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Nuclear Power Reactor Designs

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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MEETING ON PROPOSED RULE: CONSIDERATION OF AIRCRAFT
IMPACTS FOR NEW NUCLEAR POWER REACTOR DESIGNS

+ + + + +

THURSDAY,

NOVEMBER 15, 2007

+ + + + +

The meeting convened at 9:00 a.m. in the
Commissioner's Conference Room at One White Flint
North, 11555 Rockville Pike, Rockville, Maryland.

PRESENT:

- GARY HOLAHAN
- STEWART SCHNEIDER
- NANETTE GILLES
- SYED ALI
- LANCE RAKOVAN
- JACK GOLDBERG
- GEARY MIZUNO

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Adjourn	

P R O C E E D I N G S

9:00 a.m.

Logistics and Meeting Ground Rules

MR. RAKOVAN: My name is Lance Rakovan.

I am a communications assistant in the Office of the Executive Director for Operations here at the Nuclear Regulatory Commission. It's my pleasure to serve as a facilitator for this morning's meeting.

The purpose of this morning's meeting is to discuss the requirements and underling bases for the proposed aircraft impact rule.

Before we really kick things off, I wanted to kind of go through what to expect today, and go over a little bit in terms of ground rules. Hopefully, on your way in, regardless of what door you came into, you picked up a copy of the slides.

If you take a look at I think maybe, I don't know, a few slides into it, there is the agenda for today's meeting. You'll notice we're going to have a few presentations. The presentations are followed by question and answer sessions.

If you would like to ask a question or make a remark, if you're here and physically present, if you will, at today's meeting, we have a podium set up here with a microphone. If you wish to make a

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1 remark, if you could approach the podium.

2 Hopefully, we won't have to have it so we
3 have a big line there. Hopefully, people can kind of
4 just raise their hands or whatever, and we'll try to
5 get people up there.

6 If you could identify yourself and what
7 group you're with the first time you speak, that would
8 help us out to know who is giving the comments. We
9 are transcribing today's meeting, so I'm going to ask
10 that you use a microphone if you're going to make a
11 remark or ask a question. That way, we'll make sure
12 that we get a clean transcript.

13 If we just have people who are just
14 sitting and raise their hand and stop talking, then
15 there's a chance we might miss you and miss out on the
16 comments.

17 We are taking a transcript of the meeting
18 today, to make sure that people who are not able to
19 participate or couldn't call in by phone can see what
20 was discussed.

21 We're also taking the transcript for our
22 own behalf, so we can make sure that we have a good,
23 clean recollection of what was said and who said it at
24 today's meeting.

25 If you intend to make a comment on the

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1 rulemaking, though, make sure that you follow the
2 rules that we'll be going over in terms of making
3 comments and submit your comments formally.

4 If you could, try to keep your question
5 or remark concise. That's just so we can make sure
6 that we get to everybody that wants to make a comment.
7 If we have time, obviously then we'll cycle through
8 and let people go a couple of times if we have
9 sufficient time.

10 But when you come up and make your comment
11 first, again, just try to keep it brief and concise so
12 we can make sure to get through everybody.

13 We do have some people on the phone lines
14 today. For those of you who are calling on the phone
15 line, I'll be coming to you eventually to just kind of
16 take kind of a roll to see who's there.

17 If you could though, it's extremely
18 important that you keep your phone on mute while you
19 are not speaking. That way, it will help keep the
20 noise level down and it will help everyone have a
21 chance who's calling on the phone line to hear as
22 well.

23 So if you could do that for me, I'd really
24 appreciate it. Please keep in mind that we will only
25 be talking about publicly available information here

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1 today. We don't want to go anything past that.

2 If you start, bring up a topic and the
3 conversation kind of goes a little long, or it looks
4 like, you know, we're getting a little indepth, maybe
5 the general people who need to know or that might be
6 interested in, I might ask that you get together with
7 the specific staff member as a side conversation
8 instead, and hopefully they'll be able to handle your
9 questions or your remarks there, as opposed to taking
10 up time that might not be productive for everyone at
11 the meeting.

12 Again, for the people who are on the
13 phone, we have the ADAMS number for the slides. So
14 hopefully you saw that.

15 If not, if you go to the public meeting
16 page, you can see the ADAMS number, and you should be
17 able to get to the slides. I think the speakers are
18 going to do their best to say Slide No. 5, Slide No.
19 17, etcetera today. So hopefully you'll be able to
20 follow along, since you're not physically present
21 here.

22 There were public meeting feedback forms
23 on the table and at the sides. So if you could take
24 a moment to fill those out, those that are here, that
25 helps us figure out how we can improve these meetings,

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1 what we can do better.

2 If you think the meeting was fantastic the
3 way it is, that's okay, you can say that. We'll take
4 that too.

5 I'd like to thank you all in advance for
6 helping to make this a productive meeting. With that,
7 I'd like to introduce Gary Holahan. Gary is the
8 Deputy Director of the Office of New Reactors here at
9 the Nuclear Regulatory Commission, and he's going to
10 start out with some opening remarks.

11 Introductory Remarks

12 MR. HOLAHAN: Thanks Lance. Welcome to
13 the meeting today. We're looking forward to active
14 participation of all the people here on the phone.

15 I'd just like to make a few introductory
16 remarks, and then before we go into the presentations
17 and the comments on each part of the presentations,
18 I'm going to ask if anyone participating here or on
19 the phone has any introductory remarks they'd like to
20 make, in terms of what they might expect out of the
21 meeting and how it might be useful to them.

22 I have a few introductory remarks and I'd
23 like to do mine first, and then I'll offer it up to
24 other people. I think Stew Schneider's going to cover
25 the rulemaking process and how comments ought to be

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1 included.

2 So he'll cover the formalities of that.
3 I'd like to cover at kind of a high level. The
4 purpose of today's meeting is really to facilitate
5 public participation in the rulemaking process.

6 What that means is that we will do our
7 best to facilitate people's understanding of what's in
8 the proposed rule, understanding of the questions that
9 have been posed, along with the proposed rule, and an
10 understanding of how your comments will be addressed
11 in the rulemaking process.

12 I think it's also important for us to be
13 listening today, because it ought to facilitate our
14 understanding of your comments when we read them.

15 So reading comments out of context is not
16 exactly the same as reading them when there is some
17 explanatory information or some discussion of the
18 topic at this meeting.

19 So it should be helpful to us, and we're
20 trying to make this meeting helpful to you. It's also
21 important to recognize that today's meeting is not a
22 decision-making meeting.

23 We are in the middle of the comment
24 process. It wouldn't be appropriate for us to make
25 decisions today, when people haven't in fact set

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1 forward all of their comments.

2 So there are a couple of things about this
3 meeting that you might find dissatisfying, okay, and
4 I guess I wouldn't be surprised.

5 One is because it's a rulemaking process,
6 we are not in a negotiating role, okay. Even if you
7 have a great comment, we're not going to say "What a
8 great comment. I agree with you. We're going to
9 change the rule," okay, because there may be people
10 who have contrary information on the same subject, and
11 besides ultimately it's the Commission's decision as
12 to how to deal with the comments and what the final
13 rule ought to look like.

14 In addition, there may be some frustration
15 with this meeting and with this rulemaking in general,
16 because it has security-related information in it.

17 I think we have tried hard to make enough
18 information available to make this a meaningful
19 rulemaking process and a meaningful rule.

20 But there will be boundaries on the
21 information that we can give you about the subject of
22 aircraft impact assessment. We understand that that
23 will be somewhat frustrating. There may be areas in
24 which you have questions and we have a very simple
25 answer, but we can't give it to you. So that's just

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1 the nature of doing rulemaking in the security area,
2 and we'll just have to do the best we can.

3 So again, thanks for coming. I would like
4 to open the floor to any introductory remarks. I see
5 Commissioner Jaczko is here and I know he has a plane
6 to catch, so I'd like to give him the first
7 opportunity.

8 What we've been encouraging people was to
9 use the podium, because we are taking a transcript of
10 the meeting.

11 Remarks by Commissioner Jaczko

12 COMMISSIONER JACZKO: Thanks Jerry. I
13 don't have too much to say. I just would like to
14 reinforce a lot of the points that I think you made,
15 and for folks that are here, this is really a crucial
16 part of the process.

17 We talk often about the importance of
18 rulemaking, the importance of public participation.
19 Well, this meeting is really the opportunity for
20 everyone to really, I think as Gary said, give us a
21 clear understanding of what your concerns are with the
22 rule, what your thoughts are about the rule, how you
23 think it can be improved, where you think it's good,
24 all of those kinds of things. I think this is really
25 the opportunity to do that.

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1 So I really encourage people to
2 participate in this meeting and participate fully.
3 Really for us in the end, and certainly from my
4 perspective at the Commission level, it's crucial for
5 us to have a good understanding of what the comments
6 mean.

7 We can always go back then and look at the
8 transcripts of this meeting, to see what was said and
9 how comments we receive later are to be interpreted
10 and what they really mean.

11 So I think that you have a very good team
12 assembled here that will do their best to answer your
13 questions, and feel free to make sure you get the
14 answers you need. It's within the limitations, of
15 course, as Gary specified, of we can't necessarily
16 give you conclusions.

17 But certainly can provide you with
18 information about what the rule means and what the
19 questions that are being asked really are trying to
20 get at.

21 There are significant policy issues
22 involved in this rulemaking, and I think it is a very
23 important rulemaking for this agency, and one that I
24 think we do need to get resolved in an efficient and
25 timely manner.

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1 Having this meeting be a productive
2 meeting will really help us be able to do that. So I
3 encourage everyone here to participate, to provide our
4 staff with the information that they need to go
5 forward, and to ask questions that you have about what
6 the rule means, and look to them for the answers. So
7 thank you Gary. I appreciate the opportunity.

8 MR. HOLAHAN: Thank you. Anyone else have
9 introductory remarks? Yes, Jim.

10 MR. FISICARO: Jim Fisicaro, NEI. Just a
11 comment about the purpose of this meeting. The
12 industry met yesterday, and we've developed some
13 questions. So during the meeting, we will ask you
14 some questions.

