  
13 respect to license real rules. It being a term of art  
14 for the beginning to that point, but in license rule  
15 regulations, it was -- there's an actual definition.

16 And so, these things are all important and  
17 they classify the level of significance of particular  
18 pieces of equipment, but at the end of the day, you  
19 know, when the sun starts to set on the power plant,  
20 the important thing is that the information that came  
21 in or you found -- in other words, I don't want to  
22 overemphasize this time zero concept because a lot of  
23 times as you're doing self-assessment activities and  
24 other things, information that maybe people weren't  
25 really cognizant of but had been on site is revealed

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1 and so, you know, we're not trying to exclude that  
2 kind of a situation either.

3 But, it does not necessarily matter  
4 whether it's 50.2 or other licensing basis information  
5 or support and design basis information because your  
6 programs are designed to deal with it in a graded  
7 approach based on what it is.

8 So, that's why we felt it was more  
9 effective to talk about the main programs and as one  
10 of the previous commenters said these -- you know, the  
11 three that we focus on are not the only ones, but  
12 they're kind of the biggest ones, the broadest ones.

13 That's why we shifted that discussion a  
14 little bit. Because the recognition is within those  
15 things there's a tiered emphasis and tiered  
16 requirements already embedded into those activities.

17 MR. MEYERS: Well, do you consider the  
18 bender maintenance owner's manual type information is  
19 50.2?

20 MR. CHERNOFF: Well, no, I can't give you  
21 that answer because it depends on the site. It  
22 depends on the equipment. It depends on -- some  
23 people have taken and made design basis documents and  
24 they've -- some people actually have incorporated --  
25 referenced those directly into their FSARs which

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1 raises them to a licensing-based information where  
2 they may have only previously been supporting  
3 information.

4 It varies quite a bit and so, I'm just not  
5 going to try to put an exclamation point or a dot on  
6 something that's really very broad and varied across  
7 the fleets that are out there.

8 MR. O'BRIEN: So, Steve, I want to take  
9 your question and comment in a slightly different  
10 manner. So, I'm going to leave the witness here for  
11 a moment if you don't mind.

12 What I think you're asking -- no. What I  
13 think you're asking is you think it would be valuable  
14 for the Agency as a part of any RIS to articulate a  
15 perspective generically, broadly, however we might be  
16 able to as it relates to how this information you come  
17 about and how it may relate to design basis 50.2 or  
18 supporting information or the associated NEI guidance.

19 Is that a statement that you're looking  
20 for?

21 MR. MONTGOMERY: Yes. Yes, that would be  
22 very helpful. This is Bruce Montgomery.

23 I think that given where you were with the  
24 -- you're trying to communicate at a fairly high  
25 level. You said that several times.

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1           So, when you're in that mode, I think it's  
2 best to help supplement communication with examples  
3 and I think examples that would indicate where you  
4 would believe that certain types of information  
5 relating to installed time period rose to the level of  
6 design-basis information and you saw those instances  
7 where we deficient in that area of the industry.  
8 Those types of examples whether it be CLB, design  
9 basis or Appendix B type information that should have  
10 found its way into a repair and replacement program,  
11 but didn't that would go a long ways to help us  
12 understand your position and the basis for your  
13 position.

14           The other piece that our colleague was  
15 talking about from Sequoyah were there was a finding  
16 that they failed to establish an installed time period  
17 in equipment that was procured where one didn't  
18 previously exist. That's a concern to us because the  
19 implications of that would mean that we would take all  
20 of our safety-related equipment and then somehow  
21 establish an installed time period and retrofit it to  
22 our plans.

23           That's not what I think you intend.

24           MR. CHERNOFF: And you don't see anything  
25 in the RIS I don't think that infers that.

1 MR. MONTGOMERY: So, our question would be  
2 -- and this would be really for the regions. I would  
3 presume that those specific findings would be  
4 rewritten in some fashion or ever pulled.

