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Risk-Informed Part 50 Operation Option 2
Special Treatment Requirements

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR REACTOR REGULATION

RISK-INFORMED PART 50 OPTION 2

SPECIAL TREATMENT REQUIREMENTS

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WEDNESDAY,

NOVEMBER 7, 2001

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GAITHERSBURG, MARYLAND

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The Workshop took place at 8:00 a.m. in the Goshen Room of the Holiday Inn, Two Montgomery Village Avenue, Timothy Reed, NRC Project Manager, presiding.

PRESENT:

- TIMOTHY REED
- EILEEN MCKENNA
- SAM COLLINS
- FRANK GILLESPIE
- GARY HOLAHAN
- TOM SCARBROUGH
- JACK STROSNIDER
- STEVE WEST

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(8:04 a.m.)

MR. COLLINS: Good morning.

I'd like to welcome you here this morning.

My name is Sam Collins. I'm the Director of the Office of Nuclear Reactor Regulation. And with us today we have the representatives from the executive and the leadership team of NRR to discuss what before September 11th was one of the biggest projects that we had going in the Office of Nuclear Reactor Regulation and in the NRC. It's the key cornerstone to part of our risk activities, and I'll get into the details of that in just a moment.

The reason I bring up September 11th is because I think we have stay focused on our core business as well as be aware and give appropriate attention to the activities that are driving us since the tragic events of September 11th of this year. Risk informing activities is a major part of the operating plan for the Office of Nuclear Reactor Regulation for fiscal year 2002, of which we're almost a quarter through at this point. I can get into some of the events that are driving us post-September 11th in the question and answer period if that's of interest to individuals.

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1 Let me start by saying that we want to
2 welcome to the workshop. And I know that it's taken
3 some effort for people to travel. How many people are
4 from out of town? We consider Washington being out of
5 town up here. This is what's known to us as up
6 county. Anybody heard of up county? Up county is
7 when you can still park without paying a fee.

8 I know some of us have had trials and
9 tribulations. I think Steve was telling me he had an
10 accident on the way here yesterday. So, that's a
11 testimony to the resiliency of NEI? I understand
12 you're traveling later on this afternoon also. Best
13 wishes with that.

14 The purpose today is to bring together
15 interested stakeholders to talk to those challenges
16 and those opinions that we have on how to move forward
17 with the risk-informing Part 5§50 Option 2. And I
18 think I want to compare and contrast. Most everybody
19 here, I think, is pretty well familiar with the NRC
20 initiatives in this arena. But, of course, Option 2
21 is one of our focuses. And Option 3, which is more of
22 their partnerships in research lead, is also of
23 interest also.

24 Talking earlier to some of the members of
25 the audience here to try to cross over a little bit

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1 into some of the other initiatives that we have,
2 particularly the framework that's being looked at for
3 the future reactor initiatives. And as Cindy was
4 saying it's necessary that we keep in context this
5 particular product in the range of options that are
6 being looked at with other product lines to be sure
7 that they're compatible; and if they're not, there has
8 to be a good reason for that.

9 And we have some experience, of course,
10 with our stakeholders at the South Texas plant with
11 the proof of concept exemption that as issued this
12 past August. And that was certainly a challenge for
13 the staff, and I know it was a challenge for the
14 industry. There is some experience with the
15 implementation. I think that will phase on out over a
16 period of time, perhaps years, in which we can look at
17 the categorization and the treatment experienced at
18 South Texas and blend that back into the further
19 initiatives that have to do with Option 2, and as
20 appropriate Option 3.

21 Is that better? Okay. Was there static
22 before? Interesting. You can't hear it up here. I
23 guess my wife would say maybe that's normal for how I
24 communicate.

25 So we view this workshop as an important

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1 part of the regulatory process. Why is that? Well,
2 we have the four performance goals that we're
3 operating with as at the Nuclear Regulation
4 Commission, and specifically as the Office of Nuclear
5 Reactor Regulation. So what do we want to do with
6 this effort?

7 We want to maintain safety, that's clear.
8 We want to improve the efficiency and the
9 effectiveness of the organization as far as how we
10 define this work product and it's rolled out as an
11 opportunity for the industry. We want to reduce
12 unnecessary regulatory burden where it's appropriate,
13 and "unnecessary" is the optimum word there. And we
14 want to improve public confidence in the NRC as a
15 strong credible regulator by the way that we move
16 forward with this product.

17 NRC management and staff are focused on
18 this. I think as indicated by the presence of Gary
19 Holahan, Jack Strosnider, we'll have other
20 representatives here throughout the day, we want to be
21 sure that the message to our stakeholders is that this
22 is, in fact, important to us and it is receiving the
23 attention not only of the competent staff that you'll
24 be hearing from with the details, Tim and his team,
25 but also there are certain decisions to be made as we

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1 move through the process, like we did on South Texas,
2 that will engage the leadership and the executive
3 levels of NRR.

4 And as always, we're amenable to
5 discussions throughout the process, sensitivities of
6 the stakeholders. And those inputs will be considered
7 as we move through.

8 More to the point, as we translate the
9 lessons of South Texas and as we move forward to the
10 exemptions of risk-informing Part 50 Option 2 there
11 are going to be challenges, and I think some of those
12 will be brought forward in Tim's definition of success
13 for the meeting itself. But clearly there are some
14 boundary conditions that we have to take into
15 consideration as we move forward with this initiative.

16 We'll be talking and focusing
17 predominately on low safety significant structure
18 systems and components, and trying to focus on the
19 treatment of those.

20 Categorization, I think as we learned
21 earlier with the South Texas, is a little more
22 straightforward. The treatment challenges of those
23 that we have in front of us today.

24 We are dovetailing this type of initiative
25 in with the Commission's view that we should put

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1 information out early to the industry into our
2 stakeholders to provide for early engagement. And Tim
3 will go through the product that comes out of this
4 type of a meeting with its input. And the key there is
5 to make the draft rule language available as early as
6 possible to the stakeholders to engage on that draft
7 rulemaking language.

8 We received continually feedback. We had
9 a stakeholder meeting within the last month, and the
10 feedback from that stakeholder meeting that our
11 rulemaking process continues to be viewed as somewhat
12 cumbersome. As a complimentary effort, I want to
13 acknowledge the Cindy is heading up a task force that
14 is actually looking at our rulemaking processes. This
15 effort to provide and share the draft rule language
16 early to our stakeholders is part of that, but the
17 overall scheme is to look not only at what other
18 efficiencies are available within the existing body of
19 guidelines that we have for rulemaking that we can
20 take advantage of, but is there a better way to in
21 fact do rulemaking. And that, we have our Office of
22 General Counsel engaged as well as the other program
23 offices that do rulemaking. And we'll be moving
24 forward with that effort in parallel with the product
25 line for Option 2.

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1 So, although you'll hear about some
2 process improvement as the result specifically of the
3 Option 2 initiatives, I want to assure you that we are
4 also looking at other product lines and other
5 framework issues within the Office of NRR itself.

6 As most of you are aware, the challenge
7 for RISC-3 treatment will be one of the major
8 discussions today. And I expect that that will be a
9 lively discussion. Our purpose is not necessarily to
10 agree, but to understand here today and to receive the
11 input from the stakeholders and understand the basis
12 for that, and then move that forward into the product
13 line.

14 You have green index cards in front of
15 you. Those are available for asking questions or
16 taking notes. We'd prefer they be used for asking
17 questions. You can pass those forward, and I think
18 there'll be a process by which they'll be collected.
19 And those questions can be entertained during the
20 course of the discussions this morning and this
21 afternoon.

22 The focus today is to look at establishing
23 the minimal requirements that are necessary to
24 maintain RISC-3 design bases. All right. And once we
25 understand the minimal requirements are, then I think

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1 we can use that to move forward. But clearly maintain
2 safety is the performance goal, and we want to use
3 that as the definition of minimal requirement.

4 Any the alternative approaches today that
5 should be discussed are certainly welcome. And I
6 think NEI and other stakeholders have an opportunity
7 to express those.

8 Success for the workshop is really the
9 interaction. It's the constructive interaction around
10 the topic. We need the feedback in order to move
11 forward. We need that in order to develop a proposed
12 rule to be efficient and effective.

13 We encourage you to provide written input
14 following the workshop. There'll be an opportunity
15 for that. But clearly any input this morning would be
16 valuable also.

17 Before I turn to Tim and ask him to
18 provide a more detailed overview of the workshop, the
19 objectives and the agenda, I have time to respond to
20 a few questions or I'll provide an update on where we
21 are with some additional programs.

22 Are there any questions? Early at this
23 point. Early in the morning or early in the
24 presentation.

25 Let me take just a couple of minutes to

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1 update on where we are with some other initiatives.

2 Future reactors. We're working
3 extensively with our stakeholders to identify the
4 range of options and the range of product lines with
5 future reactors. We have a SECY paper that has been
6 issued in the past two weeks that covers those range
7 of options. And it's clearly a challenge for the NRC
8 to work the stakeholders to identify those areas to
9 focus our initiatives to move forward, not only in the
10 design certification but also in the pre-certification
11 reviews and the early site permits in the combined
12 operating license area. So we have four or so areas
13 that we're focusing product lines on. Those are
14 identified in the SECY paper as we move forward.

15 There is, of course, a number of
16 technologies that are under consideration for the
17 future as well as a number of technologies that are
18 currently under review, such as: The PBMR, which is
19 in the pre-certification review; the AP1000, which is
20 in the pre-certification review; we're hearing a
21 little bit about IRIS; we're hearing about other gas
22 designs. We're looking at the number of early site
23 permits either in conjunction with combined operating
24 licenses or as separate initiatives.

25 We're looking forward to making a decision

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1 concerning the certification of AP1000 and that, of
2 course, is a Westinghouse decision of whether to move
3 forward with that.

4 And there is some discussion that's
5 continuing with the PBMR sponsors on the combined
6 operating license submittal in fiscal year 2002/2003,
7 depending on how the schedule lays out that way.

8 We have to balance that against the
9 resources that are available. I think that if you look
10 at the combined universe of the number of
11 opportunities that we have, we have to narrow those
12 down because of the resources that are available. I
13 think some of that will happen naturally. Some of
14 that will be first come/first served. Some of that
15 will be based on the most feasible product line.

16 We're working on refining Part 52. We
17 have some rulemakings that are proposed. We have some
18 petitions for rulemaking to move forward with those.
19 And I think that that process is available today, but
20 it can be refined and we're continuing to work on that
21 initiative.

22 Post-September 11th, as you know, we have
23 our Incident Response Center manned 24 hours a day/7
24 days a week. Same for the regional Incident Response
25 Centers. And we are in an event response mode and an

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1 event response methodology as far as reaction to those
2 events are concerned.

3 We're issuing a number of advisories to
4 our licensees. Those of you who represent operating
5 licenses here are aware of that. Those advisories
6 keep licensees up to date on the current challenges
7 that are perceived to exist as well as those actions
8 that are determined to be necessary of consideration
9 in order to provide for strong robust safeguards and
10 security measures.

11 We have the task force, which is well
12 underway. Always a product by the end of November to
13 the Commission that will provide a framework for going
14 forward with the review of existing security
15 requirements against those challenges of September
16 11th.

17 We're in a very challenging period right
18 now as far as the threshold of information. You know
19 we've gone through the shutdown of the website. We're
20 doing an update of the website at the same time, so as
21 we move information back into the NRC website, we're
22 doing it in a different format.

23 We're sensitive to plant vulnerabilities.
24 Some of those thresholds and definitions are yet to be
25 clarified.

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1 We're working right now with a number of
2 stakeholders which before September 11th didn't
3 necessarily exist in an active sense. Many of those
4 names are familiar with you: Homeland security;
5 critical infrastructure. Those are not insignificant
6 influences, in our way of thinking, on where nuclear
7 power and where the assets of generating electricity
8 for 20 percent of the demand, where they fit into the
9 framework of government and business, and critical
10 infrastructure. Those are very important decisions
11 yet to be made, but they are influences that will
12 determine how the NRC programs are defined, how much
13 information is available, how was it categorized and
14 what type of assets are brought to bear in the
15 protection in a reactive and in a standby sense for
16 nuclear power plants.

17 So, much of that is yet to play out.
18 We're engaging the stakeholders to the extent we can,
19 and again that's a threshold of information issue.
20 The effort currently underway as tasked by the
21 Chairman is very important for us as far as looking
22 forward to the future of defining security, defining
23 the design bases, defining the roles and
24 responsibilities for protection. And those will play
25 out not only at the end of November, but there will be

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1 subsequent white papers that will be written on each
2 of the policy issues. And right now we're looking at
3 four or five of those in the short term for the
4 Commission. And we'll move those forward in a public
5 sense to which we can, and engage the stakeholders in
6 those areas.

7 So that's future licensing, and that is
8 safeguards.

9 Lastly, let me just talk about a couple of
10 issues that we're wrestling with with maintaining
11 safety. Many of you are aware of the CRDM cracking
12 that's taken place. We've had correspondence and a
13 set program with CRDM cracking that's been out in the
14 industry for quite a length of time dealing with axial
15 cracking for CRDMs. Now we're experiencing
16 circumferential cracking. The first instance of that
17 of note was to the Oconee station.

18 And we're seeing a fairly constant
19 discovery of cracks with the BMW manufactured heads.
20 And those that inspect are seeing cracking of one sort
21 of other, either axial or circumferential. All of
22 them to date, I believe, has been at least axial and
23 about 50 percent of the BMW heads has discovered
24 circumferential cracking. Jack's the expert in this
25 area, so I have to look for Jack to nod his head as I

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1 spout these numbers off.

2 And, as you know, we have issued a
3 bulletin in 01 to specify those actions that the staff
4 believes is necessary in order to provide for
5 continued operation of the plants while we look at the
6 frequency and depth of inspection.

7 Those plants that are most susceptible are
8 those that are within a certain effective full power
9 year range of the Oconee station, because that's the
10 benchmark we currently have for plant cracking and for
11 crack growth rate. And as we work down towards plants
12 that have inspected and will inspect, we're narrowing
13 down the number of plants that we believe are
14 susceptible to cracking, but have not yet inspected
15 within a time frame that's consistent with a crack
16 growth rate in an effective full power year basis for
17 benchmarking of the Oconee station.

18 So we will continue that, but we are
19 coming up to the end of December 31st. We're
20 continuing to work with a few stations as far as the
21 information that's been submitted, and we will make
22 regulatory decisions on the need for those plants to
23 do inspection, probably within the next two to three
24 weeks.

25 It's premature to indicate which plants

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1 those are or what the regulatory action will be,
2 because we have not completed our reviews. But this
3 is not only a 2002 issue. We're only dealing now with
4 the most susceptible plants. As we move out beyond
5 '01 and into calendar '02, we'll be dealing with the
6 other plants that have more time based on the current
7 model in order to do these types of inspections. But
8 this will be a continual issue until we either
9 understand better the crack growth rate and can do a
10 better job of predicting or the heads are replaced,
11 depending on the options that are available.

12 So that to us, and we have to keep those
13 issues right in front of us, because those, actually,
14 are maintained safety issues as far as the plants are
15 concerned.

16 Okay. I just wanted to cover those points
17 generally. They may be of interest.

18 Any questions at this point?

19 Okay. Let me turn the forum over to Tim,
20 and Tim is going to get into the details of the
21 discussions as well as a more refined definition of
22 success in the agenda.

23 I'll be around most of this morning and
24 you can catch me during the break.

25 MR. REED: Good morning. I'm Tim Reed, I'm

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1 the lead project manager for the Option 2. Eileen's
2 here, also. She's the co-lead project manager. I
3 think almost everybody here knows us.

4 Before we get rolling into the meat of
5 this, I think everybody's aware of this. We have a
6 court reporter here today, so we'll have a transcript.
7 We'll make that publicly available.

8 There's mikes, I think everybody's aware
9 of that. And, you know, we really encourage you to
10 come forward and, you know, express opinions, views,
11 whatever. Come to a mike. If you would, if you
12 could, you come to the mike please state your name.
13 I think the recorder can see with supersonic vision
14 what's on these little cards on your chest. So that
15 way we'll know who is speaking. If you don't feel
16 comfortable with that, that's fine, you don't have to.

17 Let I mentioned before, we'll have a
18 transcript of this. We'll have meeting minutes.
19 We'll put those out.

20 Let's go to the agenda. We already Sam
21 give the opening remarks. I'm just going to do a
22 little bit of an overview of what we're going to try
23 to accomplish today and go over the agenda right now.
24 That's what I'm doing now.

25 The morning, as already been mentioned, it

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1 will be focused on the RISC-3 treatment area, that
2 portion of the draft rule concept that we'll put out
3 on the web. Tom Scarbrough's going to go through the
4 three different ways of structuring the regulatory
5 framework, discuss the boundary conditions and those
6 alternative approaches. That'll probably go through
7 -- my guess is it'll probably go up to about the
8 break.

9 And then after the break NEI would like to
10 come up and throw a couple of slides down and give
11 their views of where they think this thing ought to go
12 as far as RISC-3 treatment. Of course, then we'll
13 open it up to everybody, anybody else's ideas and
14 views are certainly welcome at that point. But I
15 think after the break we'll probably get to that point
16 of the agenda.

17 Then prior to lunch, with those little
18 green cards or if you just want to come forward and
19 talk to me or Eileen, or whoever, we'll try to get a
20 list of the topics people want to discuss on the rest
21 of the draft rule. And we'll just take those during
22 lunch and we're prioritize those, and we'll just try
23 to plow through them with the time available in the
24 afternoon the best we can.

25 I know we already have, Ken Balkey's here

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1 from Westinghouse. He's going to give a status on the
2 ASME code cases, so we have that. That's about 15
3 minutes of this afternoon. And I know there's
4 interest in other parts of the rule, so we'll just
5 take those topics, again, prioritize them and then try
6 to plow through them this afternoon.

7 And then we'll wrap up in the end, Steve
8 West, my section chief, will give a little
9 presentation of where we go from here. And adjourn at
10 3:00.

11 So that's what we plan to run through
12 today on the agenda.

13 Sam's already done a real good job of
14 discussing what we're trying to accomplish today. I'll
15 just reiterate a little bit more on that.

16 This is a workshop and what we want here
17 is constructive interaction. The staff's going to try
18 to provide our views and personal opinions are fine
19 from everybody involved. We're just trying to get a
20 lot of ideas out there and use that information the
21 best we can.

22 So we want staff to give our views, but we
23 also want the stakeholders here, we're interested in
24 your views, too.

25 And with all that input then, what we want

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1 to do is take that and move forward expeditiously to
2 try to get a draft rule put out. And we want to put
3 that on our rule form as soon as we possibly can. And
4 we're trying to move forward this whole effort in an
5 expeditious manner.

6 This draft rule out -- putting it out for
7 public comment. I think it's already mentioned. We're
8 trying to respond, the Commission's SRM last August
9 which was the shared draft language with the
10 stakeholders. And that's what this is all about
11 today.

12 Okay. Just try to get everybody on the
13 same page. I'm not going to go into a lot of the
14 details of the rule concepts.

15 And let me just stop for a second. I'll
16 probably use draft rule language and draft rule
17 concepts interchangeably. We don't have any of our
18 friends here from OGC, but I'm just going to -- Office
19 of General Counsel didn't do a detailed review of this
20 and they'd probably be upset if I was calling it draft
21 rule language. They're really just concepts and until
22 they go through it and they approve the process a
23 little bit more and get involved a little more, we
24 probably shouldn't call it draft rule language.

25 What we plan to put out after this will be

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1 called draft rule language.

2 But nonetheless, for those of you who saw
3 this, some of you I think are probably a little bit
4 overwhelmed. It's a pretty big rule. It goes through
5 up to H in different paragraphs. And I just wanted to
6 talk a little bit how we structured it.

7 The heart and sole of this rule is really
8 paragraph (c), which is the categorization
9 requirements and paragraph (d), which is the treatment
10 requirements. But the rest of the rule is really there
11 to support there.

12 Of course, we have some definitions in
13 paragraph (a). Those are the RISC-1, 2, 3 and 4
14 definitions. I think most people are familiar with
15 those, I won't go into a lot of detail on that.

16 Paragraph (b) is the standard piece of
17 rules, it's the applicability paragraph. It's
18 basically saying that this will be voluntary rule that
19 any power reactor licensee or applicant, no matter how
20 you come by that either that's a nice license, renewed
21 license or combined license or current license, can
22 adopt this voluntary initiative.

23 As I already mentioned, paragraph (c) is
24 the categorization requirements and the draft rule
25 concepts that were placed out there right now give you

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1 kind of two ways of going; either to adopt Appendix T,
2 which would have basically no prior NRC review and
3 approval, or to adopt paragraph (c) requirements,
4 which are much more high level, that would be
5 supported with a submittal and a prior NRC review and
6 approval, which would focus of course on the PRA
7 quality issues of scope, level of detail, technical
8 acceptability as well as the categorization
9 requirements. It would, in fact, comply with
10 paragraph (c) if you have a robust categorization
11 process. Because I think we said many times this thing
12 is based on a robust categorization. So that's
13 paragraph (c).

14 Paragraph (d) now is the treatment
15 requirements on the different bins. You know, RISC-1,
16 2, 3 and 4. And real simply Boxes 1 and 2 if there's
17 any special treatment requirements on there, they
18 continue. If you're assuming this system structure
19 and component outside the design bases and you're
20 taking credit for it in the categorization process,
21 which is probably everything in Box 2 basically and it
22 may apply some system structures of the components of
23 Box 1, then we want you to make sure that's a valid
24 assumption and we might want you maintain those
25 assumptions. And I know the words monitor the

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1 condition and performance of those SSCs to make sure
2 you maintain the categorization functions.

3 So that's Boxes 1 and 2 basically.

4 Boxes 3 or the focus there is maintaining
5 design bases functions. And that's what we're going
6 to talk about mostly here this morning. How do we
7 structure that? Of course, we want the minimal
8 requirements to accomplish that, and that's what a lot
9 of the discussion that Tom will be going through, so
10 I won't talk too much about that.

11 Boxes 3 and 4 also have this same
12 characterization statement in it. Again, if you're
13 taking credit for anything, general principle in the
14 categorization process, we want you to monitor that
15 and make sure that those assumptions are valid and are
16 maintained valid.

17 Paragraph (e) is basically the linkage
18 between §50.69 and special treatment requirements
19 which reside, basically in Parts 21, 50, 52, 54 and
20 100. So this is the link. This basically tells you
21 okay these are the requirements that we're going to
22 lift off of Boxes 3 and 4, okay. So it's critical
23 certainly from any licensee who wants to implement
24 this to understand what those are, and from a legal
25 aspect it's critical that that's a very clean

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1 interface and nothing falls through the cracks.

2 Paragraph (f) that's the submittal
3 requirements. That supports paragraph (c). Okay. If
4 you want to basically come in and meet just the high
5 level requirements, categorization requirements in
6 (c), then we'll be having a submittal that will focus
7 on the PRA in the categorization and make sure that,
8 in fact, that your categorization process establishes
9 a robust one. And the PRA is sufficient for this
10 application. So that's really what (f) is focusing
11 on.

12 (g), the change control requirements. And
13 some of this might be actually a little bit redundant
14 with some of the other parts of the rule, and I
15 suspect we could get comments to that effect today.
16 But what we're trying to do here is: (1) maintain the
17 configuration such so if you change the facility that
18 your categorization process basically is you're
19 maintaining safety significant functions, and that's
20 really maintaining those assumptions, again, of the
21 categorization process and/or take a risk if the risk
22 is acceptable. And that piece, I think, personally is
23 probably redundant with the requirements. But the
24 other piece is controlling the changes to the
25 categorization and treatment processes.

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1 Now, this is a little bit different rule.
2 It's a little bit different rule than what we've done
3 in the past. We're kind of approving a process.

4 In the past when we've done, you know if
5 you go way back to the '60s and '70s when we did the
6 original classification safety related and nonsafety
7 related, we looked at basically lists of equipment
8 throughout different systems. Well, we're not doing
9 that here today in this approach. What we're doing is
10 approving a process that will be implemented through
11 time as you go through system after system.

12 It's important to have that process,
13 basically, somewhat understood and contained and not,
14 you know, change too significantly without the NRC
15 being involved. That's the idea of that, to control
16 that.

17 And then finally (h) is what I like to
18 think of as really the administrative requirements, if
19 you will. Going to what kind of description you would
20 have. Probably have some sort of FSAR description to
21 support this. What kind of records you keep, records
22 for the life of the plant kind of thing, what's in
23 there now. And what sort of reporting requirements
24 we'll have. If there's a safety significant function,
25 if you have a hit on that in some way, then it should

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1 be reported provided in §50.72 and §50.73 if you don't
2 already report under that. So those are the ideas
3 there.