15 We're looking at the purpose of this
16 meeting more as so we clearly understand what the
17 purpose of the rule is and the details associated with
18 that. We do plan to submit comments, but today we
19 won't be giving you all our comments. It will be more
20 focused on trying to better understand what you meant
21 by certain things in the rulemaking. Thank you.

22 MR. HOLAHAN: I think that's one of the
23 reasons that we like to do the public meetings, you
24 know, during the rulemaking process, you know.

25 Not exactly at the beginning, because

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1 people haven't had a chance to do their reading and
2 homework, and not at the end, because it's too late to
3 have comments.

4 So we'd kind of like it somewhere in the
5 middle. In fact, it is to facilitate comments and to
6 give you the opportunity to make the best and well-
7 informed comments you can. Anyone else want to make
8 the introductory remarks before we go into the formal
9 presentations.

10 VOICE: Not really a remark. Could you
11 re-emphasize the importance of muting the phones, for
12 those who are on the tie-line? Thanks.

13 MR. RAKOVAN: Yes, we can do that.
14 Okay. I did want to go and find out who we have on
15 the phone. So if you guys could unmute yourself for
16 a second and just introduce yourselves, so we have an
17 idea of who's joining us today.

18 MR. CURTIS: This is Gary Curtis with TVA.

19 MR. GRUMMER: Chris Grummer with TVA.

20 MR. KASTEIMER: Mike Kasteimer at Sandia
21 Labs.

22 MS. CHAPMAN: Nancy Chapman, SERCH
23 Licensing, Bechtel.

24 MR. REED: This is Cyrus Reed, Lone Star
25 Chapter, Sierra Club.

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1 MR. RAKOVAN: Do we have anyone else on
2 the line that hasn't identified themselves?

3 MR. ASMIS: Yes. Kurt Asmis from Ottawa.

4 MR. CARRICOS: Steve Carricos, Nuclear
5 Energy Institute.

6 MR. RAKOVAN: Okay. I'm going to ask
7 again that when you're not participating in the
8 meeting, those on the phone, if you could please mute
9 your phones. That greatly cuts down on the noise that
10 we have in the room and also for the other people
11 participating by phone.

12 If you haven't gotten the presentations,
13 you can go to the public meeting site, and the ADAMS
14 number for them would be there. So hopefully you can
15 follow along.

16 Also, when we go to the question and
17 answer sessions, I'll go to the phones and ask if
18 there's any questions from the phones hopefully
19 several times during each session.

20 So I will try to prompt when we are ready
21 for you guys to participate. Other than that, if you
22 could just keep it on mute, again we'd really
23 appreciate it.

24 At this point, I'm going to go ahead and
25 introduce our first speaker, who is Stewart Schneider.

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1 He's a senior project manager in the Office of Nuclear
2 Reactor Regulation.

3 If you could, let Stewart get his
4 presentation out there before you ask questions or
5 make remarks. That way, we can fully move, once he's
6 done, over to the Q and A session.

7 So Stewart, if you'd like to begin?

8 Overview of Rulemaking Process

9 MR. SCHNEIDER: Good morning. I am a
10 senior NRC project manager for the aircraft impact
11 rulemaking, and my presentation today will provide an
12 overview of the rulemaking process, and how public
13 comments on the proposed rule can be submitted to the
14 NRC. Slide No. 4.

15 (Slide.)

16 MR. SCHNEIDER: Thank you. The rulemaking
17 process can be broken down into four major steps.
18 First, there is rulemaking objective. The objective
19 should to resolve a safety issue, a security issue,
20 environmental problem, unnecessarily regulatory burden
21 or administrative problem.

22 Regarding the aircraft impact rule, the
23 Commission issued SRM SECY 06024 on April 24th, 2007,
24 which directed the staff to conduct this rulemaking.

25 The next step is the rulemaking plan.

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1 Once the objective is established, a rulemaking plan
2 may be developed. One was not done for the aircraft
3 impact rule, because the Commission directed the staff
4 to conduct this rulemaking.

5 The third step is a proposed rule. The
6 proposed rule includes a *Federal Register* notice and
7 its supporting documents, such as a regulatory
8 analysis and environmental assessment. The proposed
9 rule language is also included in the *Federal Register*
10 notice.

11 Because the NRC uses a notice and comment
12 rulemaking process, the *Federal Register* notice is
13 typically out for a 75-day comment period.

14 Finally, the last step is the preparation
15 of the final rule. The final rule must be a logical
16 outgrowth of the proposed rule, which means that
17 changes may only be made based on the comments
18 received against the proposed rule.

19 Also substantive comments and key issues
20 must be addressed in the *Federal Register* notice for
21 the final rule. The FRM for the final rule contains
22 the final rule language. Slide No. 5.

23 (Slide.)

24 MR. SCHNEIDER: Proposed Rule Publication.
25 The proposed rule was published in the *Federal*

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1 Register on October 3rd, 2007, and the citation number
2 is 72 FR 56287.

3 The number 72 is the *Federal Register*
4 volume, and the number 56287 is the first page of the
5 proposed rule in the *Federal Register*.

6 The Internet address shown on the slide is
7 the *Federal Register* website where the public can
8 obtain the notice of the proposed rule. Slide No. 6.

9 (Slide.)

10 MR. SCHNEIDER: Public Comment Process.
11 The public comment period for the proposed rule is 75
12 days from the publication date in the *Federal*
13 *Register*. Written comments on the proposed rule must
14 be submitted to the NRC by December 17th, 2007.

15 Comments can be provided to the NRC by
16 standard mail, e-mail, the Federal E-Rulemaking
17 website, hand delivery or by fax. Details on how to
18 submit comments by these methods are available in the
19 *Federal Register* notice for the proposed rule.

20 It should be noted that the E-Rulemaking
21 website does not provide for the viewing of public
22 comments on the proposed rule. How to view public
23 comments on the proposed rule will be discussed in a
24 subsequent slide. Slide No. 7.

25 (Slide.)

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1 MR. SCHNEIDER: The Final Rulemaking
2 Schedule. The public comment period for the proposed
3 rule will close on December 17th, 2007. Subsequently,
4 public comments will be addressed in the final rule
5 package, and the rule text revised as appropriate.

6 The final rule is scheduled to be provided
7 to the Commission by September 2008. Slide No. 8.

8 (Slide.)

9 MR. SCHNEIDER: SECY Phone Number Change.
10 Shortly after publication of the proposed rule, the
11 contact number for the Office of the Secretary that
12 appeared in the address section of the *Federal*
13 *Register* notice was changed.

14 The new phone number is 301-415-1677.
15 This phone number is used for obtaining information on
16 how to submit public comments to the NRC, confirming
17 receipt of public comments by the NRC, and arranging
18 of hand delivery of public comments to the NRC. Slide
19 No. 9.

20 (Slide.)

21 MR. SCHNEIDER: Viewing Public Documents.
22 Public documents pertaining to proposed rules, final
23 rules and public comments can be viewed at the NRC
24 public website address that is shown on this slide.

25 However, the NRC is currently moving to a

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1 new federal-wide system to provide a better user
2 interface for public access to rulemaking documents.

3 Thus, until late December, access to
4 public documents on the proposed rule will only be
5 available at the Internet address shown under Bullet
6 2. This is the publicly available records otherwise
7 known as PARs component of the NRC's agency-wide
8 document access management system known as APS.
9 Questions? Yes.

10 MR. RAKOVAN: Thanks Stewart. If you
11 have a question, if you could please come to the
12 podium and identify yourself and the organization
13 you're with, if you will, the first time.

14 MR. LOCHBAUM: My name's David Lochbaum.
15 I'm with the Union of Concerned Scientists. I have
16 two questions, one on Slide 6.

17 You said that the comments could be
18 submitted by e-mail? Our comments are going to be
19 approximately 30 to 40 megabytes in size. Is there a
20 limit on how big an e-mail inbox the NRC has?

21 MR. SCHNEIDER: I'll have to find out,
22 because that may have been an issue in the past.

23 MR. LOCHBAUM: Well, I've never submitted
24 that many comments.

25 MR. SCHNEIDER: No, but when I internally

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1 and externally receive information, sometimes the
2 documents don't come through.

3 MR. LOCHBAUM: Okay. Will somebody get
4 back to me or is there somebody --

5 MR. SCHNEIDER: Yes, I will. I'll
6 personally get back with you.

7 MR. LOCHBAUM: Thank you. Second comment.
8 You outlined the rulemaking plans. Many rules also
9 include regulatory guidance that are submitted at some
10 point relative to the rule.

11 Is there any plans to do that, and if so,
12 what's the timing and the scope and the details of the
13 regulatory guidance?

14 MS. GILLES: Yes. We'll mention that
15 later in the presentation today. But there is a
16 regulatory guide scheduled to be issued for draft
17 comments, either late this year or early next year.

18 We may be able to get you a more
19 definitive date later in the presentation. But there
20 is a reg guide planned.

21 MR. LOCHBAUM: Okay, thank you.

22 MR. RAKOVAN: Any other questions here
23 in-house, or any questions on the phone?

24 (No response.)

25 MR. RAKOVAN: Okay. Seeing no hands and

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1 hearing no one speak up, Stewart, I want to thank you
2 for making sure that you identified your slides as you
3 went through them. Hopefully, that helped the people
4 who are listening in my teleconference to follow
5 along.

6 With that, I will introduce Nanette
7 Gilles. She's a senior policy analyst in our Office
8 of New Reactors, and she is going to be giving a
9 presentation on the proposed rule.

10 Overview of Proposed Rule

11 MS. GILLES: Good morning. As Lance said,
12 my name is Nanette Gilles, and I work in the Office of
13 New Reactors. I will be providing an overview of the
14 proposed rule on the consideration of aircraft impacts
15 for new nuclear power reactor designs. Slide 12,
16 please.

17 (Slide.)

18 MS. GILLES: The Commission's objective in
19 proposing this rule is to require nuclear power plant
20 designers to perform a rigorous assessment of design
21 features that could provide additional inherent
22 protection to avoid or mitigate, to the extent
23 practicable, the effects of an aircraft impact with
24 reduced reliance on operator actions.

