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 In Spent-Fuel Pools: Public Meeting

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Pages 1-62

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING

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Generic Letter: "MONITORING OF NEUTRON-ABSORBING
MATERIAL IN SPENT FUEL POOLS"

+ + + + +

MONDAY

APRIL 14, 2014

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ROCKVILLE, MARYLAND

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The Public Meeting convened at the Nuclear
Regulatory Commission, Two White Flint North,
Auditorium, 11545 Rockville Pike, at 1:30 p.m., Lynne
Finch, Facilitator, presiding.

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PRESENT FROM THE NRC:

LYNNE FINCH, Facilitator

CHRISTOPHER JACKSON

SCOTT KREPEL

SERITA SANDERS

BRIAN SMITH

SPYROS TRAIFOROS

KENT WOOD

MATT YODER

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

1:30 p.m.

1
2
3 MS. SANDERS: Good afternoon, everyone.
4 I'd like to thank you for attending this meeting.

5 My name is Serita Sanders and I'm the
6 project manager in Generic Communications in the Office
7 of Nuclear Reactor Regulations.

8 Before we get started with the meeting I'd
9 like to introduce our Facilitator, Lynne Finch. She
10 will cover our housekeeping administrative topics and
11 facilitate our question and answer portion of this
12 meeting.

13 FACILITATOR FINCH: Good afternoon. Once
14 again, my name is Lynne Finch. I am your Facilitator
15 for the afternoon.

16 I'd like to point out that the clock on the
17 wall is not correct. It is not your imagination. I
18 don't think we've reset it since the time change. Give
19 us a few more months and it will be accurate again.

20 If you have not done so, please take this
21 time to take your cell phones and either put them on
22 silent, vibrate, or turn them off. I know we don't get
23 very good signals down here but ringing phones are
24 definitely a distraction.

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1 For those guests, welcome. There are
2 restrooms in the lobby right outside of the door. But
3 do not leave that area without an NRC escort. If you
4 need to leave the area please ensure that you have an
5 NRC escort.

6 We're scheduled for about two and a half
7 hours. We will plan a break somewhere around the
8 midpoint. We'll find a natural breaking point.

9 We will have question and answer toward the
10 end of the meeting. Please hold your questions until
11 that time and people will be allowed to ask questions.

12 Once again we really appreciate you being
13 here. If you did not have a chance to sign in when you
14 came in, please make sure that you do so on the break.
15 There are materials on the table in the back of the room.
16 If you've not already picked up materials please do so.

17 I would like to turn this back over to Ms.
18 Sanders.

19 I'm sorry. One more thing before we go.
20 I'd like to remind the panel that the microphones are
21 live. You can't turn them off.

22 Ms. Sanders, please.

23 MS. SANDERS: Okay. Thank you.

24 Before we get to our introductions, there's

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1 a copy of the Generic Letter, the Federal
2 Register Notice, and this presentation for your
3 convenience at the back of the room on the table.

4 I want to also thank the participants on the
5 phone.

6 I'd like to open the meeting by introducing
7 the technical staff responsible for preparing this
8 Generic Letter. I'll let them introduce themselves,
9 tell you their area of expertise, office and division
10 if they work here at Headquarters.

11 I'll start off with myself. I'm Serita
12 Sanders. I'm with Nuclear Reactor Regulations and I'm
13 in the Division of Generic Communications. I'm their
14 project manager.

15 We'll start to the left, Chris Jackson.

16 MR. JACKSON: My name is Chris Jackson.
17 I'm Chief of the Reactor Systems Branch. I'm
18 responsible for the staff responsible for criticality
19 safety analysis.

20 MR. WOOD: My name is Kent Wood. I work
21 for Chris doing spent fuel pool criticality reviews as
22 the team leader for the Spent Fuel Team.

23 (Unless otherwise noted, Mr. Krepel spoke
24 through a translator.)

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1 MR. KREPEL: My name is Scott Krepel and I
2 work within the spent fuel team. I am a nuclear
3 engineer.

4 MS. SANDERS: Okay. We'll bring it back
5 over to my right.

6 MR. TRAIFOROS: I am Spyros Traiforos.
7 I'm project manager for Research and Test Reactors. I
8 work for NRR and the Division of Policy and Rulemaking.

9 MR. YODER: My name is Matt Yoder. I'm a
10 senior chemical engineer in the NRR Division of
11 Engineering Steam Generator Tube Integrity and Chemical
12 Engineering Branch.

13 MS. SANDERS: We have Brian Smith. He's
14 our senior NRC representative and will also give some
15 opening remarks.

16 MR. SMITH: Good afternoon. My name is
17 Brian Smith. I'm the acting Deputy Division Director
18 in the Division of Engineering and the Office of Nuclear
19 Reactor Regulation. Our division along with the
20 Division of Safety Systems shares the responsibility
21 for the drafting of this Generic Letter.

22 The purpose of the meeting is to discuss the
23 proposed Generic Letter on neutron-absorbing materials
24 in spent fuel pools.

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1 Therefore I would like to thank you in
2 advance for your attendance and participation in the
3 meeting today. If you have any comments on the Generic
4 Letter we would like for you to submit those comments
5 in writing to us. We'll explain that process during our
6 presentation today.

7 The staff has been evaluating this issue
8 for several years in an effort to ensure the need for
9 this Generic Letter, as well as determining whether or
10 not we have the appropriate -- sorry, that we are
11 requesting the appropriate necessary information
12 within the Generic Letter. We appreciate feedback on
13 both those aspects during the meeting and in your
14 comments.

15 Once again, thank you for attending. I'll
16 turn it back over to Serita.

17 MS. SANDERS: Thank you.

18 Chris has done a lot of work. I wanted to
19 know if he had anything else he might want to add in terms
20 of opening remarks.

21 MR. JACKSON: Well, we shouldn't
22 exaggerate the amount of work I've done. We've got a
23 great staff in the Division of Engineering and the
24 Division of Safety Systems.

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1 I want to just reiterate, thank you for
2 coming. I know it's a busy schedule.

3 The whole objective here is to get a great
4 Generic Letter. This public comment period is an
5 opportunity for us to really make improvements. So
6 we're here to inform everybody and make sure everybody
7 understands the Generic Letter so that when you submit
8 public comments we can take those under consideration.

9 I want to thank Lynne for coordinating the
10 meeting as well as Serita and Brian for coming.

11 With that, I'll turn it over and turn it
12 back to Serita.

13 MS. SANDERS: Okay. I just want to
14 reiterate about the escorts. If you need to leave the
15 area beyond the bathroom we have NRC staff in the back.

16 I don't see Todd King but -- there he is.
17 He's going to be here the whole time. If you need to
18 go on a break and get coffee or whatever or leave the
19 area he'd be more than happy, and we have Lee in the back
20 as well.

21 I just wanted to also reiterate the purpose
22 of the meeting is to have a discussion on the Generic
23 Letter. We have the staff here to give you any
24 clarifications or explanations that you need about the

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1 content of the Generic Letter.

2 If you have comments about the Generic
3 Letter, go to www.regulations.gov. If you want a
4 walk-through, I'm sure you guys probably know how to do
5 it better than me, but if you need a walk-through I'll
6 give you a walk-through on how to make your comments.

7 Without further ado I'm going to turn the
8 slide presentation over to Scott Krepel. He's going to
9 start our presentation.

10 MR. KREPEL: Hi. I'm going to stand for my
11 presentation if that's all right. It's a lot easier for
12 me to sign and my interpreter sees me standing instead
13 of seated.