4 That's a very, very quick brief overview.
5 I think that was really just intended to try to get
6 everybody on the same page here this morning before we
7 jump in to Box 3.

8 I'll take any comments. I don't want to
9 get too much into details here. I think as we go
10 through the workshop and the different pieces of rule,
11 we can get into the real nuts and bolts of each
12 section and have more of the experts in those sections
13 address the issues. But I'll try to take any
14 questions you have right now.

15 Yes, Bill?

16 MR. BURCHILL: Bill Burchill, Exelon.

17 Can you clarify the terminology "take
18 credit for"?

19 MR. HOLAHAN: That's a good question.

20 MR. REED: Yes, it is. I'm looking at --
21 that's an excellent question. That's an excellent
22 answer. Okay. Go ahead. I'll give you the division
23 director.

24 MR. HOLAHAN: Did you call for an
25 excellent answer or just an answer?

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1 When you put something in your PRA and it
2 effects the bottom line risk numbers and it effects
3 the importance, not only of what you model but in fact
4 it effects the importance of all the other components,
5 I think that's what Tim means by "taking credit for."

6 So, for example, if you have a piece of
7 equipment and it's in the PRA, it's effecting, you
8 know, that overall analysis. If you didn't include it,
9 you would have gotten a different answer, it would
10 have effected the importance of other components, it
11 would have effected the delta CDF and a lot of other
12 things that go into the decision making process.

13 So to a certain extent how much credit you
14 take for a given component effects how it ought to be
15 treated and effects how other equipment ought to be
16 treated, too. And I think to a certain extent that's
17 a matter of choice.

18 If you decide not include some piece of
19 equipment in the PRA, it will make other equipment
20 look more important. You can, in fact, effect the
21 amount of equipment that goes into category 1 and 2
22 versus 3 and 4 by how much "credit you put in modeling
23 equipment."

24 MR. REED: Go ahead, Bill. Bill Burchill
25 again.

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1 MR. HOLAHAN: Right, Bill?

2 MR. BURCHILL: Right, Gary. Bill Burchill
3 again, Exelon.

4 Well, the reason I asked the question is
5 for two years now we've been discussing, you know,
6 progressing towards this rulemaking, or close to two
7 years. And the differentiating line has been safety
8 significant or not safety significant. So above the
9 line in Boxes 1 and 2 or below the line in 3 and 4.

10 And generally we've considered that more
11 attention should be paid to this equipment that's
12 safety significant. And in the draft language that we
13 saw, concept that we saw, it seemed like this is a new
14 concept about this "take credit" for. And when I hear
15 you say that for equipment that we're talking credit
16 for we need to do performance and condition
17 monitoring, and I know that some of that equipment
18 we're talking about is in Boxes 3 and 4, now I start
19 to wonder are we focusing on safety significant versus
20 non-safety significant or are we focusing on some
21 entirely new population that we haven't really been
22 discussing before.

23 You know, we put a lot of things in the
24 PRA, but the PRA is a tool to help us understand the
25 importance of different equipment and differentiate

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1 safety significant from nonsafety significant.

2 I could put a whole lot of things in my
3 PRA, particularly at a detail level, and I'm not sure
4 what the value would be of "looking at that as I'm
5 taking credit for it," and now I have to do a
6 performance and condition monitoring.

7 MR. REED: In fact, I think what you're
8 going to, Bill, is that would discourage you from
9 putting a lot more detail in the PRA?

10 MR. BURCHILL: I would not want to say
11 this.

12 MR. REED: That's why I said it.

13 MR. BURCHILL: But you're correct.

14 MR. HOLAHAN: Hey, Bill, you sure you want
15 to sit all the way back in the third row?

16 I think the question of what is
17 appropriate monitoring for low safety significant
18 items is something that needs to be discussed. You
19 know, most by their nature if the performance of low
20 safety significant items changes, it's not going to
21 have a big effect on answers. And I think that ought
22 to influence whether or how much monitoring ought to
23 be involved.

24 So, we ought to require monitoring if the
25 monitoring itself is important.

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1 MR. BURCHILL: All right.

2 MR. HOLAHAN: And we ought not to require
3 it if it's not.

4 MR. COLLINS: Yes, Bill, I think the
5 challenge I hear at the level I operate, which is
6 really high, is -- and I want to be sure I'm reading
7 you right. Is the staff looking at imposing
8 additional requirements on low safety significant
9 issues even at during the lower tier of the boxes that
10 would discourage equipment from taking credit for, if
11 you will, because of the burden that's imposed with
12 that type of routine monitoring, and is that
13 commensurate with the value that's gained by moving
14 forward with the process. Am I getting that right
15 generally?

16 MR. BURCHILL: I think that's very
17 accurate. And that really then brings into question
18 the concept of "taking credit for" because --

19 MR. COLLINS: Right.

20 MR. BURCHILL: That's what I'm trying to
21 understand.

22 MR. COLLINS: And is there a graded
23 approach?

24 MR. BURCHILL: Yes.

25 MR. COLLINS: Based on the categorization?

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1 Okay.

2 MR. REED: We certainly want people to do
3 good PRAs to model a lot of the plan and more detailed
4 the better, right? And we certainly don't want to
5 discourage that.

6 MR. COLLINS: Right. And so the challenge
7 is what's the value of that additional information for
8 those types of categorized components, structured
9 systems and components.

10 MR. HOLAHAN: I'd like to add one other
11 thing. This is not a new issue. There is a
12 performance monitoring section in reg guide 1.174. As
13 a matter of fact, it's one of the main safety
14 principles.

15 And in that context it doesn't say you
16 should monitor everything that you put in your PRA.
17 It doesn't say you should monitor everything
18 regardless of its importance. I think it focuses on
19 monitoring those things which were most critical to
20 the regulatory decision that was being made. And it
21 suggested licensee ought to, in those cases, identify
22 what is the critical information, something that can
23 and should be monitored. And the monitoring would be
24 targeted to the things that are most important to the
25 decision.

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1 And it seems to me since we said that an
2 Option 2 rule would be based on the same set of
3 principles, it seems to me the monitoring concept
4 would be the same. Not that you should monitor
5 everything, but that you should identify those things
6 that were critical to the decision and find some
7 appropriate way of monitoring those.

8 MR. STROSNIDER: I'd just like a little
9 clarification on this point, because it seems like
10 that as the discussion evolved here, it's focused on
11 low safety significance. And it wasn't clear to me
12 when you first raised the issue that that was the
13 case. Is this concept of taking credit for, is it
14 just in the low risk significant components that
15 you're asking that question, because the same concept
16 applies across the board in figuring out where it is.
17 And it seems that that's where the conversations
18 evolved to, but I'm not sure if that's exactly what
19 you said when you first raised the point.

20 MR. BURCHILL: The genesis of my question
21 is that over the period of time that we've been
22 engaged in dialogue on this proposed rulemaking, the
23 principle differentiating factor for SSCs has been
24 safety significant or high safety significant and low
25 safety significant or none safety significant. And so

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1 our focus has been, and of course the ultimate result
2 of all of this is treatment. I mean categorization
3 just puts things in different boxes and then the
4 treatment is what's really important. That's where
5 the difference in focus of attention or reduction or
6 regulatory burden or whatever you want to call the
7 objective really achieves what it's objective is.

8 And so now if we have high safety
9 significant and low or safety significant and none,
10 then we differentiate what we're going to do in
11 treatment based on that. Now we have a new term, in
12 my view.

13 I acknowledge, certainly, that 1.174 talks
14 about this performance monitoring. But we now have a
15 new term in the language that's been put out that says
16 "take credit for." Now I hear being stated that the
17 take credit for means anything that's in your PRA.
18 Well, those are things that are both safety
19 significant and nonsafety significant.

20 MR. STROSNIDER: Just to help with the
21 clarification there. That concept appears not just --
22 in fact in appears for the high safety significant --

23 MR. BURCHILL: Well, no, I understand
24 that. I don't quibble with that at all.

25 I guess what I'm driving toward is our

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1 principle differentiating metric has been the safety
2 significant. Now there appears to be a new
3 differentiating metric, and that is whether or not we
4 "take credit for it" in the PRA. So now I've got the
5 high and I've got the low, and now I've got this take
6 credit for. It's not clear to me how that fits into
7 the equation.

8 MR. REED: Any other questions before we
9 move on to Tom.

10 MR. COLLINS: I think that's a take away
11 for the discussions that we'll get to.

12 MR. REED: Absolutely. We're going to have
13 to figure out what "take credit" means. I think
14 you've got some ideas where we're going with it.

15 MR. SCARBROUGH: Good morning. I'm Tom
16 Scarbrough in the mechanical engineering branch of
17 NRR. And I'm going to briefly walk through the
18 boundary conditions and the alternatives that we
19 derived that are sort of branch, go across the range
20 of possible alternatives that we could come up that
21 would possibly meet these types of boundary
22 conditions. But I want to first walk through and
23 provide a discussion of each of those.

24 In your meeting notice announcement you
25 received a letter, September 27, 2001, which went into

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1 quite a bit of detail regarding the boundary
2 conditions, the bases for them, the alternatives, the
3 issues related to alternatives and rule concept and
4 regulatory guidance type of concept that would follow
5 along with each of those alternatives. And I'm not
6 going to go through that in detail. That's something
7 that you all can read in your leisure, and hopefully
8 you had a chance to read it before you came.

9 But just to sort of set the stage for the
10 discussions today, I'd like to go through briefly the
11 high points of that meeting notice package so that we
12 can have sort of a common understanding of where the
13 staff was coming from in terms of developing the
14 boundary conditions and the alternatives.

15 The first boundary condition, and let me
16 just read it for you here, "Licenses are required to
17 maintain the design functions of safety-related
18 structures, systems, and components with functions of
19 low safety significance (categorized as RISC-3 SSCs)
20 at the conditions under which the intended functions
21 are required to be performed as described in updated
22 FSAR. RISC-3 SSCs must meet their existing functional
23 requirements, including capabilities (e.g., under
24 pressure and flow) and design conditions (e.g., loads
25 imposed by a seismic event or harsh environment.)" So

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1 that's the boundary condition that we came up with.

2 Now the basis for that boundary condition
3 comes straight from the Commission papers that were
4 prepared to describe Option 2 of the risk-informed
5 Part 50 initiative.

6 For example, I won't go through all the
7 litany of papers that we had, but just for example
8 SECY paper 98-300 several years ago indicated that the
9 staff in Option 2 did not address change in the design
10 of the plant or design bases accidents. And we talked
11 about grading the special treatment requirements based
12 on risk important, but that RISC-3 SSCs are expected
13 to be capable of performing their design function
14 without additional margin assurance or documentation
15 associated with the higher safety significant SSCs.

16 Then in 99-256 Commission paper we stated
17 that the criteria for preservation of functional
18 capability at a reduced level of assurance will be
19 developed and incorporated into 10 CFR §50.69

20 And then most recently in SECY paper 00-
21 194 we stated that there are no design changes that
22 could occur under Option 2 that would also not be
23 acceptable under the current regulatory framework. And
24 we noted that licensees were required to maintain the
25 design functions of RISC-3 SSCs at the conditions

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1 under which the intended functions are required to be
2 performed.

3 So in describing that we talked about the
4 replacement of SSCs must continue to meet existing
5 requirements, including capabilities under pressure
6 and flow and design conditions, for example loads for
7 a seismic event and harsh environment.

8 We also talked about the boundary
9 condition in terms of acquiring a function under
10 applicable environmental conditions with various
11 factors, temperature, pressure, humidity and so on.
12 And then also applicable seismic conditions including
13 seismic inputs and design load combinations.

14 So that's where the boundary condition
15 came from in terms of the fundamental Commission
16 papers that were developed to describe Option 2.

17 Now, we've interpreted Option 2 to allow
18 licensees to use national standards other than the
19 ASME code for repair and replacement activities on the
20 low risk ASME code class 2 and 3 safety related SSCs
21 with certain conditions. For example, we would
22 continue to require fracture toughness data to apply.

23 Now, this interpretation we used in the
24 South Texas, which you may be familiar with, in the
25 exemption process.

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1 Now, we've talked a little bit about, this
2 morning, we've got a little bit touched into this
3 equipment and why do we care. I sort of got that
4 impression from some of the comments that came from
5 the audience. The treatment practices and the
6 continued functionality are important for these RISC-3
7 SSCs, because the categorization process can be
8 significantly effected by the equipment redundancy and
9 the initiating event probability.

10 And another aspect is what we found that
11 RISC-3 SSCs perform a wide range of safety functions.
12 We did not get into the details of what those safety
13 functions were during the South Texas exemption
14 review, but as part of sort of follow up and the
15 review of the risk-informing and service testing
16 program, we have learned that some of the types of
17 equipment that are included in the low risk category.
18 They still have safety related functions, but they're
19 low risk in terms of a PRA perspective, such as the
20 diesel generator air start valves, the spent fuel pool
21 system pumps and valves, the main steam isolation
22 valves, feedwater isolation valves. So there's a wide
23 range of components that get grouped in RISC-3 for a
24 number of reasons. Sometimes it's the redundancy of
25 the plant or the seismicity of the area, things of

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1 that nature. So you can have some components with
2 safety related functions that you would normally
3 consider to be important from a perspective that they
4 have a safety function, but necessarily they are low
5 risk from a PRA perspective because of the redundancy
6 and things of that nature that occur at the plant.

7 So finally regarding this boundary
8 conditions, the changes to the plant design bases and
9 removing specific safety functions are not part of
10 Option 2, but that's part of the Option 3 process
11 that's the longer term. And so that may remove and
12 change this boundary condition significantly once
13 going into Option 3. But for right now for Option 2
14 this is where we are with the boundary condition.

15 Okay. Our first boundary condition.

16 MR. STROSNIDER: Before you move on, Tom,
17 do we interpret no comments as yet? Everybody
18 understands and agrees with that boundary condition?
19 Just trying to solicit some --

20 MR. PIETRANGELO: I'd interpret that as
21 not. We'll have another presentation later that into
22 it.

23 MR. STROSNIDER: Okay. So you want us to
24 walk through the boundary conditions and then we'll
25 come back to discuss them? Okay. That's fine.

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1 MR. SCARBROUGH: All right. Okay.

2 PARTICIPANT: One question.

3 MR. SCARBROUGH: Okay. Sure.

4 PARTICIPANT: Could you define boundary
5 condition? I mean, is that a fixed, immutable, not-
6 to-be deliberated? I mean what does boundary
7 condition actually stand for?

8 MR. SCARBROUGH: Boundary condition is
9 when we sat down to say okay, in terms of developing
10 a rule for treatment for under Option 2, what are the
11 constraints that the staff has in terms of coming up
12 with a rule that meets the intent of Option 2? What
13 constraints do we have here?

14 And we came up with three boundary
15 conditions in terms of whatever rule we come up with,
16 it had to fit somewhere within these perimeters, and
17 these are the boundary conditions. They're what we
18 developed and they're certainly up for discussion; the
19 whole boundary conditions and the alternatives are
20 open to discussion this morning. But we wanted to sit
21 down and say okay, why are we thinking the way we are?
22 What constraints do we feel are in place to come up
23 with a rule that is not only acceptable to the NRC and
24 the industry, but also to the public in terms of
25 meeting all of the perimeters that will be appropriate

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1 for a rule that is treatment for low risk safety
2 related pieces of equipment.

3 MR. STROSNIDER: Jack Strosnider.

4 I just provide this perspective on it,
5 too. The important, obviously, is if we start at this
6 high level and have a mutual understanding and
7 agreement on what the objective is, you could
8 characterize these boundary conditions in that context
9 also. Okay. Then that drive where you go to in terms
10 of treatment and categorization and those activities.
11 All right.

12 But, frankly, the notion was there had
13 been a lot of discussion going on about well how
14 should we treat this equipment or that equipment. And
15 there was a lot of discussion on that, and I'm not
16 sure it was clear to everybody well what's the goal
17 we're trying to accomplish with that.

18 And so the idea here is to say here's the
19 objectives or the boundary conditions that we're
20 trying to meet with this rule. And that's why I say
21 it's extremely important that we have a mutual
22 understanding of that, because it then plays out into
23 what the rule would actually look like and what the
24 treatment would actually be.

25 MR. SCARBROUGH: Thanks.

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1 The second boundary condition it's that
2 the treatment process must maintain the functionality
3 of RISC-3 SSCs consistent with the reliability and
4 availability assumptions in the categorization
5 process. And the basis for this boundary condition is
6 derived from the assumption in the categorization
7 process that the SSCs will have a certain level of
8 reliability. And we've talked about some of the
9 categories of RISC-1, 2 and 3 and 4 and how this may
10 be accomplished is there a sensitivity study that
11 varies the unavailability of the RISC-3 SSCs might be
12 used to assess the potential change in risk resulting
13 from the reduction in RISC-3 treatment?

14 For that study to bound the potential risk
15 increases caused by reduced treatment for RISC-3
16 equipment and to insure the categorization process
17 remains valid, the treatment must provide reasonable
18 confidence that the SSCs will remain functional at the
19 reliability and availability levels assumed in the
20 PRA.

21 For example, since I'm familiar with mode
22 operative valves quite a bit, in terms of the failure
23 rates and such that are assumed typically in PRAs,
24 we're talking about 10^{-3} . And so that reliability is
25 what you're looking in terms of you change a treatment

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1 associated with that equipment, how does that change
2 that failure rate assumption in the PRA for that
3 equipment.

4 Also, the RISC-3 treatment must provide
5 reasonable confidence that common cause failures that
6 might not be modeled in the PRA, such as intersystem
7 common cause failure are not inadvertently introduced
8 by reduction in treatment; things that may have been
9 captured by a procedural process in the past, if the
10 treatment reduces that procedural process, is there a
11 potential now for intersystem problems that may occur
12 that may not have been there before because of the
13 procedural controls that were placed over the
14 treatment and the maintenance of that equipment.

15 So a challenge in preparing §50.69 is that
16 data and evaluations necessary to quantify these
17 changes in reliability do not exist and are difficult
18 to develop.

19 And also, the staff has typically
20 considered a categorization process, and this was one
21 of our perimeters internal to this boundary condition,
22 is that the process, the categorization process itself
23 is fixed, is relatively fixed in its approach to
24 categorizing SSCs based on their safety significance.
25 So we didn't try to go in and try to adjust the

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1 categorization process.

2 So, therefore, the treatment for RISC-3
3 SSCs may be the focus on the reductions in the current
4 treatment while maintaining the reasonable confidence
5 in the SSC capability, availability and reliability
6 consistent with the categorization process
7 assumptions.

8 So that's where we came from and that's
9 the basis for why we developed boundary condition
10 number two.

11 MR. PIETRANGELO: Could I ask you one
12 quick question?

13 MR. SCARBROUGH: Sure.

14 MR. PIETRANGELO: Tony Pietrangelo from
15 NEI.

16 When you talk about maintaining the
17 reliability and availability assumptions in the
18 categorization process through treatment, that's
19 essentially what we do with the maintenance rule when
20 we monitor reliability and availability and do the
21 balancing. Okay.

22 MR. SCARBROUGH: Am I supposed to respond
23 to that.

24 MR. PIETRANGELO: Well, that's a fact. I
25 mean, you can respond to it if you want, but that's a

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1 fact.

2 Now maintenance rule is a special
3 treatment requirement, okay. And the current draft
4 concept/language the scope of the maintenance rule,
5 the special treatment requirements associated with the
6 maintenance rule would not be applied to RISC-3 and
7 4. So when I see number two here and what you just
8 went through, and I see what's in the rule, it's like,
9 well, yes, this is out of scope for maintenance rule,
10 but you still have to monitor the reliability and
11 availability to assure the assumptions in the
12 categorization process. So I'm not sure what the
13 staff intends here.

14 MR. STROSNIDER: Yes, Tony, Jack
15 Strosnider.

16 Just talking about the maintenance rule
17 for a second. Does the maintenance rule the way you
18 apply it, does it address the design bases conditions,
19 the severe environments, the seismic events, etcetera.

20 MR. PIETRANGELO: It looks at reliability,
21 availability, it use the PRA of the technical bases
22 and it does go beyond design bases, also. And if a
23 design bases function is safety significant, it
24 monitors those functions.

25 But functionality in the maintenance rule,

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1 and we've had this discussion on our definition of --
2 common definition of unavailability, looks at the risk
3 significant function. And it happens to be design
4 bases, the answer is yes to your question but it goes
5 beyond design bases also.

6 MR. STROSNIDER: And that's probably
7 something we need to understand better, because that's
8 -- frankly, it's not consistent with my understanding
9 with regard to how the maintenance rule is implemented
10 in terms of addressing harsh environments and seismic
11 conditions and the conditions that a lot of the
12 special treatment rules are, in fact, written to
13 address. So I think we just need to understand that
14 better.

15 MR. PIETRANGELO: If we just look at the
16 monitoring, if we just look into monitoring. I mean,
17 the maintenance rule doesn't do all of the rest of the
18 design bases requirements. Just from a monitoring
19 standpoint.

20 MR. STROSNIDER: And that's the question,
21 is does it monitor to assure that the components would
22 perform their design bases functions under the design
23 bases conditions. And typically what it's looking at
24 is feedback from normal operating conditions.

25 MR. PIETRANGELO: And testing.

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1 MR. STROSNIDER: All right. And if that
2 does -- the question is does it get you there. And I
3 think it's a good point, and I think it's something we
4 need to understand.

5 MR. PIETRANGELO: A quick answer to your
6 question is that it's not that frequent to test that
7 design bases conditions in the plant.

8 MR. STROSNIDER: That's good.

9 MR. HOLAHAN: Let me see if I can sharpen
10 up the question and the answer, because I think if we
11 had a copy of the maintenance rule, I would read it
12 here.

13 My recollection is the introduction to the
14 maintenance rule does refer -- oh, he's got the book.
15 It refers to the fact that the maintenance rule is in
16 fact is supposed to show that equipment does it design
17 bases functions. Okay. It is to assure the design
18 bases and it means for the design bases conditions.
19 Okay.

20 Now, obviously, in its implementation you
21 don't take the plant to the design bases conditions to
22 do those testing. Okay.

23 But, Tony, you said one thing that I wish
24 were exactly correct. The maintenance rule, my
25 recollection, it requires licensees to monitor

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1 functional failures related to maintenance as opposed
2 to reliability and unavailability. And that sounds
3 like a subtle distinction but when we're talking about
4 the PRAs and in this context reliability and
5 availability related to all causes as opposed to
6 maintenance related are what's important.

7 And I understand that some licensees,
8 maybe all licensees monitor availability and
9 reliability, but the rule doesn't exactly use those
10 concepts.

11 MR. PIETRANGELO: That's correct.

12 MR. SOWERS: I'm Jerry Sowers from Palo
13 Verde.

14 I wanted to move up a few thousand feet
15 instead of moving down to the maintenance rule, but I
16 will say, Gary, that you're right on. You do have to
17 monitor all functional failures if you want the
18 maintenance rule to work for you. And I think most
19 plants do do that. I know we do that.

20 When I looked at the boundary conditions,
21 the first thing that struck me was boundary condition
22 2 is fundamentally different from 1 and 3. One and 3
23 concern a result that needs to be obtained. Boundary
24 condition 2 actually is a specific method that is
25 outlined in order to obtain a desired result. And

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1 the desired result I think was implied that the
2 categorization remain valid.

3 And then there's another result. Is that
4 any changes in risk associated with the implementation
5 of this be small.

6 And we can talk a lot about 2, but I think
7 the fundamental problem with 2 is it's at too low a
8 level. We need to agree when we talk about boundary
9 conditions first on the results that we're trying to
10 obtain, and then we can talk about different ways to
11 obtain that result.

12 So, I'd just suggest that we relook at
13 this boundary condition 2 and try to recast it in
14 terms of those two fundamental results that we're
15 after. One, that the categorization process remain
16 valid after the implementation of this rule. And that
17 any changes in risk be acceptably small. I think
18 that's the appropriate place to start.

19 And then we can talk about what you need
20 to do to provide the assurance that you will achieve
21 those two results. I think this boundary condition
22 starts too low.

23 MR. SCARBROUGH: Good. Thank you. That's
24 good feedback. Appreciate that.

25 As you can tell, the boundary conditions

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1 are sort of grouped in areas. You know, the first
2 boundary condition relates primarily functionality.
3 You know, what's functionality and why do we care?

4 The second boundary condition relates to
5 the categorization process in terms of how this
6 equipment is assumed to operate within the
7 categorization process, and is there a relationship
8 between treatment and categorization? And there is.

9 And the third boundary condition I'm going
10 to talk about now has to do with the bigger picture of
11 NRC's mission and level of assurance.

12 The third boundary condition states that
13 the NRC must maintain a level of regulatory assurance
14 regarding the continued functionality of RISC-3 SSCs
15 consistent with its mission to ensure adequate
16 protection of the public health and safety. And the
17 basis here is sort of explained right in the boundary
18 condition itself, is that we need to remain consistent
19 with our mission.