25 The Commission has proposed that these new

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1 requirements be included in 10 C.F.R. Part 52,
2 Licenses, Certification and Approvals for nuclear
3 power plants, to allow reactor designers to
4 incorporate measures to address potential aircraft
5 impact at an early stage in the design process.

6 Part 52 provides the required submittal
7 information for applicants for approval and
8 certification of new reactor designs, and for licenses
9 to construct and operate nuclear power plants based on
10 new reactor designs. Slide 13, please.

11 (Slide.)

12 MS. GILLES: On April 24th, 2007, the
13 Commission issued instructions to the NRC staff to
14 develop a proposed rule to address aircraft impacts
15 for new nuclear power plant designs.

16 In those instructions, the Commission
17 stated that the impact of a large commercial aircraft
18 is a beyond-design basis event, meaning that the NRC's
19 requirements applicable to the design, construction,
20 testing, operation and maintenance of design features,
21 functional capabilities and strategies for design
22 basis events would not be applicable to design
23 features, functional capabilities or strategies
24 selected by the applicant solely to meet the
25 requirements of this rule.

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1 In other words, adequate protection of the
2 public health and safety can be realized without
3 requiring consideration of a large commercial aircraft
4 impact in reactor design.

5 As stated previously, the objective of
6 this rule is to require nuclear power plant designers
7 to perform a rigorous assessment of design features
8 that could provide additional inherent protection, to
9 avoid or mitigate to the extent practicable, the
10 effects of an aircraft impact.

11 On January 29th, 2007, the Commission
12 approved the final design basis threat rule, 10 C.F.R.
13 73.1, and an attack by a large commercial aircraft was
14 not included as part of the design basis threat.

15 However, the Commission's decision not to
16 include aircraft attacks within the design basis
17 threat does not mean that the Commission had not
18 addressed aircraft impacts.

19 By Order dated February 25th, 2002, the
20 Commission required all operating power reactors to
21 develop and adopt mitigative strategies to cope with
22 large fires and explosions, including those caused by
23 beyond design basis aircraft impact.

24 The requirements in the Order are being
25 incorporated into the Commission's regulations and

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1 proposed revisions to 10 C.F.R. Part 73.

2 Should that rule be finalized as proposed,
3 both current and future reactors will be required, as
4 a matter of adequate protection of the public health
5 and safety, to adopt mitigating strategies to address
6 the effects of large fires and explosions potentially
7 caused by a large commercial aircraft impact. Slide
8 14, please.

9 (Slide.)

10 MS. GILLES: The Commission also stated
11 that because this proposed rule is intended to provide
12 incremental added margin for a beyond design basis
13 event, the choice of aircraft characteristics and the
14 scenario used for this analysis will not be linked to
15 threat assessments or to any evolution in aircraft
16 design.

17 Finally, the Commission instructed the
18 staff to request comment on the desirability, or lack
19 thereof, of adding an additional acceptance criterion
20 in the final rule beyond the proposed rule's
21 practicability criterion, which I will discuss in a
22 moment.

23 You will find this issue addressed as one
24 of the eight areas where the proposed rule requests
25 specific comments from the public. Slide 15, please.

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1 (Slide.)

2 MS. GILLES: The Commission believes that
3 requiring applicants for new reactor designs to
4 perform a rigorous aircraft impact assessment, and
5 describe design features to address impacts beyond the
6 design basis threat scenarios, is consistent with the
7 NRC's historic approach to beyond design basis events,
8 and in fact essentially models the position taken by
9 the NRC in the 1985 severe accident policies
10 statement, which stated that the Commission expects
11 that vendors engaged in designing new standard plants
12 will achieve a higher standard of severe accident
13 safety performance than their prior designs. Slide
14 16, please.

15 (Slide.)

16 MS. GILLES: The Commission reiterated
17 that regulatory approach in the 1986 policy statement
18 on advanced nuclear power plants, where it stated that
19 the Commission expects that advanced reactors would
20 provide more margin prior to exceeding safety limits,
21 and/or utilize simplified, inherent, passive or other
22 innovative means to reliably accomplish their safety
23 functions.

24 This regulatory approach has been
25 demonstrated to be successful, as all designs

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1 subsequently submitted to and certified by the
2 Commission represent a substantial improvement in
3 safety from operational events and accidents. Slide
4 17, please.

5 (Slide.)

6 MS. GILLES: As proposed, this rule would
7 apply to new design approvals, new design
8 certifications that do not reference a design
9 approval, new manufacturing licenses that do not
10 reference a design certification or design approval,
11 and combined licenses that do not reference a design
12 certification, design approval or manufactured
13 reactor.

14 The idea being that the proposed
15 requirements should be addressed as early as possible
16 in the design process, but once addressed do not need
17 to be revisited at later stages of the process, for
18 example when the design is referenced in a license
19 application.

20 The rule would not apply to previously
21 certified standard reactor design, or to currently
22 operating plants. Many design features might easily
23 be included in the initial design of a facility, but
24 would be very difficult, if not impossible to
25 retrofit.

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1 For this reason, reactor designs that are
2 already certified by the NRC would not need to be
3 recertified in accordance with the proposed aircraft
4 impact rule.

5 As noted earlier, all new plants will be
6 subject to the new 10 C.F.R. Part 73 requirements.
7 Thus, combined license applicants using already-
8 certified designs, will still have to develop
9 mitigative strategies to cope with large fires and
10 explosions potentially caused by an aircraft impact.

11 The NRC also believes that it is highly
12 likely that designers will want to perform this
13 assessment for their potential clients.

14 It may be in both the designer's and the
15 client's interest to adopt practicable changes at the
16 design stage, to avoid and mitigate the effects of a
17 possible aircraft impact. It may also be in the
18 designer's competitive interest to do so. Slide 18,
19 please.

20 (Slide.)

21 MS. GILLES: The proposed rule requires
22 applicants to perform a design-specific assessment of
23 the effects on the design facility of the impact of a
24 large commercial aircraft, based upon insights gained
25 from the assessment, applicants would be required to

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1 evaluate design features, functional capabilities and
2 strategies, to avoid or mitigate the effects of the
3 aircraft impact.

4 I will expand on each aspect of these
5 requirements in a moment. Slide 19, please.

6 (Slide.)

7 MS. GILLES: The rule would require that
8 the assessment be performed by an applicant prior to
9 submittal of their application to the NRC.

10 The applicant would have to include the
11 evaluation of design features, functional capabilities
12 and strategies to avoid or mitigate the effects of the
13 aircraft impact in the application.

14 There would be no requirement to update
15 the information unless the licensee makes a change to
16 the information submitted to the NRC.

17 In that situation, the NRC is proposing to
18 have the control of such changes governed by the
19 requirements in a new section, 10 C.F.R. 52.502,
20 Control of Changes to Final Safety Analysis Report
21 Information. Slide 20, please.

22 (Slide.)

23 MS. GILLES: The rule would require that
24 the assessment be based on the Commission's specified
25 aircraft characteristics, used to define beyond-design

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1 basis impact of a large commercial aircraft used for
2 long distance flights in the United States, with
3 aviation fuel loading typically used in such flights,
4 and an impact, speed and angle of impact, considering
5 the ability of both experienced and inexperienced
6 pilots to control a large commercial aircraft at the
7 low altitude representative of a nuclear power plant's
8 low profile. Slide 21, please.

9 (Slide.)

10 MS. GILLES: The proposed rule text
11 includes this general description of the beyond design
12 basis aircraft characteristics, to allow public
13 stakeholders to provide meaningful input during the
14 comment period.

15 The specific details of the aircraft
16 characteristics will be set forth in a separate
17 document under Safeguards Information Controls.

18 This regulatory approach is consistent
19 with the NRC's approach for the design basis threat
20 rule, in that access to the Safeguards information
21 implementation details is not necessary to comment on
22 the proposed rule.

23 A more detailed overview of the impact
24 assessment approach will given following my
25 presentation on the proposed rule. Slide 22, please.

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1 (Slide.)

2 MS. GILLES: Key safety functions that
3 must be addressed in the evaluation of design
4 features, functional capabilities and strategies
5 include core cooling, containment integrity and spent
6 fuel pool integrity.

7 The proposed rule would require applicants
8 to describe how the design features' functional
9 capabilities and strategies avoid or mitigation, to
10 the extent practicable, the effects of the applicable
11 aircraft impact, with reduced reliance on operator
12 actions. Slide 23, please.

13 (Slide.)

14 MS. GILLES: The intent of the use of the
15 term "practicability" is to allow designers to
16 incorporate design features which are realistically
17 and reasonably feasible from a technical engineering
18 perspective.

19 For example, the NRC believes it may be
20 practicable to employ technologies currently in use in
21 the commercial nuclear power industry or in another
22 industry.

23 Alternatively, it would not be practicable
24 to introduce a design feature that could have adverse
25 safety or security consequences under a different

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1 operational or accident scenario.

2 This approach allows the designers to
3 evaluate potential competing technical factors, while
4 at the same time addressing aircraft impact. Slide
5 24, please.

6 (Slide.)

7 MS. GILLES: Thus, the NRC envisions the
8 assessment of technical feasibility to incorporate
9 several aspects, namely that the incorporation of the
10 design feature of functional capability or strategy is
11 achievable using existing technology; that it does not
12 introduce adverse safety or security consequences; and
13 that the cost is reasonable when balanced against the
14 added inherent protection provided by the design
15 feature, functional capability and strategy.

16 The NRC views this evaluation of
17 practicability to be similar in many respects to the
18 evaluation of severe accident mitigation design
19 alternatives under the National Environmental Policy
20 Act. Slide 25, please.

21 (Slide.)

22 MS. GILLES: Although not required to be
23 submitted in the application for a new reactor design,
24 the impact assessment is subject to audit and review
25 by the NRC and therefore must be maintained by the

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1 applicant, along with the rest of the information that
2 forms the basis of the relevant application.

3 The NRC will confirm that the impact
4 assessment was performed consistent with the
5 regulatory requirements and related guidance
6 documents. The NRC may take appropriate enforcement
7 action for violations of applicable NRC requirements.

8 The NRC expects the assessment to be
9 rigorous. Any assessment that is inadequate to
10 reasonably assess the aircraft impact could be
11 considered a violation of the rule.