14 My name again is Scott Krepel. I'll go
15 ahead and provide a brief presentation on the purpose
16 of this Generic Letter and some content and background
17 as we go.

18 Here's our public meeting agenda. We will
19 cover -- I will be covering the second, third, and fourth
20 items. But honestly it might not take as long as we have
21 scripted on our agenda. So let's go ahead and we'll see
22 where we end up.

23 All right. The logic starts with this
24 discussion on the regulatory basis associated with this

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1 Generic Letter. The NRC has provided different rules
2 and regulations to prevent and to mitigate specific
3 events. The event that we are talking about today is
4 inadvertent criticality accidents.

5 Now, for those in the public who are not
6 familiar with the terminology, when we have a nuclear
7 power plant operating we typically want to have a
8 sustained chain of fission reactions. That's how we
9 can have sustained power productions.

10 But with the fuel moving over to the spent
11 fuel pools, we do not want to have that sustained chain
12 reaction occurring. That sustained chain reaction is
13 called criticality.

14 Therefore an inadvertent criticality event
15 is when we have that happening within the spent fuel
16 pools. It's a situation that we do not want to be
17 happening.

18 To regulate this NRC has a base criteria to
19 prevent this from finding.

20 If you can continue to the next.

21 We have this in 10 CFR 50.68. This is also
22 within the general design criteria. You can find this
23 in GDC 62 in Appendix A, which is under 10 CFR.

24 This was established specifically for

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1 regulatory criteria that the licensee must meet and able
2 to show that they are preventing an inadvertent
3 criticality event.

4 So to prove this, the licensee will then
5 submit analysis for this criticality safety analysis
6 which will be based on the plant operations, past and
7 present, and also geometry materials and considered
8 within the spent fuel pool.

9 We will do performance analysis to consider
10 the geometry cell structure and material of boron
11 dissolved within the water, with also the fuel assembly
12 geometry and the isotopics inside the cells.

13 There is also one more thing, the
14 neutron-absorbing panels which might be installed
15 within the spent fuel pools.

16 Now, there is also an analysis that
17 typically includes boundary values. This also
18 accounts for uncertainties and requirements to be met.
19 The NRC staff will evaluate and analyze that to confirm
20 that the methodologies and the assumptions do prove that
21 the regulatory limits are met.

22 Once NRC staff approves, this analysis can
23 be continued to the boundaries and all of the parameters
24 for evaluation of the regulation are in compliance and

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1 are valid.

2 All right. As the plant is in operation
3 there are some problems that have started to be
4 identified within the neutron-absorbing materials,
5 degradation.

6 In the 1970s we had some materials that were
7 identified with Boraflex. The NRC licensees and staff
8 had critical communication and collaboration and we
9 continue that effort. Within that effort we
10 implemented the surveillance program to verify that
11 degradation was not advancing beyond the analysis that
12 was documented in our assumptions.

13 In the 80s there were some issues that were
14 identified with Boral where the licensees had problems
15 with installing and removing the cell walls. That
16 resolved the issues in many cases.

17 However, since then we have seen more
18 problems with blistering. This would be a nuclear
19 criticality safety issue that blistering can displace
20 water, which would reduce within moderation.

21 Lately we've been testing and there's
22 potential problems with Carborundum with mixed metals
23 and composites. Looking at the stainless steels and
24 all of the mixed materials to show that there is a need

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1 for monitoring this program.

2 The problem is confirmed that the
3 neutron-absorbing materials is preventing criticality
4 accidents. We need to monitor accidents to continue to
5 make sure we meet the safety-related functions.

6 The NRC has been actively addressing this
7 issue for quite a long time now. The first letter was
8 released by NRC and this was to explain the requirements
9 for the spent fuel pool analysis.

10 This was Generic Letter 78-11, which
11 collected guidance from many plants in one document.
12 That would guide the staff's evaluation of the spent
13 fuel pool modifications license amendment request.

14 Part of this guidance included
15 expectations that the licensees would have programs in
16 place to verify the continued presence of sufficient
17 amounts of neutron absorber in the racks. That would
18 be to meet the regulations and requirements.

19 Later in the 1980s and 90s there were
20 multiple operator experience events that led to
21 Boraflex in multiple facilities. That released
22 information and then we released an information notice.

23 Eventually the NRC released Generic Letter
24 96-04, which requested information to verify that the

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1 licensees were currently monitoring -- had a monitoring
2 program in place. And to verify that Boraflex
3 degradation was not going beyond a certain point where
4 they would be falling out of compliance with the
5 regulations.

6 During the 80s NRC also released one more
7 information notice related to Boral issues as they
8 started to appear in the bulging.

9 More recent history shows NRC staff has
10 been actively engaging with industry. More recently
11 we've had communication by NRC which includes
12 Information Notice 09-26, which identified problems
13 within Boral, blistering and other nuclear-absorbing
14 materials which would be Carborundum.

15 Furthermore we had Information Notice
16 12-13. We realized that there was not enough
17 documentation so we then released Information Notice
18 12-13.

19 During that period NRC also released a
20 variety of different guidance documents, for example
21 the Generic Aging Lessons Learned Report. We had staff
22 guidance to provide more information and guidance on
23 this issue.

24 We also had many working groups and we had

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1 research engaged in hosting several different studies.
2 That also included surveillance and a database survey.
3 This was limited in some information because we did not
4 have all the data available, but we were able to collect.

5 We also commissioned three technical
6 letter reports that looked at the Boraflex and also
7 looked at Carborundum and tetraborate, and identified
8 the specific issues with those.

9 Right now we are currently engaged with
10 other research on other materials. On the bottom area
11 you see the website and link for the public. This is
12 helpful for the staff to understand more about this
13 issue.

14 All this concern and information has led us
15 to publish a draft Generic Letter, which is why we are
16 all here today. The purpose of this Generic Letter is
17 to elect information from the operator of spent fuel
18 pools.

19 We have areas separated into different
20 categories which includes detailed information on the
21 materials and properties of configuration,
22 surveillance program methodologies, surveillance
23 program frequencies, how all of this information is
24 incorporated within the criticality analysis, what type

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1 of consideration has taken place to have a design basis
2 for the event, and to ensure these materials are inside
3 the surveillance monitoring program.

4 This Generic Letter has been released on
5 the Federal Register Notice on March 11. An open for
6 public comment period will be ending on May 12.

7 Serita, would you like to say anything or
8 add any comments about the Federal Register Notice at
9 this time?

10 MS. SANDERS: Just that there's a copy at
11 the back as well as the Generic Letter. You can go to
12 www.regulations.gov. Or you can go to our public
13 website and click on the tab of public involvement, then
14 click on document comment, and scroll down to generic
15 communications. You can go right in and make your
16 comment. That's it.

17 MR. KREPEL: All right. When the NRC
18 receives responses then its staff will do an evaluation
19 to determine if it is complete and accurate to the best
20 of the licensees ability. And then the NRC will not
21 request for additional analysis and research to perform
22 part of the response of this Generic Letter.

23 The staff will evaluate each response on a
24 case-by-case basis to determine if the response is

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1 acceptable and for the purpose of meeting this Generic
2 Letter request.

3 If possible problems occur with regulatory
4 compliances found, then the staff will plan to take
5 appropriate regulatory action. Any backfitting issues
6 will be addressed as part of that regulatory process.

7 If there are not immediate safety concerns
8 because of a large subcriticality margin within the
9 current regulations, plus there are typically
10 conservative margins basic to the licensee analysis.
11 But there are a lot of margins built into the criticality
12 events.