20 For example, in SECY paper 99-256 staff
21 stated that the RISC-3 SSCs need to receive
22 sufficient regulatory treatment such as these SSCs are
23 still expected to meet functional requirements, albeit
24 at a reduced level of assurance.

25 We also noted that the purpose of the

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1 rulemaking is to develop an alternative regulation
2 framework that enables licensees using risk-informed
3 process for categorization to reduce the unnecessary
4 regulatory burden for low safety significant SSCs.
5 And that would be by removing them from the scope of
6 special treatment.

7 So, there's a dual concept there in terms
8 of what we're trying to accomplish.

9 And in addition to the broader picture of
10 the mission Sam mentioned in his opening remarks, is
11 that Option 2 approach must be evaluated using the
12 staff's performance goals, including the most
13 important goal of maintaining safety and then also
14 reducing unnecessary regulatory burden, increasing
15 public confidence and making the NRC activities more
16 effective and efficient. So that's the third boundary
17 condition.

18 So those are our boundary conditions, and
19 I appreciate the feedback we received so far. And
20 what we'll do is after the break and when we have a
21 chance to have other presenters talk about the
22 boundary conditions and alternatives and such, we'd
23 like to sort of sit down and walk through the boundary
24 conditions and have that type of feedback where we can
25 obtain information on where it might be appropriate to

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1 try to address these boundary conditions and it might
2 allow us to move toward a rule that it is more
3 effective in terms of what we're trying to accomplish.

4 So, I appreciate that feedback.

5 We took those three boundary conditions
6 and derived three alternatives. And you could have
7 numerous alternatives. At one point I think we had
8 five, and then we kind of narrowed down. But we tried
9 to get a number that's manageable for discussion
10 purposes. We rolled it down to three alternatives.

11 The first one is what was referred to as
12 commercial practice, just pure commercial practice.
13 And the other two also are basically commercial in a
14 way, but this the one we just have labeled commercial
15 practice.

16 The rule concept under alternative one
17 would be that the rule would require licensees to
18 provide reasonable confidence that RISC-3 SSCs are
19 capable of performing their safety functions under
20 design bases conditions including the environmental
21 and seismic conditions throughout the service life
22 through the application of commercial practice.
23 That's sort of how the rule would look in concept
24 wise.

25 In terms of the statement of

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1 considerations and the regulatory guidance, the
2 statement of considerations would specify the
3 expectations regarding commercial practice in
4 implementing treating the RISC-3 SSCs. If commercial
5 practice is adequately defined, the statement of
6 considerations might rely on that definition for
7 sufficient regulatory treatment. However, the
8 statement of considerations would need to provide a
9 technical bases for reliance on that commercial
10 practice to provide RISC-3 reliability, once again
11 consistent with the categorization process
12 assumptions.

13 And this would involve a technical bases
14 that would require development of data or evaluations
15 that would support the RISC-3 reliability and
16 availability assumptions.

17 And, as we talked about, this data is
18 involved with the design bases aspect and not just the
19 operational aspect. Because operational aspect of
20 performance data would not necessarily be sufficient
21 to demonstrate design bases reliability.

22 And also, we'd also be interested in
23 quantifying the changes in reliability results from
24 the use of commercial practice.

25 As a result, in terms of this alternative,

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1 we focused on the reduction in treatment requirements
2 while trying to maintain a reasonable confidence in
3 SSC functionality. Now, the regulatory guide that
4 might go along with alternative 1 might reference NEI
5 document 00-04 for an implementation of commercial
6 practice if it could be worked out that an acceptable
7 definition is developed for commercial practice.

8 Okay. So that's alternative 1.

9 MR. HOLAHAN: Tom, would you clarify that
10 in effect what you're saying is when you say there are
11 three alternative, and you said that there could be
12 others, you're saying any one of these alternatives
13 could meet the intent of the rule and the boundary
14 conditions, but each one of them has a certain amount
15 of baggage associated with it in order to make it work
16 properly. Okay. But if you do, you know, those other
17 things, any one of these options would be acceptable?

18 MR. SCARBROUGH: Correct.

19 MR. HOLAHAN: Okay.

20 MR. SCARBROUGH: That's right. And, thank
21 you.

22 Because now I'd like to walk through the
23 issues related to alternative 1, and I'll do the same
24 with the others as well. But these are the issues
25 that we found when we went down this path to say,

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1 okay, now if we approach a rule from this direction
2 and are able to meet the boundary conditions, what are
3 the issues that need to be resolved. And that's why
4 we wanted to lay these out for your consideration and
5 information that you may be to provide some input such
6 that we can cross these bridges.

7 The alternative 1 issues, the first issue
8 relates to the lack of a sufficient definition of
9 commercial practice for uniform implementation of a
10 minimum level of treatment to provide reasonable
11 confidence that RISC-3 SSCs are capable of performing
12 their safety functions or the design bases mission
13 throughout the service life consistent with the
14 categorization process assumptions. And that's sort
15 of a key theme all through this talk are those key
16 points in terms of providing that reasonable
17 confidence.

18 There's an NRC sponsored study conducted
19 by the Idaho National Engineering and Environmental
20 Laboratory which was recently completed which
21 identifies a widely varying level of commercial
22 practice between nuclear power plants, but also within
23 specific plant programs. And the results are
24 described in NUREG/CR-6752 which will be issued
25 shortly. We thought it would be out by this date, but

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1 there's some last minute sort of administrative
2 aspects to it that have to be finalized.

3 For example, of the range of commercial
4 practices, you know, some balance of plant equipment
5 might be purchased without specific design controls
6 and received without specific inspection, and
7 installed without specific procedures, assumed to
8 function without any sort of monitoring and maintained
9 after it actually is found to have failed. On the
10 other hand, some balance of plant SSCs are purchased
11 with very stringent requirements, almost to what you
12 might call Appendix B type of level. So there's a
13 wide range of commercial practices out there.

14 And in some cases the commercial practice
15 might allow the design inputs for seismic analysis to
16 be modified whereas in other cases those seismic
17 inputs are very stringently applied to the equipment.

18 In terms of the changes in the design
19 bases conditions, we believe those should be processed
20 under §50.59 as opposed to the §50.69 process. So
21 there's already a process in place for handling design
22 changes, and that's the §50.59 process.

23 So, the issue we have here is without a
24 sufficient definition of commercial practice, there's
25 a problem with alternative 1 in terms of meeting the

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1 first boundary condition.

2 The second issue related to alternative 1
3 is that sufficient data and evaluations do not
4 currently exist to support functionality and
5 reliability of SSCs under design basic conditions
6 relying only on commercial practice. For example,
7 operational data available on the reliability of SSCs
8 do not typically consider consideration of operation
9 under design bases conditions.

10 There has been a study that has been
11 referred to in the South Texas exemption review which
12 did suggest a reliability of SSCs procured and
13 maintained in the commercial practice were those
14 similar to those under special treatment, but it
15 didn't consider performance necessarily under design
16 base conditions and there wasn't information regarding
17 how that data was collected in terms of the quality
18 controls placed on it.

19 So, as a result, issue two is that we have
20 a concern regarding alternative 1 with respect to
21 boundary condition 2 in terms of the PRA. So in terms
22 of trying to resolve this, we've looked at is it
23 possible to develop data or evaluations to demonstrate
24 commercial practice would provide reasonable
25 confidence that the SSCs have the reliability and

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1 availability consistent with the PRA assumptions.

2 And we've talked a little bit about in
3 terms of the boundary condition in terms of the
4 treatment, we cannot allow it to cause significant
5 increases in the failure rates or common cause
6 interactions within and across boundaries that might
7 change the PRA assumptions. So, therefore, what were
8 boundary condition 2 needs to be addressed in terms of
9 this assumption of reliability and availability.

10 The third is regarding alternative 1 is
11 that the reliance on commercial treatment without any
12 means to detect degradation or failure prior to being
13 called upon to function for a design bases event would
14 not provide a level of regulatory assurance sufficient
15 to conclude that the treatment would be consistent
16 with NRC's mission. And in that case, we wouldn't
17 meet our performance goal of maintaining safety.

18 So, it all boils down to the definition of
19 commercial practice. What does it mean in terms of
20 the widely varying levels of commercial practice that
21 are out there today? And because of that, you know,
22 we also have the concerns of writing the other
23 performance goals as well. And so that brings us back
24 to a definition of commercial practice.

25 The fourth issue is that the current

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1 guidance that's out there, NEI document 00-04 doesn't
2 provide a level of treatment that's uniform,
3 significantly uniformed that we could reference. For
4 example the guidance might allow implementation of
5 commercial practice that would allow changes in
6 seismic design inputs that are specified in the FSAR.
7 It also might allow changes in commitment regarding
8 functionality without an adequate technical bases.

9 So, an issue there is that the guidance
10 that's available to us, we would need to work with
11 industry to try to come up with guidance that
12 satisfied the boundary conditions.

13 So those are the four issues related to
14 alternative 1. Now the potential impact of
15 alternative 1 related to moving this rule forward is
16 that there might be a significant delay in the
17 completion of the rulemaking package to define
18 commercial practice that receives a widely held
19 agreement in terms of its necessary language, and to
20 develop data and evaluations that support the reliance
21 on commercial practice. So that's the input -- that's
22 the impact that we have.

23 In terms of examples, in this package you
24 did receive the language that -- in terms of the
25 concept for alternative 1 and in terms of the boundary

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1 conditions would be related to in the discussion here
2 in terms of the issues would be where we came from in
3 terms of the statement of considerations and a
4 guidance that we would develop for that.

5 That was alternative 1. Okay.

6 Alternative 2. On alternative 2 the rule
7 might state, talk about concept that we were thinking
8 about, is that licensees must provide reasonable
9 confidence in the capability of RISC-3 SSCs to
10 perform their safety functions under design base
11 conditions throughout their service life and that this
12 reasonable confidence would be provided through
13 implementation of treatment processes for design
14 controlled procurement, installation, maintenance,
15 inspection tests, surveillance, corrective action,
16 management oversight and configuration control. And it
17 would specify high level objections for reach of these
18 treatment processes.

19 Now, the statement of considerations would
20 discuss the expectations regarding implementation of
21 the rule and would discuss the basis for each of those
22 objectives, including why the objectives are necessary
23 to meet the boundary condition.

24 Now, the regulatory guidance would
25 describe general methods for effective implementation

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1 of the rule and it might be possible to reference
2 industry guidance in terms of a regulatory guide.

3 Now the issues related to alternative 2 is
4 that alternative 2 would satisfy, in our view, the
5 boundary condition one by specifying in the rule that
6 licensees are required to provide reasonable
7 confidence, and so on. And as part of that, the
8 treatment described in §50.69 itself would not effect
9 design input. So it's a separate process for that.

10 And this alternative would also satisfy
11 boundary condition 2 because you have high level
12 treatment objectives that provide a reasonable
13 confidence in functionality. And it was satisfy
14 boundary condition 3 by maintaining a level of
15 regulatory assurance consistent with NRC's mission.

16 And we also feel that it would meet the
17 performance goals of maintaining safety by allowing
18 licensees to focus their resources on the most
19 significance SSCs without allowing the treatment of
20 the less significant safety related SSCs degrade such
21 that reasonable confidence would not exist for their
22 safety significant capability.

23 We also feel that it would reduce
24 unnecessary regulatory burden by removing special
25 treatment requirements and allow the licensees apply

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1 commercial practices where they meet minimum treatment
2 objectives.

3 Also in terms of increasing public
4 confidence in would demonstrate that NRC regulations
5 can be modified to focus on the most significant SSCs,
6 but would retain adequate record for control over the
7 less significant SSCs. And making NRC activities more
8 effective and efficient by allowing regulatory review
9 and oversight be focused on the most significant SSCs.

10 An issue with alternative 2 is that the
11 specification of the high level treatment objectives
12 in the rule might provide less flexibility than
13 referencing a commonly agreed upon definition of
14 commercial practice.

15 Another issue relates to alternative 2
16 related to the need for guidance that provides an
17 acceptable approach for meeting those high level
18 objectives. And we've talked about the current
19 guidance out there that might allow changes in design,
20 you know, seismic inputs or changes in technical bases
21 regarding commitments. So to allow the guidance to be
22 referenced, we would need to have some adjustments to
23 it such that we would have an acceptable approach for
24 satisfying those high level objectives.

25 A potential impact regarding alternative

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1 2 is that the guidance would need to be revised, the
2 guidance that's currently out there, or the staff
3 would need time to develop guidance on its own.

4 In terms of examples of the rule concept
5 for alternative 2, in the meeting notice package you
6 did receive kind of a complete rundown of sort of a
7 concept language of alternative 2. But, for example,
8 for design control process you might have one line
9 which says that design input shall be maintained and
10 applied to ensure that RISC-3 SSCs are capable of
11 performing their safety related functions under
12 designed bases conditions.

13 Now, for procurement, it might say more
14 simply in one or two sentences that the rule would
15 specify that RISC-3 SSCs must be procured to satisfy
16 design inputs required by design controlled process,
17 and it might then require suitable methods to be used
18 to support documented determinations that the procured
19 SSCs will be capable of performing there safety
20 related functions on design bases conditions including
21 appropriate environmental conditions and including
22 seismic. So those are rough examples of the rule
23 concept language for alternative 2. And there's more
24 in your September 27th meeting notes.

25 The statement of considerations could

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1 indicate the licensees might be able to meet the rule
2 for implementation of existing procurement practices.
3 Because we have seen in terms of our reviews of
4 practices out there in industry, there are commercial
5 practices that satisfy this. It's sort of in the
6 middle range of their commercial practices at the
7 plants.

8 The regulatory guidance would describe
9 possible approaches to implement the high level
10 objectives, such as describing acceptable procurement
11 methods.

12 So that's our vision where alternative 2
13 would end up.

14 Alternative 3, this one is the more
15 detailed of the three alternatives. In terms of, you
16 know, the title as you can see, the high level
17 objectives and then the minimum treatment attributes.

18 So with this concept of alternative 3, the
19 rule would require reasonable confidence of
20 functionality of risk for the RISC-3 SSCs on design
21 based conditions throughout the service life, but
22 would also specify minimum treatment attributes
23 similar to the provisions in the updated FSAR for the
24 South Texas exemption request.

25 The statement of considerations would

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1 discuss the expectations regarding implementation and
2 indicate the bases for the minimum treatment
3 attributes.

4 The regulatory guidance would provide a
5 detailed discussion of the acceptable methods to
6 effectively implement the minimum treatment
7 attributes.

8 The issues related to alternative 3 is in
9 this case basically one issue. We do feel that
10 alternative 3 would meet the boundary conditions 1, 2
11 and 3 similar to what we talked about in terms of
12 alternative 2, but would provide much more detail.
13 And that goes to the issue related to alternative 3.

14 It would also meet the NRC performance
15 goals along the similar line that alternative 2 did.

16 The issue is that alternative 3 would
17 provide less flexibility than alternative 2 or 1 for
18 licensees in implementing the rule because there's
19 much more detail in the rule and the NRC staff in
20 monitoring its implementation with these minimum
21 treatment criteria that are specified in the
22 regulations rather than the high level objectives in
23 the regulation.

24 So, an issue is that the staff would need
25 to develop rule language in more detail the

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1 implementation guidance that might be perceived as
2 reducing stakeholder input in terms of the specific
3 regulatory requirements that would be in 10 CFR.

4 Now, the potential impact of alternative
5 3 is that the schedule might be delayed by the
6 development of the rule language and the more detailed
7 regulatory guidance. And examples, once again, the
8 meeting notice that you received, and the concept
9 would be similar to those in the updated FSAR for the
10 South Texas exemption request. So if you saw the FSAR
11 section for South Texas, you would sort of see the
12 FSAR in terms of how they updated it to describe their
13 program for low risk safety related equipment, and
14 that's what the sort of concept would be.

15 And the discussion in the safety
16 evaluation in terms of effective implementation
17 methods and things of that nature would be the type of
18 guidance that would be in the regulatory documents,
19 the regulatory guidance documents for alternative 3.
20 So that is a rough idea of where that alternative
21 would take us in terms of the language of that
22 particular type of rule.

23 That's all I wanted to say at this time
24 regarding the laying out, the boundary conditions and
25 the alternatives, and the issues related to them.

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1 We wanted to allow individuals to have a
2 chance to speak. I know NEI had asked for some time,
3 and if there's anyone else that wanted to make a
4 presentation from up here or from the audience, that's
5 fine too, in terms of laying perspectives of the
6 boundary conditions and alternatives. And then we can
7 do that, and then after the break we could go through
8 and have it more of an exchange where we walk through
9 the boundary conditions one-by-one and bring up those
10 good points that have been regarding them, and see
11 what areas that people would like to respond to or
12 provide us input that we could use in trying to focus
13 those boundary conditions, such that when we go back
14 and we try to come up with a draft rule language, that
15 we're able to have a good solid set of boundary
16 conditions.

17 Any questions. Tony's going to come up.

18 MR. PIETRANGELO: Thank you, Tim.

19 And before we begin, I want to commend the
20 Commission and the staff for having this meeting in
21 the first place. I think this is terribly important to
22 the industry. If we had waited to get to the proposed
23 rule stage to have the kind of discussion we're going
24 to have today, I think we would have had to submit
25 quite a few comments. And to the extent we can have

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1 the discussion now and see if there's some common
2 points of agreement, it should make the rulemaking go
3 smoother later and meet the Commission's objectives.
4 So, again, appreciate the opportunity to have the
5 meeting today and provide some stakeholder feedback.

6 We've kind of broken our presentation into
7 two separate topics. What I'll cover this morning is
8 treatment as well as the regulatory framework for
9 §50.69. Probably this afternoon when you get to the
10 other issues associated with the rule language, Adrian
11 will come back and have some other comments that our
12 task force developed on specific rule language.

13 We do intend to provide some written
14 comments following the workshop. I don't know if we
15 can get them in time for the ROP meeting that's
16 scheduled next week, but we hope to do that and for
17 you all to have that perspective when you go through
18 your deliberations on the feedback you get today.

19 By way of overview, we're going to start
20 with the definition of industrial treatment. I think
21 one of the things we saw in the September 27th
22 document that was made public was that several places
23 there it cited a lack of a definition of industrial
24 treatment.

25 We have stricken the word "commercial"

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1 from our lexicon. We are not going to mention
2 commercial anymore. It's industrial treatment.

3 So the first thing we want to start with
4 is our proposed definition of what industrial
5 treatment is.

6 Secondly, I want to cover why we think
7 that's adequate; applying that type of industrial
8 treatment program is adequate to assure the
9 functionality of low safety significant SSCs or RISC-3
10 SSCs.

11 And finally, I want to talk about the
12 licensing framework for implementation of §50.69.

13 I think our initial take on this is that
14 in going through §50.69 we didn't want to have to
15 invent any new associated change control processes or
16 how you would handle this thing within the licensing
17 basis. And really as a first premise, use the
18 existing regulatory framework that we spent the last
19 several years trying to fine tune with §50.59 and
20 FSARs and design bases guidance, and use that as our
21 starting point and see how the §50.59 requirements
22 could be fit into that structure. And I'll have a
23 proposal in that regard.

24 And then there's issues -- again, that's
25 our other input on the rule language in §50.69 that

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1 Adrian can address this afternoon.

2 This is our proposed definition of what
3 we'll call nuclear industrial treatment. We put
4 nuclear there because even industrial treatment in a
5 nuclear power plant is going to be different from any
6 other industrial enterprise, just because of the
7 nature of the beast. And I'll just read it very
8 briefly.

9 "Practices that provide adequate
10 confidence that the required functions will be
11 satisfied under conditions as intended." This is kind
12 of a paraphrase of a lot of what was in Tom's slide on
13 the boundary condition for basically maintaining the
14 design bases.

15 "Such practices are defined in applicable
16 national, local and industry codes and standards,
17 vendor recommendations, and plant guidelines and
18 procedures." Now the scope of this program would
19 include: design, procurement, installation,
20 inspection, testing, maintenance, assessment and
21 corrective action.

22 Now the only difference you'll see in the
23 elements that I think under alternative 2 in the
24 September 27th document is you don't see configuration
25 control in our elements here. And basically we

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1 include that under the design element in it, so we
2 don't think there's a marked difference in terms of
3 the elements, the commercial or industrial treatment
4 program should address. We think we're on the same
5 page with the staff in terms of what elements need to
6 be added.

7 Again, and we would not have a significant
8 issue with breaking out configuration control in a
9 separate element either. It's how you package it. So,
10 we don't see that as a significant issue.

11 One thing I wanted to mention before I
12 left this slide, was that one thing we noticed from
13 the safety evaluation report on the South Texas
14 project exemption was that in reading through that
15 package, the staff seemed to be looking to make a
16 finding on the adequacy of each individual element of
17 South Texas' proposed treatment. And we really see
18 this as a combination of the elements, not as each
19 individual element having to assure functionality for
20 the design bases going forward.

21 Probably one element, in and of itself, is
22 inadequate to do that. And I'll get into more detail
23 in a second when we go through our adequacy
24 discussion. But we think it's the combination of the
25 elements, not hanging your hat on each individual

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1 element being the one that assures functionality going
2 forward. It's the combination, it's the whole
3 industrial treatment program and it needs to be looked
4 at in that context.

5 MR. HOLAHAN: Tony, before you leave that.

6 MR. PIETRANGELO: Sure.

7 MR. HOLAHAN: There were just two things
8 on that slide that are a little vague to me. I think,
9 you know, we know what national, local and industry
10 codes are, and we know what the standards are. Vendor
11 recommendations are something you could look up.
12 Plant guidelines and procedures, it doesn't add
13 anything that I can tell. I mean, those guidelines
14 and procedures are written what? To implement those
15 other things or, you know, any procedure that's
16 written? I mean, those seem to be different from the
17 other things on the viewgraph, they're kind of fuzzy
18 and they don't seem to add much.

19 MR. PIETRANGELO: Yes. The intent there
20 was that we don't operate on the balance of plant side
21 without any guidance to plant staff on how to do
22 design, procure, install, maintain, inspect, test and
23 so forth.

24 In addition, I think what goes into those
25 guidance comes out of the codes and standards, and

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1 vendor recommendations on what to do. So, really, the
2 plant procedures and guidelines take input from the
3 applicable national, local codes under recommendations
4 and they're really the implementing documentation to
5 do the eight elements in the industrial treatment
6 program.

7 MR. HOLAHAN: Okay. So it's an
8 acknowledgement that things are done through
9 proceduralized process as opposed to ad hoc process?

10 MR. PIETRANGELO: Yes, that's correct.
11 And also I think, and we've talked about this a little
12 bit yesterday with our task force, there's a gradation
13 within that, and I think this is maybe what the staff
14 saw in the study that was done by INEEL. Depending
15 upon the complexity of what you're doing and to what
16 in the balance of plan, there may be a gradation of
17 how you apply those elements in terms of the level of
18 detail of the procedures and instructions to the plant
19 staff on how to do a particular element of that
20 treatment.

21 If it's something very simple, it may be
22 going down to get an electrical component that's, you
23 know, UL listed in a catalogue, part number, all that
24 as opposed to a more complex design change on the BOP
25 where you'd see a lot more procedural instruction and

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1 guidance. So I think there's a gradation within
2 industrial treatment depending on the complexity of
3 what you're doing.

4 MR. HOLAHAN: I may just be having a
5 problem which sentence you put those phrases in.
6 Nuclear industrial treatment does these things. Such
7 practices are defined. It seems to me that they're
8 not defined in the plant guidelines and procedures.
9 They're implemented through guidelines and procedures,
10 but their definition seems to be that other part of
11 the list.

12 MR. PIETRANGELO: Okay. I understand that
13 better.

14 Go ahead, Eric.

15 MR. JEBSEN: Eric Jebesen, Exelon.

16 As an example, as part of the meeting
17 yesterday we had with the task force, I had brought
18 along two non-Q mod packages just as an example of
19 okay, what do you do in a non-Q mod. And as part of
20 the -- one of the checklists you kind of have to go
21 through to make sure you cover all your bases, there's
22 a section called "What's the Classification and
23 Applicable Codes and Requirements."

24 And in this particular mod which has to do
25 with the off-gas system, one of the applicable codes

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1 for the piping is this B.31.1. But then also it says
2 "All work shall be performed per the latest revision
3 of this Nuclear Station Work Procedures
4 specification," which is an internal specifications,
5 "Nuclear Electric Installation Standards, NEIS,
6 Electrical Installation Work Specification." And then
7 there's another number. "As well as other applicable
8 Exelon approved procedures."