12 The NRC's decision on an application would
13 be separate from any NRC determination that may be
14 made with respect to the adequacy of the impact
15 assessment. Slide 26, please.

16 (Slide.)

17 MS. GILLES: Under the proposed rule, the
18 NRC would confirm that the evaluation was performed,
19 and that the final safety analysis report includes the
20 necessary description and evaluation of the design and
21 other features adopted to avoid or mitigate, to the
22 extent practicable, the potential effects of the
23 applicable beyond-design basis aircraft impact.

24 The NRC will review the evaluation
25 contained in the application and reach a conclusion as

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1 to whether the applicant has conducted an evaluation
2 reasonably formulated to identify practicable design
3 and other features, to avoid and mitigate the
4 potential effects of the applicable beyond design
5 basis aircraft impacts. Slide 27, please.

6 (Slide.)

7 MS. GILLES: As is the base with the
8 impact assessment, the NRC will use its established
9 audit and review process to ensure the evaluation and
10 determination of practicability was performed
11 consistent with regulatory requirements and related
12 guidance documents.

13 Any evaluation that is inadequate to
14 identify practicable design features, functional
15 capabilities or strategies, or to justify non-adoption
16 of potentially advantageous design features,
17 functional capabilities or strategies could be
18 considered a violation of the rule.

19 However, NRC's review of the adequacy of
20 the evaluation and the effectiveness and
21 practicability of the applicant's selected features,
22 capabilities and strategies are separate and distinct
23 from the NRC's determination whether to issue a final
24 standard design certification rule, a final design
25 approval, a combined license or a manufacturing

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1 license. Slide 28, please.

2 (Slide.)

3 MS. GILLES: That concludes my
4 presentation. I'll now take any questions on this
5 overview of the proposed rule.

6 MR. RAKOVAN: Thank you, Nanette. I'd
7 like to start with the people who are here and we'll
8 go to the phones at some point.

9 I'd like to remind people on the phones if
10 you could mute our phone when you're not talking or
11 participating in the meeting. That would help us cut
12 down on background noise.

13 Anyone have a question or a remark that
14 they would like to make here at the meeting. Again,
15 we're going to ask that you take the walk over to the
16 podium here, stretch your legs a little bit, I guess.
17 If you could introduce yourself and whatever group
18 you're with, if you will? Thanks, Jim.

19 MR. RICKEY: Good morning. I'm Jim Rickey
20 with Greenpeace. I'm just trying to get a grasp of
21 what reactors you're actually going to apply this to.
22 If it makes sense to review these and ask for a
23 rigorous review.

24 It would also make sense to review those
25 reactors that have been certified but haven't been

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1 built yet. Is it NRC's understanding that under this
2 rule, you will not be reviewing the ABWR or the AP-
3 1000 for this?

4 MS. GILLES: The rule would not require
5 the vendors for the ABWR or for the AP-1000 to submit
6 information to meet this rule, and we would not impose
7 the requirements of this rule on those designs.

8 MR. RICKEY: Okay. I've read that the
9 Commission made that determination. Is there any
10 paper, anything written down as to how they reached
11 that determination?

12 MS. GILLES: The information that puts
13 forward the Commission's deliberations on this rule
14 are the SRM, that was mentioned at the beginning of
15 the meeting. It's the SRM at SECY 060204.

16 MR. RICKEY: Okay.

17 MR. HOLAHAN: Jim, let me add to the
18 logic, because the Commission's logic was the
19 opportunity to modify design features is at the design
20 stage, right, and as a practical matter, when we grant
21 the certification, that's not when the design is done.

22 The design is actually done before they
23 submit something, okay. So even though they haven't
24 poured the concrete, they're not as settled as the
25 operating plant, for example, okay. The design is

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1 substantially more settled on a plant where the
2 certification has already been done.

3 The design was probably done five to seven
4 years earlier. Then it isn't the case when the design
5 is still currently under review. That's the logic.
6 It would be less practicable, more costly and that if
7 a design isn't addressed through this rule, it would
8 probably --

9 If they didn't voluntarily take some
10 actions, they would probably have to undertake
11 additional actions under Part 73, to have additional
12 mitigation strategies for large fires and explosions,
13 because they hadn't dealt with it in the design
14 process.

15 So it gets dealt with one way or another.
16 I think the Commission's thought was it wasn't like
17 these plants get, you know, get safety treatment and
18 these don't. It was how the safety treatment was
19 done, and done differently in the two cases, because
20 one was more practical than the other.

21 MR. RICKEY: The other reactors are going
22 to have to meet that regulation as well though, right?

23 MS. GILLES: Yes, the new designs.

24 MR. RICKEY: Okay.

25 MS. GILLES: But the point is, it's in

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1 many cases may be better to be able to meet those
2 -- to provide that protection through design than
3 relying on something that might include it --

4 MR. HOLAHAN: The new reactors have to do
5 both, not because we want to double what they do for
6 aircraft.

7 MR. RICKEY: I understand.

8 (Simultaneous discussion.)

9 MR. HOLAHAN: But because we want to cover
10 other potential terrorist acts, okay. We don't want
11 to have the myopic on just focusing on, you know,
12 aircraft. So we want to maintain as broad a level of
13 protection as possible, but provide some special,
14 something special for aircraft where it's practical.

15 MR. RICKEY: Yes. A couple of follow-ups,
16 then. From reading the rule, it seems like it's
17 airliners as of 9/11. Since 9/11, they've ruled out
18 the Airbus. Does that fall into your practicability,
19 or is that one that's not going to be reviewed or --

20 MS. GILLES: The aircraft characteristics
21 that were selected by the Commission were chosen based
22 on the aircraft that were used in 9/11, discussions
23 with other federal government agencies, discussions
24 with other foreign governments, and then a review of
25 all the aircraft that were in place at the times those

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1 were selected.

2 MR. RICKEY: But the rule has just come
3 out now seven years after 9/11, and we have new
4 aircraft that are bigger than the ones we had at 9/11.

5 MR. HOLAHAN: The rule didn't say the 9/11
6 aircraft. That's a conclusion that you drew from it.

7 MR. RICKEY: I thought it said at -- you
8 were going to review airliners at that period in time.
9 Is my reading incorrect?

10 MS. GILLES: No, not at 2001.

11 MR. RICKEY: Okay, another question, and
12 someone else might want to ask a question.

13 The language about "unless you were going
14 to build a design that's already been manufactured,"
15 if someone were to walk in here and say they wanted to
16 build a GE Mark 1 reactor, that plant is already
17 manufactured. Would that get a review?

18 MS. GILLES: When we talk about a
19 manufactured reactor in this context, we're talking
20 about one that has sought and received a manufacturing
21 license from the NRC.

22 Anyone who now seeks a manufacturing
23 license from the NRC, assuming this rule becomes final
24 as is, would have to meet the requirements of this
25 rule.

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1 MR. HOLAHAN: But I don't think you
2 answered his question. If somebody wants to come in
3 and build an old design, right, would this rule apply?
4 The reason I'm reinforcing your question is because I
5 don't know the answer either.

6 MR. RICKEY: Because you are licensing a
7 new reactor under the old Part 50, I believe.

8 MR. MIZUNO: This is Geary Mizuno. If I
9 understand your question correctly, I believe the
10 answer would be yes, because for purposes of the rule,
11 the license would be not referring to a design
12 approval or design certification. It's just the new
13 design.

14 I mean yes, it's a BWR. It's a well-known
15 design, but it hasn't been certified or approved. It
16 is as -- it would be treated as a custom design for
17 that plant. So therefore that plant would have to
18 perform or comply with the requirements of this
19 proposed rule --

20 MR. RICKEY: So even though you're
21 licensing the second Watts Bar plant under Part 50,
22 this would still apply to that reactor?

23 MS. GILLES: Well, let me clarify for just
24 a moment. If they come in and apply for a combined
25 license, as written under the proposed rule, they

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1 would have to meet these requirements.

2 One of the specific questions we asked
3 comment on is the rule, as written, does not apply to
4 Part 50 applicants. One of the specific questions we
5 asked was should it also apply to Part 50 applicants
6 in the final rule.

7 MR. RICKEY: We'd say yes. I'm shocked.

8 MR. HOLAHAN: I think that would be
9 something that you should make that comment, that
10 point in your written comments. Thank you.

11 MR. FORD: I'm Randy Ford with AREVA and
12 I have one clarifying question on the term avoid or
13 mitigate. If a vendor comes up after the detail
14 assessment is done, and determines that no equipment
15 shutdown is required because of the exterior design of
16 the plant, the internal equipment is protected, is
17 there any reason under the rule that mitigated
18 measures would have to go any further than that?

19 MS. GILLES: Well, here's what the rule
20 requires. The rule would require you to do an
21 assessment before you submit your application.

22 That assessment can look at items that are
23 already in your design and take credit for them as
24 providing, you know, inherent protection against an
25 aircraft impact.

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1 If you say we already have these features
2 in our design and we cannot identify any other
3 practicable design features that would add additional
4 protection, that may be the result of your assessment
5 and that may be your evaluation.

6 MR. HOLAHAN: It seems also that the
7 question has to do with the "or," right? Well, it
8 seems to me that it's an or because "and" doesn't make
9 any sense, right? If you avoid a problem, you don't
10 have to mitigate it. So it's an "or."

11 MR. FORD: Just going back to the fire
12 assessment, etcetera, if there is no risk of that from
13 the assessment, there's no need to proceed along those
14 lines? It becomes a moot point under the rule?

15 MR. HOLAHAN: If you can make the case
16 that the design features avoid challenges to, you
17 know, that the rule covers those functions, it seems
18 to me you meet the rule.

19 MR. FORD: Thank you.

20 MR. MARTIN: Good morning. Nelson Martin
21 with Dominion. First of all, we agree that the
22 aircraft characteristics and the implementation
23 details should be very tightly controlled and are
24 appropriately protected as Safeguards information.

25 Going back to your presentation, to Slide

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1 19, you indicated that there would be no requirement
2 to update the information unless a licensee makes a
3 change.