13 However, a significant undetected
14 degradation may lead to problems in the future. So we
15 want to make sure that these are not issues before
16 concern arises and is addressed.

17 I'm going to try to wrap up with a few items
18 on how this Generic Letter applies to other sites since
19 so far all of the discussion has been focused mainly on
20 power reactors.

21 However, as part of developing this Generic
22 Letter NRC staff has identified there are some research
23 and test reactors that may use neutron-absorbing
24 materials for criticality analysis. Research test

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1 reactors are covered under different regulation
2 structures.

3 However, there is limited information
4 requested within this Generic Letter that will allow
5 appropriate NRC staff to evaluate and identify any
6 potential problems and follow up through their own
7 separate regulatory process.

8 Part 52 licenses for new reactors will not
9 be included because the Office of New Reactors is
10 already aware of these concerns when the evaluation of
11 the licensees were applied.

12 All of the information was collected and we
13 are committed to monitoring these programs before --
14 if there is necessary information that was collected,
15 the licensees are committed to having a surveillance
16 program and they will make sure that they monitor their
17 spent fuel programs. Information might not be
18 applicable because Part 52 licensees are operating
19 spent fuel pools.

20 At this point I would like to go ahead and
21 open up this to my other colleagues on the panel if they
22 would like to make any further comments beyond what I've
23 already communicated.

24 MR. JACKSON: Thank you, Scott.

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1 Thank you for the sign interpretation.
2 That was very helpful.

3 In addition to the people on the panel, we
4 have some great people in the crowd who brought members
5 of the Office of Research as well as Division of
6 Engineering.

7 So if anybody -- I personally have nothing
8 to offer because that's the way I am. But if anybody
9 else has anything they'd like to offer, please chime in.

10 MR. KREPEL: All right. Well then, I
11 guess all we have to say is at this point we will then
12 turn this back over to Serita at this time.

13 MS. SANDERS: Okay. So then what I'll do
14 is graciously turn it over to Lynne for questions.

15 There is a mic right here in the center if
16 you want to come up and ask questions.

17 FACILITATOR FINCH: Thank you for the
18 presentation.

19 If you could bring the stand mic up live.

20 I'd like to remind you please if you have
21 questions this is your time to ask them. If you have
22 comments please submit your comments in writing.

23 Operator, if you could cue up at this time
24 anyone with questions.

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1 OPERATOR: Thank you. At this time we
2 will be in the question and answer session of the
3 conference.

4 If you would like to actually question,
5 please press * then 1. You will prompted to record your
6 first and your last name clearly. To withdraw your
7 question please press * then 2. Once again, please
8 press * and 1 to record your first and last name.

9 One moment for the first question.

10 FACILITATOR FINCH: Okay. Operator, I
11 would like to take questions in the room and then I'll
12 come back to the phones.

13 Before you ask your question, if you would
14 please give your name and where you're from. You have
15 the option to wave at me and I'll bring a microphone to
16 you, or you're welcome to come to the floor mic.

17 Does anybody have a question?

18 MR. CUMMINGS: Hello? Okay. I'll be
19 happy to get this started. Chris Cummings, Nuclear
20 Energy Institute.

21 Looking through the Generic Letter it
22 appears that the NRC is asking for a significant amount
23 of information here from the types of neutron absorbers,
24 the basis of their analysis and material composition,

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1 rack life, badger, the basis for the testing, the
2 surveillance frequency.

3 What information is the NRC really looking
4 for here? When I look at the text or the title of the
5 Generic Letter it says specifically monitoring of
6 neutron-absorbing materials. But this covers a lot
7 more than just the monitoring programs or the test
8 programs that are at the utilities at the plant in the
9 United States.

10 So if I could try to get a clarification as
11 to what is the NRC really looking for, is it the
12 materials themselves? Is it the test programs, the
13 monitoring programs? If you could clarify that, that
14 would be appreciated.

15 MR. YODER: I'll take a first stab at it and
16 then hand it off. This is Matt Yoder from the Division
17 of Engineering.

18 We want all of that information. The
19 reason is yes, we're looking at monitoring programs.
20 But what goes into a monitoring program is very material
21 specific. It's going to depend on what type of analysis
22 you have, what type of material you have, what type of
23 operating experience you've seen.

24 So the reason we're asking all of those what

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1 seems to be detailed questions is to inform what we
2 believe should be the appropriate monitoring program
3 for the specific material.

4 MR. JACKSON: Thank you. If I could just
5 add to that, we went in with a philosophy. We spent a
6 good amount of time, several durations on the requested
7 information.

8 But when you go back and look at past
9 Generic Letters or past requests for information, we
10 asked for one thing and then we realized that in order
11 to evaluate the procedure that we needed more. And then
12 you get into requests for additional information and an
13 expansion of the scope.

14 We went in with the mind-set that we weren't
15 going to do that. That's not how we wanted it. We
16 wanted to try a different approach.

17 We said when we asked this question, if we
18 just focused it on monitoring or the adequacy of the
19 aging programs, what's the obvious next step? All
20 materials aren't created equal.

21 So we really went through a rigorous
22 process to make sure that all the information we needed
23 was in the original court request, that all of that would
24 be put out for public comment and public dissemination,

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1 and that there wouldn't be these further requests.

2 Obviously if there's difficulty coming up
3 with this information we'll work through that. But
4 this is the full scope of the information. There's
5 four-square around this. If you have this information
6 we'll be able to make a regulatory decision.

7 So that's why the request is the way it is.
8 We went in with this approach explicitly to set
9 everything up front and say this is the full scope of
10 what we need, we won't go beyond this, we won't expand
11 it after this.

12 Chris, did that address your question?

13 MR. CUMMINGS: I have a follow-up.

14 MR. JACKSON: Okay. Did you want to add
15 something, Kent?

16 MR. WOOD: I would just reiterate some of
17 that. We've asked for the description of the
18 materials, we've asked for the monitoring, and we've
19 asked how they relate to the design basis and the safety
20 analysis.

21 With the idea being while one pool may be
22 different and one material may be different in the
23 environments, it also may be applicable as to whether
24 or not a given monitoring program is acceptable

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1 depending on to what level of credit they're taking for
2 the neutron absorber in the analysis as well.

3 So with kind of a graded approach, if you're
4 not taking much credit for it you don't have -- there's
5 maybe some tie there as well. So we wanted that
6 information as well.

7 Like Chris said, we wanted to get this --
8 we have a very detailed appendix for the type of
9 material, the questions we're asking because we wanted
10 to get out there. We didn't want to have another round
11 of requests for additional information. We didn't want
12 to play bring me a rock or any of that stuff. We wanted
13 to get everything out there on the table at the start.

14 MS. SANDERS: That was Kent Wood.

15 MR. JACKSON: I'm Chris Jackson.

16 In my career I've been involved with
17 several Generic Letter closeouts. I've never actually
18 written one from start to finish.

19 And each time I've tried to close it out
20 I've asked myself, you know, why didn't we ask this up
21 front? Why didn't we -- I mean, this is clearly
22 information we need to make the safety conclusions. So
23 we went in with this mind-set that we would ask
24 everything up front.

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1 It was a good question. Thank you. I
2 welcome a follow-up question.

3 MR. CUMMINGS: Well, it appears that this
4 is not -- I mean, you just said that you understand that
5 all materials are not created equal. And there's been
6 significant, per your own presentation, significant
7 information notices, Generic Letters about for instance
8 materials like Boraflex, which we've seen has degraded
9 and washed out and could be a potential safety issue.