9 So the point here was that the national
10 local codes and standards may have many requirements
11 which are applicable, but that over the history of
12 building power plants, not just nuclear power plants,
13 but way back when a lot of these companies started
14 and, you know, late 1800s, early 1900s where there was
15 no particular applicable requirement that seemed to
16 cover probably a problem that came up at one time or
17 another, these internal specifications, design
18 specifications would have been developed internal to
19 utility or internal to vendors, A&Es, that are called
20 on to do design. So that's really the reason we
21 worked on getting that in there, it's a whole body of
22 things, not just necessarily even nationally or
23 locally recognized standards. But internal to a
24 company you have general work practices to protect
25 people and equipment that have evolved over time.

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1 MR. HOLAHAN: While you're there, can I
2 ask a question? My recollection is that power plants
3 are exempt from some codes, things like some
4 electrical codes, my recollection. Is this also a way
5 of dealing with some exemptions?

6 MR. JEBSEN: I can't really answer that.

7 MR. HOLAHAN: Okay.

8 PARTICIPANT: Explain yourself, Gary.

9 MR. HOLAHAN: Well, my recollection was
10 that when you're talking about national and local
11 codes, codes for things like fire protection and
12 electrical codes don't always apply to power plants.
13 Frankly, some of them are directly exempted. And so
14 the power plants are doing something else to deal with
15 those sort of situations.

16 MR. JEBSEN: Well, let me address that.

17 I think that at least for, you know, have
18 a whole body of NFPA codes, for example, some of which
19 exempt, like you say, some portions of power plants.

20 Now, again, to cover situations that fire
21 protection engineers are interested in in protecting
22 life and safety and equipment, I think while you may
23 be exempt from some portions, it's been my experience
24 there's usually some other code. You know, one code
25 might save except for a power plant, but then there's

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1 another code or portion of a code that says this is
2 for the power plants.

3 Now, in terms of I would say these
4 internal guidance cover places where there doesn't
5 seem to be any guidance. There seemed to be at least
6 internal to a company, a hole or a problem came up.
7 And so, okay, we'd better write a rule, they have the
8 safety rule book, for example. Okay, we're going to
9 write a rule to cover that one. Now, whether anybody
10 else does that is beside the point. But we have ours.

11 Now, I would say that there are probably
12 typically any utility would have a collection of these
13 that have been internally generation.

14 MR. HOLAHAN: Okay. Thanks.

15 MR. STROSNIDER: Tony, before you go.
16 This is Jack Strosnider, could I ask a question, too,
17 on the slide?

18 MR. PIETRANGELO: Sure.

19 MR. STROSNIDER: In the first sentence at
20 the end of the sentence where you talk about we'll be
21 satisfied under conditions as intended. If we were to
22 insert in there under design bases conditions as
23 described in the updated FSAr, which I think was the
24 language you saw in the staff, is that consist or --

25 MR. PIETRANGELO: Yes.

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1 MR. STROSNIDER: Okay. All right.
2 Thanks.

3 MR. PIETRANGELO: Okay. Now, I want to
4 turn to the adequacy of this industrial treatment.

5 We are working on putting together a white
6 paper, if you will, that fully discusses these three
7 elements. And, again, this is beyond the eight
8 elements that are in the industrial treatment program.
9 Those are the what you do things. These are really
10 aimed at why that's good enough or why that's adequate
11 to support functionality of the design bases going
12 forward for the RISC-3 SSCs.

13 MR. HOLAHAN: And when would we expect to
14 see such a thing?

15 MR. PIETRANGELO: Perhaps within the next
16 week, Gary.

17 MR. HOLAHAN: Okay.

18 MR. PIETRANGELO: If we can finish it in
19 time.

20 Now, the three principle base -- I'll have
21 a slide on each of these. The first one is there's no
22 change to the functional requirements. I think this
23 equates with boundary condition one. We will maintain
24 the design bases going forward.

25 The second bases is historical performance

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1 data. There's an STP report that was submitted as
2 part of the exemption request. There's also some
3 other industry experience that we're gathering now to
4 bring to bear how is the performance of safety related
5 equipment compared to similar SSCs that are non safety
6 related, and try to look at the failure rates, i.e.,
7 reliability of those components over time.

8 Third, there's what we call functional
9 monitoring and corrective action. And I think this
10 will end up getting at boundary condition two when we
11 get into this. But what does that entail, what are
12 you looking at, how is it different from what we
13 currently do under the maintenance rule? But that we
14 view as another leg of the stool here in providing the
15 basis for why the industrial treatment is adequate.

16 MR. HOLAHAN: Bill, did you want to
17 comment on number three?

18 MR. BURCHILL: No, I'll let him go ahead.

19 MR. HOLAHAN: You'll let him go? Okay.

20 MR. PIETRANGELO: I've got way too many
21 papers up here and not enough room.

22 Okay. Again, consistent with boundary
23 condition one, §50.69 does not change the design bases
24 of any safety-related SSC, or non safety related SSC
25 for that matter. There are design bases requirements

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1 that apply to non safety related SSCs. So this slide
2 really should say both safety related and non safety
3 related. If you want to write that in on our handout.
4 That's an omission on our part. But that is the
5 boundary condition and that must be maintained going
6 forward.

7 Secondly, the engineering and procurement
8 specifications and processes, those elements in the
9 industrial treatment program will preserve those
10 design bases requirements.

11 I think a key point to remember here is
12 that we're not starting from scratch on when we do
13 either replace equipment that's obsolescent or has
14 worn out, or needs to be refurbished. We have a
15 design out there, that's been approved, that meets the
16 design bases. We know materials are in the current
17 design. If we can't find those materials, there's a
18 wealth of engineering data on which to draw to compare
19 different designs that meet the same functional
20 requirements.

21 The important point here is this is not a
22 start from scratch exercise. There's a wealth of
23 experience across the industry on how to design to
24 meet the design bases requirements.

25 And that's really the third alternative

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1 here. When you can't either find a like-for-like or
2 an equivalent replacement, you may have to draw on a
3 different design to still meet the same design bases
4 functional requirements. And I think that's where
5 maybe some of the discussion is going to fall today is
6 how do we assure that those alternative designs still
7 meet the design bases functional requirements. But,
8 again, the functional requirements don't change,
9 they're preserved by design control and procurement
10 process going forward. So we see that as the first
11 piece of why the industrial treatment, which includes
12 those elements, provides adequate confidence.

13 The second point is on historical
14 performance data. And, again, we believe there's
15 quite a bit of generic equipment performance data that
16 indicates over time the robustness of the industrial
17 treatment that's been applied SSCs. I mentioned
18 before the STP report that was provided as supporting
19 material for the exemption request. That looks at 74
20 billion hours of both safety related and non safety
21 related operation of SSCs.

22 The component types are categorized and
23 classified into 33 different component types, and
24 really no significant differences in the reliability
25 between what's safety related and non safety related

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1 component performance was observed.

2 Now, it is a fact that not all that
3 operating history was done under design bases
4 conditions. In fact, probably the vast majority of it
5 was not. And that's why you cannot hang your hat
6 alone on one element of the process. But certainly
7 that provides some insights in terms of how treatment,
8 industrial treatment has resulted in equipment
9 performance. Again, when I get done we'll put the
10 three elements together and see whether that's
11 comprehensive enough to provide adequate confidence.

12 The second point I wanted to mention here
13 is that there's just been a tremendous improvement in
14 the industry's average capacity factor in the last
15 decade. And the industrial treatment programs are
16 being used to achieve that level of performance.
17 We're at a 90 percent industry average. Many plants
18 are well above 95 percent capacity factor. We could
19 not achieve that level of performance without
20 treatment programs that are very highly reliable in
21 terms of maintaining the functions of equipment. And
22 we think there's a lot of data to backup this
23 assertion.

24 So our conclusion from all this is not to
25 say one is better than the other, but basically the

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1 industrial treatment results in comparable performance
2 of non safety related SSCs.

3 MR. STROSNIDER: Tony, this is Jack
4 Strosnider again.

5 MR. PIETRANGELO: Yes.

6 MR. STROSNIDER: I have to make my
7 standard obligatory comment on your study.

8 MR. PIETRANGELO: Go ahead, Jack.

9 MR. STROSNIDER: And I appreciate the fact
10 that you point out that, you know, the conditions
11 under which these tests were run --

12 MR. PIETRANGELO: Right.

13 MR. STROSNIDER: You know, it's unlikely
14 that they included, you know, high temperature steam,
15 high radiation, seismic and such. So we recognize
16 that. So there's some good information here in terms
17 of maybe being necessary but not sufficient. And
18 sufficient in the terms of, and just back up a second
19 and look at this from a bigger picture. When we talk
20 about the special treatment rules that we're talking
21 about relaxing, all right, that go to environmental
22 qualifications and seismic qualifications
23 specifically, number one, it's not a surprise there's
24 not a lot of data there because, as you said, that
25 doesn't happen, we don't want it to happen.

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1 MR. PIETRANGELO: Right.

2 MR. STROSNIDER: Also it shouldn't be
3 surprise that there's not a lot of testing that's done
4 in service to capture those ideas. They never were
5 captured even under the existing special treatment
6 rules.

7 MR. PIETRANGELO: Correct.

8 MR. STROSNIDER: So we shouldn't be
9 looking to say well we're going to do tests now that
10 capture something that wasn't even captured under the
11 existing rules.

12 MR. PIETRANGELO: Right.

13 MR. STROSNIDER: But I think, if I can
14 follow where you're headed with this, it is important
15 that the engineering procurement and other aspects
16 provide assurance for those areas.

17 MR. PIETRANGELO: Right.

18 MR. STROSNIDER: Because you're not going
19 to get there through testing. And if these components
20 were showing lower reliability under the conditions
21 you're talking about, obviously that would be a
22 problem. But the fact that you have this higher
23 reliability doesn't necessarily address some of the
24 specific areas we're trying to relax.

25 MR. PIETRANGELO: I understand. It's

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1 input to the finding at the end of the day on this,
2 and again it has to be considered with all the other
3 things we bring to bear. No, your comments are
4 exactly right.

5 Glenn?

6 MR. KELLY: Glenn Kelly with the NRC
7 staff.

8 If you could go back to functional
9 requirements for a second.

10 MR. PIETRANGELO: Sure.

11 MR. KELLY: And perhaps you've talked here
12 about maintaining the design bases function. And one
13 of the other areas that we've also considered is the
14 fact that these SSCs are considered in the PRAs and
15 there are certain functions or assumptions that are
16 made in the PRA. I don't see any discussion here about
17 for the RISC-3 SSCs whether there needs to be any
18 consideration of somehow maintaining any of these
19 functions. Perhaps you could talk to that.

20 MR. PIETRANGELO: Yes, I'll get to that in
21 the functional mod slide. That's our third leg of the
22 stool here. And why don't we go to that now.

23 First of all, we thought it was important
24 to state right off that we do not expect to see a
25 change in the RISC-3 SSC performance given that we're

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1 maintaining the design bases functional requirements,
2 given that we have data on the reliability of those
3 SSCs over the long term.

4 And the second point here is that is we
5 believe it's important to do functional monitoring and
6 take corrective action when those functions are not
7 met to assure SSC capability.

8 Let me take a moment now to kind of
9 distinguish what we view as what the maintenance rule
10 does with regard to tracking reliability and
11 availability. That's not what we intend by this
12 bullet. All right.

13 When we say assure SSC capability, we're
14 looking at things like pump flows, vibration,
15 electrical data on motors, start times, etcetera.
16 Those are done -- this is more akin to condition
17 monitoring that is also done to some regard with
18 respect to the maintenance rule. But we do not
19 envision tracking, demands, reliability and
20 availability hours on low safety significant SSCs.
21 The maintenance rule is a special treatment
22 requirement that's been -- that we're now excluding
23 from the scope of the RISC-3 SSCs.

24 And there's two reasons why we think
25 that's okay to do. The first is if you had a

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1 degradation in the performance of a low safety
2 significant SSC, what would be the impact on the
3 categorization process? Individually if you had a
4 lower performance on a degraded performance on a low
5 safety significant SSC, the first result would likely
6 be that the high safety significant SSCs are of even
7 higher importance.

8 Secondly --

9 MR. HOLAHAN: And more of them are high,
10 perhaps?

11 MR. PIETRANGELO: More of the high are
12 higher?

13 MR. HOLAHAN: No, no, no. Some of the
14 lows could become high?

15 MR. PIETRANGELO: Well, you're right. And
16 that's why we do an aggregate impact sensitivity study
17 to demonstrate that we have an adequate margin of
18 safety. At the end of the day when the categorization
19 process does this relative ranking of the importance
20 of SSCs, we take all the low safety significant SSCs,
21 assume a significantly increased failure rate
22 simultaneously to see if we still have adequate margin
23 of safety. Or, in other words, do not have a
24 significant impact on the risk profile of the plant.
25 That addresses some of the common cause things that

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1 Tom raised earlier in terms of if you apply this
2 industrial treatment program across the board what
3 could happen.

4 Well, this sensitivity study is designed
5 to see what would happen. Now, provided that we still
6 do the functional monitoring and when you don't meet
7 the equipment specification, you need to corrective
8 action, that's an element of the industrial program.
9 We believe that is sufficient to assure that the
10 categorization assumptions are maintained over the
11 long haul. And I think that was what Gary was getting
12 at before, there's more than one way to skin the cat
13 on providing assurance that the categorization
14 assumptions will be preserved.

15 Any questions on why we think what we
16 think on this?

17 All right. Let me move to a very
18 important point here on the reg framework.

19 For the most part when we talk about
20 treatment for RISC-3 SSCs and the trick here is
21 providing adequate constant confidence of the
22 functionality for the design bases requirements going
23 forward. Really the level of safety significance of
24 the SSCs does not come into play in trying to do that.

25 Where we do believe it comes into play is

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1 how you treat this thing in the regulatory framework.
2 First of all, we do believe that §50.69 should specify
3 industrial treatment for RISC-3 SSCs including a list
4 of the elements of the treatment program. So we are
5 not for alternative 1. We believe that definition is
6 too skimpy.

7 As an alternative, and I'll term it 1.5,
8 we believe we should identify our commercial
9 industrial treatment program and list the elements
10 that we get consensus on should be in an industrial
11 treatment program.

12 Now, that is only the upper tier of the
13 regulatory framework. Okay. And, again, our principle
14 going forward of the premise here is that we try to
15 stay within the current regulatory framework and rules
16 that have been set up and not have to invent something
17 new for §50.69.

18 Now, these descriptions of what these
19 industrial treatment elements are we would not place
20 in the rule language, and I'll get to the rationale for
21 that in a moment. We believe those summary
22 descriptions of what those elements entail should be
23 captured in the QA topical report that's referenced in
24 the UFSAR. Right now that QA topical report describes
25 how the licensee's QA program meets criteria one

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1 through 16 for safety related SSCs. Given that §50.69
2 will have alternative treatment for several safety
3 related SSCs, that's what needs to be amended in the
4 licensing basis. It's a different treatment for those
5 RISC-3 safety related SSCs.

6 So this QA topical report needs to be
7 amended to capture what the industrial treatment will
8 be for the RISC-3 SSCs. And we have a changed control
9 mechanism in the existing regulations that deal with
10 changes to your QA topical report, and that's 10 CFR
11 50.54(a).

12 That's kind of the middle level of the
13 regulatory framework here. There's a third level, and
14 that is a licensee commitment to a regulatory guide on
15 how to implement §50.69. Now, it's our objective to
16 get NRC endorsement of NEI-00-04 as a way to implement
17 §50.69. A licensee would commit to that reg guide,
18 hopefully, endorsing NEI-00-04.

19 Now, that guideline contains a complete
20 description of the categorization process and also has
21 the additional description beyond the summary
22 description that would be in the QA topical report and
23 the FSAR, additional guidance on how to do industrial
24 treatment.

25 In our current guideline I think we have

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1 an Appendix of about, an Adrian correct me if I'm
2 wrong, 10 pages on how to do EQ going forward in
3 industrial treatment, and about another 10 to 15 pages
4 on how to do seismic going forward in industrial
5 treatment. So there's that additional level of
6 detail, and we believe that it would be properly
7 captured in the licensee commitment to the guideline.
8 And that would be controlled through NEI-99-04, which
9 is our commitment management guidance, which has also
10 been endorsed without exception by the staff.

11 Now, what is that okay? This is our
12 rational for this structure.

13 MR. HOLAHAN: Before you leave that, can
14 I stick at the middle level for a minute?

15 MR. PIETRANGELO: Okay.

16 MR. HOLAHAN: The licensee commitment, is
17 that in the QA topical?

18 MR. PIETRANGELO: No.

19 MR. HOLAHAN: Or that's a --

20 MR. PIETRANGELO: No. What would be in
21 the QA topical is the summary descriptions of the
22 industrial treatment program elements.

23 MR. HOLAHAN: Okay.

24 MR. PIETRANGELO: Regulatory commitments,
25 there's no requirement to put a regulatory commitment

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1 in the FSAR currently in the framework. Let me go
2 through --

3 MR. HOLAHAN: I understand.

4 MR. PIETRANGELO: This next slide explains
5 the rationale for that.

6 MR. STROSNIDER: Tony, I hate to
7 interrupt.

8 MR. PIETRANGELO: Sure.

9 MR. STROSNIDER: Just one comment because
10 maybe then you can address it as you go through this.

11 MR. PIETRANGELO: Okay. Okay.

12 MR. STROSNIDER: And what I'm struggling
13 with a little bit here is if I follow the logic here,
14 you're talking about a rule, for example, that would
15 say go do industrial treatment without the rule
16 defining what that is.

17 MR. PIETRANGELO: Well, it would list the
18 elements.

19 MR. STROSNIDER: Okay. So the rule would
20 list the elements. Okay. So the attributes or the
21 elements would be --

22 MR. PIETRANGELO: In the rule.

23 MR. STROSNIDER: -- in the rule?

24 MR. PIETRANGELO: That's correct.

25 MR. STROSNIDER: And essentially they

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1 define what you mean by industrial treatment? Because
2 that's what I was -- not in the level of detail that
3 is in these other guidelines, but what I was
4 struggling with is if from the regulator's perspective
5 it's very difficult to write a rule that just says go
6 do industrial treatment without some explanation of
7 what that is.

8 MR. PIETRANGELO: Right. Right.

9 MR. STROSNIDER: All right?

10 MR. PIETRANGELO: I think, and I should
11 have mentioned this before, really this is boundary
12 condition number three we're talking about here. How
13 do you provide the regulatory assurance going forward.
14 All right. And the regulatory framework has
15 hierarchies and different levels, and I think it goes
16 to what change control and how those different levels
17 are treated and what kind of flexibility a licensee
18 gets.

19 This next slide attempts to put in
20 perspective why we think what we proposed is
21 sufficient for §50.69. And we do that first by way of
22 comparison to what's in the current regulatory
23 framework. If I take what's in alternative 2 in the
24 September 27th document, you have a paragraph that
25 says this is industrial treatment and it lists the

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1 elements, and then what follows is a summary
2 description of each of those elements. All right.
3 That is the current alternative 2 that's in the paper.

4 That is basically exactly the same as
5 what's in Appendix B today that governs safety related
6 SSCs. You've got the 16 criterion in Appendix B and
7 about a paragraph that says "measures shall be
8 established to assure ..." you know, installations
9 done well, and all those things. All right. So that's
10 the regulatory treatment today in rulemaking space for
11 safety related SSCs.

12 Our argument here is that given that these
13 a low safety significant SSCs, all right, still safety
14 related but low safety significant SSCs, they
15 shouldn't receive equivalent treatment in rule space.
16 i.e. what's in Appendix B today. Therefore, you just
17 list the elements, you don't have the paragraph
18 description in the rule of each of those elements.
19 Rather, you use the other elements of the licensing
20 basis, i.e. in the QA topical report you would provide
21 those summary descriptions of the elements, all right,
22 and it has a change control mechanism established with
23 it. And third you make a regulatory commitment to the
24 guidance that lays out the categorization process as
25 well as provides additional detail on the key elements

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1 of treatment that speak to maintaining the design
2 bases functions going forward.

3 All that is part of the licensing basis
4 for §50.69. It doesn't have to just be captured in
5 the rule language.

6 So, we think that makes sense given the
7 robust of the categorization process. It does not
8 make sense to us to treat in rule space how the
9 current safety related SSCs are treated. And that's
10 where -- so the categorization isn't about maintaining
11 functionality going forward, that's not an important
12 point. Where it is an important is how you lay out
13 the regulatory framework for implementation given that
14 safety significance. And it should look different
15 than what we do for safety related SSCs today.

16 MR. STROSNIDER: Tony, this is Jack
17 Strosnider.

18 Your observation's interesting because I
19 will confess that our discussions internally were
20 Option 2, it ought to look something like Appendix B
21 in terms of its -- capturing the elements of the
22 program, but it should not be Appendix B because,
23 obviously, just as you point out, that's not the
24 expectation.

25 MR. PIETRANGELO: It can look a little bit

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1 like Appendix B. But not a lot.

2 MR. STROSNIDER: Yes, and I think that
3 maybe there's some details there that --

4 MR. PIETRANGELO: Right.

5 MR. STROSNIDER: You know, it's a level of
6 how much goes in there that needs to be discussed.

7 MR. PIETRANGELO: Yes. And that's why our
8 point is given the low safety significance it
9 shouldn't look exactly like Appendix B does today for
10 the safety related SSCs.

11 MR. STROSNIDER: Right. And the comment
12 I'm making is, actually I think we had a little bit,
13 from my perspective, of success because you say, hey,
14 that looks like Appendix B, and that's what we already
15 thought.

16 MR. PIETRANGELO: You did, though.

17 MR. STROSNIDER: But if you think it reads
18 exactly like Appendix B, then that was not our intent
19 and we need to understand that.

20 MR. PIETRANGELO: Yes. And what we're
21 thinking about for the summary descriptions that would
22 go in the QA topical report, it may not be the exact
23 words you have -- in fact, we'll stipulate that it's
24 not the exact words that you have in alternative 2
25 here. All right. But it's about that level of detail,

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1 i.e. a couple of sentences or a paragraph, it's a
2 summary description of what that treatment element is
3 all about.

4 Bill?

5 MR. BURCHILL: Bill Burchill, Exelon.

6 Jack, I think the point isn't so much just
7 the words. I mean, Appendix B, I think one of my
8 colleagues observed that if you took Appendix B home
9 to his dinner table and read it to his wife and
10 children and said "We're not going to do this," they'd
11 be alarmed. You know, they would say "Gee, that
12 doesn't sound bad." You know, Appendix B sounds
13 reasonably benign. But we all know in this room,
14 because of our experience, what has happened through
15 implementation.

16 And what we're suggesting here is that we
17 don't need to replicate that language even in a
18 paraphrased form in the rule which then, I think,
19 provides a platform for the same sorts of
20 implementation problems that we've seen with Appendix
21 B.

22 And what we're suggesting is there other
23 established vehicles where the controls relative to
24 that treatment can be defined and controlled under the
25 existing regulatory framework.

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1 So, it's not that we're quibbling over
2 little words. We're quibbling over how they are
3 applied.

4 MR. STROSNIDER: And this is Jack
5 Strosnider again.

6 Just two things that occur to me. One is
7 what I mentioned earlier in terms of what's the
8 content of the rule in defining the program. Call it
9 whatever program you want to call it, industrial
10 program, whatever, but without some explanation of
11 what it is it's not clear what we're proving or what
12 we're saying in the rule. You can't just say go do an
13 industrial program. So you need some explanation of
14 what that means. And the intent in the language you
15 were putting together was described to make it more
16 performance based. Here's what you want to accomplish
17 with each of these elements.

18 Now I understand what you're saying is
19 that it's not perhaps with each of these elements, but
20 here's what you accomplish with the elements in total.

21 MR. PIETRANGELO: Right.

22 MR. STROSNIDER: But, you know, I think it
23 gets back to -- you can actually relate it back to the
24 boundary conditions in terms of, you know, the rule
25 language which says here's what you're trying to

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1 accomplish, and enough that's in there to capture
2 those conditions, which is why they're very important
3 that we agree on those at the beginning. But those
4 are two thoughts that I had with regard to what you're
5 suggesting.

6 MR. PIETRANGELO: Yes. And I think the
7 first question you asked me I had the industrial
8 treatment definition up, substituting the words
9 maintaining the design bases for going forward, that's
10 what you're trying to accomplish. That should be in
11 the rule. We have no issue with that at all.

12 And these other things are really -- do we
13 need to get to that level of detail on the rule for
14 the eight different -- on what each element is trying
15 to accomplish or should the rule state the overall
16 goal and let the rest of the regulatory framework and
17 licensing basis that's implemented flush out what you
18 do to accomplish that objective?

19 MR. STROSNIDER: Should the rule state
20 what the performance objective is, like I said, trying
21 to put it into a performance -- that's a question for
22 discussion, I think, is should it say, you know,
23 here's the program, here's what you're trying to
24 accomplish with it?