4 My question is will the licensees be
5 provided with the necessary information, which I just
6 spoke of, to perform those analyses in the event that
7 they make changes to the FSAR?

8 MS. GILLES: Well, anyone who is required
9 to meet the rule, we would consider has a need to
10 know. As long as they meet all the requirements to
11 receive that Safeguards information, they would get
12 that information, you know, at the time they needed to
13 prepare their initial assessment.

14 So I would expect that they would already
15 have that information at the time they decided to make
16 any changes to that, information that was provided in
17 the original submittal.

18 MR. MARTIN: Okay. I think I understand.
19 We will need -- my comment is we will need that
20 information. Currently, the vendors have the
21 information. We would need that information in the
22 event we make changes, in order to maintain --

23 MS. GILLES: I understand what you're
24 saying. You're saying you're referencing a certified
25 design, and the vendor has had to meet the

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1 requirement?

2 MR. MARTIN: Correct.

3 MS. GILLES: I believe that as long as you
4 demonstrated that you had the capability to handle
5 Safeguards information, we would consider that a need
6 to know.

7 MR. HOLAHAN: Not only that, I think it
8 would be an obligation, to make sure that you don't
9 inadvertently change some of the design features that
10 are, you know, providing some level of protection.

11 So it seems to me that there's an
12 obligation for -- there's not an actual assessment
13 done by a utility versus the vendor. But the utility
14 needs to understand why the design features are there,
15 in order to avoid underminings.

16 MR. MARTIN: Thank you.

17 MR. FISICARO: Jim Fisicaro, NEI. Just a
18 point of clarification on Nelson's question.
19 Presently, as you approve the vendor's Safeguards
20 Information Program, you're giving them some
21 information.

22 Presently, that information is not
23 available to utilities or applicants that are going to
24 use that particular reactor. I think that's what his
25 question is. We have to have that information, the

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1 same as the vendors have.

2 Right now, the utilities are not able to
3 get that. That's part of his question.

4 MR. MIZUNO: I guess what we're saying is
5 once you receive your license and you are then in the
6 position of being able to request a change to the
7 design, at that point you would have a need to know
8 and have access to that information, following the
9 NRC's established procedures for ensuring that
10 individuals who will have access to SGI meet NRC's
11 approval.

12 The licensee at that point would be
13 provided access to that information, because at that
14 point in time, there's a need to know.

15 But until if you are an applicant who's
16 referencing a design certification, you ordinarily,
17 unless there's some situation which you could describe
18 to us, so that we can better understand your concern,
19 it would not on its face appear as an applicant you
20 would have a need to know. But perhaps you could
21 comment on that.

22 MR. FISICARO: Let me try it a different
23 way. If I'm an applicant, I'll use an example. I'm
24 going to buy an AP-1000 unit. You have given the
25 information to the vendor. He is the person that's

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1 going to build this reactor and own it. I will not be
2 able to see the aircraft information until I get my
3 license?

4 MR. HOLAHAN: We need to think that
5 through.

6 MR. FISICARO: That's the question.

7 MR. MIZUNO: In the simplest world, okay,
8 in which the utility references a certified design
9 with no modifications to it, you know, then you build
10 what the certified design is and somehow it's taken
11 care of in there.

12 In reality, what we see is that applicants
13 are taking some deviations, okay; it may be a few and
14 it may be a lot, to the certified design. We have to
15 figure out whether any of those deviations are
16 undermining the enhanced protection provided by this
17 rule.

18 It seems to me that's an obligation that
19 the staff doesn't want. That's an obligation that the
20 utility ought to have. So we need to figure out some
21 way to do that.

22 MR. GOLDBERG: But even if they do
23 undermine some of the design features that were
24 adopted as a part of the rule, the licensee will still
25 have to meet the 7355 rules that provide adequate

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1 protection.

2 So one way or another, again, you're going
3 to have to have the mitigative strategies to cope with
4 large fires and explosions.

5 MR. FISICARO: Yes. I don't think we have
6 a question on that.

7 MR. HOLAHAN: You know, the principle of
8 minimizing access to Safeguards information is going
9 to apply everywhere. We just have to figure out what
10 the right boundaries are.

11 MR. MIZUNO: Right. I guess just to end
12 up, I would agree that to the extent that an applicant
13 is seeking a departure or perhaps an exemption from
14 some aspect of the regulations, and that may require
15 them to look at the impact upon these features and the
16 design certifications.

17 At that point in time, that particular
18 applicant would have a need to know, because the
19 proposed rule in 52.502 does talk about this, the
20 potential for an applicant to seek a departure from
21 the certified design.

22 But I was just referring to the general
23 case, where an applicant was simply going to reference
24 a certified design, and build it without any changes.

25 MR. CANAVAN: Ken Canavan, EPRI. I have

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1 a follow-up on Jim's comment. EPRI has an expert
2 panel that they pulled together to review some of the
3 analyses that are being performed.

4 The panel has Safeguards clearance, but
5 doesn't have the right to get the information
6 transmitted. It can see it. In other words, the EPRI
7 expert panel can only view the information. It can't
8 possess it.

9 That becomes a problem, for example, if we
10 want to ensure consistency by making sure the models
11 are similar. So just another point for you to think
12 about on the same issue, the availability of that
13 information to parties that need it.

14 MR. HOLAHAN: It seems to me that the
15 right way to deal with this is on a case-by-case
16 basis, I think, you'll have to ask for whatever
17 additional, you know, permission in a security plan
18 would be necessary.

19 So if you want to hold information that
20 you're not currently allowed to hold, then I think you
21 need to ask permission to do that specific thing.

22 I don't think we're going to sort of just
23 open things up to say well, anybody can have anything.
24 So you know, where there are special cases and people
25 need information, I think you've got to argue that

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1 special case.

2 There is a need to know, and it's in the
3 public's interest that we have this information, and
4 that we can deal with them on a case-by-case basis, I
5 think.

6 MR. MIZUNO: And then you would have to
7 satisfy the existing NRC requirements, and demonstrate
8 that you have the capability to control that SGI
9 information, in accordance with the relevant NRC
10 requirements.

11 MR. CANAVAN: Yes, understood. Thank you.

12 MR. RAKOVAN: Okay. We've got a couple
13 more comments here, and then I want to give the people
14 a chance on the phone to speak.

15 MR. SIMMS: Jerry Simms, consultant. When
16 we read the rule, it appeared that -- and again, this
17 is trying to get clarification on the process. The
18 preceding question and two follow-ups was trying to
19 look at the process.

20 I want to pursue that a little bit
21 further. If you read the rule language, we've
22 identified basically three tiers of information, in
23 addition to the aircraft information that was just
24 discussed. Once we start complying with this rule, we
25 have to do the assessment.

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1 The assessment is all the analytical work
2 that's taken the input information, and determining
3 what the result of that input information is on that
4 design. That is a lot of analytical work. It's a lot
5 of detail, and the results of that are basically just
6 raw results.

7 We consider that to be the assessment. We
8 consider that to be very sensitive, and as the rule is
9 constructed, that is 500 Bravo, which is not to be
10 submitted as part of the application, but is to be
11 retained with the individual vendor, because it's
12 really part of their design and it's looking at their
13 design.

14 The next tier that we saw that was written
15 into the proposed rule, was that under paragraph 500
16 Charlie, we then have to take those raw results and
17 start looking at them from the rule's language
18 relative to practicability and related to avoidance
19 and mitigation, and arrive at some kind of insights as
20 to what that tells us and form what the rule calls a
21 description and evaluation.

22 That, according to the rule's language,
23 should be part of the application. Now we're thinking
24 in terms of that, going into Chapter 19, which is
25 where the SOC says it should be located in the

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1 application.

2 But typically, the FSAR information is
3 public information. So you're going to be very
4 limited on how close you can get to Safeguards
5 information, and still have a level of detail that
6 satisfies this part of the rule.

7 So we're thinking that that's more a
8 summary level of what actually you determined from the
9 raw data, without getting into how you determined
10 that, because once you start getting into how you made
11 that determination, then you're getting very deep into
12 information that terrorists would need to know, and we
13 just don't want that information being in the public
14 domain.

15 So then we get down to the last part of
16 the proposed rule in paragraph Charlie, and it says
17 that the application must describe how such design
18 features, functional analysis and so forth, were
19 maintained.

20 We're not quite sure that we can put that
21 in Chapter 19. If we put it in Chapter 19, then
22 Chapter 19 would have to be a Safeguards section of
23 the application, of the FSAR.

24 Our clarifying question is, how much
25 detail should we put in Chapter 19, and is the NRC

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1 staff expecting another document that may not be
2 what's in Chapter 19, but another document that's
3 written at a Safeguards level, that would describe,
4 you know, the conclusions and hows, in addition to the
5 whats.

6 That's what we're sort of looking at. So
7 that's our question. What level of detail are we
8 going to put in the application as part of Chapter 19?

9 MS. GILLES: That's a very good point. As
10 a matter of fact, there have been some internal
11 discussions on this subject.

12 I think the rule requires that the
13 application include the evaluation of how, as you said
14 how the design features and other features avoid or
15 mitigate, to the extent practicable, the aircraft
16 impact.

17 If the individual vendor or license
18 applicant determines that the description of how those
19 features avoid or mitigate the aircraft impact would
20 indeed rise to the level of Safeguards information, I
21 think you still have to submit that but submit it
22 under Safeguards information controls.

23 But I think it is, you know, it is the
24 person generating that information is the first person
25 that has to make the call, as to what level that

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1 information rises to.

2 Then if it rises to Safeguards submitted
3 under Safeguards control, then the NRC will take a
4 look at that and determine whether it agrees that
5 indeed, you have submitted Safeguards information.

6 MR. SIMMS: Okay.

7 MR. HOLAHAN: It seems to me that if you
8 think of what the value is to submitting that
9 information, since the public can't see it.
10 Fundamentally, I would think that the NRC has access
11 to the same or equivalent information on the vendor
12 end anyway.

13 It may not be of a great benefit to the
14 NRC in its evaluation, and it's certainly not a
15 benefit to the public, you have to ask yourself why
16 are you doing such a thing.

17 Especially I wouldn't want a Safeguards
18 version to be a reason to make the public version, you
19 know, sort of meaningless, because the real
20 information is over there.