10 But it seems like with the Generic Letter
11 that it's lumped all neutron absorbers into that
12 worst-case scenario when there's significant
13 experience with the metallic absorbers that there's
14 been no degradation associated with that. Yes, there's
15 been blistering and bulging, and those have been
16 documented by the NRC and by the industry.

17 So I guess my question is, why are all
18 absorbers being lumped into the same boat?

19 And how is a safety significance being
20 postulated or carried over to the metallic absorbers,
21 which have not shown degradation would affect the
22 function of the neutron absorber to absorb neutrons and
23 serve the function that they're there for?

24 MR. YODER: This is Matt Yoder again.

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1 I think that despite the fact that we have
2 limited operating experience with the metal, the
3 Metamic, the Alcan material, the mixed metal
4 composites, we haven't seen significant degradation of
5 that.

6 But when the staff started approving those
7 materials we took the same stance that we've taken in
8 this Generic Letter. Licensees need to have a
9 surveillance program in place. They need to be able to
10 demonstrate that that material is not degrading. And
11 if it does start to degrade, we want to know before it
12 becomes an issue.

13 So that's the same thing we've done here
14 with Boral, Metamic, the Alcan material, Boraflex,
15 every single material across the board. We want
16 programs in place so that when something like a Boraflex
17 situation happens, we're out ahead of it and we've got
18 surveillance programs in place that are going to
19 identify the degradation before we run into anywhere
20 near a criticality type situation.

21 So that's why we're taking this
22 across-the-board stance that licensees need to have
23 surveillance programs in place, regardless of the
24 material and regardless of whether we've seen

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1 significant degradation in the past or not.

2 MR. JACKSON: Yes. That's a good point,
3 Matt.

4 This is Chris Jackson.

5 It's a good comment and you can make that.
6 I don't believe we're lumping all absorbers into the
7 same boat. That's why we asked for the materials. I
8 mean, we recognize that degradation mechanisms are
9 different for different materials.

10 But I do think that as a safety-related
11 component credit in the accident analysis that there
12 should be some monitoring or some, you know -- it's
13 designed for a certain lifetime and it should be
14 monitored.

15 So I don't think anybody is suggesting that
16 these materials are bulletproof or don't degrade ever
17 and don't need to be monitored at all.

18 So you know, following on on the graded
19 approach that Kent mentioned, if you've got a material
20 with known issues you need a program that addresses
21 those. If you've got a material with less issues you
22 would have a program that would acknowledge that. So
23 we're willing to acknowledge a graded approach.

24 And I think that that's why you see the

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1 information request the way it is, because we don't
2 intend to lump all the materials together. A program
3 for Boraflex would probably need to be a greater program
4 than a program for something that has less degradation
5 mechanisms.

6 MR. YODER: Yes. And I would say that --
7 this is Matt Yoder again. I would say that that's
8 reflected in the guidance that we've put out as an agency
9 if you look at the Generic Aging Lessons Learned Report.
10 The interval for inspections is different for the newer
11 materials than it is for the materials with known
12 degradation.

13 So we acknowledge that and, you know,
14 that's essentially -- probably not the right way to put
15 this, but it's essentially a credit for licensees who
16 have the newer materials and have upgraded their
17 materials. They're not going to have to go in there and
18 do that inspection as often as an older material.

19 MR. JACKSON: Now having said that, we
20 drafted the Generic Letter. Feel free to make that
21 comment. We'll make changes a necessary. But it
22 wasn't our intent to lump them all together.

23 FACILITATOR FINCH: Kevin, do we have any
24 questions on the phone line?

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1 OPERATOR: We do have a question in queue.

2 Mr. Steven Dolley, your line is now open.

3 MR. DOLLEY: Thank you. Good afternoon.

4 This is Steven Dolley. I'm a reporter with Platts
5 Nuclear Publications.

6 I was hoping that someone from NRC staff
7 could speak to the schedule for issuing the Generic
8 Letter and reviewing the comments after the comment
9 period closes on May 12. When do you expect to issue
10 the GL and when would -- I know you won't have dates
11 specific at this point.

12 But like, what month would you plan to issue
13 the GL, at what point would responses be due, and at what
14 point does staff anticipate having completed its review
15 of the responses?

16 MR. JACKSON: That's a good question.

17 This is Chris Jackson.

18 What we're going to do is, the Generic
19 Letter is out for draft and it's out for public comment.
20 So what we're going to do is we're going to go through
21 each of the comments individually and we'll evaluate.
22 We'll make any changes necessary to the Generic Letter.
23 At that point we've got a decision to make as to how we
24 want to proceed.

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1 So I don't want to commit to a schedule at
2 this point without seeing the public comments or
3 determining whether or not we want to make minor changes
4 to the Generic Letter, major changes to the Generic
5 Letter, or perhaps no changes to the draft Generic
6 Letter.

7 MS. SANDERS: This is Serita Sanders.

8 I won't let him make a commitment on the
9 schedule. Because depending on the complexity you may
10 have to get a group together. That's why it may take
11 more time. So we have to wait until we get the comments
12 in house and then see how it's dispositioned.

13 MR. JACKSON: We are ready to evaluate the
14 public comments. The decision point will become
15 whether we want to change focus or shift focus. At that
16 point we could issue it for public comment again. But
17 it would really depend on what we chose to do with the
18 public comments and we will evaluate each public comment
19 individually. MY HALF AT 2:12:25

20 MR. DOLLEY: Okay. Just a quick
21 follow-up. Is staff definitely going to issue a
22 Generic Letter or is that even open to review depending
23 on how the comments come back you might no issue a GL
24 at all?

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1 MR. JACKSON: Anything is possible so, you
2 know, we could shift it from a Generic Letter to
3 something else if the public comments were such that we
4 chose not to issue a Generic Letter at all. I suppose
5 that would be one possible outcome.

6 COURT REPORTER: I'm sorry. Who was
7 speaking?

8 MR. JACKSON: I'm sorry. That was Chris
9 Jackson.

10 COURT REPORTER: Thanks.

11 MR. JACKSON: Good question, though.

12 MR. DOLLEY: Thank you.

13 FACILITATOR FINCH: Thank you for your
14 questions. Coming back to the room, do we
15 have another question in the room?

16 Yes, sir.

17 MR. HALL: I'm Bob Hall with Dominion.
18 I'm just curious about if someone could describe how the
19 120-hour time estimate, compliance time estimate, per
20 plant was arrived at.

21 MR. WOOD: I came up with that estimate.

22 FACILITATOR FINCH: Kent Wood.

23 MR. WOOD: I'm sorry. Kent Wood, NRC
24 Reactor Systems Branch.

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1 You know, we looked at it. We believe the
2 vast majority of the information that we are asking for
3 is something that the licensee should have retrievable
4 in their plant records because it's a safety component.
5 We realize that some of these materials may be an
6 archeological dig to go get some of this older
7 information.

8 We also in that estimate acknowledge that
9 there are a couple plants out there -- there's one plant
10 that is accrediting three different materials.
11 Another one is accrediting four. Those will probably
12 take -- those two plants will probably take a bit more
13 than the 120.

14 The idea was how much to go out there and
15 mine the data and write up a report and get it through
16 the administrative process just to get it out there.
17 There are 22 plants that aren't accrediting any neutron
18 absorbers. Their response will be very short and
19 sweet.

20 That wasn't intended to be 120-hour
21 average. We expected of the plants, one or two, should
22 be somewhere in the 120-hour ballpark. Like I said, I
23 think our expectation is that this information should
24 already be available to licensees or should be in their

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1 plant records some place that they can dig it out and
2 submit it. Put it together in a form and submit it.
3 That was what the estimate was on.