5 MR. O'BRIEN: So, it's an interesting  
6 question. Let me move on beyond that and I'll come  
7 back to it if you don't mind. This is Ken O'Brien  
8 again.

9 I guess I'd offer that in addition to the  
10 question that I think you're posing, your perspective  
11 would be helpful for us to understand. So, not just  
12 asking for us to help do that, but your perspective  
13 would be helpful for us to understand as it relates to  
14 50.2 design-basis information, supporting design-basis  
15 information and the application of any, I think, it's  
16 9704.

17 A number of other things of that nature  
18 would help in that regard.

19 Generally, licensees take corrective  
20 actions to violations that we put out here. So, now,  
21 I'm going to go on to the second part.

22 So, if we issued a violation and the  
23 licensee didn't contest it, we assume that you put it  
24 in your corrective program and took actions associated  
25 with it.

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1 I think the RIS here is trying to get at  
2 the broader question, the broad guidance to the  
3 industry and the agency as a whole to make sure we're  
4 all clear on what we're trying to accomplish. I think  
5 an outcome of that would be a process moving forward  
6 that's more consistent and more clear to everybody.  
7 I'm not sure of the additional value we might gain for  
8 something that was previously cited for which the  
9 licensee took corrective actions.

10 But, again, this RIS may be able to  
11 address it if you provide the information from your  
12 perspective as how those pieces apply.

13 MR. CHERNOFF: Can I ask a follow-up  
14 question, Bruce.

15 It's always problematic when you start to  
16 present examples from real data sets that are out  
17 there and we've heard several people talk about their  
18 specific issues.

19 Do you think we could accomplish a similar  
20 objective that you're asking for by using, if you  
21 would, developed examples? In other words, not from  
22 a citation or a finding, but just a here are the  
23 circumstances and this is what we think based on these  
24 circumstances.

25 Would that still be helpful or would that

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1 defeat what you're trying to get at?

2 MR. MONTGOMERY: Well, I think examples  
3 that are hypothetical, if you will, will be just as  
4 useful of examples that were from --

5 MR. CHERNOFF: Okay. Thank you for  
6 stating it much more clearly than I did.

7 MR. MONTGOMERY: But, I think the  
8 gentleman who called in who indicated -- and, of  
9 course, Sam Harvey's discussion around the EPRI  
10 databases and how those evolve into PM templates on  
11 our AP913 processes.

12 The gentleman who called in to talk about  
13 how we put those together, if you really looked at  
14 those programs, our position is that is the synthesis  
15 of all the information that we get. Whether it be a  
16 vendor recommendation, testing and analysis,  
17 information from OE. They're internal or external as  
18 an industry. That's the synthesis of our conclusion  
19 and our engineering evaluation of how long something  
20 should be installed and how often we should do a  
21 replacement or refurbishment.

22 And the answer that you should have got at  
23 these stations when asked hey, it's 22 and the vendor  
24 said 20, why is that okay? It's really not the right  
25 question to ask or at least the right answer should

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1 have been our PM template -- our PM template basis  
2 indicate here's the appropriate frequency for this  
3 equipment in this environment for our plant and if we  
4 want to have a discussion around that, I think that's  
5 where the discussion should occur. That will be the  
6 industry position.

7 MR. CHERNOFF: Okay. And just to repeat  
8 that, hypothetical examples would likely help as well.  
9 Okay.

10 MR. MONTGOMERY: We can with that.

11 MR. CHERNOFF: Because it avoids a lot of  
12 issues that we get into when we start dealing with a  
13 specific example from a plant. So.

14 MR. MONTGOMERY: I think that where we can  
15 help and where I think the RIS would provide value is  
16 examples of what we consider credible and what's the  
17 opposite of credible. Maybe we can come up with  
18 better terminology and I think you're asking for that  
19 and I think also instances where we think something  
20 falls into our Criterion 5 Maintenance Programs,  
21 drawings, procedures and whatnot and those things  
22 which I think are fairly limited would put this type  
23 of information at the level of design basis for CLB  
24 information. I think you provided some examples. I  
25 think what I'm hearing is that it -- you would agree

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1 that most of this information is in our Appendix B  
2 Program that govern our maintenance programs.