25 MR. PIETRANGELO: I think at a broad level

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1 it should, and that's maintain the design bases
2 functionality of the RISC-3 SSCs. Isn't that what
3 we're trying to do? And I don't see a need to go in
4 rule space to an additional level of detail beyond
5 listing what those elements are, and the rest of the
6 reg framework would do that in successive levels of
7 detail.

8 We believe that when you add up the
9 combination of the elements in the program and when
10 you go through the technical bases with not changing
11 the design bases requirements with getting the
12 insights from the historical performance data, and
13 doing the kind of functional/condition monitoring, and
14 taking appropriate corrective action which is included
15 in the industrial treatment program, that these
16 programs will provide adequate confidence that the
17 design bases will be maintained going forward for a
18 licensee that implements §50.69.

19 And the reason we separate it out in a
20 bullet here is because we knew, just based on the
21 September 27th document that we didn't think we were
22 on the same page with regard to boundary condition in
23 terms of what a licensee would do to assure that the
24 categorization process results remained valid. We
25 don't think it ought to be the type of reliability and

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1 availability monitoring that's going to be done for
2 the RISC-1 and RISC-2 SSCs allow the maintenance rule.

3 And finally, there was a purpose to
4 §50.69, all right. And South Texas was an exemption
5 from the special treatment requirements, and that
6 exercise is a proof of concept for this rule.

7 The main purpose of §50.69 is for not to
8 have all the other licensees have to go through an
9 exemption request process. §50.69 was supposed to
10 exclude the current special treatment requirements
11 from the low safety significant SSCs. That's the main
12 purpose of §50.69.

13 Now there's an additional element of what
14 -- and I think it's captured in the boundary
15 conditions about maintaining the regulatory assurance
16 that the design bases will carry forward. All right.
17 But it doesn't -- it shouldn't have to define, and I
18 guess I said this at the Commission briefing in July,
19 if this thing -- if this alternative treatment or this
20 assurance entails something radially different or --
21 it isn't even enough to be radically different. If a
22 licensee has to maintain multiple programs based on
23 this new categorization, the benefit of doing Option
24 2 quickly goes out the window.

25 So, what we're trying to do is -- and

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1 really I think we had a realization yesterday, and
2 I'll share this. That in defining our industrial
3 treatment program, I think what you're going to end up
4 is more of an augmented quality program of what you're
5 currently used to today for important to safety SSCs.
6 The fact that this will go into the regulatory
7 framework will make it an augmented quality program,
8 because it'll get more attention that way, as opposed
9 to the -- and then I'll say commercial treatment
10 that's currently done on the BOP.

11 So this necessarily gives it a different
12 flavor. And I guess anything -- there's almost a Box
13 5 here. We talked about this yesterday. You could
14 either split Box 4 up or just say Box 5 is something
15 that doesn't fall under any regulation or regulatory
16 scope. And when we had the discussion of whether you
17 put the important -- which column do you put the
18 important to safety SSCs, by leaving it in the right
19 hand column it made Box 4 continue to be relevant to
20 the design bases requirements that are entailed by
21 some of the SSCs in Box 4.

22 So, at the end of the day this program
23 we're describing is more akin to an augments quality
24 program.

25 That's all we had for now. Again, in this

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1 afternoon's discussion on the specific rule language,
2 Adrian's got a number of slides to go through in this
3 package. But at this point, I think, it's enough.

4 MR. STROSNIDER: Tony, this is Jack
5 Strosnider. I did have one last comment on this last
6 slide, which there's -- well, we've had a lot of
7 discussions or some focus, if you will, on functional
8 monitoring and surveillance testing, that sort of
9 thing. And certainly that's an issue that we've had
10 discussions about with regard to, for example, to
11 valves and that sort of thing.

12 But I want to point out again that when
13 you look at some of these special treatment rules,
14 again, in the area of EQ and seismic qualification, we
15 never have done testing to -- it's not performance
16 based, it's not -- you're not going to make it
17 performance based because you're not going to fill the
18 containment with steam and you're not going to shake
19 it like an earthquake.

20 MR. PIETRANGELO: Right.

21 MR. STROSNIDER: So you're not going to do
22 that. All right. So that the first bullet is very
23 important there where you talk about the industrial
24 controls. And for some -- you know, we've always --
25 some of the special treatment rules were directed

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1 exactly at that where you're designing, procuring,
2 maintaining gaskets and things like that. Okay. So
3 I think it's a very important area to focus on in
4 terms of what relaxation can you accomplish from the
5 existing rules to the less safety significant
6 components, but still maintain that design bases
7 functions. And that's where we get into, I think,
8 some interesting discussion about actually what those
9 elements have to accomplish. You get into some more
10 of the how as opposed to the what.

11 But I just wanted to make sure we focus on
12 those differences between what we're trying to
13 accomplish in terms of the controls, if you will as
14 you defined it there, versus testing and performance
15 feedback.

16 MR. PIETRANGELO: Okay.

17 MR. REED: I think we're all set. Why
18 don't we take a 15 minute break.

19 MR. CALUO: You proposed three programs,
20 that's what I hear you, is that correct? The one
21 where the commercial practice that you're going to use
22 for the balance of the plant and upgrade program you
23 call industrial treatment for category 1, is that what
24 you're saying. You proposed three programs?

25 MR. PIETRANGELO: No, it's not exactly

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1 that. What I meant to say is that through this
2 process of defining industrial treatment and these
3 elements, and this summary description that will go
4 into SSC, it is our BOP program. But the fact that
5 you put it in regulation space will make a difference.

6 MR. CALUO: I don't care how you slice the
7 salami, you still got three programs, right? Three
8 set of books?

9 MR. PIETRANGELO: No. The other way to
10 look at this, and again I think we kind of identified
11 an item for ourselves to go look at our guidance
12 again, there's a different level of complexity with
13 things you do on the BOP. Some that are relative
14 straight forward where you might see all those
15 elements exercised if it's a very simple thing that
16 you do versus a more complex design change; taking out
17 a heat drain pump or some of your cyclical heat
18 exchangers, that kind of that. And we've got examples
19 of that with some of our members here. I'll give you
20 the package that shows you what licensees do on the
21 BOP for a change like that. Okay.

22 So, I think we already do it, it's just
23 this formalizes it to a certain extent and it just
24 kind of looks, smells, feels like augmented quality as
25 opposed to the balance of plant.

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1 MR. CALUO: Okay. Thanks.

2 MR. REED: Pete? One more question and
3 then we'll go to break. This is the last one.

4 MR. BALMAIN: Yes, I'm Peter Balmain, NRC.

5 I just want to clarify one of your last
6 bullets, the second one on the last slide. RISC-3
7 functional monitoring assures equipment capability,
8 and then you say the maintenance rule monitoring's not
9 necessary.

10 In the case when a unexpected failure or
11 occurrence happens that does on RISC-3 item that does
12 effect RISC-1 or 2, at that point the treatment for
13 that one particular item would transition to the RISC-
14 1 or 2 space, I assume. Is that correct?

15 MR. PIETRANGELO: I don't think we said
16 that, and I don't think it's in the guideline. I would
17 expect that the corrective action associated with that
18 failure would be looked at in much greater detail
19 because it had an impact on the RISC-1 and RISC-2.

20 MR. BALMAIN: Right.

21 MR. PIETRANGELO: Or RISC-2 components.

22 MR. BALMAIN: Okay. Is that type of
23 fluidity, I guess, is part of your framework?

24 MR. PIETRANGELO: Yes, you'll see that
25 when Adrian gets to a slide this afternoon on

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1 reporting. I think you'll see an element there that
2 if there's an impact on a safety significant SSC, it's
3 picked up in the reporting.

4 MR. BALMAIN: Okay. Thanks.

5 MR. REED: Why don't everybody try to get
6 back here in 15 minutes. Sharp.

7 (Whereupon, at 10:21 a.m. off the record
8 until 10:38 p.m.)

9 MR. REED: Okay. I'd like to try to get
10 the show on the road again. Try and take your seats.

11 Just a reminder to everybody. Before
12 lunch we'd like to try to kind of roundup the topics
13 that people want to discuss this afternoon. I know
14 NEI's got some slides that they want to go through,
15 and I know Ken's got a set of slides on the ASME code
16 cases, the repair and replacement code cases.

17 If anybody else has got some topics, if
18 you could, either tell David Diec back in the back or
19 myself, or Eileen, or write on the card and bring them
20 up, we'd appreciate that. And then we'll look at
21 those over lunch and see, you know, prioritize them
22 and try to go through them this afternoon.

23 Also, David's got a hand held mike. We
24 can pass that around if you've got any comments that
25 you won't have to get up and knock everybody out of

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1 the way. You can go down the aisles, get to the
2 mikes. So that's a little more convenient.

3 At this point we'd just like to offer an
4 opportunity for anybody else that would like to either
5 make a presentation, a couple of slides, or go to a
6 mike or has any other ideas on how to address the --
7 or how the structure of the framework for RISC-3. If
8 anybody's got some ideas like that, feel free to come
9 forward. If not, then I think what we'll do is we'll
10 have Tom come up and we'll work back through the
11 boundary conditions, the alternatives and then we'll
12 get back to the NEI's 1.5 or 1.75, whatever's notice.

13 Does anybody have any other, any
14 alternatives that they'd like to discuss. If not, I'll
15 turn it back to Tom and you can feel free to comment
16 as go through it again.

17 MR. SCARBROUGH: Okay. Thanks.

18 What I want to do is put up the boundary
19 conditions again. What I'd like to do is sort of look
20 at the boundary conditions. I know we had some
21 comments regarding them this morning, see if there's
22 some suggestions on specific wording that might be
23 appropriate to try to tighten them up if folks think
24 that would be good. And then we'll sort of walk
25 through some of the other alternatives.

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1 Okay. Our first boundary condition, as we
2 said, focuses on functionality. Were there any
3 specific suggestions regarding the language in terms
4 of what it's trying to accomplish that anyone might
5 have regarding this one? It didn't sound like it from
6 NEI's presentation that there was any significant
7 misunderstanding.

8 Yes, Tony?

9 MR. PIETRANGELO: My suggestion would be
10 to simplify it. I mean, it's pretty long right now
11 and I think what the sum total of all those words
12 means is licensees are required to maintain the design
13 bases of SSCs going forward.

14 We don't need to duplicate in this
15 rulemaking what's already in the regulatory framework.
16 We've got guidance on design bases, it's been endorsed
17 by our regulatory guide; that's precisely what we
18 mean. There's an interpretation of it that's been --
19 that we worked on for several years that's been
20 endorsed. Why don't we just use that and simply say
21 licensees must maintain the design bases going
22 forward, because it includes all that stuff that you
23 have in there?

24 MR. SCARBROUGH: One of the reasons that
25 it's a little longer, it has a second sentence,

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1 because we wanted to emphasize that the design inputs
2 would also be part of this functionality. That you
3 wouldn't be changing design inputs under §50.69.
4 There's a whole different process for changing design
5 inputs and design bases. So that's one reason why
6 it's a little longer than probably it should appear it
7 should be.

8 MR. PIETRANGELO: Well, and as part of the
9 definition of design bases and guidance associated
10 with it, I think it's recognized that the design bases
11 is a subset of all the design inputs. And our intent,
12 even with §50.69, some design inputs may change
13 provided that the functional requirements are still
14 met. And that's function under the conditions as
15 required. That includes that.

16 So, when you say all design inputs are
17 maintained, I think that's too broad for §50.69
18 because the design bases is a subset of those inputs.

19 MR. SCARBROUGH: Can you give us an
20 example of where you might see the design inputs
21 changing?

22 MR. PIETRANGELO: Well, if you cannot find
23 a like-for-like or equivalent replacement, you may in
24 fact have a different design that meets the design
25 bases functional requirements. It might be a

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1 different material. It could conceivably have a
2 different -- some different characteristics of the
3 design. And I don't have a specific example to run by
4 you now, but it's certainly conceivable that --
5 especially in a lot of the I&C areas different gasket
6 materials, it may be a whole different technology when
7 we talk about analog to digital.

8 MR. STROSNIDER: This is Jack Strosnider.

9 I think we're talking something a little
10 different here because I thought, Tom, and correct me
11 if I'm wrong, but you were talking about design
12 inputs, you wouldn't change the time, temperature,
13 history or you wouldn't change the seismic inputs, the
14 accelerations and that sort of thing. Certainly I
15 would think, yes, you could procure a component that
16 has different material in it, might be even a
17 different shape or whatever. But when you put it in,
18 it's still expected to meet those inputs and --

19 MR. PIETRANGELO: The design bases
20 functional requirements.

21 PARTICIPANT: Is that a term that's
22 defined? I notice you didn't define it in the rule.
23 Is there a standard definition for design inputs?

24 MR. STROSNIDER: Well, actually, I think
25 the -- I mean we're using the word "design inputs"

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1 here, but actually in the boundary condition we talk
2 about the conditions under which the intended
3 functions are required as in the updated FSAR, and
4 that's -- and again, Tom, correct me if I'm wrong, but
5 I think that's what we meant by the inputs.

6 MR. SCARBROUGH: Yes. We're talking about
7 the load, seismic loads, especially the G factors and
8 things of that nature.

9 PARTICIPANT: You talking about physical
10 perimeters? These are physical expectations of how
11 the conditions in which the equipment needs to
12 operate? I mean, I'm just trying to understand. It's
13 a term I haven't -- until this rulemaking came about,
14 I didn't see the term design inputs banded about too
15 much, and now we see it all over the place. I still,
16 you know, I'm just trying to understand what you're
17 after there.

18 MR. SCARBROUGH: Yes. We're talking about
19 design criteria in terms of that lower level of
20 seismic seismicity in terms of the G factors and such.
21 We're not at the level of operates during an
22 earthquake. We're talking about operating an
23 earthquake of this acceleration and things of that
24 nature. That's the level we're talking about. Design
25 criteria as opposed to a broader statement that it

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1 meets -- it functions during an earthquake.

2 MR. FAIR: This is John Fair with NRC.

3 We had a lot of discussions on what it
4 meant to maintain the design bases. And the reason we
5 put this sentence in is we want to make it clear that
6 for design bases events such as environmental and
7 seismic that just saying that experience shows that
8 these things will function is not adequate. That you
9 have within our FSAR and within your design basis,
10 specified loading conditions which are maintained
11 under this Option 2 approach. And some way you have
12 to show that you're able to withstand those loads and
13 not say in a general sense it's okay

14 MR. SCARBROUGH: Thank you.

15 MR. SOWERS: Gerry Sowers from Palo Verde,
16 again.

17 It's hard to think of an example. I can
18 think of one that may be trivial. But I'll try to
19 illustrate what difficulties come when you talk about
20 design inputs.

21 Tony talked about design bases
22 requirements being a subset of design inputs, and
23 that's exactly right. I can have a safety related
24 valve, it can be a manual valve, it will have lots of
25 design inputs associated with it. For instance, the

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1 weight of the valve, which is very important for the
2 seismic response for the piping that's in there. And
3 that's clearly part of the design bases.

4 I also have a design input that I have no
5 left-handed operators on valves in our plant. It's a
6 good practice. It's a design input. It doesn't have
7 any relationship to this whatsoever.

8 So when you start using words like that,
9 they're words that actually have a very specific
10 meaning to people out there that practice in this
11 industry. And the meaning is much broader than I
12 think you perceive. So using that word is fraught
13 with difficulty.

14 And I'll agree, we need to stay with words
15 that we know, we know what the design bases is. It's
16 clearly defined. It's had a lot of discussion and it
17 includes functioning under design bases conditions.
18 We know what that is. So we need to stick to that and
19 avoid the other pitfalls we are prone to jump into by
20 changing vocabulary at the last minute and trying to
21 do something different when we don't have to.

22 MR. SCARBROUGH: And I agree with that. I
23 think it's a good point. The reason why some of these
24 words came up and these extra words is our experience
25 is that where we might have used design bases in our

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1 interactions with licensees before in terms of this
2 risk-informed area, what the licensee perceived
3 maintaining design bases was different than what our
4 perception of design base -- maintaining design bases
5 was.

6 And so based on that experience is the
7 reason why this more elaborate boundary condition was
8 developed is to try to make sure that there was a
9 common understanding of what we were intending when we
10 meant meet the design bases. Because we have had that
11 experience where we were just talking past each other
12 with the licensee in terms of what we expected in
13 terms of maintaining design capability, in terms of
14 seismic and seismicity and harsh environment and what
15 the licensee perceived in terms of meeting the design
16 bases.

17 So part of this is derived from that
18 concern from previous experience.

19 But those are good points. I think we have
20 to make sure that whatever we come up with in terms of
21 our boundary condition, that it's clear what we mean
22 and that we don't expand off into left-handed
23 operators.

24 MR. STROSNIDER: Yes. I'd like to comment
25 on this, too.

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1 I think the last comment about, you know,
2 be careful using phrases like design input. Actually,
3 I think it means different things to different people.
4 Okay. We got one question what is it, and we got
5 somebody else that says I know what it is and it's
6 this big, not this big.

7 But to tie it back to Tony's original
8 comment on should we shorten this boundary condition,
9 you know, this expression of design inputs was an
10 attempt to use some shorthand to capture this, and I
11 think that's part of the danger in trying to shorten
12 things too much. I think we need to use terminology
13 that's in the regs that we're all familiar with,
14 understand what it means and if it ends up being a
15 little longer, so be it.

16 But the other thing to come back to Tony's
17 comment is to think about what the purpose. How are
18 we going to use these? I mean, we did talk this
19 morning about well the boundary conditions ought to
20 help us to focus on what the content of the rule is,
21 what the content of the treatment is. This is the
22 expected outcomes. But also, and I could envision some
23 of this and not getting into too much detail now, but
24 you know, there's going to have to be statements of
25 consideration that go along with this rule. And some

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1 of this sort of language would probably find its way
2 into there eventually explaining what is meant by the
3 rule.

4 And so it's important that we use language
5 and we use as much or as little as we need to make
6 sure we all understand. Of course, it's always harder
7 to write something short than long and capture
8 everything.

9 So, I had just a couple of thoughts on
10 that.

11 MR. DIEC: We have a comment in the back.

12 MR. HEYMER: To take up on what John Fair
13 of the NRC just said, I just want a clarification. We
14 can used experienced based methods today for seismic,
15 correct, for RISC-1? So why couldn't I use it in
16 RISC-3?

17 MR. FAIR: The statements didn't intend to
18 say that you couldn't do that. The statement intended
19 to say that you had to demonstrate by experience data
20 you met the loads that were specified at the plant in
21 the FSAR. And it was able to function --

22 MR. HEYMER: But does that mean that the
23 SQUG methodology doesn't apply?

24 MR. FAIR: Well, it means what I just
25 said. That you have to get a methodology which you

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1 could demonstrate would satisfy the design loads at
2 the plant. And in some cases, I don't believe the
3 SQUG methodology by itself is satisfactory for plants
4 that have design bases that include multiple events
5 and things like that, unless you have demonstration
6 that it does.

7 MR. HEYMER: So, are we reopening the SQUG
8 issue now?

9 MR. FAIR: I don't believe this is coupled
10 to SQUG. If SQUG is a design bases of the plant,
11 obviously that is your plant design bases.

12 MR. HEYMER: If I have experience data
13 that shows I can withstand the design bases event, be
14 it seismic or temperature or humidity, why can't I
15 take credit for that?

16 MR. FAIR: As I tried to say, it has to
17 meet the design bases that's in the licensing FSAR.
18 I mean, I don't know that the SQUG data meets every
19 licensing FSAR in the country.

20 MR. STROSNIDER: The point here is, as
21 John said, not challenging the use of experiential
22 data. I think the point is whatever is in, and that's
23 why we had the language here, in the updated FSAR. If
24 the updated FSAR has some specific seismic inputs and
25 says, you know, the plant is designed to satisfy these

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1 seismic inputs, then you need to satisfy them. If you
2 can demonstrate it through experiential data, I guess
3 you can do that.

4 If your licensing basis is for some of the
5 older plants, you know, the SQUG type approach, then
6 you need to maintain that. All right.

7 So it's tied to what your current
8 licensing basis is, the whole point being that if you
9 want to change that, you're not changing in this rule,
10 you go do that under §50.59. And whatever changes you
11 could make there under §50.59, then you could address
12 those appropriately through this treatment.

13 MR. SCARBROUGH: Thank you.

14 MR. STROSNIDER: And I think there's
15 another issue that comes up here that certainly, you
16 know, outside of this rule in terms of acceptability
17 of experiential data and the databases that exist and
18 whether they really, you know, meet the mark to do
19 that sort of thing. That's something we're working
20 on, you know, different venue.

21 MR. CALUO: Jose Caluo from the NRC.

22 I believe in our discussions it was only
23 those design inputs where we required to satisfy the
24 functional requirements when they're confronted with
25 the design bases event. So if you want to have other

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1 design inputs in there that you want to add it, for
2 whatever reason, if those are not required to ensure
3 the functional requirement -- when you're confronted
4 with seismic event, you don't have to bother with
5 those. But those that are required to insure
6 functional requirement, that's what we thought of
7 design inputs.

8 MR. SCARBROUGH: Thank you.

9 MR. DINGLOR: This is Mo Dinglor.

10 I agree with Gerry -- from Wolf Creek, Mo
11 Dinglor from Wolf Creek.

12 Is we've got the document of design bases,
13 §97.04 that you guys endorsed. We need to use those
14 definitions that we've already agreed on in this new,
15 not try to develop and do new rules and rehash some of
16 those things that we already have worked on and come
17 to agreement on. And I'm seeing some of these
18 definitions, he may not be using those in the way that
19 we all agree to in §97.04.

20 So all I guess is my caution is let's pull
21 out the existing documents that the industry and the
22 NRC endorsed, use those definitions, because we all
23 agree on those. I don't want to come in with another
24 one and then have you guys or us define our plant what
25 does design function mean, and when we already defined

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1 it and it might be something different.

2 So I guess as Tony and then said, we want
3 to build on existing stuff but not reinvent the wheel
4 every time.

5 MR. SCARBROUGH: Okay. Thank you.

6 MR. STROSNIDER: And could I interpret
7 that as saying that we need to add something to this
8 definition which, for example, referenced to the
9 §97.04 as opposed to shorten it? Just a question.

10 I understand your point and I think, you
11 know, the big picture I think there's agreement. We
12 don't want to invent a whole bunch of new definitions
13 or terminology here and we want to make sure that what
14 we're using is clear and well defined for everybody.
15 So that is a good point.

16 MR. SCARBROUGH: Good. Thanks.

17 Okay. The second boundary condition we
18 talked about, we did have -- Gerry had some good
19 points that he was making during the talk. Where's
20 Gerry. Did you want to come up. Did you have some
21 specific suggestions regarding to tighten this
22 boundary condition?

23 MR. SOWERS: Yes, it's pretty simple,
24 actually.

25 I view this second boundary condition as

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1 targeted at maintaining I would say the integrity of
2 the categorization that we went through. So somehow
3 I'd restate it so to say that. The treatment process
4 must not change, lead to changes in the
5 categorization. If I can expound on this a little
6 bit, and I understand the staff's reason for wanting
7 the categorization to remain valid so you make sure
8 you have the appropriate treatment.

9 I can also add that from our side we not
10 only have an interest in the categorization remaining
11 valid, but we have a very strong interest in making
12 sure that it's robust and does not change. It's very
13 expensive when you start thinking about changing the
14 categorization periodically. So the categorization
15 process has to also lead to a result that cannot be
16 effected by any expected changes in plant performance.
17 Otherwise, this whole thing becomes unmanageable.

18 It's going to be difficult enough to do
19 the categorization once. Doing it forever is
20 completely unthinkable. And I believe the
21 categorization process that we've chosen does that.
22 With all the sensitivities we've put in there, I have
23 some comfort that I can go through the categorization
24 and as I go forward in the future and make updates to
25 my PRA, which will happen, that the categorization

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1 will not be radically effected. And it has to be that
2 way.

3 So I think maybe for different reasons we
4 have the same interest, but that's what this should
5 say is that the categorization that you came to
6 remains valid. Whatever treatment you decide to
7 apply, it can't effect the categorization. And that's
8 how I look at it.

9 MR. SCARBROUGH: Thank you.

10 MR. BURCHILL: Bill Burchill, Exelon.

11 Let me just build on that. I think that
12 the concern with the way this is stated is the focus
13 on only two particular aspects of the PRA at a very
14 detailed level. And the use of the terms reliability
15 and availability implies a go forward monitoring
16 program, which we frankly in some cases don't even do
17 today for many of these components.