4 Something that Scott said, and something that I
5 think Chris said as well, is we are explicitly not asking
6 licensees to develop monitoring programs with this
7 Generic Letter. We are explicitly not asking licensees
8 to justify monitoring programs or do any new research
9 or analysis. We want to know what the current state of
10 affairs is.

11 We understand that there's a lot of work
12 going on in the industry with regard to
13 neutron-absorbing materials. There is a lot of work
14 going on at the NRC. We want to get what the current
15 state is, where we are today so we can decide where we
16 need to go moving forward.

17 Taking into account that we weren't asking
18 for any new programs to be developed, new analysis can
19 be done, we thought that it was a data retrieval of
20 submission preparation time frame that we were putting
21 together. That is how I came up with the 120 hours.

22 MR. JACKSON: That's a good answer. Thank
23 you. It's part of the Generic Letter so you can make
24 comment on that. If you think that's incorrect, you can

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1 adjust that.

2 Serita reminded me we do have a court
3 reporter in the back so that's why we need to identify
4 ourselves when we speak.

5 Did that answer your question?

6 MR. DOLLEY: Yes. Thank you.

7 FACILITATOR: Operator, do we have an
8 additional question on the phone?

9 OPERATOR: There are currently no
10 questions in queue. Would you like for me to review the
11 instruction?

12 FACILITATOR FINCH: No, thank you. We
13 have questions in the room. Thank you.

14 OPERATOR: Thank you.

15 MR. JONES: Robin Jones, Southern Nuclear.
16 We presumably had all this information when we made
17 submittals to you and we've provided most of that
18 information to you, or referenced it within our
19 submittals. We have agreed upon -- generally agreed
20 upon surveillance programs with you.

21 I guess we really don't understand if we've
22 already given this to you why -- within the submittals
23 and nothing has changed by 5059, or whatever, why do we
24 need to go and dig all this stuff up again?

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1 MR. YODER: I think that for some plants
2 that comes into our estimate of 120 hours. You've
3 already got a docketed response that says, "Here's what
4 I'm doing." I think we are totally amenable to having
5 you send us a response that says, "Go see letter dated
6 July 9, 2009 where we explained all this to you."
7 That's one less piece of data you've got to mine. We
8 don't have that for every plant. There's a lot of
9 plants that we don't have that information for.

10 FACILITATOR FINCH: That was Matt Yoder.

11 MR. JACKSON: Yes. There's a couple
12 different bins that information can wall into. First,
13 you know, you make an amendment request in 2004/2005.
14 Things changed in that period of time. What you told
15 us in 2004 through the normal processes can change.
16 That's one thing. You may have a docketed response that
17 has changed through the course of time.

18 The other one is if you do have a submittal
19 recently and you are still doing exactly that, just say
20 so and that addresses it. We did try to mine this data
21 ourselves and we looked at it various ways. We tried
22 to get this information. We were unable to so that was
23 our first approach. Does that answer your question?

24 FACILITATOR FINCH: Okay. I do want to

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1 remind everybody that there is a stand mic in the middle
2 of the room that you are welcome to use. It saves me
3 hobbling over to you.

4 MR. MANN: Good afternoon. My name is
5 Brian Mann. I'm with EXCEL Services. On page 6 -- I'm
6 sorry, page 7 of the Generic Letter under requested
7 information No. 5, and in various places in Appendix A,
8 you talk about during the design basis events. Can you
9 explain what you mean by design basis events for the
10 spent fuel pool? Is that like the 5068 minimum
11 moderation, or are you talking about something else?
12 That needs to be clear in order to respond.

13 MR. JACKSON: Okay. We could perhaps
14 clarify that. But the design basis events for the pool,
15 you know, the design basis for each plant is plant
16 specific so you have various events. You've got the
17 misloading event.

18 You've got the 5060 event, the boron
19 dilution, or the boron events described in 5068. You
20 also have design basis earthquakes and other -- so the
21 misloading, the dropped assembly, all the things within
22 the licensing basis. Existing licensing basis. Not
23 expanded but existing licensing basis or what we mean
24 by design basis events. I'll look at my panel here to

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1 make sure.

2 MR. WOOD: This is Kent Woos from the Spent
3 Fuel Team in the Reactor Systems Branch. That is
4 exactly right. We're looking for -- licensees have
5 certain design basis events for their spent fuel pools
6 that they are required when they submit their
7 criticality analysis to take into consideration.

8 Those are such things as dropped assemblies,
9 misplaced assemblies, seismic events, loss of spent
10 fuel pool cooling or heat-up events. Those are the
11 types of things that we're talking about in this
12 evaluation. We're not talking about expanding it
13 beyond that.

14 The question is, one, either can these
15 events either accelerate the degradation or how will the
16 material perform during the event itself. Does that
17 answer your question, Brian?

18 FACILITATOR FINCH: Do we have any other
19 questions in the room?

20 Yes.

21 MR. HALL: This is Bob Hall, Dominion.
22 Kind of a follow-on to my 120-hour question. Reading
23 through the appendix it's very detailed. From the
24 point of view of someone who would be writing the

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1 response, it looks like it could be quite voluminous.
2 Do you have a sense of the volume of information that
3 you are expecting to get?

4 MR. WOOD: You want a page count?

5 MR. HALL: Yes.

6 MR. WOOD: No, I don't have any
7 appreciation for the number of pages that we would be
8 getting for that or how voluminous it would be.

9 MR. HALL: Do you have an approximation?
10 You've had a chance for a month-and-a-half to look at
11 this thing. What would your estimation be? I mean,
12 this would be part of your public comment that you say
13 if we're underestimating this significantly, then let
14 us know. If you think this is going to be like twice
15 as long, please put that in your public comments.

16 MR. WOOD: We'll probably comment on that.
17 Just reading through where it says "describe" that's
18 kind of an open-ended concept is how much description.
19 What you have referred to before is that you want to get
20 everything out up front and you are not looking for a
21 process with follow-on RAIs and so forth.

22 I hear desire for completeness but, in my
23 mind, that also means volume. Personally, I'm thinking
24 in the hundreds of pages for a plant. I'm just kind of

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1 gut-checking that here and saying are we on the same page
2 here. Is that kind of what you're thinking and what
3 you're expecting as a possibility? Then
4 the follow-on to that would be what kind of review time
5 would you envision for that material? Then considering
6 what the follow-on actions might be if you find a plant
7 that has an inadequate monitoring program, for example.

8 MR. JACKSON: Could you repeat that, the
9 second part? Well, the first part, the voluminous
10 nature that's a good comment. When I look through
11 you've got some either/ors if you use rack life, if you
12 use in situ testing, if you use coupons. Some of these
13 don't apply to anybody but I appreciate the amount.
14 There are quite a few describes in here so I agree.

15 The second part of your question, could you
16 repeat that again?

17 MR. HALL: The second part was then if
18 you've got an idea of how much material you're getting
19 -- potentially getting for each plant, I mean, it could
20 be a little and it could be a lot. In my mind it seems
21 like a lot.

22 If you've got a lot of material coming in,
23 it's kind of a big task to get through that material to
24 review it all and to come to a conclusion for each plant;

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1 what's the status of that plant's monitoring program and
2 then what kind of follow-on actions would then come.

3 I'm thinking about time frames here.
4 We're looking at a rough time frame for this GL. We've
5 got a time frame for the response. Then we've got a time
6 frame for what comes after. You got any consideration
7 for what you're expecting the review time for the data
8 to look like?