3 MR. CHERNOFF: Well, our scope of  
4 discussion is safety-related equipment. So, all of  
5 that is -- falls under Appendix B even if a small part  
6 of it might be graded approach.

7 But, and, Sam, if I could ask Sam a  
8 question. With regard to your organization's -- the  
9 template document and the frequency of updates to  
10 those documents, how are they managed?

11 MR. HARVEY: Well, let's -- we can talk  
12 about the formation of the templates because those are  
13 various things.

14 MR. CHERNOFF: And we have staff that was  
15 involved in that as well. Yes.

16 MR. HARVEY: We can -- we'd be happy to  
17 share that with you. But, the template updates are  
18 when something comes in that is credible information  
19 that says the basis for this is no longer valid.

20 So, if we got operating experience, we got  
21 a vendor service life instruction or any other type of  
22 information that says what's in our template is wrong  
23 or no longer valid, needs to be reassessed by the  
24 panel of experts from the industry, from vendors, from  
25 OEMs and et cetera, we would go back and do it.

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1           Every time one of those templates is  
2 reviewed, it's got a date stamp on it and it's also  
3 got the basis of what was in that review. So, what  
4 was evaluated, what input went into it and everything  
5 else.

6           So, most of that is as we get credible  
7 information and not set on any periodicity unless the  
8 industry requests let's go back and revisit this. The  
9 new ones are all based on requests to go back and  
10 establish it. So, we may have valves. Well, now,  
11 we've got check valves and we've got some components  
12 and check valves in that template.

13           So, it's ongoing and living continuously.  
14 That's why it's on our website because it's  
15 continuously updated.

16           MR. MURPHY: Harold, a question. So,  
17 Marty Murphy, Xcel Energy.

18           With the risks and the intent to keep it  
19 at a relatively high level, how do you intend to  
20 promulgate some kind of consistent inspector guidance  
21 for us?

22           MR. CHERNOFF: That's -- I spoke to that  
23 a minute ago. We have other recommendations from our  
24 study that are focused on our internal procedures and  
25 training and that's how that'll move forward after we

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1 sort out exactly what we want our message to be.

2 MR. MURPHY: And will you share that with  
3 us so that we have a common understanding of what that  
4 is?

5 MR. MORRIS: Yes, to the extent it's in  
6 inspection procedures or manual chapters, absolutely.

7 MR. CHERNOFF: Not necessarily -- I can't  
8 speak to the -- where we end up on training, informal  
9 or formal training, I can't speak to that, but the  
10 manual chapters are out there.

11 So, as we edit and change those, it'll  
12 become publicly available.

13 MR. MORRIS: Scott Morris. I just had a  
14 question quickly for Sam.

15 This is a question just seeking  
16 understanding. Are the templates for -- your PM  
17 templates, preventive maintenance templates presumably  
18 have -- without going into a lot of minutia and  
19 telling you things you probably already know, I mean  
20 there's performance-based maintenance and then there's  
21 time-based maintenance. Right?

22 It captures both concepts? Because,  
23 you're they're both important and they're both  
24 relevant. Some things are not -- don't avail  
25 themselves to performance monitoring. Right. So, you

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1 have to have time-based maintenance. So, they were  
2 both factored in there?

3 MR. HARVEY: They're both factored in  
4 there. Absolutely.

5 MR. O'BRIEN: And this is Ken O'Brien.  
6 Time-based maintenance includes replacement?

7 MR. MORRIS: Right. That's what I meant.  
8 I'm sorry. I meant -- that's what I meant to say.  
9 Right. Right.

10 MR. O'BRIEN: This is Ken O'Brien again.  
11 I guess the reason I raised that is a lot of people  
12 when you say preventive maintenance don't necessarily  
13 think that preventive maintenance also includes  
14 replacement.