21 So it seems to me that the goal would be
22 to have the hows done, not at a numerical level and
23 maybe a little bit light on the qualitative, and more
24 of a process discussion.

25 You made this decision by using the

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1 following process. I think you don't want to talk
2 about numbers. But you considered things like
3 strengthening walls. Okay. Well that's a good a
4 qualitative discussion. You evaluated after the
5 following process and you considered the following
6 elements.

7 So I would encourage people to maximize
8 the qualitative process discussion, so that, you know,
9 everyone could understand more or less what was done,
10 how it was done, but not in the detail so they could
11 actually reproduce it or draw out of it information at
12 the Safeguards level.

13 There's always going to be a balancing
14 act, right, between you know, how much you can tell
15 and how much is enough to explain what's really being
16 done. You know, that's about the best I can do with
17 it at this stage, okay, you know.

18 Thanks. If you've got some suggestions on
19 it --

20 MR. SIMMS: Well, we have some
21 suggestions, but you know, I'm not going to take
22 -- we'll put that in our written comments. We've got
23 an example, generic examples of the level of detail
24 that we would consider at each point. We'll put those
25 in our written comments.

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1 MR. RAKOVAN: Before we go to the next
2 comment, I think everyone who's spoken or has
3 introduced themselves or has been introduced. But I
4 just want to go around the table, to make sure
5 everybody knows who everybody is. Jack, can we start
6 with you please?

7 MR. GOLDBERG: Jack Goldberg from the
8 Office of the General Counsel.

9 MR. MIZUNO: Geary Mizuno from the Office
10 of General Counsel.

11 MS. GILLES: Nanette Gilles from the
12 Office of New Reactors.

13 MR. HOLAHAN: Gary Holahan, Office of New
14 Reactors.

15 MR. SCHNEIDER: Stewart Schneider from
16 Nuclear Reactor Regulation.

17 MR. ALI: Syed Ali from the Office of
18 Research.

19 MR. RAKOVAN: Okay, thanks guys. Sir?

20 MR. FRANTZ: Yes. I'm Steve Frantz from
21 Morgan Lewis. As a designer looks at the evaluation,
22 he may identify perhaps five or so diverse and
23 independent mechanisms for mitigating the impact, each
24 of which by itself might be sufficient to do the
25 mitigation.

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1 I assume that even though all five may be
2 practicable, the vendor only has to choose one of
3 those five, but not all five. I wanted to get your
4 feedback on that.

5 MS. GILLES: Well, if they're both -- if
6 all five will perform the same function.

7 MR. FRANTZ: Maybe in different ways, yes.

8 MS. GILLES: Yes. I would think that they
9 would only need to find one way to perform that
10 function.

11 MR. FRANTZ: Okay. That's what I had
12 assumed too. I just wanted to get your confirmation
13 on that.

14 MR. HOLAHAN: What I would suggest is the
15 practicability of the second one is greatly reduced,
16 okay, because it costs just as much, but its effect
17 has been minimized or negated.

18 MR. FRANTZ: Thank you.

19 MR. LOCHBAUM: This is Dave Lochbaum
20 again. I have a question on your Slide 25, the
21 Regulatory Treatment of the Assessment. As I
22 understand the proposed rule, the preparer of the
23 assessment would be required to do one.

24 But because the vendor is not necessarily
25 a Part 50 licensee or other NRC licensee, there's no

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1 legal requirement that it be accurate, truthful, non-
2 fiction, complete or anything else. All it has to do
3 is you have to perform one.

4 Also, the people performing it, the
5 workers could be harassed, intimidated, fired for
6 being honest, trustworthy and stuff like that.
7 There's no legal requirement to prevent that from
8 happening, because that recently came up.

9 MS. GILLES: No. First of all, there's a
10 requirement to perform the assessment, and if you look
11 at the Statements of Consideration for the rule, and
12 I believe if you look back at the transcript, I said
13 that the assessment has to be, you know, an adequate,
14 reasonable assessment to address aircraft impacts.

15 If it's not, then the NRC has the right to
16 take enforcement action. We could consider that a
17 violation of this rule, 52.500.

18 You can also look at, you know, other
19 rules related to completeness of information, accuracy
20 of information provided in the application. That
21 could also be enforced against.

22 MR. MIZUNO: Can I just?

23 MS. GILLES: Sure, jump in.

24 MR. MIZUNO: Okay. As you know, the
25 Commission recently adopted changes to Part 52, and

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1 one of the things that we did in Part 52 were to make
2 explicit the requirements that the completeness and
3 accuracy of information, employee protection and
4 deliberate misconduct apply to all entities that are
5 subject to Part 52.

6 This rule, as currently proposed, would
7 only apply to entities within Part 52. So we would
8 consider, for example, a design certification
9 applicant to be subject to the completeness and
10 accuracy of information, deliberate misconduct
11 requirements.

12 MS. GILLES: Employee protections.

13 MR. MIZUNO: Yes.

14 MR. FRANTZ: Just a few weeks ago, the
15 worker at a subcontractor for somebody submitting a
16 coal application was fired for raising a safety issue.
17 OGC determined that that didn't -- he's not protected
18 under the law. So is it context-driven or how does
19 this rule really work?

20 MS. GILLES: The rule just very recently
21 went into effect, that draws in contractors and
22 subcontractors under employee protection requirements.

23 MR. MIZUNO: That's the other thing I
24 wanted to point out, was that we just -- I'm sorry, I
25 don't have the citation. But we just published a

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1 rule, I mean within the last week or two, that
2 confirmed the NRC's -- and I want to say confirmed the
3 NRC's jurisdiction and ability, and maybe Jack wants
4 to talk about it.

5 MR. GOLDBERG: Yes, it's not jurisdiction.
6 The contractors and subcontractors have always been
7 subject to 50.7. The rule that recently went into
8 effect was the ability to impose civil penalties on
9 subcontractors and contractors who violate the rule.

10 Previously, it was limiting to taking
11 enforcement action against the licensee. Whether the
12 individual has a remedy at the Department of Labor is
13 a matter that is not our jurisdiction; that's for the
14 individual in the Department of Labor to determine.

15 But in terms of our authority to take
16 enforcement action, we extended the civil penalty
17 authority to the contractors and subcontractors.

18 But to the extent that they might have
19 discriminated against employees for raising safety
20 concerns, that always has been subject to our
21 prohibition on discrimination, and could have resulted
22 in a civil penalty against the licensee for whom they
23 were working under the previous rules.

24 MR. FRANTZ: I understand the recent rule
25 change extended the civil penalty component of what

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1 was already in place. But I swear, just a few weeks
2 ago, a worker at a contractor was fired for raising a
3 safety issue.

4 OGC got into it and said 50.7 doesn't
5 apply to that subcontractor. So there seems to be
6 disconnect between what you want me to believe today
7 and what you wanted me to believe yesterday.

8 MR. GOLDBERG: I'm not familiar with the
9 case you're talking about, and what all the facts and
10 circumstances are, and I don't know who in OGC looked
11 at that. But I don't know whether that is
12 inconsistent at all with what I just said, you know.

13 MR. FRANTZ: Okay.

14 MR. RAKOVAN: Let's go one more comment
15 from the audience, and then I want to give the people
16 on the phone a chance.

17 MR. FISICARO: Jim Fisicaro, NEI. You had
18 mentioned there's a reg guide that you're working on
19 developing. Are you going to allow industry
20 involvement during the development of that reg guide?

21 MS. GILLES: The Office of Research is
22 developing that reg guide, and Syed's presentation
23 might be a little teaser this afternoon or later this
24 morning.

25 But that reg guide is going to be issued

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1 in draft form for public comment, and I believe
2 there's an intention to hold a workshop on that reg
3 guide, specifically to you know, seek public comment
4 and interaction with industry and other stakeholders.

5 MR. FISICARO: Okay.

6 MR. RICKEY: One more comment before take
7 phone calls.

8 MR. RAKOVAN: All right. Make it quick,
9 Jim.

10 MR. RICKEY: It's quick. I didn't realize
11 that you were allowing applicants to deviate from
12 certified designs. If you're wanting them to deviate
13 from certified designs, why doesn't it make sense to
14 review those designs for airliner impacts?

15 MS. GILLES: The Part 52 has always
16 allowed a license applicant to propose departures from
17 a certified design.

18 MR. RICKEY: So the design isn't final?

19 MS. GILLES: Well, the design can be
20 departed from under certain circumstances by a license
21 applicant.

22 MR. RICKEY: Why can't we depart from the
23 design to review them for airliner impacts?

24 MS. GILLES: I think that's a different
25 question. You're asking why isn't the NRC going to

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1 impose the requirements regarding airliner impacts.

2 MR. RICKEY: If the desire of this rule is
3 to encourage them to review it at the design phase,
4 and you're going to let several applicants basically
5 get out of jail free on that?

6 I know you're going to cover it over in
7 Part 73, but that's mitigating not in the design
8 phase. So if the rule, its goal is to have the
9 applicants and vendors review the design, you don't
10 seem to be accomplishing that through your rule.

11 MS. GILLES: Again, at the point in which
12 the design is structured or put together, and that
13 would be at the point before certification. At the
14 time the design is certified, the design is done.

15 MR. RICKEY: The design is done. But then
16 the applicant can crack open that design and make
17 deviations to it. I'm suggesting that perhaps we
18 should deviate from it and make it applicable to this
19 rule.

20 MR. HOLAHAN: Sounds like a comment.

21 MR. RAKOVAN: Okay. I want to just see
22 if there is anyone who's listening in on the phone,
23 that would like to ask a question or make a remark at
24 this point.

25 If you do, if you could start out by

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1 identifying yourself.

2 MR. REED: This is Cyrus Reed from the
3 Lone Star Chapter of the Sierra Club. In the proposed
4 rule, you guys did an analysis of how many applicants
5 you think this rule would apply to, given that it
6 wouldn't apply to those designs that were certified.

7 It mentioned for standard design
8 certification applications, you're thinking that there
9 might be three in Year 1, after the rule is
10 promulgated and you know, every three or four years
11 after that another one.