9 MR. JACKSON: Yeah, and as we work through
10 this we're developing a plan for doing these reviews and
11 we're resourcing that out. As we go through and as the
12 public comments come in, we might revise the request.
13 Yeah, we thought about that a fair amount and I think
14 we can go through these.

15 You know, there's plant that will be able
16 to finish very, very quickly. "These are fine, these
17 are fine, these are fine." Either they've had a
18 submittal in the recent past and they don't credit it.
19 We'll be able to get to the plants of interest pretty
20 quickly, in my opinion, the way we've characterized
21 this.

22 Then we would have a small subset or subset
23 of the plants we'll focus on. At that point based on
24 -- we would go into our processes to evaluate that. The

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1 plan is to disposition the majority of the plants that
2 we have reasonable assurance of compliance quite
3 quickly. Did that answer your question?

4 FACILITATOR FINCH: Operator, do you have
5 any other questions on the line?

6 OPERATOR: Yes. We have two queued lines
7 at this time.

8 FACILITATOR FINCH: Would you go ahead,
9 please.

10 OPERATOR: Thank you. The next question
11 comes from Mr. Marvin Lewis.

12 Your line is now open.

13 MR. LEWIS: Thank you. Look, one
14 gentleman in speaking referred to a Boraflex situation.
15 Now, I've been following Boraflex on the public
16 meetings. I've been following it by, you know, letters
17 and stuff like that on ADAMS but I was wondering -- I
18 appreciate what was just going on here, namely bringing
19 me up to date on the various issues. But
20 when the gentleman said Boraflex situation, I'm asking
21 am I missing something specific or is it caught up in
22 these generalities that are being discussed now? In
23 other words, does Boraflex situation mean something
24 specific?

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1 MR. YODER: This is Matt Yoder, Mr. Lewis.
2 Let me try to address your question. When we talk about
3 the Boraflex situation, as you refer to it, we're
4 talking about a specific material type that is used at
5 this point in a small subset of plants.

6 We're talking specifically about a
7 material that has a history of operating experience
8 where we've seen in some cases significant degradation.
9 Does that address your question?

10 MR. LEWIS: To an extent, yeah. That
11 gives me an idea of what I have to look up and what I
12 have to research which I do appreciate and which I shall
13 do. The actual question was was the gentleman
14 referring to something specific.

15 I understand the generality but I don't --
16 but I'm not sure if the way the intonation was said there
17 was something specific in the Boraflex situation which
18 made me wonder if I should ask about it, which I did.
19 Thank you very much. I think you have covered it. I
20 don't know if you've covered it in the specificity that
21 I would like but thank you very much.

22 MR. YODER: Okay. This is Matt Yoder
23 again. You can find additional information specific to
24 the Boraflex material on -- I believe we provided the

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1 link for our technical letter reports in this
2 presentation. That is available with the meeting
3 notice, correct?

4 MS. SANDERS: Correct.

5 MR. YODER: So if you look there, you
6 should be able to readily access that information.

7 MR. LEWIS: Very good. All right. Thank
8 you.

9 FACILITATOR FINCH: Thank you for your
10 question.

11 Operator, do you have another caller on the
12 line?

13 OPERATOR: Yes. Mr. Steven Dolley, your
14 line is now open.

15 MR. DOLLEY: Yes, hi. Steven Dolley with
16 Platts again. I just need to quickly because people are
17 still not consistently saying their name before they
18 speak. It's not just for the court reporter but also
19 for those of us on the phone who can't see you.

20 In response to Bob Hall from Dominion, the
21 second question on the level of detail anticipated in
22 the responses, who from NRC responded to that saying,
23 "I appreciate there are quite a few describes. As we
24 work through it we'll develop a plan and resource it

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1 out," etc.?

2 MR. JACKSON: That was Chris Jackson.

3 MR. DOLLEY: Okay. There was one further
4 up. Yes. In response to Robin Jones from Southern
5 Nuclear, Matt Yoder responded first and then someone
6 else who didn't identify themselves said, "There are a lot
7 of different bins that the plant specific information
8 previously docketed could go into. You may have a
9 docketed response that has changed through the course
10 of time," etc.

11 MR. JACKSON: I think that was probably
12 Chris Jackson, too.

13 MR. DOLLEY: Probably?

14 MR. JACKSON: It was.

15 FACILITATOR FINCH: What you can't see was
16 the look of chagrin.

17 MR. DOLLEY: Okay. I appreciate you
18 providing the telecons but it is difficult to follow
19 when people don't say who they are. Thank you for
20 clarifying.

21 FACILITATOR FINCH: Thank you for your
22 call.

23 Do we have any other questions in room?

24 Yes, sir.

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1 MR. MANN: This is Brian Mann with EXCEL.
2 Obviously this Generic Letter has to be responded under
3 oath and affirmation under penalty of perjury so two
4 questions related to that.

5 One, in coming up with your 120-hour
6 estimate, did you take into account the fact that this
7 under oath and affirmation which, of course, means there
8 is a very high level of verification required before it
9 can be signed by the officer of the company?

10 Second, did you look at the specific
11 material and ask yourself whether this can be given
12 under oath and affirmation? In particular, I'll look
13 at 1.E.1 where it asks for the current minimum aerial
14 vents to the spent fuel pool. No one can answer that
15 question definitively under oath and affirmation.

16 You can say what it was built to. You can
17 say what it was tested to. You can say what you assume
18 it to be which, by the way, is 1.E.2, but no one can know
19 for every piece of material in the pool what the minimum
20 is under oath and affirmation. I would encourage you
21 to review this and we'll make this comment under that
22 mindset.

23 FACILITATOR FINCH: Thank you.

24 Do we have any questions -- additional

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1 questions in the room?

2 There is a gentleman going to the
3 microphone.

4 MR. ZSIDAI: I heard you earlier saying
5 about walking. Las Zsidai, Holtec International.
6 Very quick comment and then a quick question.

7 In your draft Generic Letter on page 4 of
8 13, I think it's the top paragraph, there's just a
9 mention of the Turkey Point experience. I just want to
10 mention that Holtec did eventually provide inserts for
11 that issue.

12 My question, which is more in line with this
13 meeting, on slide 4 of your presentation you mentioned
14 three materials specifically; Boraflex, Boral, and
15 Carborundum. Is there -- I'm going to be blunt about
16 it. Is there a specific concern over Metamic?

17 Has there been some new data that you have
18 been privy to that per se I haven't at Holtec that would
19 give you concern over that material specifically? Or,
20 again, is this truly just a generic let's try to get out
21 ahead in front and capture the issues? Before you
22 answer, I would like to say thank you for having the
23 meeting.

24 MR. YODER: This is Matt Yoder. Regarding

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1 specifically the question about Metamic, no. To date
2 we have not seen any significant degradation or any, I
3 guess, moderate degradation in operating experience.
4 As I said earlier, the object here is to make sure that
5 there are surveillance programs in place regardless of
6 whether or not you've seen that degradation to date.

7 MR. CUMMINGS: In putting together this
8 Generic Letter -- sorry. Thank you. Chris Cummings,
9 NEI. Has the NRC considered this in the context of
10 cumulative affects of regulation and the effort
11 associated with this -- to put this information together
12 by the licensees and how that fits into the cumulative
13 affects?

14 MR. JACKSON: This is Chris Jackson. Yes,
15 we have. The cumulative affects has been something
16 that we've been discussing internally when NEI sent the
17 letter to describe that. This has been in the
18 discussions. When we briefed our executive team this
19 has come up, it has been discussed.