15 MR. HARVEY: It does. It absolutely does.

16 MR. O'BRIEN: Because it's not the -- it's  
17 not the components. The system you're looking at.

18 MR. MORRIS: The simplest example I like  
19 to use and it's really -- it's simple to the point of  
20 absurdity, but, you know, a light bulb, the  
21 manufacturer says it'll burn for X amount of hours.  
22 Right. And there's really no way to performance  
23 monitor it. It's always going to draw the same amount  
24 of current. It's always going to have the same amount  
25 of lumens until one day you flip a switch and it

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1 doesn't work. Right. So.

2 MR. CHERNOFF: It'll draw a different  
3 amount of current.

4 MR. MORRIS: Okay. Yes, but in the last  
5 microsecond, you get the point.

6 MR. CHERNOFF: But, that's a good  
7 illustration of the issues.

8 MR. MORRIS: You get the point. So, I'm  
9 just trying to make sure and you've answered my  
10 question. So, I'll shut up.

11 MR. CHERNOFF: Now, that I've gotten in  
12 trouble with my boss --

13 MR. HARVEY: Well, like I said, it does  
14 and it absolutely includes -- and it includes the  
15 environmental conditions. Like is it critical  
16 high-duty cycles? No, the environment is well. So,  
17 all of those factor into it as well.

18 So, that's why the template gives you that  
19 generic and you have to evaluate it for those  
20 conditions.

21 MR. CHERNOFF: For your plant and your  
22 situation.

23 MR. HARVEY: That is correct.

24 MR. CHERNOFF: I mean you're saying the  
25 exact same thing I was saying and I know we had some

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1 discussions where it's not clear that that was done by  
2 the plant necessarily. So, it's important that they  
3 do that implementation part.

4 MR. MEYERS: The EPRI template is more  
5 than just a sheet of paper you're looking at, you  
6 know, with some Xs in a column. It's -- I mean it  
7 provides failure modes and locations and other things  
8 that you consider. It's not just a check the box kind  
9 of application when it's correctly.

10 MR. HARVEY: It also have a vulnerability  
11 assessment tool built in it. It says if I don't do  
12 this, what does it do for my probabilities?

13 MR. CHERNOFF: And to reiterate something  
14 that was said earlier, we understand that we -- I'm in  
15 trouble with my -- yes, my boss here and my other  
16 boss.

17 But, you know, we are reasonably  
18 cognizant. We have people on staff that were also  
19 involved in development of it that we can use the  
20 resource to get into more detail as well.

21 But, it's also -- it takes application and  
22 correct application. It's not a pull it off the shelf  
23 and apply it type tool.

24 With that, we are at the end of our time  
25 and just a couple of comments. One is I really

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1 appreciate both the tone and the interaction that  
2 people have engaged with today. It's all been very  
3 pleasant. Which is the way it ought to be when we're  
4 talking about something which encourages everybody to  
5 take more of these kinds of opportunities to do this  
6 stuff.

7 That being said, I know we haven't  
8 probably gotten an opportunity to address everybody's  
9 comments and questions.

10 So, again, please if you would, thoughts  
11 you have now, thoughts you develop over the next few  
12 days in reflecting upon things that were said, please  
13 email those in to Alexandra. We'll get them into  
14 ADAMS so that everybody can see them and we will think  
15 about them in -- as we go forward in looking at this  
16 document.

17 MR. MORRIS: So, just on that note, so  
18 maybe, Alex, you could give us just quick synopsis of  
19 path forward to get us from today to the point where  
20 we think we'll have something in the Federal Register  
21 for formal comment. I know it's a prognostication  
22 that's based in guess work, but --

23 MS. POPOVA: That's a good question.

24 MR. CHERNOFF: I'm not sure that's a  
25 completely fair question.

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1 MS. POPOVA: So, I assume that we're going  
2 to have something in the public register this year,  
3 but it's going to be -- that'll be based on -- so,  
4 this meeting is over, I anticipate that we're going to  
5 go back to get drafting our draft and once we have  
6 internal resolution there and alignment and we have  
7 OGC, our General Counsel, approval, that will be  
8 posted in the Federal Register.