12 What did you base that on? I mean are all
13 the -- we've had a number of new applications for
14 nuclear plants, that as far as I can see are all using
15 standard designs that have already been certified.

16 So what are you basing this assumption
17 about eight new applications over the next 20 years?

18 MS. GILLES: Are you referring to eight
19 new license applications or eight new applications for
20 design certifications?

21 MR. REED: Eight new applications for
22 design certification.

23 MS. GILLES: Yes. We're basing that on
24 one, information that we have from certain vendors
25 that have actually committed to submit design

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1 certifications, and that's probably the numbers you're
2 seeing in the next three-year time frame.

3 MR. REED: Right.

4 MS. GILLES: Then discussions we're having
5 with several other vendors about the possibility of
6 perhaps a design certification in later years. So
7 it's based on, you know, information that we are
8 getting from the industry.

9 MR. HOLAHAN: Yes. The three obvious ones
10 are the General Electric ESBWR, which is currently
11 under design certification review. It's likely that
12 the aircraft rule would be in place before that
13 certification. So it would apply to the ESBWR.

14 We've been told that AREVA intends to
15 submit an application for the EPR, US EPR within the
16 next few months. So we expect that that would be
17 covered.

18 There's a Mitsubishi design called the
19 APWR, which we expect also in the next several months.
20 So we would expect that to be covered by the rule.

21 So there are three obvious cases. So
22 there are three pretty well known, and then beyond
23 that, we're just sort of extrapolating from an
24 estimate, from what we know about design activities
25 going on in various places.

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1 MR. REED: Okay. That answers my
2 question. I would just echo what the previous speaker
3 said, and wonder if there's a way within this rule to
4 look at designs that have been certified for new power
5 plants, and in some way apply this rule to them, so
6 the public has some assurance that the type of design
7 that's been already certified and proposed is safe in
8 terms of these potential, you know, catastrophic
9 terrorist attacks?

10 So I think a number of us will make
11 comments to that, to make that point, that there may
12 be a way to do it, perhaps in a way that is easier on
13 the applicant but still gives the public some
14 assurance that these designs are being looked at.

15 MS. GILLES: Please provide any
16 suggestions and comments you have in that area.

17 MR. RAKOVAN: Do we have anyone else
18 who's joining us on the phone that would like to ask
19 a question or make a remark at this point?

20 MR. FEASTER: Yes. This is Andy Feaster
21 from Westinghouse, and I just want to follow up to the
22 last couple of speakers, and just kind of make the
23 remark that I want to let people know that
24 Westinghouse does plan to submit an assessment for AP-
25 1000.

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1 We plan to look at the rule and be part of
2 the rulemaking process for this, and actually submit
3 an assessment, to give the public that assurance that
4 they will be protected in this sort of circumstance.

5 MR. RAKOVAN: Thank you. Anyone else on
6 the phone?

7 (No response.)

8 MR. RAKOVAN: All right. I'll go ahead
9 and see if there's anyone else in the audience that
10 wants to ask a question or make a remark for the first
11 time, or anyone who was up here before that wants to
12 come back, given that we have sufficient time at this
13 point.

14 (No response.)

15 MR. RAKOVAN: I don't see any hands.
16 Don't see anyone getting up. All right. Well, I
17 guess we'll go ahead and move to the break at this
18 point. We're running a little ahead of schedule.

19 It's about 20 after. So let's go ahead
20 and take a 15 minute break and start up in 20 minutes.
21 So we'll start up again at 20 of 11:00.

22 (Whereupon, a short recess was taken.)

23 MR. RAKOVAN: Okay. We might as well go
24 ahead and get started again. I just wanted to ask one
25 more time if anybody over the break thought of an

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1 additional question or a remark that they had on
2 previous sessions, before we go to our next speaker?

3 Seeing no movement and hearing no
4 comments, and I'll go ahead and introduce Syed Ali.
5 He is a senior technical advisor in our Office of
6 Nuclear Reactor Regulation, and he's going to be
7 speaking about aircraft impact assessments.

8 Again, if you could hold your remarks or
9 questions until he's over, then we'll open it up and
10 take some comments. So Syed?

11 Overview of Aircraft Impact Assessment

12 MR. ALI: Okay. My name is Syed Ali from
13 the Office of Research. The objective of my
14 presentation is to provide a brief overview of the
15 various assessment steps mentioned in the proposed
16 rule. So Slide 30, please.

17 (Slide.)

18 MR. ALI: As we see in this slide, there
19 are two major broad steps in the assessment. First
20 one is the definition of the impact scenarios, and the
21 second one is the determination of plant response.

22 Both of these steps together feed into the
23 definition of the design features, functional
24 capabilities and strategies to avoid or mitigate the
25 effects of an aircraft impact.

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1 The first part of the assessment, the
2 definition of impact scenarios, includes (a) defining
3 the potential targets in the plant, and (b) defining
4 the impact characteristics of the aircraft.

5 I will go over these in a little bit more
6 detail in the follow-on slides. The second major
7 broad step in the assessment is the plant response,
8 which includes the direct damage to the plant as a
9 result of the aircraft impact.

10 By the direct damage, we mean structure
11 damage, shock and vibration damage and fire damage.
12 Then the system assessment is part of the plant
13 response. Given the direct damage due to the
14 structure, shock and fire damage, what is the response
15 of the systems? Slide 31, please.

16 (Slide.)

17 MR. ALI: Since the aircraft impact is a
18 beyond design basis event, we understand that the
19 methods and acceptance criteria used should be based
20 on realistic rather than conservative assumptions.
21 This is stated in the rule also.

22 It's also stated in the rule and the SOC
23 that the assessment must consider a large commercial
24 aircraft of the type currently in use for long-
25 distance flights in the United States. We'll have

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1 some discussions about that in a moment.

2 Also, as we talked about in the morning,
3 in the aircraft impact characteristics to be utilized
4 in the assessment will be provided in the Safeguards
5 information or SGI document to the stakeholders who
6 have a need to know, and satisfy the NRC requirements
7 to receive such information. Slide 32, please.

8 (Slide.)

9 MR. ALI: As we saw in the other slide,
10 the first step in the assessment is to define the
11 impact scenarios. Impact scenarios are defined based
12 on the plan configuration and layout drawings, to
13 determine locations that can be hit by large
14 commercial aircraft.

15 Given some of the ground rules that Nan
16 talked about in the morning, as well as the speed and
17 the angle of approach.

18 Secondly, the assessment to identify
19 scenarios may consider screening of impact locations
20 that are protected by robust buildings such as those
21 of typical nuclear power plant reinforced concrete
22 construction. Slide 33, please.

23 (Slide.)

24 MR. ALI: The first step in the direct
25 damage assessment is the structural assessment. The

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1 structural assessment should be based on a detailed
2 structural model of the plan, taking into account the
3 non-linear material behavior and the non-linear
4 geometric behavior.

5 By non-linear material behavior, we mean
6 that the material under the impact may go into
7 inelastic range as a result of the aircraft impact.

8 By non-linear geometric behavior, we mean
9 that the aircraft impact may cause large displacements
10 rather than small displacements normally encountered
11 under normal structural loads.

12 Secondly, the structural assessment may be
13 based on appropriate combination of detailed
14 structural models, empirical codes and engineering
15 judgment. Typical commercially-available empirical
16 codes can be typically used for these type of
17 assessment.

18 The structural assessment should include
19 the determination of global or overall structural
20 damage caused by the aircraft impact. Slide 34,
21 please.

22 (Slide.)

23 MR. ALI: Structural assessment,
24 continued. The structural assessment should also
25 determine localized damage caused by hardened

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1 components. Hardened components include such
2 components as engines and landing gears.

3 The structural assessment should consider
4 thermal effects such as material softening resulting
5 from high temperatures due to the potential fire. The
6 structural assessment, appropriate failure criteria
7 such as those based on structural displacements and/or
8 strains in steel and concrete members should be used.

9 The final result of the structural
10 assessment is a potential structural damage footprint.
11 Slide 35.

12 (Slide.)

13 MR. ALI: Shock and Vibration Assessment.
14 The next step in the direct damage assessment is the
15 shock and vibration assessment. This assessment is
16 usually performed by a structural finite element
17 capable of dynamic analysis.

18 Shock and vibration effects depend on the
19 location of the component and its distance from the
20 location of impact. Shock effects are typically
21 defined in terms of dynamic response, such as
22 acceleration, or maximum spectral acceleration at the
23 location of the component.

24 For the aircraft impact phenomena, the
25 maximum spectral accelerations typically occur at high

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1 frequencies, as opposed to what we see in a seismic
2 response.

3 The objective of the shock and vibration
4 assessment is to compare maximum spectral
5 accelerations at the location of the component,
6 against the component's fragility threshold, and
7 determine if the component will be damaged or
8 compromised or lose its ability to function.

9 Similar to the structural assessment, the
10 shock and vibration assessment results in defining a
11 potential shock and vibration damage footprint, if
12 applicable. Slide 36.

13 (Slide.)

14 MR. ALI: Fire Assessment. The next step
15 in the direct damage assessment is the fire
16 assessment. The objective of the fire assessment is
17 to determine what equipment and functions that are
18 important to safe shutdowns are affected by fire
19 caused by the aircraft impact.

20 Again, a combination of computer codes,
21 ranging from empirical codes to computational fluid
22 dynamics or CFD codes may be used to perform fire
23 assessment.

24 An important step in the fire assessment
25 is to consider aviation fuel deposition, and the

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1 spread of movement of the jet fuel within the impacted
2 or affected buildings. Slide 37.

3 MR. ALI: Fire Assessment, Continued. The
4 fire assessment should consider both short- and long-
5 term effects. The fire assessment should also
6 consider fireball-induced overpressures on barriers
7 separating safety divisions, and the capability of the
8 barriers to withstand the overpressures.

9 Similar to the structural and shock
10 assessment, the fire assessment will result in
11 defining a potential shock, a potential damage
12 footprint. The fire damage footprint may overlap the
13 damage footprint from the structural and shock
14 effects, or it may expand those footprints. Slide 38.

15 (Slide.)