20 FACILITATOR FINCH: Operator, do you have
21 any additional questions on the phone?

22 OPERATOR: No question in the queue at this
23 time.

24 FACILITATOR FINCH: Thank you.

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1 Do we have any additional questions in the
2 room?

3 MR. JACKSON: It seems like all the people
4 with questions chose to sit up front. We've got to have
5 some people in the back with questions, too.

6 MR. WOOD: This is Kent Wood from the NRC.
7 I guess I'm looking at this meeting as kind of like a
8 RAI clarification phone call where we make sure we
9 understand the questions and the information that we're
10 asking for. In that vein, do you have any questions or
11 clarifications about what we're looking for?

12 We've said once or twice that our intention
13 was if Appendix B was detailed -- sorry, Appendix A was
14 detailed because we wanted to make sure we got
15 everything out there to begin with, then we don't have
16 to ask for more information later.

17 MR. CUMMINGS: I have a quick question.
18 Chris Cummings, NEI. I'm as bad as Chris Jackson.

19 I have a quick question and a separate
20 question. How many hours did the NRC spend to put
21 together the Generic Letter?

22 MR. JACKSON: This is Chris Jackson. I
23 don't have that.

24 MR. CUMMINGS: More than 120 hours?

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1 MR. JACKSON: I don't have that.

2 MR. CUMMINGS: Okay. And, second, we'll
3 provide this comment but I guess I'll put it in the
4 context of a question. Has the NRC ever defined
5 degradation in the context of neutron-absorber
6 materials because it's used throughout the document and
7 it's used somewhat interchangeably with deformation.
8 In some cases it says degradation and/or deformation of
9 material and it kind of mulls the issue.

10 Is there a definition for degradation
11 associated with neutron-absorber materials? What does
12 that mean? Is it pitting? Is it loss of material? Is
13 it loss of ability to maintain criticality safety?
14 That might be something good to be added to the Generic
15 Letter.

16 MR. JACKSON: This is Chris Jackson.
17 That's a good point. We'll take a look. I think it is
18 all of the above that can affect one of the safety
19 functions where it needs to function for a design basis.
20 I think that would be included. Please make that
21 comment. I think areas where we can clarify we'll
22 certain do that. Thank you.

23 MR. WOOD: This is Kent Wood from the NRC.
24 Some of those different things are interesting, you

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1 know, like you were talking about neutron absorber
2 degradation during normal conditions. Then the
3 question is some of the things that you may not, actual
4 loss of neutron absorber during normal conditions may
5 affect its response during a seismic event or something
6 like that.

7 Some of these material degradation issues
8 that wouldn't affect its performance during normal
9 every day event but may affect it during a design basis
10 event. Those types of things we would be looking for
11 as well if we're talking about material degradation,
12 deformation.

13 The blister. Did you lose B-10 during that
14 blister? No, but you displaced moderator. You've
15 changed your moderator to fuel ratio. Therefore,
16 you've changed the neutronics of the system.

17 Whether you're over-moderated or
18 under-moderated before that blister happens depends --
19 determines whether or not that blister is an adverse
20 affect or not. Sometimes those can be case-by-case
21 specific. One pool may be under-moderated, the other
22 one may be over-moderated.

23 FACILITATOR FINCH: Thank you.

24 Operator, do we have any additional

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1 questions on the phone?

2 OPERATOR: No questions in queue.

3 FACILITATOR FINCH: Thank you.

4 Looks like we have a question in the room.

5 MR. LEUENROTH: Hi. This is Scott
6 Leuenroth from NETCO.

7 Kent, in the interest of clarifying what
8 you were saying before and trying to make sure we
9 understand this, previously you had stated that you were
10 looking to collect as much as information as possible
11 on the surveillance programs but you weren't looking for
12 a justification of those surveillance programs.

13 That seems to be at odds with some of the
14 questions that are asked, specifically in Appendix
15 A.2.A asks for the technical basis for the surveillance
16 or monitoring method including a description of how the
17 method can detect degradation mechanisms, etc.

18 I understand you're looking to collect as
19 much information as is required to be able to assess the
20 surveillance programs, but what I don't understand is
21 your statement of how that doesn't involve
22 justification of the surveillance program.

23 MR. WOOD: Perhaps -- obviously I wasn't
24 clear then before. What we're looking for is you

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1 develop new justifications. Presumably you have a
2 justification for what you're doing today and that's
3 what we're asking for. We're not asking for you to
4 derive a justification or a new program or do new
5 surveillances.

6 We're asking for what you're doing today
7 and why what you're doing today is okay. That would be
8 information that we would expect you to already have and
9 not be deriving, your justification for what you're
10 doing today.

11 MR. JACKSON: This is Chris Jackson. I
12 mean, you said we're looking to collect as much
13 information as possible. That is not the intent. As
14 we had this request it's changed quite a bit over the
15 management review and our internal -- we had a panel
16 internally where we went through and scrubbed the whole
17 thing. The objective of the Generic Letter is not to
18 collect as much information as possible. That's not
19 the intent.

20 MR. WOOD: If I said collect information,
21 that was a mistake on my part. We have gone through this
22 Appendix A several times in several iterations; you
23 know, what do we need, why do we need it. We've come
24 up with all that and demonstrated to ourselves that

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1 we're asking for what we believe the right amount of
2 information to make the regulatory decisions that we
3 need to make.

4 FACILITATOR FINCH: Are there any other
5 questions in the room?

6 One more.

7 MR. CUMMINGS: Along the lines of -- Chris
8 Cummings, NEI. Along the lines of technical
9 justification, is an appropriate response because the
10 NRC approved it or it was approved as part of a license
11 amendment request? I'm thinking in terms of
12 specifically maybe like surveillance -- excuse me,
13 testing intervals in terms of whether five years or 10
14 years.

15 At least my experience is that some of that
16 was through negotiation with the NRC or through the
17 review process -- I guess that's a more appropriate way
18 to characterize it -- based on, I guess, the experience
19 or the material to the date when that was approved.

20 Is that an acceptable response? Because
21 when I see technical justification, that's kind of what
22 gets me. Technical basis, that's what gets me in terms
23 of providing a response along the lines of this was
24 something that was felt to be reasonable at the time of

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1 approval.

2 MR. JACKSON: This is Chris Jackson.
3 That's a good question. Obviously if we discuss this
4 and review and approve something in the recent past,
5 yeah, I mean, that would be an adequate justification.
6 It's difficult for us here to speculate as to what we
7 would find acceptable in the future.

8 Yeah, I mean, we're not looking for -- we've
9 approved several of these. We have the GALL. We have
10 all these documents at our disposal now. I think we can
11 discuss what we would find acceptable but it's kind of
12 difficult at this stage.

13 The point of this meeting is to really
14 describe what we're looking for in the Generic Letter.
15 What we would find acceptable is really a decision down
16 the road. I think that we can have that meeting or that
17 discussion.

18 MR. WOOD: This is Kent Wood. As far as
19 answering the Generic Letter, you know, the periodicity
20 or the surveillance frequency may have been based on
21 engineering judgment at the time. I get the flavor from
22 the comment that was directed by the NRC that absent
23 strict or heavily-defended defensible technical basis,
24 those were engineering judgments we probably want to

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1 make conservative.

2 If you're talking about something that is
3 like old vintage that was done 20 or 25 years ago, that's
4 part of the reason why we're asking this information is
5 that the engineering judgment from 25 years ago may not
6 be applicable anymore. That may be the basis for it.