9 MR. CHERNOFF: Can I suggest a licensing  
10 answer? When we do the meeting minutes from this  
11 meeting, we'll try to get some information in the  
12 meeting minutes about general framework of time that  
13 we're going to move forward and I think that's about  
14 the best we can do.

15 MS. POPOVA: Yes, that's about the best we  
16 can do. But --

17 MR. CHERNOFF: There are a lot of internal  
18 things that have to be worked on and we've gotten a  
19 lot of good input and we need to take some time to  
20 look at that. So.

21 MS. POPOVA: Okay. Is there anything  
22 else? You guys good?

23 MR. CHERNOFF: Any --

24 MS. POPOVA: Okay.

25 MR. CHERNOFF: If I could maybe ask Dave

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1 or Bruce if you -- you guys were kind of principal  
2 commenters. If you had anything you wanted to add at  
3 closing here.

4 MR. MONTGOMERY: Well, certainly, we  
5 appreciate the opportunity to have this discussion in  
6 advance of issuing a RIS for comments. So, it  
7 provides an extra opportunity to -- the level of  
8 interest in the room here belies how significant we  
9 think this is.

10 Of course, I think a lot of the reason why  
11 we're here is because of what we read in the original  
12 TIA and the level of detail that was in that.

13 But, there was a little discussion we just  
14 had over here that maybe as we approach this draft RIS  
15 either before or after there might be an opportunity  
16 to continue this dialogue maybe in a public forum with  
17 a workshop.

18 MS. POPOVA: So, just as a reminder, the  
19 comments that are received through the Federal  
20 Register those will be the formal comments which we  
21 will take in disposition and then formally answer.

22 During that -- after we notice the draft  
23 RIS, we will have another public meeting to discuss  
24 that.

25 MR. MONTGOMERY: Okay. Good.

1 MS. POPOVA: So, and that typically  
2 happens a couple of weeks after it's noticed in the  
3 Federal Register.

4 MR. MONTGOMERY: Thank you.

5 MS. POPOVA: Okay. Okay. So, I would  
6 like to thank everyone again.

7 MR. LOCHBAUM: I just wanted -- Dave  
8 Lochbaum of the Union of Concerned Scientists. I just  
9 want -- I appreciate this meeting. It was very  
10 helpful.

11 I also wanted to not reiterate because I  
12 didn't say it yet, but I wanted to point out that I  
13 think -- one of the reasons I think this RIS is a good  
14 -- draft RIS is a good thing is it -- rather than  
15 waiting for the safety event, the really bad thing  
16 from happening, there is a performance trend that  
17 you're trying to address and I think it's commendable  
18 that the NRC's not waiting for the bad thing and then  
19 taking a step back. But, is trying to avoid that bad  
20 thing. So, I think that's very valuable.

21 I don't like proactive or reactive. I  
22 think it's at least lagging. There was some signs.  
23 The NRC's acting responsibly to those signs. I think  
24 that's a good thing and I appreciate your doing it.

25 MR. CHERNOFF: Thank you.

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1 MS. POPOVA: Okay. All right. Thank you  
2 for that.

3 So, I would like to thank everyone for  
4 their participation today and just as you saw my  
5 message up on the screen, submit anything that hasn't  
6 been answered to my email and that will be public and  
7 yes, make sure you signed in on the sheet that went  
8 around. If you signed in, you don't need to send me  
9 an email. You will get an email from me with the  
10 meeting notes and summary and the slides which I know  
11 you're -- you know, there's not too much to them and  
12 that should happen in the next couple of weeks.

13 So, no further remarks? Okay. The  
14 meetings adjourned.

15 MR. CHERNOFF: Thank you all. Thank you  
16 on the phone.

17 (Whereupon, the above-entitled matter went  
18 off the record at 3:37 p.m.)  
19  
20  
21  
22  
23  
24  
25