18 I think what you would do is if you could
19 change that to say consistent with the results of the
20 categorization process, that would accomplish exactly
21 what Gerry suggested. That it's the result of the
22 categorization that's of interest here, whether or not
23 a component suddenly shows itself to be more risk
24 significant than the categorization process originally
25 showed. That's of keen interest to all of us, of

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1 course. But on the other hand, as Gerry said, we
2 would hope that the categorization process would have
3 sufficient sensitivity evaluations to assure that that
4 wouldn't happen.

5 I mean, if we found through the
6 sensitivity process that a particular component that
7 was originally classified in RISC-3 really had a
8 significant influence, we'd be foolish not to
9 reclassify it at that time. That's part of the whole
10 purpose of the sensitivity exercise.

11 MR. SCARBROUGH: And some of this was --
12 and it comes out in the bases for discussing
13 sensitivity studies and making sure the sensitivity
14 studies are sufficiently robust to capture changes in
15 the reliability of equipment and across systems.
16 Because PRAs aren't as strong in that area.

17 And if you change treatment drastically
18 across -- for a whole series and sets of equipment,
19 and you go across systems, how do you treat that in
20 sensitivity study. And those are some of the things
21 that we were exploring here in trying to make sure
22 that the treatment will support the categorization.
23 However, part of the categorization assumed this
24 equipment would function and what reliability that the
25 treatment supports that.

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1 And so, yes, I agree. I think there's
2 areas that we could do to adjust this boundary
3 condition, and I think both of them are good
4 suggestions in terms to look at. So we'll go back and
5 look at that and see if we can do some adjustments to
6 this boundary condition to see if we can improve it in
7 those types of areas.

8 But that's where we were coming from
9 because of the tie between. And we wanted to make
10 sure there is the tie between treatment and
11 categorization.

12 Any other -- yes, sir?

13 MR. JEBSEN: Yes. This is Eric Jepsen
14 with Exelon. And I have a couple of thoughts that
15 came to me while you were talking, and as a result of
16 our discussions yesterday. And so some of this is
17 just thinking out loud or on paper. So, I just want
18 to form a couple of comments.

19 The first one, I think, deals with sort of
20 the flavor or the sense I'm getting. I'm hesitant to
21 say this, but you know the sense I'm getting is that
22 there's a feeling, at least, that the current testing
23 regimes are, in part, inadequate to confirm design
24 bases performance. And if that's true, I think that
25 has no place here. That's another concern and should

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1 be separated from Option 2. I don't know if that
2 exists, but that's just kind of a sense I'm getting.
3 If that's a misperception --

4 MR. SCARBROUGH: I wouldn't take that
5 perception away. That's not the intent.

6 MR. JEBSEN: Okay.

7 MR. SCARBROUGH: We're not challenging
8 current testing regimes. You know, we're looking at
9 we're removing special treatment requirements for a
10 large percentage, the vast majority of the safety
11 related piece of equipment in the plant. That's the
12 goal. And what do we do that? You know, now that
13 we've taken it away, where do we go from there? What
14 assurance do we continue to have. And so the third
15 boundary condition we just take away, what level of
16 regulatory assurance now do we still have.

17 MR. JEBSEN: Okay.

18 MR. SCARBROUGH: So that's where we are.

19 MR. JEBSEN: Okay.

20 MR. SCARBROUGH: We're trying to say where
21 do we end up with that action that we're proposing.

22 MR. JEBSEN: Okay. Because I was thinking
23 there might be some testing regime which would be, I
24 mean be very similar in some aspects to what you do
25 now that would give you the assurance of what function

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1 -- so if it's good enough now, it might be good enough
2 then.

3 MR. SCARBROUGH: Absolutely. Yes, and
4 part of when I went through the alternatives I tried
5 to indicate, but there was a lot of material there to
6 absorb, that all three of the alternatives is
7 basically what used to be called commercial practice,
8 it's just different levels in terms of which level are
9 you looking at and in terms of how much assurance do
10 you need, and is there a way to try to focus it such
11 that -- so that NRC has the regulatory assurance, the
12 public has the assurance and the industry has a level
13 of assurance, but not the level of Appendix B. I
14 think that's what we're all trying toward that same
15 common goal.

16 MR. JEBSEN: Okay. I just have one, maybe
17 two more.

18 The other thing I wanted to mention is
19 that I think specifically mentioning here reliability
20 and availability consistent with reliability and
21 availability assumptions. And, again, it says
22 categorization process, but I think I've heard here
23 people are sort of saying and are mentally picturing
24 PRA when they see categorization process. And I think
25 it's a mistake to limit this to a point value that

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1 happens to be in a PRA for certain specific equipment
2 when, in fact, we've done a sensitivity showing that
3 in fact the reliability could be zero in some cases
4 and still have virtually no impact on the calculated
5 risk to core damage or large early release frequency.

6 So, I think what you want to say in there
7 is consistent with the risk sensitivity study or
8 consistent with the risk bounds demonstrated, the
9 results or, you know, something like that,
10 specifically mentioning reliability and availability.
11 Because I can just picture being questioned about
12 that. Okay. What was the reliability in the PRA at
13 that time, your full power -- you know, initiating
14 event PRA at the time you did this study or what is it
15 now?

16 Well, it almost doesn't matter because I
17 just showed you could be zero and it's still okay.

18 MR. SCARBROUGH: But usually it's zero for
19 on individual component basis. I mean, we're not
20 talking about -- the concern here is that treatment
21 cuts across the whole 75 percent of your safety
22 related equipment. So it's a broad question in terms
23 of what's the change that takes place.

24 But I think if we said we don't care if 75
25 percent of the safety equipment doesn't -- I don't

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1 think we'd say that. I think we do care.

2 MR. JEBSEN: No. And actually, that gets
3 to my third point. This is sort of a segue into my
4 third point.

5 The third point is the way I'm picturing
6 this working it would be gradual bootstrapping to the
7 75 percent or whatever it is, so that as you're moving
8 along, this sensitivity study includes more and more
9 things working maybe initially at a model zero but
10 then maybe you couldn't tolerate zero, you'd have to
11 tolerate something -- I'm not sure which way is
12 greater or less, but you know more reliable than zero.
13 And so over time you get a picture of these components
14 how many you incorporate into your §50.69 program and
15 so this sensitivity study becomes broader and broader
16 and broader until you start to see, maybe, impacts on
17 the numbers, at which point you might have to go back
18 and look at this reliability. But until you get to
19 that point, I mean obviously you have some huge margin
20 you're working into and then you get to the point
21 where the margin's been reduced in a way in this
22 program. And so now you have to sharpen your pencil
23 and see where that it is.

24 MR. SCARBROUGH: Right. And for operating
25 plants that true, I would agree. But this rule is

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1 envisioned to apply to new applicants as well. So it
2 would be like right off the start design of the entire
3 set of equipment that would be covered. So we're in
4 the rule that's going to cover a broad -- you know,
5 it's much more broad than just operating the plant
6 now.

7 I agree that, you know, as you slowly work
8 into it if you have a way to sort of monitor these
9 changes in reliability, availability, however you do
10 that. But the rule also is going -- intended to be
11 applied to new plants, which would be right off the
12 board all the new design control and things of that
13 nature.

14 MR. STROSNIDER: I think there's a very
15 important that we need to deal with on this boundary
16 condition when I listened to this discussion. Because
17 we're reading this as a very quantitative boundary
18 condition when the fact is when I listen to this
19 discussion when you talk about reliability of
20 components under the conditions I've been talking
21 about earlier, you know, the high steam, high
22 radiation seismic events, etcetera. And quite
23 frankly, I don't think we have good numbers on that
24 now, all right. And I doubt that we're going to have
25 good numbers in the future because, you know, that's

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1 not the conditions under which these components are
2 tested throughout the life of the plant.

3 You're really relying on the programmatic
4 aspects to assure that they'll do their function. All
5 right. So, I mean I think we need to be very careful
6 here and understand that there's some qualitative
7 judgment that's involved in maintaining the
8 reliability and availability.

9 Yes, if we had a PRA, all right, where we
10 knew this was the reliability of a particular
11 components under those harsh environments, etcetera,
12 and we were somehow monitoring that through the life
13 of the plant, the periodic tests. I don't know what
14 you'd do. Take it out of service? Go test it in an
15 autoclave, or whatever. All right. That's not what's
16 happening and that's not our expectation, either.

17 So I think we need to be very careful in
18 establishing some sort of quantitative expectation
19 that you're actually going to be able to tie this to
20 quantitative numbers coming out of PRAs. If you can
21 do it, great. And to some extent you can based on
22 operational data and availability, and nonavailability
23 and that sort of thing. But some of these other
24 conditions, I don't think you're going to get there in
25 a quantitative sense.

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1 MR. SCARBROUGH: Those are all really good
2 suggestions.

3 MR. BURCHILL: Can I add one more?

4 MR. SCARBROUGH: One more. Good.

5 MR. BURCHILL: One more. If there's one
6 myth I'd like to dispel before we end this meeting,
7 and that's the myth that all plants are going to run
8 around and drop 75 percent of their SSCs that are
9 safety related down into Box 3. I mean, that's not
10 the case.

11 I mean, it's going to be a spectrum. And
12 perhaps your recent experience has been with a
13 situation that had a very high number or a high
14 fraction, but I can tell you a large number of plants
15 there's going to be a struggle to find a substantial
16 population that will drop.

17 So, I think there's a calibration here of
18 apprehension that's unfounded and needs to be
19 carefully re-examined.

20 MR. SCARBROUGH: Well, I guess we're going
21 on our one data point.

22 MR. BURCHILL: I understand that.

23 MR. HOLAHAN: Bill, was that meant to
24 reduce my apprehension? That's not the way I took it.

25 MR. BURCHILL: Perhaps it didn't reduce

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1 your apprehension, Gary. I think that the statistical
2 characterization as to the number of components in a
3 plant that are going to now under go dramatic change
4 in someone's view of treatment, I think is unfounded.

5 MR. HOLAHAN: I understand.

6 MR. BURCHILL: And, frankly, if they were
7 in fact low safety significance, I don't know why we'd
8 be so worried about it anyway. But that's our
9 fundamental philosophic problem.

10 MR. HOLAHAN: Okay. So I shouldn't be
11 concerned about a large change, because some plants
12 are already there?

13 MR. BURCHILL: That's a good way to put
14 it.

15 MR. HOLAHAN: Okay.

16 MR. DINGLOR: Did that help you out there,
17 Gary?

18 MR. SCARBROUGH: Okay. Thank you.

19 Why don't we move on to the third boundary
20 condition. We're going to take all this back, that's
21 why we have the transcripts. We can go back. You
22 know, I'm not taking notes furiously. But we can go
23 back and look at all the suggestions and try to come
24 up with a real tight of boundary conditions that we
25 can use as we go forward.

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1 The third boundary condition is our level
2 of regulatory assurance, our broad mission. Any
3 suggestions on regarding that boundary condition?

4 MR. HEYMER: Adrian Heymer, NEI.

5 I guess when I read this, I just struggle
6 with -- I'm dealing with low safety significant SSCs
7 and we're to get there with one sensitivity study that
8 increase the failing rates by factors of 3 or 5, or
9 whatever. And so if the level of assurance has got to
10 be consistent the protection to public health and
11 safety, are we saying then that a failure of a RISC-3
12 can effect public health and safety? Because in my
13 mind the very fact that they're low can't really
14 effect public health and safety. So, I'm struggling
15 with this whole boundary condition.

16 MR. SCARBROUGH: Well, on an individual
17 basis for these components, I would agree with you, or
18 maybe on a small set. But when we're talking about
19 groups of these small -- this equipment. I mean,
20 you're talking about the main steam isolation valves
21 possibly, feed water isolation valves, diesel
22 generator start valves. I mean, if you start looking
23 at these in the aggregate, or groups of them, you
24 know, they would become significant to public health
25 and safety.

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1 MR. HEYMER: But I believe, and there are
2 more PRA people here that are more knowledgeable about
3 that subject than me. But I believe that when you do
4 the sensitivity study you do look at the aggregate.

5 MR. SCARBROUGH: From sensitivity studies,
6 but you raise the independent failure rate by three to
7 five, and then you have -- then you still have -- but
8 you still have a common cause potentials across
9 systems and things of that nature.

10 So it's still a randomness. I mean, you
11 still have a randomness factor there that these are
12 going to fail. You're going from 10^{-7} -- I'll say
13 valves, because I'm familiar with motor operated
14 valves. You're going from like 99.9 percent
15 reliability to a 99 percent reliability for this
16 equipment.

17 So, you may -- on an individual component
18 basis, absolutely, I would agree with what you're
19 saying. But the whole concept of treatment is across
20 the board, and that's what raises the issue here is
21 that you're talking not about an individual, you're
22 talking about the entire set. And that's why this
23 raises -- but in terms of this boundary condition, I
24 mean this boundary condition we feel is just a
25 fundamental. We still have to have a regulatory level

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1 of regulatory assurance. What that level is, I mean
2 is still -- we're still working on to trying to reach
3 that level that everyone has a comfort level with.
4 But in terms of the concept of this boundary
5 condition, it's basically that we still have to be
6 consistent with our mission.

7 I mean, so that's the point here. So
8 we're not saying what level it is, we're just saying
9 that there has to be a level that still supports the
10 mission.

11 MR. HOLAHAN: I think part of the
12 confusion under 3 is if you do 1 and 2, you've done
13 the technical item necessary, right?

14 MR. SCARBROUGH: Right.

15 MR. HOLAHAN: It seems to be that item 3
16 is a matter of regulatory requirement needing to have
17 other attributes, not how much safety they imply. But
18 regulatory requirements ought to be clear and
19 understandable and establish a basis that people, you
20 know, can understand how and why the decisions are
21 made.

22 So, it seems to me that item 3 doesn't
23 provide the adequate protection. Items 1 and 2 ought
24 to providing adequate protection. Okay. But the
25 process of documenting that in an understandable

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1 public way, I think, is what 3 is calling for. And
2 there ought to be attributes that -- you know, the
3 attributes of a good regulation, maybe we need to
4 clarify what those are.

5 MR. ALADJEM: Yes, good. That's a good
6 point.

7 MR. STROSNIDER: One other thought on it
8 is just to sort of look at it from the other
9 perspective, which is you could say, well, are we just
10 taking these components out from under regulatory
11 control period. Right. The message is here, no,
12 they're not out from under regulatory control, that's
13 consistent with the framework that was set up as there
14 was some level of regulatory control. There needs to
15 be discussion about what it is, just as we were
16 talking about earlier. But I think at least one of
17 the important messages is it's still under regulatory
18 control. We get into other options if we start
19 talking about, you know, saying this doesn't need to
20 be under regulatory purview at all.

21 MR. TRUE: Doug True, ERIN engineering.

22 A couple of things about this sensitivity
23 thing.

24 First of all, just to make sure it's
25 clear, the sensitivity study does also address the

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1 common cause failures and increases those failure
2 rates consistent with the independent failure rates.
3 So we are looking at the common cause potential
4 increase to this part of the sensitivity study.

5 The second thing is that I think there
6 seems to be this preoccupation with the numbers and
7 how the reliabilities are going to change. And this
8 process, and I think Gary tried to say this and so did
9 Bill, is a lot more robust than the numbers in the
10 PRA. I mean, there's a screening process the PRA is
11 used for. All it does is screen. It identifies
12 components that have potentially significant impacts.

13 At the point it falls out of the screen or
14 comes through the screen, the PRA is no longer
15 important. Then we have to go through and look at
16 defense-in-depth, safety margins. We have to look at
17 other hazards which are deterministically handled
18 almost in most cases. And then we've got to make a
19 past the threshold of the IDP. And so we're looking
20 at a lot more than some reliability number that's
21 going into a PRA model. And I think the focus on
22 trying to assure that those stay the same is really
23 missing the point of what we're trying to do in the
24 categorization process.

25 The second thing is that there seems to be

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1 a lot of concern hearing from you about the
2 intersystem common-cause bogeyman. And we need to get
3 that out on the table or open the closet door and find
4 out there really isn't a bogeyman there. Because
5 that's going to bring this whole thing to a complete
6 stop. And I've heard you bring it up about four or
7 five times. It's just -- we can't go there because if
8 we start talking about intersystem common-causes, then
9 everything about the design bases goes away.

10 Design bases in fact ignores common-cause
11 failures, all common-cause failure including those
12 within a system.

13 So, I think we need to just be careful how
14 we proceed down that path.

15 MR. SCARBROUGH: Good. Well, the reason
16 why is that the design bases has a very robust
17 Appendix B process for design control and such, and so
18 it's never really dealt with that. The whole concept
19 of treatment was developed without that in terms of
20 original treatment. So it focused on the pedigree of
21 all this equipment so you wouldn't have that
22 potential. And then you had the PRAs develop. But
23 it's something to remember because this goes straight
24 to across systems. I mean, this is the -- about as
25 fundamental across systems as you can be when you

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1 start talking about treatment for the entire plant in
2 terms of safety related equipment.

3 So, you know, this is a fundamental area.
4 So this is something to remember, this is why -- one
5 reason why we say okay we have to -- this equipment is
6 treatment is important for, because if your -- you're
7 not talking about treatment of one piece of equipment.
8 You're talking about equipment, vast amounts of
9 equipment at the plant in terms of treatment. So
10 that's one reason why I keep raising this intersystem
11 issue is that because that's the inherent nature of
12 the treatment process that we're looking at.

13 MR. TRUE: I'm going to say this, and I
14 know I'll regret it, because I helped devise the
15 categorization process. But if that is your concern,
16 then we have the wrong categorization process.

17 MR. STROSNIDER: This is Jack Strosnider.

18 I just want to comment on this, because
19 I'm not sure that it's the categorization process.
20 And I think it's a lot less the discussion about the
21 quantitative sensitivity studies that draws the
22 concern. You know, try to talk with a more tangible
23 example.

24 If you go out through the procurement
25 process and you procure a piece that goes in a

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1 component, like a pressure transmitter or sensor, or
2 something like that, and you procure a bunch of those
3 and they're sitting in the warehouse and you weren't
4 careful when you procured them to understand the
5 environment that that thing was going to work on, and
6 then you go out and you start putting them in place.
7 You know, at some point you could end up with a large
8 number of them whose failure probability didn't change
9 by a factor of ten, but whose failure probability is
10 one in the worst case.

11 All right. Now, what's the protection that
12 you have against that? All right. I mean, that's the
13 scenario you can conjure up, and that's when I come
14 back to, you know, what we were talking about, sort of
15 the more qualitative parts of the program and that the
16 procurement, the intent of the procurement aspects or
17 the design when you go select the material that it's
18 going to preclude that from happening.

19 And even though this is low safety
20 significant now, the argument is you still need to
21 maintain that functionality, so you need to have
22 something in place to stop that from happening.

23 And I guess the final comment with regard
24 to the quantitative aspects of it is if you were to
25 take that extreme example and say here's a number of

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1 these components that are going to fail at probability
2 one, I don't think the sensitivity studies support
3 allowing that sort of thing to happen.

4 And I'm not saying that there's a bogeyman
5 out there. All we're saying is that you need to have
6 enough control in the program to make sure that it
7 doesn't go to that sort of situation.

8 MR. TRUE: And I don't think we had a lot
9 of disagreement, at least in my interpretation of the
10 discussion, on item one about making sure that we had
11 the right functional requirements, we call them
12 attributes, in our categorization process identified
13 for even the low safety significant components. In
14 fact, categorization process has you go through a step
15 of keeping track of that so you make sure that you
16 keep those design bases attributes attached to those
17 RISC-3 components.

18 I think Tony's presentation tried to say
19 we're trying to maintain that function as part of our
20 process and not introduce the potential that we have
21 the wrong design for a component, and on top of that
22 we have this assurance that the reliability is going
23 to be good and we're not extrapolating that much
24 farther than we are now from the existing tests and
25 the existing design bases. That's what gives the

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1 reasonable assurance.

2 MR. STROSNIDER: Right. And then to come
3 back to, and I think maybe we kind of bounced between
4 boundary conditions 2 and 3 here, but the question is
5 boundary conditions capture that consensus. I'm
6 hearing that we have agreement there, and that's what
7 we were trying to capture in these boundary
8 conditions.

9 MR. TRUE: I'm just a guy, a contractor at
10 that. I don't actually own plants and make these
11 decisions.

12 MR. STROSNIDER: Well, in that case --

13 MR. TRUE: My view of we understand that
14 part of the going forward basis for Option 2, I think
15 Gary made this point in one of the first public
16 meetings on Option 2, that we had to maintain the
17 design bases for these components. And that includes,
18 I remember the conversation we had of that does that
19 mean we have to keep the 10 second closure time on the
20 valve, and we have to make sure we keep the seismic
21 and environmental; I think those things are
22 understood. How you get there, that's what the
23 purpose of I think this meeting was supposed to be
24 about.

25 So I think -- I don't think there's a lot

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1 of disagreement on that. I think what's troubling me
2 is reliability, availability, numbers, PRA,
3 assumptions and then introducing this whole new
4 specter of intersystem common-causes. We just can't
5 go there. We have to make sure that what we do
6 doesn't get us into that mode, and I think that's what
7 we've tried to do in the NEI-00-04 guidance.

8 MS. APARICIO: Leigh Aparicio from EPRI.

9 And I guess my points seemed more relevant
10 about three or four minutes ago, but to your example
11 nothing is going to -- categorization, even
12 classification is not going to prevent us from -- I
13 mean, if you install the wrong part in an application,
14 you're in trouble. And so no categorization process
15 is going to fix that.

16 I think that an example that you used we
17 have a high temperature environment for non-safety
18 related products that we buy materials that will work
19 in those environments all day long. And so, I mean,
20 I can't conceive, unless there was just a breakdown in
21 the current systems that we use even for non-safety
22 applications, that what you suggested could happen.

23 It's not like when we buy nonsafety stuff
24 we just throw it in the warehouse and people rummage
25 through and pick what they want that looks like this

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1 and go and install it. We still make a conscious
2 effort for no other reason, maybe, then for business
3 practices to have the right part to install in those
4 applications.

5 MR. STROSNIDER: Right. And I think the
6 intent here is to make sure that that sort of practice
7 continues. And just when we kind of take a step back
8 and look at what we're doing, we're saying we've got
9 a lot of components here that are currently captured
10 under these special treatment rules. And we're going
11 to say you don't have to do that anymore. You don't
12 have to apply these special treatment rules. And I
13 understand you were talking about non-safety to begin
14 with.

15 MS. APARICIO: Right.

16 MR. STROSNIDER: But when you take these
17 things out from under the special treatment rules,
18 what are you going to put them under. And, yes, let's
19 make sure that you got the procurement, you got the
20 design controls, etcetera, to make sure that that
21 continues to happen.

22 I don't think anybody's saying it can't
23 happen. I don't think anybody's saying that, you
24 know, that we're walking down a path where all of a
25 sudden, you know, you can just, like you say, just

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1 picking stuff off the shelf. But when we try to write
2 a rule that captures that, that's our challenge.

3 MR. HEYMER: Adrian Heymer, from NEI
4 again.

5 Just commenting on a couple of things I've
6 heard. We have three programs today. They are
7 Appendix B, augment quality and balance of plant. And
8 by applying those programs, which are treatment in
9 varying degrees, we have obtained an exceptional level
10 of performance. And what we're talking about now is
11 moving a sect of equipment or components into another
12 one of those programs. And we recognize the fact that
13 EQ and seismic needs some additional guidance, and
14 we're dealing with that as best we can. And as Leigh
15 said, we've got a pretty history of where we're going.

16 So I struggle when you say, Tom, that
17 well, you know, we've got to move all this equipment,
18 which is probably not 75 percent for the average
19 plant. It's probably a lot less. Down into the low
20 safety significant. I'm still going to have that
21 degree of assurance on reliability, and I'm not doing
22 that just picking those equipment from a gut feel.
23 There's a pretty extensive process that I have to go
24 through, including a sensitivity study that says well
25 what's the effect of increasing the failure rate by 5

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1 or 10.

2 And so when I look at that, I need all
3 those programs to work today to maintain a 90, 95
4 percent capacity factor, which is a high reliability
5 value. If I move a set of equipment, which I
6 determine is of low safety significance or no safety
7 significance, down into the balance of plant program,
8 why do we think there's going to be a dramatic change
9 in reliability both at either at the plant level or at
10 the component level?

11 MR. SCARBROUGH: Well, one of the aspects
12 of that is that there are really actually more than
13 three levels. There's a level where the licensee is
14 dealing with to achieve this very high availability
15 factor for the plant, and they do a great job doing
16 that. There's also the equipment that's in standby
17 status that's used for maintenance or just standby
18 type of systems. And from the Idaho study and our
19 discussions with licensees, standby equipment gets a
20 much different treatment than equipment that is used
21 for power generation. And the question is where is
22 this equipment, this bulk of this equipment, whatever,
23 it's 75 or 50 percent let's say of equipment, where is
24 it going to go when it falls down?