16 MR. ALI: Systems Assessment. Given the
17 structural, shock and fire damage footprints, the
18 objective of the systems assessment is to determine
19 damage to equipment that support core cooling,
20 containment integrity or spent fuel pool integrity.

21 The systems assessments should carry both
22 safety and non-safety equipment. The system
23 assessment should determine whether there is at least
24 one available success path for the reactor core and
25 spent fuel pool cooling. Slide 39.

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1 (Slide.)

2 MR. ALI: Systems Assessment, Continued.
3 Finally, the aircraft impact assessment should
4 determine what additional measures can be provided to
5 avoid the nuclear fuel damage or mitigate the
6 radiological effects if fuel damage were to occur.

7 This concludes my presentation, and I will
8 take any questions that you may have at this time.

9 MR. RAKOVAN: Thank you, Syed. I
10 apologize. On my notes, I have the name of your
11 office wrong. So I apologize that I didn't identify
12 you as being with Research.

13 MR. ALI: I didn't notice.

14 MR. RAKOVAN: Oh, well you didn't even
15 notice. Sorry. Well, I'm glad you were listening.
16 Sir, if you could introduce yourself and let us know
17 which group you're with?

18 MR. BLOCK: Yes. My name is John Block.
19 I'm with the Union of Concerned Scientists. I had a
20 couple of questions.

21 How was the decision made about the angle
22 of impact, and in each one of these questions, I'd
23 like you to address the degree to which engineering
24 judgment was applied to answering it, and how that
25 judgment would be quantified?

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1 How would one from the outside understand
2 its application. Did you have a panel of experts?
3 Did they each opine? Was the opining rated in some
4 way?

5 Then I had a question also about
6 aftershock.

7 MR. RAKOVAN: Do you want us to address
8 the first question before you give the second
9 question?

10 MR. BLOCK: No. They're just a couple of
11 questions. I'm sure he can hold them in mind and
12 address them.

13 The second was about the shock assessment,
14 where you said that you concentrated on high
15 frequency. I'm wondering about the effects of what
16 would be called aftershocks, which would be typically
17 at more low frequencies, whether that was taken into
18 account.

19 I'm wondering about the concept of
20 crediting both the safety and non-safety systems in
21 the systems assessment, and how that judgment was
22 arrived at, and what values are used there.

23 MR. ALI: Let me see if I try to remember
24 all of your questions. Firstly, the angle of approach
25 was determined based on, like Nan said, we had

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1 discussions with FAA, with other federal authorities,
2 with experts, and we even participated in some
3 simulation studies.

4 Based on that, we determined what would be
5 an appropriate angle of impact if we do this
6 evaluation. Now as far as some further detail on
7 that, the SGI document that is going to be provided to
8 the people with the need to know and satisfy the NRC
9 requirements, will have some further guideline on
10 that.

11 Your second question was on engineering
12 judgment. What we have found from some of these
13 assessments that we have performed, that these are the
14 type of assessments or analyses that are not typically
15 performed in the day-to-day structural or fire or
16 these assessments.

17 So therefore there are a lot of
18 uncertainties, and to address those uncertainties, if
19 you do not do an elaborate uncertainty analysis, then
20 you are bound by doing some engineering judgment.

21 As far as your questions, as to whether we
22 did some kind of an elicitation, yes, to some degree
23 we did do that. We did do that. We had people doing
24 the analyses and then people interpreting the results.

25 Now your third question was --

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1 MR. RAKOVAN: Was about aftershocks.

2 MR. ALI: Yes. We have found that this
3 phenomena is a very shortened phenomena. Everything
4 happens in a very, very short time, and therefore the
5 responses that you will typically get are at very high
6 frequencies.

7 You know, that's our experience, that most
8 of the response is at very high frequencies. But of
9 course, if the analysis indicates that there is a
10 response at low frequencies, then that would be
11 considered.

12 But a lot of that would probably be
13 covered under the -- the equipment would have designed
14 under seismic conditions. So this is somewhat
15 different, because it's in the high frequency.

16 Your last question had to do with why we
17 are allowing the utilization of safety as well as non-
18 safety related equipment, and basically because this
19 is a beyond design basis event.

20 Therefore, being a beyond design basis
21 event, we would expect to do a realistic assessment,
22 and then be able to use whatever equipment is
23 available to address the effects.

24 MR. BLOCK: Okay, thank you.

25 MR. LOCHBAUM: This is Dave Lochbaum, also

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1 with the Union of Concerned Scientists. At the annual
2 meeting that the NRC staff has with the public on
3 security issues last year, Scott Morris answered a
4 question I had about new reg CR 1345 that was
5 published more than 25 years ago by the NRC.

6 It was a study of what could be done to
7 make future reactor designs less vulnerable. Scott
8 Morris' answer was that that's obsolete. It's more
9 than 25 years old, and the staff is planning on
10 updating that to reflect the latest knowledge, the
11 latest state of the art, the latest techniques.

12 I was wondering that document, if it's --
13 when it's updated and when it's issued, would be
14 helpful both to the people performing these
15 assessments, and also to the NRC staff when they
16 review and evaluate the adequacy of these assessments.

17 It looks like you're not even aware of the
18 1345, so the question of how that might be used may be
19 moot, but I'll ask it anyway. How might that effort
20 relate to what you're doing here?

21 MR. HOLAHAN: Sounds like we don't know,
22 but you gave us the number, so we can look it up. We
23 know who Scott Morris is, so we can talk to him too.

24 MR. LOCHBAUM: Great, thanks.

25 MR. RAKOVAN: If you could, can you

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1 approach the podium and identify yourself if you have
2 a comment?

3 MR. HUYAK: Yes. I'm Doug Huyak, NSIR
4 Branch Chief, Reactor Security Licensing Policy
5 Branch. I realize I just returned back here to the
6 meeting, but my understanding, he was asking about the
7 1345, the new reg 1345.

8 Just an update on that. We, the NSIR
9 staff, we recently completed, with support from Sandia
10 National Labs, on updating and revising that new reg.

11 That new reg will be made available to
12 applicants, both design certification and COL
13 applicants. For the most part, the reg deals with
14 concepts of physical protection against radiological
15 sabotage.

16 So it's a very good guidance document
17 associated with Part 73 physical protection, as far as
18 the attributes of detection assessment, delay in
19 response.

20 We just recently completed that revision.
21 I think it's still in draft at this point, if I
22 remember correctly. But it is our plan, again.

23 You know, we've had meetings, both public
24 and closed meetings with the industry and the
25 applicants, and we've talked about this new reg,

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1 making them aware of it. So that's the status.

2 MR. RAKOVAN: Thanks for stopping in.
3 Do we have any remarks or questions from anyone who is
4 calling in on the phone at this point?

5 (No response.)

6 MR. RAKOVAN: Okay. Hearing that it's
7 quiet, I guess I'll ask one more time if there's
8 anyone here present or on the phones actually that has
9 a question or a remark?

10 MR. ASMIS: Hi. It's Kurt Asmis here from
11 Ottawa. Can you hear me?

12 MR. RAKOVAN: Yes. Please proceed.

13 MR. ASMIS: Okay. Just some information
14 from your audience. There is a document out from the
15 IAEA in their nuclear security series, on the aviation
16 safety aspects or the protection of nuclear power
17 plants against sabotage.

18 It does provide a methodology for large
19 aircraft impact. It's a resource that's out there.
20 It's in the public domain and it might be of interest
21 to some of your people.

22 MR. RAKOVAN: Thank you, sir. Any other
23 remarks or questions from anyone in the audience at
24 this point?

25 MR. LEINER: I just have one.

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1 MR. RAKOVAN: Please.

2 MR. LEINER: Ed Leiner from the Union of
3 Concerned Scientists. I missed most of the meeting,
4 so if this question's already answered, please just
5 tell me and I'll refer to the transcript.

6 But on the issue of practicability, you
7 say that that analysis would be similar to the SAMDA
8 analysis under NEPA. But I was wondering how? That
9 is a quantitative cost benefit analysis.

10 I was wondering if you were suggesting
11 that there would be some quantitative calculation of
12 the benefit associated with these design features, and
13 if so, how would you go about doing that given the
14 probabilities that can be determined?

15 MS. GILLES: I don't think we meant --

16 MR. RAKOVAN: Could you identify
17 yourself?

18 MS. GILLES: I'm sorry. Nanette Gilles,
19 Office of New Reactors. I don't think we meant to
20 imply the statement you just made.

21 It was just that there are similarities in
22 the respect that the SAMDA evaluation includes the
23 identification and evaluation of design alternatives,
24 that reduce the radiological risk from a severe
25 accident.

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1 In that respect, we felt that the look at
2 design alternatives for avoiding or mitigating the
3 effects of aircraft impact, and determining if those
4 are practicable in the design phase. There was a
5 similar approach in that respect.

6 MR. LEINER: Okay, thanks.

7 MR. RAKOVAN: Can I pause one more time,
8 considering Syed was the last of our presenters, and
9 as far as I know, there is nothing else to discuss
10 unless we get some extra questions and/or remarks at
11 this point. So I'll give a nice long pause here just
12 in case.

13 (Pause.)

14 MR. RAKOVAN: Wow. It looks like we're
15 going to get out of here an hour early. Gary, you
16 want to make some closing remarks?

17 Closing Remarks

18 MR. CURTIS: Well, yes. What I'd like to
19 do is just thank people for coming, thank them for
20 participating. I hope we've at least met the
21 objective, to explain as best we can what the proposed
22 rule is, what the questions are, what the process for
23 commenting on it are, you know.

24 We weren't here to respond to, answer
25 those comments. We're here to facilitate the process

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1 of getting comments and getting a meaningful
2 evaluation of those comments.

3 So I think, at least from our side, it
4 seems like we heard some very useful suggestions about
5 areas that they're going to be comments, some useful
6 thoughts about, you know, kind of set us up for
7 dealing with those comments when they do come in.

8 So I guess I'm satisfied this is a
9 successful meeting, and it sounds like we can expect
10 to get a fair number of comments on the proposed rule.

11 MR. RAKOVAN: Thank you everyone. Drive
12 safely out there, and we'll be signing off from the
13 teleconference now.

14 (Whereupon, at 11:00 a.m., the meeting was
15 adjourned.)

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