7 If it still holds true because of your
8 operating experience, then that would be what we would
9 expect to see in your response is that this was agreed
10 upon periodicity in 1932. It's now 2014. We believe
11 that basis is still reasonable. That would be part of
12 what we would expect as a detailed response to the
13 question.

14 MR. YODER: This is Matt. I wasn't around
15 in '32 like Kent but, you know, whenever we negotiate,
16 as Chris put it, and I don't know that is the appropriate
17 way to describe the review, but regardless at that time
18 there was a justification for whatever it is you're
19 doing so just provide that.

20 That answers the Generic Letter. We're
21 not asking you to go back and perform a new analysis or
22 rethink that logic. Just tell us what the reason is
23 that you believe what you're doing is adequate and that
24 answers the Generic Letter. What we do with that

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1 information after the fact, you know, we'll have to make
2 a determination on if we believe that is still adequate.

3 FACILITATOR FINCH: Okay. Thank you.

4 Any additional questions?

5 MR. HALL: This is Bob Hall at Dominion. I
6 promise it's my last question. Can you comment on what
7 you see as what might be possible actions in the event
8 you determine that a monitoring program is not
9 sufficient?

10 MR. JACKSON: This is Chris Jackson. I
11 encourage you to ask more questions. You, too, Chris.
12 We have plenty of time and that's really the point.
13 Don't apologize for asking more questions.

14 Our processes are laid out. I mean, it
15 would be difficult for me to speculate what we would do
16 based on a response. We are looking to verify
17 compliance. If we find that something needs to be done
18 or something is inadequate, we would follow backward
19 process.

20 It's a complicated process but it's a
21 well-established process and we've implemented it
22 before. We would use our existing processes. We
23 actually put that in the draft Generic Letter this time
24 if we found an inadequacy, we would follow these

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1 processes.

2 You know, thing could fall into the
3 compliance bin, I mean, hypothetically but otherwise we
4 would work through that. I don't think -- I'm not sure
5 we brought a lawyer here to further articulate that but
6 that's kind of the philosophy we want to use here.

7 FACILITATOR FINCH: Okay. That was a good
8 point. This is your opportunity to ask questions. If
9 you think there's going to be a lot of questions, we can
10 go ahead and take a break. If there's just one or two
11 more, we can keep going.

12 MR. CUMMINGS: I just wanted to ask about
13 the timing of the generic -- Chris Cummings, NEI -- the
14 timing of the Generic Letter in terms of, I guess, for
15 lack of a better word, I'll say why now? Why is this
16 Generic Letter coming out now?

17 Obviously there's been per her
18 presentation a long history of these issues being
19 brought up and being addressed by the industry. Why is
20 this being escalated or brought up to a generic level
21 at this time?

22 MR. JACKSON: This is Chris Jackson.
23 That's a good question. We met internally and
24 discussed all the questions we thought people might ask

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1 at the meeting and why now was not one of them so you
2 got me. That's good.

3 No. I mean, when we see -- when we see
4 operating experience that shows there's a problem, we
5 take action. If it's an immediate safety concern, we
6 take immediate action. If it's not an immediate
7 concern, we take deliberate action. We feel we are
8 taking deliberate action here. We see a potential
9 problem. We see margins eroding and we want to get in
10 front of it.

11 We don't want to be behind it. Matt said
12 several times in the meeting that we had the Boraflex
13 situation and the plants are managing it kind of after
14 the fact. We want to get in front of this and we want
15 to address it once and for all and finish with it and
16 move on.

17 MR. YODER: This is Matt Yoder. I would
18 say that's accurate. One thing to understand is that
19 this process started years ago. Rather than just write
20 a Generic Letter and put it on the street, we made the
21 conscious effort to go and have our Office of Research
22 pull all these documents, pull all of the old FSARS
23 license amendments, find out what is our current state
24 of knowledge, and ask some questions about some of the

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1 things that we have issues with, some of the Boraflex
2 issues, some of the rack life concerns, some of the in
3 situ testing concerns.

4 Find out what exactly we don't know before
5 we go and write a Generic Letter. That's why it's taken
6 some time to get to this point. We feel confident now
7 that with the work that we've done we're asking the right
8 questions.

9 FACILITATOR FINCH: Okay. What we're
10 going to do is we're going to go ahead and take a
11 10-minute break and give you an opportunity to speak
12 among yourselves a little bit and think about if you have
13 any additional questions before we come back for closing
14 remarks.

15 Again, there are restrooms in the lobby.
16 Please do not leave the lobby area without an escort if
17 you are not an NRC employee. We will be back at 2:00
18 by that clock, which is actually 3:00.

19 MS. SANDERS: She just wanted to see if you
20 guys were awake.

21 FACILITATOR FINCH: See you back here in 10
22 minutes. Thank you.

23 (Whereupon, at 2:48 p.m. off the record
24 until 3:00 p.m.)

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1 FACILITATOR FINCH: Okay, ladies and
2 gentlemen. If we could please make our way back to our
3 seats, we'll get started again.

4 This has been an interesting discussion so
5 far. Some great questions. I think the panel has
6 found some of the comments have left them making notes
7 furiously.

8 Let me ask the operator one more time if you
9 wouldn't mind giving instructions to anyone on the phone
10 line on how to queue up for questions.

11 OPERATOR: Yes. Again, if you would like
12 to ask a question, please press * then 1. You'll be
13 prompted to record your first and your last name. One
14 moment for the next question.

15 FACILITATOR FINCH: Thank you. Now, I'm
16 going to go back to the room and see if anybody has
17 thought of a question during the break.

18 Operator, are there any questions on the
19 phone?

20 OPERATOR: No, not at this time.

21 FACILITATOR FINCH: I see a question in the
22 room. Thank you.

23 MR. CUMMINGS: Chris Cummings, NEI. This
24 is really just more a comment than a question. I wanted

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1 to thank the NRC for having this public meeting and
2 having an opportunity for at least the industry folks
3 to ask questions and clarifications.

4 We definitely -- NEI will have comments on
5 the Generic Letter which we will submit per the
6 requirements in the Federal Register Notice. Thank you
7 again. We look forward to having more discussions on
8 this.

9 MR. JACKSON: This is Chris Jackson.
10 Thank you for that. I appreciate everybody coming. I
11 now travel on a Monday this time of year is difficult.
12 I know people went out of their way to come. I do see
13 this as a productive process.

14 I do encourage everyone to comment on the
15 Generic Letter because we will make it better and we'll
16 focus on what we want, get the information we need with
17 less effort or less cost on your part. Thank you for
18 that. I appreciate that.

19 FACILITATOR FINCH: Is there anyone on the
20 panel who would like to make additional comments? Last
21 call for questions.

22 MS. SANDERS: Just remember May 12th
23 comment period closes.

24 MR. JACKSON: Yeah, I believe we received

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1 one comment so far. Have we received one?

2 MS. SANDERS: Well, we have but I kicked it
3 back because they didn't send it to the public comment.
4 They sent it to me.

5 MR. JACKSON: So we got an opportunity for
6 more comments. We've one-ish comment. I suspect
7 we'll find a way to get that into the right system.
8 Please submit your comments. We will review them.
9 We'll consider them. I promise you that.

10 FACILITATOR FINCH: I believe there may be
11 closing comments coming from the panel but I would
12 personally like to thank you all for your attention, for
13 your great questions, and also remind you, please, if
14 you are not an NRC employee make sure that you have an
15 NRC escort before you leave the area.

16 MS. SANDERS: You can linger and talk.
17 I'll be the last one leaving. I'll take you out.

18 (Whereupon, at 3:04 p.m. the meeting was
19 adjourned.)

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