25 A lot of the equipment that is in this low

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1 risk category is the standby safety related type
2 equipment. You got containment isolation valves,
3 which have no function other than in an accident,
4 things of that nature. So a lot of that equipment is
5 going to fall down into this lower level is standby
6 type equipment.

7 Now, if they apply their normal standby
8 practices, equipment practices to this equipment, it
9 revolves letting it sit there until something happens
10 and it falls off.

11 I mean, so that's sort of driving the
12 concern. Because there's really more than just two or
13 three levels here. There's a level that is applied for
14 standby equipment, and that's one of our concerns.

15 MR. CALUO: It's my turn now.

16 I can understand what you're trying to do.
17 You're trying to -- measurement of how you move --
18 you're progressing ahead the way you treat these
19 components and the systems, and the monitoring that
20 will ensure you functionality when you're confronted
21 with -- the question in my mind that I had, this is
22 category 3. How about the RISC-1 and 2? What we do
23 today that will ensure ourself that the assumptions in
24 the category 3 for RISC-1 and 2 are being met? What
25 do we measure there? And I just wondered if we

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1 measure reliability. We measure availability? What
2 do we measure today? Not only for Option 2 in any
3 nuclear power plant in the country today what kind of
4 assurance do we have that the assumptions that we use,
5 whatever the deterministic or PRA, that we are being
6 met? And I just wondered.

7 And if you happen to know what those are,
8 right, you can extrapolate and say well I keep this
9 one, I throw away that one. But some kind of way we
10 talking about the tail end when I think the answer to
11 the question could be at the front end with the RISC-1
12 and RISC-2. And that's a question. If somebody wants
13 to comment on that.

14 MR. SOWERS: Can I start with his first?

15 MR. CALUO: You have my permission.

16 MR. SOWERS: Well, I wasn't going to talk
17 about the INEEL study. Now I am.

18 I've actually struggled with this, and
19 I've struggled from the perspective of trying to
20 understand the staff's predicament and what they're
21 trying to do, especially when it came to the
22 conclusions that I saw that came out of the INEEL
23 study.

24 First, you have to recognize that when you
25 go ask about commercial practices you will find

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1 exactly what the study said: Wide variability even in
2 one plant. I could have saved you a lot of money
3 coming to that conclusion, by the way. Pretty well
4 known fact.

5 The problem with the study isn't the
6 answer that it came to. The problem with the study is
7 it asked the wrong question. The question you have to
8 ask is are commercial practices sufficient at assuring
9 that the functional requirements for what we call
10 balance of plant components are maintained. If the
11 component is a one inch valve in my domestic water
12 system, you will find the spec says one inch valve.
13 That's it. But that's sufficient to maintain the
14 functional requirements for that valve.

15 If it's something in my Generx system,
16 you'll find something quite a bit more extensive as
17 far as the functional requirements. But the answer is
18 the same. The controls we apply are adequate for
19 ensuring that the functional requirements for balance
20 of plant components are met.

21 The problem comes when you look at this
22 one inch valve thing and make the assumption that
23 that's going to be applied across the board, and
24 that's where my struggle was, because I'm going nobody
25 does that. That's absurd. And yet when you read

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1 through, that's the conclusion that's reached.

2 Well, you go out there and buy anything
3 you can install it with no testing. I'm going, well,
4 you know, you can't do that because if you do that,
5 you don't meet the first boundary condition. You
6 can't assure functionality. Our balance of plant
7 controls apply sufficient requirements to assure
8 functionality.

9 If we apply those controls to safety
10 related components, they will still result in
11 sufficient functionality. Because you can't just go
12 buy anything and install it without testing and expect
13 to meet that requirement. And that was my quandary,
14 because I'm going okay, we could just state the
15 requirement in the rule, that's performance based, and
16 as a licensee I would have to what's necessary to meet
17 that requirement. So what's the problem? And I said,
18 well, okay, maybe the problem is simply that the staff
19 needs assurance that those things are going to be
20 done. Okay.

21 So we're going to apply rules now in order
22 to assure a result. Okay. We can do that. We can --
23 we've certainly done it before where we specified both
24 the result and the rules. And, in fact, if you're
25 talking about RISC-1 components, I would say that's

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1 the right way to do it. But we're not. We're talking
2 about RISC-3 components.

3 Now, when Adrian talked about three ways
4 of doing things and you talked about more than three
5 ways, you're actually both right. But basically
6 Adrian's right. There are three ways of doing things:
7 Appendix B, augmented quality and the rest.

8 I could say there's one way of doing
9 things with different gradations and the amount of
10 rigor that you put into the process, and that would
11 also be true.

12 I can live with an augmented quality
13 description in this rule because I've got an augmented
14 quality program. And that's important. I can't be
15 inventing new programs. So I'm going okay, if we want
16 to describe high level rules, let's do that. But by
17 the way, when we do that let's go look at the
18 descriptions that already exist for all of our other
19 augmented quality programs and make sure that what we
20 write is already consistent with that, because that's
21 what my current programs are designed around. And I
22 can't afford to do something different.

23 But you have to be careful when you look
24 at the INEEL stuff. It leads you to the wrong
25 conclusion, because it asked the wrong question. I

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1 don't think there was anyplace in that study where
2 they found that commercial practices that were applied
3 were insufficient to assure that the specific
4 components they were applied to resulted in
5 unacceptable functionality. It doesn't happen.

6 So when you postulate that it may happen,
7 you can postulate it, but simply it doesn't. And the
8 study didn't demonstrate that.

9 MR. SCARBROUGH: Yes, well I understand
10 your question. Part of the goal of the INEEL study
11 was to respond a suggestion that this proposed rule
12 could simply say we're going to remove all special
13 treatment and we're going to just let the industry go
14 and do commercial practice applying this. And how
15 wold we write a safety evaluation to say that when we
16 didn't know what commercial practice was.

17 MR. SOWERS: Yes.

18 MR. SCARBROUGH: And so that was part of
19 the goal. Find out what is commercial practice. So
20 okay, and we reference it. If they had come back and
21 said yes, commercial practice is this, has these sort
22 of attributes and this is sort of what it is, I mean
23 we could have written into the rule, said yes,
24 everyone knows what commercial practice is and this is
25 what you can do.

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1 But what they found was that it varies
2 significantly within individual plants as to what they
3 apply to different pieces of equipment. And for
4 equipment that isn't generating electricity and that
5 balance of plant gets a lot less attention than the
6 stuff that's generating electricity.

7 So, that was the concern. And the
8 containment isolation valves are not generating
9 electricity, and neither is the diesel generator start
10 valves. And so we're going to go back and say well
11 they're going to apply the same process they applied
12 to standby equipment to the diesel generator start
13 valves or this MSIVs, or their check feedwater
14 isolation valves, all of that equipment; how would be
15 able to say affirmative that yes we have confidence in
16 that equipment when it's going to receive the same
17 attention as a maintenance valve that is never
18 operated?

19 MR. SOWERS: I understand that's where the
20 question was, and that's why I'm saying it asked the
21 wrong question.

22 MR. SCARBROUGH: Right.

23 MR. SOWERS: The right question is for
24 standby equipment, the equipment that is now standby,
25 non-safety related are the processes used sufficient

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1 for that equipment to meet its functional
2 requirements? To assume that you'd use the same
3 process for another piece of equipment that has a lot
4 more complex and involved functional requirements is
5 just fallacious. You can't do that, and everybody
6 knows you can't do that. I think we agree you can't
7 do that.

8 MR. SCARBROUGH: Right. But where do you
9 have the regulatory assurance, though?

10 MR. STROSNIDER: I think you make a good
11 point in that. And I followed all of your comment and
12 it's right there saying yes, yes, I agree. I think
13 the point being made that once you've identified what
14 the goal is, if you will, then the treatment you're
15 talking about has been successful.

16 MR. SOWERS: Yes.

17 MR. STROSNIDER: In the sense, and that
18 the point was made, you have much better capacity
19 factors. That was a goal, you applied a process and
20 you achieved it. All right. And so from that process
21 it's very successful and the industry should get a lot
22 of credit for making that work. All right.

23 I followed it until I hear the comment
24 that nothing fails, it just doesn't happen, because
25 the process is working. We've got this high capacity

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1 factor and that demonstrates that everything's okay.
2 And what I come around to then is, yes, but the plant
3 hasn't been challenged under the accident conditions
4 since TMI.

5 Now, if you identify that your goal is to
6 make sure you're addressing those conditions, and I
7 think we've all agreed to that, then I think what your
8 argument is if we apply the same processes with that
9 goal in mind, we would expect to get the result that
10 we'd achieve that goal; that should we be challenged
11 with that sort of situation, that the components would
12 perform their function. So I think, again, the
13 regulatory perspective. When I hear statements and
14 when I see the study -- I appreciate Tony's comment
15 this morning when we talked about the industry study
16 comparing safety related components and balance of
17 plant components and saying, see, you know, balance of
18 plant components have the same reliability. And the
19 point we're making is but not under -- but would you
20 have the same reliability if you had these other
21 challenges.

22 That study asked the wrong question also,
23 okay. To some extent it answers part of the question,
24 but it doesn't answer the whole question. All right.
25 And it gets down to if we agree on what the goal is,

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1 and that's why I come back again to -- the boundary
2 conditions, and like I said this morning we call them
3 boundary conditions, we can call them performance
4 goals. You know, they're very important. If we agree
5 that that's what we're trying to accomplish, then I
6 think that what you're suggesting is well the
7 industry's demonstrated you can accomplish the goal
8 once it's established, okay, with these processes.

9 MR. REED: I think what I hear you saying,
10 Gary, is that you apply on the balance of plant the
11 necessary treatment to meet the functional
12 requirements of whatever the piece of equipment is,
13 whatever application. And if I place in the §50.69 a
14 requirement that simply says you shall maintain the
15 design bases functional requirements, whatever the
16 magic words, under design bases conditions -- we've
17 been through that about ten times today -- and put
18 that in there, that's all you need.

19 In other words, once I put that in there,
20 stuff goes into Box 3, you know for your balance of
21 plant industrial programs that you will maintain those
22 design bases requirements and apply whatever is
23 necessary. That's what I think I hear you saying. And
24 you're not going to apply what you apply on the
25 standby the balance of plant which you do that for

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1 commercial reasons. You wouldn't apply that to
2 standby design bases equipment.

3 MR. SOWERS: That's exactly what I was
4 saying. There was a second part, though, that goes
5 along with understanding.

6 Okay, I know that we'll do that. I
7 recognize the need for you to know that we'll do that,
8 too, which is why I really have no objection to what
9 we proposed, which is putting some specific
10 descriptions of the kinds of things that we all know
11 we have to do in order to do that.

12 I kind of come from the philosophy that if
13 you know what you need to do, we both should just
14 write it down and do it and not worry about trying to
15 hide it and leave it to choice.

16 And I think we all know that we have to
17 apply those controls. So let's just write it down and
18 do it and call it augmented quality, which is what it
19 is. And we can do that.

20 MR. SCARBROUGH: Right.

21 MR. SOWERS: But we need to be careful
22 with conclusions drawn from that INEEL study. The
23 conclusions that I've seen drawn just don't reflect
24 what the industry does or what the industry would do.
25 And it's wrong to characterize it that way.

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1 MR. SCARBROUGH: Well, the study was
2 intended to answer that question: Can we just simply
3 rely on some reference --

4 MR. SOWERS: I understand.

5 MR. SCARBROUGH: -- to commercial
6 practice?

7 MR. SOWERS: Yes.

8 MR. SCARBROUGH: And that's what it
9 answered. And the answer --

10 MR. PIETRANGELO: But you didn't look at
11 the results. That's what Gerry is saying. You don't
12 look at the results to answer that question. You
13 looked at the inputs, not the outputs.

14 MR. SCARBROUGH: Yes. But what they found
15 was that the range of equipment was such that -- the
16 range of the treatment was such that how they applied
17 it to different types of equipment was such that it
18 would be very difficult just to say that and nothing
19 more. And that was the conclusion that came up.

20 Yes, I agree, it would have been a good
21 interest to look at that as well.

22 MR. PIETRANGELO: I wanted to see if I've
23 understood what I've heard, at least with regard with
24 -- as long as we're on these boundary conditions.

25 My understanding from what you said

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1 before, Jack, was that these are probably going to end
2 up being discussed in the statements of considerations
3 for the rule, or some vehicle like that?

4 MR. STROSNIDER: To take it as question,
5 I mean there's going to have to be something in the
6 statements of consideration.

7 MR. PIETRANGELO: Right.

8 MR. STROSNIDER: And this is the sort of
9 thing I would expect to see.

10 MR. PIETRANGELO: Okay. The other thing
11 I heard is that these boundary conditions ought to
12 reflect the desired outcome. And so when we look at
13 it in that kind of context, I think maintaining the
14 design bases requirements, however many words you need
15 to say that, is clearly one of the key desired
16 outcomes.

17 I'll skip the 3 now. I'm not sure this
18 really serves as much of a boundary condition. I
19 agree with what Gerry said before. If you're going to
20 have a level of regulatory assurance, and you have to
21 have a rational for why those levels are where they're
22 at, that's kind of what we tried to propose this
23 morning in our framework. But this -- yes, that's a
24 desired outcome, you want some level of oversight, but
25 in terms of being a go/no go on what you're

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1 considering, I don't think number three helps you very
2 much.

3 I think you do have to have a rational for
4 why you have the levels established. And, again, we
5 tried to give you one this morning in alternative 1.5.

6 Back to number 2, I think what I have
7 heard from a bunch of people is that this is at too
8 low a level at a point in the process rather than
9 trying to reflect a desired outcome. And the desired
10 outcome is that the categorization process results
11 from being valid. And that's a more performance based
12 approach than picking an input which was some point
13 values in the PRA. And Doug explained the rest of the
14 process that's applied here. The sort of focus on
15 that really was not in the results context, it was
16 more in the inputs again.

17 So, you know, that's what I heard. And,
18 again, whether number three can be fine tuned to make
19 it a more decision criteria type thing or desired
20 outcome versus just say you've got to have some; we
21 won't argue with number three. We agree, you have to
22 have some level of assurance. And it's the level and
23 the rational that one puts together to support that
24 level of oversight.

25 MR. GILLESPIE: Yes, but Jack asked all my

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1 questions.

2 I want to make sure that I'm going away
3 with the right understanding of what I just heard.
4 Not the answer, but an understanding.

5 Did anyone hear on any of the tech spec
6 groups, you know, Adrian's and Biff and they gave Bob
7 Deming on our staff a sign one time. And they made
8 him wear it around his neck at a joint meeting and the
9 sign said "intuitively obvious," nothing that it
10 what's intuitively obvious to one party was not
11 necessarily intuitively obvious to the other. And
12 that word was used, Gary used it.

13 Tony, within the realm of what you
14 explained this morning, some things were just said
15 which are intuitively obvious to the industry but were
16 not to the INEEL people and to us when the study was
17 done, and caused us maybe to jump to a lowest common
18 denominative kind of viewpoint, possibly.

19 One of the things that's missing from the
20 body of standards and references right now is
21 something that fits, and we I know we didn't want to
22 use Appendix B, but the quality assurance program
23 shall provide controls over activities effecting the
24 quality of the identified structures, systems and
25 components to the extent consistent with their

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1 importance to safety.

2 It's been suggested, I think, by the
3 industry people here that within your normal augmented
4 program, kind of a power block program, in fact you do
5 have some sense of what's important and you want the
6 important stuff to have a little more control on it
7 than the unimportant stuff.

8 Tony, with an articulation of that, which
9 is criteria 2 of Appendix B or the meat of it in the
10 middle, anyway, be something you would consider the
11 higher level paragraphs that you were talking about
12 this morning?

13 MR. PIETRANGELO: Yes. Yes.

14 MR. GILLESPIE: And I think that that
15 sense of gradation would get us to -- and let me pick
16 relays, for example. You can spec a relay, and you've
17 got a lot of them. As Tom will tell you, you've got
18 a lot of them. And you can order the right relay.
19 You can also order it and require it to be
20 prototypically tested. So there's two levels of
21 assurance. Well, how many levels of assurance are
22 needed for -- and this is a tough one Tom brought up
23 -- for a particular relay or if you're going to do it
24 across a class, and how do you do that? Well, you
25 need a process.

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1 I'm not saying detail the process, but
2 what I learned new was that there was sense of having
3 a process, which differentiated important to least
4 important even within the RISC-3, which is low
5 important, is kind of already there.

6 Now, would your material touch upon that
7 even at a high level, Tony? And then I want to ask
8 Tom, does that help?

9 MR. SCARBROUGH: Right.

10 MR. GILLESPIE: Is that going down a path
11 that helps to bring us together?

12 MR. PIETRANGELO: Yes. We had already
13 kind of run into this yesterday when we were coming up
14 with our definition and recognized that there's --
15 it's not so much -- it has something -- there is
16 gradations of importance within RISC-3. But perhaps
17 more importantly there's degradation of complexity
18 with the change you're undertaking. It may drive
19 higher levels of treatment, even within the industrial
20 treatment program.

21 Now, I was thinking of putting that in our
22 guideline to reflect that. And you're suggesting,
23 perhaps, even putting it in the definition, which may
24 even make it more clear, consistent with what's in
25 Appendix B now.

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1 MR. GILLESPIE: But it starts to bring, I
2 think, us all together a little more in a recognition
3 that (1) there is a gradation. And if I go to
4 treatment -- to go to the two, the no one likes
5 because I'm not sure we're really in agreement on the
6 changes to that one, treatment process must maintain
7 functionality. Well, I think we need reasonable
8 assurance of functionality versus maintain, which is
9 a very absolute term. And that assurance of
10 functionality should be in consistent with the
11 importance of the piece of equipment.

12 And what you're saying is what gets you to
13 defining the treatment would have some proportionality
14 to that component's importance even within industry.
15 Which, I'll give you, is a low risk area so it
16 shouldn't be too complex. Maybe no more complex than
17 you're already doing on the power block anyway.

18 So there's some sense that there could be
19 a coming together here. Okay.

20 MR. PIETRANGELO: Right. And I think --

21 MR. GILLESPIE: Don't make me -- I'm
22 feeling good right now, Tony. Don't blow it.

23 MR. PIETRANGELO: I'm trying to take it
24 back to what INEEL study actually found, and that
25 would account for what the INEEL study found is that

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1 there's gradations depending on the importance and the
2 complexity of the --

3 MR. GILLESPIE: It's one of those things,
4 when it starts to rain. Everyone is right from their
5 own intuitively obvious position. But how do we bring
6 this together so that everyone can feel comfortable
7 with that level of regulatory control, as you put,
8 Tony. And I think, Tom, you're coming from that same
9 place. And how many words are needed to say okay
10 we'll have a process that kind of fulfills what
11 criteria to Appendix B says. Okay. That's one level,
12 we'll have a process.

13 And then you're down into the other
14 comment you got earlier this morning was plant
15 procedures and guidelines. Now, where's the right
16 place from the rule to plant procedures and guidelines
17 to describe the process? I don't think we're going to
18 answer that here, but the idea a reference to a
19 process -- if we could leave here today with that,
20 that would be valuable piece to leave with, without
21 getting it too complicated because these are already
22 low risk things.

23 Some things we may have to leave until the
24 next meeting of a smaller group.

25 But anyway, I feel -- did I characterize

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1 it that there is a process there, how much regulatory
2 control or control over process is needed is something
3 we need to discuss?

4 MR. SCARBROUGH: Right.

5 MR. GILLESPIE: Okay.

6 MR. SCARBROUGH: That's something that I
7 think we're working towards.

8 MR. GILLESPIE: And, Tony, you guys are
9 open to discuss.

10 MR. PIETRANGELO: Well, we proposed
11 something this morning.

12 MR. GILLESPIE: Okay. Okay.

13 MR. PIETRANGELO: And gave our rationale
14 for why we think it's the right level per number
15 three.

16 MR. GILLESPIE: Okay.

17 MR. PIETRANGELO: And that's kind of our
18 strawman to throw in for consideration.

19 MR. GILLESPIE: Okay. Great. But that
20 could bring us together instead of arguing over the
21 rightness or wrongness of the INEEL study, how do all
22 these things come together. And the key may be the
23 idea that there in fact is a process. I hate to say
24 this because I don't want to make it too complicated.
25 But there is even within RISC-3 a gradation. Okay.

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1 Now, how do we do that so that everyone wins is the
2 challenge now. Okay.

3 MR. JEBSEN: Eric Jebesen from Exelon.

4 This is sort of -- I guess I was thinking
5 along these same lines where I'm tending to think more
6 in terms of a performance based rule where the process
7 itself is okayed at a high level and then the
8 assurance is through the normal course of inspections
9 and assessments, and things like that. So that you
10 say you have to have these elements, whatever they
11 are, the QA program says on an individual site
12 specific basis, the utility basis says here's in
13 general what they mean, here's our procedure on how
14 we're going to do all this stuff. And then through an
15 inspection process someone says "Oh, you made this a
16 RISC-3 showing me how you're verifying that this is
17 okay. We should be able to pull a program, test
18 results, or whatever it happened to be to give us the
19 assurance we are meeting this commitment. And then
20 agree or disagree, you know.

21 But I'm tending to think of it more in
22 terms of that way where the process is okayed. And,
23 again, I'm thinking more in terms of an operating
24 plant and again, from perspective of -- and this is my
25 intuitively obvious part, is that the 75 percent is a

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1 myth. You know, that I might have like, I guess 3 or
2 maybe 4 systems that I can think of right off, some of
3 which aren't even in the PRA. And I'm thinking of how
4 much am I really going to save and make it worth my
5 while to go through this this trouble and recognizing
6 there are some things, for example, you bring up like
7 relays or bolts, wire, val packing, all kind of
8 consumables. I generally buy all Q anyway just so I
9 don't have the horrible problem of discovering I've
10 put a non-Q thing in a Q application, which would
11 swamp -- the pain of that would swamp any benefit of
12 the pennies I'd perhaps saved on buying a couple of
13 non-Q bolts.

14 So I understand that okay we want to write
15 the rule for new plants, too, and I would think from
16 a new plant perspective they would almost be beyond
17 this in a sense that they would start with a Q list
18 that's 10 percent anyway. That their PRA would help
19 define what's important to safety. They would live
20 with Appendix P, the PRA helps define what's important
21 to safety and the stuff that's not important to safety
22 as demonstrated through some combination of expert
23 opinion and PRA would already remove all those
24 components and so would not be even necessarily in the
25 program.

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1 MR. SCARBROUGH: That's Option 3.

2 MR. JEBSEN: And that's my comment.

3 MR. SCARBROUGH: That would be Option 3 at
4 that point. So I think the complexity of having the
5 new plants in here is -- I don't know. Maybe that's
6 something to go back and rethink should there be
7 something to just keep it to operating plants or also
8 include the new plants as well. So that's something
9 that may have to be thought about, too.

10 I know it's getting close to lunch, but I
11 did want to mention a couple of things regarding
12 Tony's point and maybe just give Tony to think about
13 during lunch.

14 But one is regards the alternative to your
15 slide 9, which said it's a draft alternative 2 RISC-3
16 approach is equivalent to the current Appendix B. And
17 that's really not true, because if you look at
18 procurement, just in the area of procurement just in
19 how it was described for the South Texas, that's not
20 Appendix B procurement. That's what was allowed for
21 South Texas. So it's quite a bit less.

22 So, there are some areas that would be
23 similar; design control and corrective action, yes,
24 they would probably be similar to Appendix B. But the
25 concept of alternative 2 was not Appendix B. It was

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1 intended to be much less.

2 MR. PIETRANGELO: Well, what was meant
3 there is that in terms of what language is in the
4 rule. Okay. What's in your draft alternative 2 in
5 the paper is basically the same level of detail that's
6 in the rule in Appendix B. And I didn't mean it to
7 mean anything more than that. All right.

8 Clearly what South Texas got on their
9 exemption request is less than the commitment to all
10 those reg guides and standards, and all the rest of
11 the kind -- we call it Appendix B at the top of the
12 pyramid and the rest of that stuff that one commits to
13 in the rest of that pyramid, clearly they have
14 something less than that. This was only aimed at the
15 level of detail in the rule.

16 MR. SCARBROUGH: Okay. Good.

17 MR. GILLESPIE: Tony, this is another
18 interesting point. It was a good point of bringing
19 things together this morning.

20 What I got out of what NEI presented this
21 morning was asking the staff to step back and look at
22 being a little more articulate in overall objective to
23 what's intended to be met by those attributes. And
24 therefore, it only lists the attributes versus listing
25 the objective of each individual attribute and

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1 recognize what the integral is supposed to achieve.

2 MR. PIETRANGELO: Correct.

3 MR. GILLESPIE: Right? Which would allow
4 more flexibility, I guess, on the industry's part
5 attribute to attribute, or what would go in the level
6 guidance document.

7 MR. PIETRANGELO: Yes, because what
8 happens, and this is again why we contrasted with
9 what's in Appendix B today, if you put the same level
10 of detail in 50.69 that's currently in Appendix B and
11 you tend to go to the next same level of detail in the
12 implementation, and these are lows versus what was
13 safety related and the most important thing before.

14 MR. GILLESPIE: But the important thing I
15 got out of what you said this morning was a request
16 that we look at the attributes in the integral.

17 MR. PIETRANGELO: Yes.

18 MR. GILLESPIE: And not necessarily one at
19 a time. And you suggested that we might have to
20 actually beef up what the overall objective was of the
21 whole to be more articulate about what the whole
22 treatment thing is trying to achieve for RISC-3
23 consistent with the fact that it is RISC-3.

24 MR. PIETRANGELO: Right. I think you've
25 been pretty articulate about that already.

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1 MR. GILLESPIE: Okay.

2 MR. PIETRANGELO: You want to maintain the
3 design bases requirements going forward for RISC-3.
4 And to me, that says a lot, and that's sufficient from
5 our standpoint. If you feel the need to further
6 elaborate on that, but it still does the same thing,
7 fine. But I think that's what we see as the
8 overriding concern here is that those design bases
9 requirements are maintained.

10 MR. SCARBROUGH: I did have one last
11 point. Oh, Gerry?

12 MR. SOWERS: Well, is it time to talk
13 about boundary condition 4?

14 MR. SCARBROUGH: You have one to suggest?

15 MR. SOWERS: Well, I just assumed we'd get
16 to that. It's the obvious question after you laid out
17 3 to ask if that's all there are.

18 MR. SCARBROUGH: It's supposed to be all
19 there are.

20 MR. GILLESPIE: Oh, darn.

21 MR. SCARBROUGH: The last thing I wanted
22 to mention --

23 MR. SOWERS: I would like to talk about
24 boundary condition 4.

25 MR. SCARBROUGH: Oh, you have one? Okay.

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1 MR. SOWERS: Oh, yes.

2 MR. SCARBROUGH: Come forward.

3 MR. SOWERS: This is Gerry Sowers again
4 from Palo Verde. This is only because I like to
5 spring things on Tony.

6 MR. HOLAHAN: We should start a club.

7 MR. SOWERS: There is a fourth boundary
8 condition. And I mention it especially because this
9 rule is a voluntary rule. And it's only going to be
10 adopted if it's judged to be cost effective. And it's
11 certainly a judgment that ever licensee is going to
12 make, and they're going to judge whether the rule is
13 acceptable on that basis.

14 So if we view these things are our
15 boundary conditions and not just the staff's boundary
16 condition, there is a fourth, and it's very important.
17 And I don't think we should lose sight of it. There
18 is, in fact, words -- and don't ask me what SECY
19 letter -- that talked about this, that the rule should
20 have an expected pay back in X number of years. So
21 there was a recognition that it was voluntary, that an
22 objective of the rule was to result in cost savings
23 without a significant reduction in safety. And I
24 think it's fundamental to this whole thing.

25 It's fundamental because I'd hate to go

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1 through all of this with your time and our time only
2 to get to an end and have licensees decide it won't
3 work.

4 So, I'd suggest that we need to add a
5 fourth boundary condition there that normally I agree
6 would not be there, but in the context of a voluntary
7 rule with this stated purpose has to be there. And
8 second, because certainly all the licensees are going
9 to judge the acceptability of this rule making with
10 that as a major boundary condition.

11 So that's my fourth one.

12 MR. SCARBROUGH: Thanks.

13 MR. GILLESPIE: I think that's a good
14 point, and in fact on the current schedule that we're
15 at, that has to be a primary question in the
16 statements of considerations when this go out
17 proposed. Because if the answer is the wrong answer,
18 there's no point in going final.

19 MR. SOWERS: Exactly.

20 MR. GILLESPIE: It's not worth the
21 incremental effort. And the sunk cost is what it is.
22 So, that definitely is going to have to be in the
23 first public submission we put out.

24 MR. REED: That's also a part of the
25 regulatory analysis, Gerry. It's an integral part. We

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1 have to try and understand the cost and benefits
2 because, as you said, we don't want to put together a
3 framework and expend the resources to that that
4 nobody's going to adopt.

5 And, you know, as part of the pilots we
6 were hoping to get some even -- if nothing else, at
7 least some qualitative information to that, you know,
8 to help us answer that question. And we understand
9 the difficulties of trying to come up with that
10 information. But you're absolutely right.

11 And it's buried in our process. We didn't
12 pull it out as a boundary condition, although perhaps
13 you could see it as somewhat in the third boundary
14 condition buried deeply in there. But nonetheless, I
15 can assure that the regulatory announcements process
16 will look at that question.

17 MR. STROSNIDER: It's a good comment and
18 it's one we certainly need to think about. I think
19 I'm also a little concerned about perspectives
20 because, you know, I could write that, and maybe you'd
21 agree with this, but I could write that boundary
22 condition as saying, you know, when we put this out
23 for public comment and we get the feedback from the
24 industry on what the benefits are, if the benefits
25 don't justify it, then don't pursue rulemaking.

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1 You know, it's interesting though, too,
2 because what you pointed out earlier, this will have
3 different economic impacts with different plants
4 depending on -- you know, and so we're going to be
5 relying upon industry input to help support that.

6 So, I don't know if that's a boundary
7 condition. If that's the way you'd state it or not.
8 That's why I mentioned it. But I guess it's the same
9 concept.

10 MR. BURCHILL: Bill Burchill, Exelon.

11 Actually, it's already in all of your
12 literature. The ANPR said reduction of unnecessary
13 regulatory burden, and you know, frankly, it is quite
14 surprising that that doesn't show up as one of your
15 boundary conditions. Because the reduction in
16 unnecessary regulatory burden was supposed to help you
17 and us, and it was supposed to help us not just in
18 absolute expenditure bases, but in also focusing our
19 attention on the things that really make a difference.

20 MR. SCARBROUGH: Bill, if you look at the
21 September 27th detailed discussion of the alternatives
22 for boundary condition three, it does go through and
23 indicate a discussion of the four performance goals,
24 and it does talk about unnecessary burden. I mean,
25 that is a discussion point that is in there. And I

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1 did mention it among everything else I talked about
2 this morning, but in terms of meeting those
3 performance goals. And one of them is reduction of
4 unnecessary burden.

5 So, absolutely, I mean that is part of our
6 consideration in terms of meeting that to try to
7 reduce, remove special treatment for this somewhat
8 percentage of this equipment that's safety related and
9 put it under something else because there's a
10 perception and that can be drawn out from looking at
11 the data and such, is that there's an unnecessary
12 burden here that can be reduced. And that's part of
13 the goal of meeting -- and it is in the third boundary
14 condition.

15 MR. BURCHILL: As you say, it's extremely
16 well camouflaged.

17 MR. REED: Actually, not to belabor the
18 point, but you know our four pillars is what we used
19 to evaluate everything these days. And most of these
20 boundary conditions are going after the first one,
21 maintain safety. You mentioned reducing unnecessary
22 burden, but this regulation will also be more
23 effective and efficient by focusing on what's
24 important. This workshop and we're doing is the
25 public domain is maintained, the public confidence.

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1 So we're trying to do all four. Those
2 other three aren't really coming out as being too
3 obvious.

4 MR. CALUO: I guess I'm a little puzzled
5 that that question comes up now. Because that
6 question that's probably planning there was an
7 understanding by the staff, the NRC and the industry
8 that this is something that you wanted because it's
9 going to help you to focus on safety better, to reduce
10 the burden better. And why you asking that question
11 now?

12 If your expectations between now and when
13 they issue a rule that there's something in there that
14 you don't get that you wanted to get when you first
15 planned on this, that it will preclude many utilities
16 from not doing it, if only one or two do it and if
17 they -- worth their while to spend their resources on
18 two and not the other.

19 I think you're asking a question that you
20 should have asked that question before you embark into
21 this tremendous use of resources.

22 I'm just curious why you bring that now as
23 a fourth condition when that should have been already
24 established before. Anyway.

25 MR. REED: I think, Jose, we're all

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1 working towards that. You know, when we come up with
2 this draft rule and ultimately get to a proposed rule,
3 we're trying to develop a draft rule everybody can
4 live with. Obviously, that's the first thing we're
5 trying to do. But when we get to the proposed rule
6 and we something out there and we get the public
7 comments, I think we'll get the kind of feedback from
8 industry what we've actually arrived at is truly cost
9 beneficial and will work for them. And we're trying
10 to get there for all of us. You know, we all benefit
11 from that.

12 MR. CALUO: That's all I have to say.

13 MR. PIETRANGELO: We're in the middle of
14 the process. We're forming the way it's going to be
15 done now.

16 MR. HOLAHAN: Jose, all three alternatives
17 may not achieve these goals to the same extent. And
18 so all we're saying is that these boundary conditions
19 and the other goals are the way to judge which is the
20 best alternative.

21 MR. CALUO: (Off microphone) ... and I
22 know what you're saying, but I guess it come as a
23 surprise from the industry point of view that they're
24 not quite sure whether this cost beneficial or not.
25 I don't know.

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1 MR. STROSNIDER: Well, let's put it on the
2 table. The industry's afraid that the NRC's going to
3 promulgate such a conservative rule that it's not
4 going to achieve that goal. I heard the message,
5 okay.

6 MR. REED: Tom want to take one more
7 comment.

8 PARTICIPANT: Nobody can top that.

9 MR. SCARBROUGH: Back to Tony's point, I
10 wanted to raise this. In terms of your slide 8 where
11 you talked about the rule would have we'll say very
12 high level with a list of attributes there. I think
13 you referenced a QA topical reference in the FSAR
14 should have provided a summary description of the
15 attributes. And I don't really expect you to give an
16 answer now, but something to think about.

17 Where would those summary description of
18 attributes come from? Would they be generated by the
19 licensee itself or would there be some sort of
20 document generated by NEI or the NRC, or something
21 that would be the document where those attributes
22 would be derived from?

23 MR. PIETRANGELO: Yes, we talked about
24 that yesterday in our meeting. And as part of the
25 discussions we've had up to now, the thought is to

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1 follow the risk-informed ISI model for implementation
2 of this and develop a template for submittal to the
3 NRC. And in that template you'd see the kind of
4 language associated with the summary descriptions of
5 the attributes.

6 MR. SCARBROUGH: Okay. Good. Thank you.
7 All right.

8 If anyone has cards for questions for
9 after lunch on various aspects of the rule, that would
10 be great.

11 MR. BALKEY: As you run the cost benefit--
12 I'm sorry. Ken Balkey with Westinghouse. And I've
13 been working on the Westinghouse Owners Group project
14 on the Option 2 effort as well as with the ASME.

15 The question about well the industry
16 having done the other applications on in-service
17 inspection, in-service testing and tech spec knows
18 that working with the staff moving to Option 2 has
19 tremendous opportunity with it if we all do it
20 correctly and then everybody comes out winning.

21 We've all known that the only way you can
22 show are you going to get the payback, you have to try
23 it out with what you have. And that's what a number
24 of plants have done in Quad Cities, Wolf Creek, Surry
25 and Palo Verde. And we're at a critical point because

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1 the IDP was just completed at Wolf Creek last week,
2 and now it's time to look at the treatment. And if
3 you stay with one position on how you're going to do
4 treatment, that's going to really change that
5 evaluation. If we can determine what Mr. Gillespie
6 just identified as a case where it allows a compromise
7 between what you've shown here this morning plus what
8 Tony has, then that can be evaluated right now. But
9 if you keep it up in the air, it's going to be real
10 hard to do that cost benefit.

11 We need to get some direction now at this
12 point, because when fellows like Mo Dinglor have to go
13 in front of the owners group to justify continuation
14 of program, he has to be able to get up there and say
15 we know where we're going and we're going to get the
16 answers. I'm sure it's going to make it difficult to
17 keep going on.

18 MR. SCARBROUGH: A good point. Thank you.

19 Be back at 1:15. Thanks.

20 (Whereupon, at 12:11 p.m. off the record
21 until 12:11 p.m.)
22
23
24
25

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1 A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

2 (1:25 p.m.)

3 MR. REED: Looks like we've lost about 50
4 percent of workshop here unless I was hallucinating
5 this morning. I thought there were more people here.

6 PARTICIPANT: They heard everything.

7 MR. REED: Yes. Nobody takes me serious.
8 It's like 25 after 1:00 and nobody's back yet.

9 MR. HEYMER: We're still interested.

10 MR. REED: Okay. That's good.

11 Why don't we start getting things rolling
12 here this afternoon.

13 As I mentioned this morning in the agenda,
14 there's a couple of items we're going to try to
15 discuss that I know about this afternoon, and then
16 we'll just go from there.

17 Ken Balkey from Westinghouse has got a
18 status on the ASME code cases he'd like to go through.
19 And I think Adrian's going to go through some items
20 that NEI have looking at our draft rule concepts.

21 We have one question here that was
22 provided before lunch, two questions. We can discuss
23 those two. I think we'll take those two after we go
24 through these other presentations. And then we'll go
25 from there. I have a feeling that's going to take us

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1 all the way to 3:00, but you know, we'll see what we
2 can do.

3 Ken or Adrian? Adrian's got the floor
4 first.

5 MR. HEYMER: Good afternoon. My name is
6 Adrian Heymer. I'm from NEI.

7 Yesterday in the task force meeting we
8 went over the rule and the treatment, and we went over
9 some of the draft proposals that were put before us.
10 And we just thought we'd provide you with some input
11 and thoughts at this point in time.

12 As Tony said this morning, we'll try and
13 give you some written comments if we can next week,
14 but certainly this is just, if you like, a starter.

15 I think the first one, I'm not quite sure
16 what Tony had for lunch, I noticed his chateau wasn't
17 on the menu. That's horsemeat, by the way. But I
18 think this horse's just about killed it off this
19 morning, I think. So, we can talk about it some more
20 if you would like, but I think we covered really this
21 aspect of it this morning with regard to design input
22 and design bases. But I think if we do to the term
23 design bases, we just wondered whether or not you
24 still need the phrase "throughout service life." And
25 I guess because we didn't quite fully understand what

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1 design input was, we wondered what was really meant by
2 the term throughout service life. And if you go to
3 the design bases, that terminology isn't that
4 encompassed and doesn't that kind of become redundant.
5 So that was a first thought.

6 A little bit more specific, if you go to
7 the rule or the draft proposal -- sorry, Tim -- on (c)
8 and it talks about the categorization process, and it
9 says, first of all, the categorization process would
10 either be approved or it would satisfy Appendix T.
11 And if people are going to approve, do we need a lot
12 of detail in the rule? Because the Commission going
13 to approve what the licensee wants to do anyway before
14 the licensee start off.

15 But if you just look at (1) we say "Use a
16 plant-specific Probabalistic Risk Assessment to
17 determine the relative importance of modeled SSC
18 functions in terms of core damage prevention and
19 mitigation and large early release prevention and
20 mitigation." And in the terms of a PRA we normally
21 talk about core damage frequency and larger early
22 release frequency are kind of the accepted matrix.
23 And we thought that that might be better than coming
24 with core damage prevention and mitigation. So that's
25 one input.

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1 As regards the paragraph -- well, there's
2 a few minor points on item (2), and really they're
3 editorial in concept. And I think whenever we see the
4 next version, we can provide some written comments.
5 But I guess we just wondered about "Consistency with
6 the defense-in-depth philosophy." Not the defense-in-
7 depth philosophy, but just the "consistency with." The
8 categorization process that we've proposed in the
9 guideline incorporates defense-in-depth philosophy. So
10 we just wondered why the term "consistency with" was
11 in there. But we will provide you some additional
12 details when we see the final point.

13 More important aspect is on item (3) on
14 §50.69(c)(3). When we read through that we felt that
15 the aggregate sensitivity studies really take care of
16 this concern I guess you all are expressing here. And
17 we wondered if that would be better language, or at
18 least words that speaks of that rather a more specific
19 set of words down here, which kind of begin to verge
20 on the how to as opposed to the what. So that's a
21 thought where we are.

22 We didn't really understand on item (4),
23 and I haven't listed it, is what you were trying to
24 drive at in item (4). The categorization process
25 shall be approved as suitable for this application.

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1 Well, if you're approving the categorization process
2 or if you're meeting Appendix T and Appendix T is
3 there related to §50.69, that is the application. So
4 we struggled a bit about item (4)

5 Item (c)(5) we've got some language in our
6 guidelines that really speaks to assessing the impact
7 of new information, whether that be failures,
8 operating experience, feedback from the PRA itself
9 into determining when you need to update or rework the
10 PRA. We've also got (a)(4) the maintenance rule and
11 several other activities going on. The PRA standard
12 doesn't actually get into a specific time frame. So
13 we just wondered why you'd selected a specific time
14 frame rather than use the general words that are
15 really in the PRA standard that talks about that you
16 make determination on updating the PRA based on
17 specific criteria.

18 A number of these we've talked about
19 already. The maintenance rule link, we felt that (d)
20 certainly -- for (d)(1)(i) that's what we're going to
21 be doing for the maintenance rule anyway. I
22 understand the concern that perhaps some people have
23 not -- are only treating maintenance preventable
24 functional failures, but the vast majority of the
25 industry are already getting there, and I think if you

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1 came up with language that was very similar to what's
2 in §50.65. Monitoring programs sufficient to provide
3 reasonable assurance that the intended functions will
4 be satisfied. Well, that's really what we're talking
5 about here, the design bases functions.

6 So, we felt that §50.69(d)(1) kind of
7 duplicated what we've got in the maintenance rule.
8 And I think I began to understand this morning why you
9 might have put that in there, but I think it's
10 worthwhile just pausing say are we duplicating what's
11 already there. And that really goes for little (i) as
12 well small (iii) there.

13 I think Tony mentioned this morning about
14 -- when we read this, we seemed to get the impression
15 that you're getting relief from the maintenance rule
16 for RISC-3, but you seem to be putting back in place
17 with some of the other criteria that are written in
18 the draft language. And I don't think that was the
19 intent, but was the flavor that we got the rule.
20 Rather like one those famous books says "The left hand
21 giveth and the right hand taketh away." Or perhaps
22 it's the way around, depending on which side of the
23 regulatory divide on you're on, but that's the
24 impression that we're getting; that we don't have to
25 do the monitoring, the balancing of availability and

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1 reliability, but then when we began to read some of
2 the other words and we spoke that again this morning,
3 we felt that perhaps that was the intent.

4 The next item I think is something that we
5 really are striving to understand is the need for a
6 license amendment. And we're not quite -- to
7 implement this, it's a rule. When we've looked at
8 similar risk-informed activities such as risk-informed
9 ISI associated with §50.55(a)(3) we haven't had a
10 license amendment. When we implemented the
11 maintenance rule, which is a new rule, it wasn't a
12 license amendment.

13 We're going to be making a submittal that
14 the NRC staff is going to approve, the licensees will
15 implement the rule in accordance with NRC endorsed
16 guideline or NEI-00-04. So I guess when you go
17 through all that process and bearing in mind that the
18 agency's going to approve it, why do we actually need
19 a license amendment.

20 And the other thing is that if you look at
21 where we are today, we can change classification of
22 equipment through the existing change control
23 processes, and this might be a little bit more of an
24 extension on that. But I guess when you look at all
25 those three points, we're just wondering why we need

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1 a license amendment. I never think that's entitled
2 with a license amendment just because the regulatory
3 process.

4 §50.69(g) change control. We think, as
5 Tony expanded on this morning or explained this
6 morning, the processes are already in place and the
7 §50.59 applies to design bases and safety analysis.
8 You can make a change to the design today and then you
9 run that against the §50.59 criteria. You make more
10 changes today and you run that against the §50.59
11 criteria.

12 The categorization process would be
13 described or you would seek approval for that process
14 with the agency, and that would be controlled through
15 the commitment management process. And the treatment
16 description that's in the sub would be controlled
17 through §50.54(a).

18 So, I guess we struggled why you've got
19 item §50.69(g) there where we say "In lieu of the
20 requirements of §50.59, when making changes to the
21 procedures and processes for implementing §50.59(c)
22 and (d), the licensee shall provide a written basis,
23 and maintain it onsite."

24 That seems to us duplicating what's
25 already out there as regards the control process

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1 today.

2 And finally, on the reporting
3 requirements, I think we're on the same page, we just
4 wanted to make sure that we are; that the reporting
5 requirements would really only apply to the safety
6 significant SSCs and it would be linked to a failure
7 to satisfy a safety significant function. And just
8 as, I think, §50.73 today; if you have a failure of
9 the component but it's redundant and the equipment can
10 still satisfy the safety significant or the safety
11 function, then it wouldn't be reported. I think that's
12 what you mean, but we just struggled a little bit with
13 that.

14 Also, you have a statement here that says
15 "Changes to the FSAR report to implement §50.69 do not
16 need a supporting §50.59 evaluation." And we just
17 wondered whether or not that was really necessary for
18 a rule.

19 Those are, I guess, some of the highlights
20 of some of the comments we've got on the aspects of
21 the rule, apart from treatment. And we're just
22 providing those as input at this time. And with that,
23 I'll look out for questions. Any questions or
24 comments?

25 MR. PIETRANGELO: I have one.

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1 MR. HEYMER: Tony?

2 MR. PIETRANGELO: I just want to go back
3 to the one slide on the need to update the PRA, and
4 that's on the categorization of §50.69(c). Make sure
5 that the feedback we're giving you here is understood
6 about why we're making this comment.

7 The current §50.69(c)(5) specifies a PRA
8 update periodicity, and that's not done in any other
9 regulations. There are other risk-informed
10 applications that rely on the PRA being up to date.
11 And Adrian cited the maintenance rule. There's a
12 statement in the guidance that says that §50.65(a)(4)
13 you have to really continually assure that your PRA
14 reasonably reflects the plant configuration. And
15 that's found in the guidance that was endorsed by the
16 staff.

17 There are other applications on tech spec
18 AOT extensions and risk-informed ISI where this going
19 to be one of those things that is going to be
20 important for the variety of application, not just
21 one. And so to specify in a single rule for a
22 specific application and update frequency, we didn't
23 think was appropriate in this case.

24 What we did think was appropriate was the
25 kind of consistent with what we do for the maintenance

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1 rule. There's no information that happens all the
2 time. And what's important -- this goes back to the
3 boundary conditions. You want the categorization
4 results to remain valid so that when there's any new
5 information that has a potential to impact those
6 categorization results, it needs to be considered.
7 And you don't wait 36 months to do that or, you know,
8 whatever somebody would pick as an interval.

9 We would envision some kind of screening
10 criteria that looks at the inputs that went to the IDP
11 to see if they were changed as a result of any new
12 information that was brought to bear, including the
13 potential update of the PRA.

14 Use some screening criteria and then
15 decide whether you need to go back in and look at how
16 the categorization results were impacted.

17 So we thought that was a more flexible way
18 to do this than for this specific regulation on
19 special treatment requirements to speak on behalf of
20 the agency for all the risk-informed applications and
21 mandate a 36 months PRA update frequency. So that was
22 the thinking that went into that comment. And I hope
23 we have a little bit of discussion on this later,
24 because it's kind of some of the things we've talked
25 about in other forms about this isn't the only risk-

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1 informed activity ongoing. PRA quality is an issue
2 across the board for all the applications, not just
3 this one. And so the flavor of that comes into this
4 particular comment.

5 MR. STROSNIDER: Tony?

6 MR. PIETRANGELO: Yes.

7 MR. STROSNIDER: I'm not sure that's
8 completely clear to me. The suggestion that the
9 expectation would be that you maintain the PRA quality
10 continuously. Is that what you were saying?

11 MR. PIETRANGELO: No. In this particular
12 case that -- and we didn't give you all the suggested
13 changes to the rule language that's in here. We'll
14 try to do that in what we send you by next week,
15 because we had additional comments yesterday.

16 Clearly PRA quality is a concern for this
17 particular application. But broader than that, and I
18 think consistent with what Doug True said this
19 morning, PRA's only one input into this process. It's
20 really the IDP process that -- the categorization
21 consists of PRA plus a lot of other things, okay.
22 What's important here is that the categorization
23 results remain valid.

24 MR. STROSNIDER: Absent a specific update
25 frequency, if you replace that with -- our expectation

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1 is that you're going to have -- the categorization
2 process is going to be valid at all times. It seems to
3 me that's somewhat onerous to say. You know, you'd
4 have to have a process in place and anytime anything
5 changes to go back and ask yourself did it change by
6 categorization process. And that's why I'm wondering
7 are you saying --

8 MR. PIETRANGELO: Yes, that's the right
9 question.

10 MR. STROSNIDER: I'm not sure how to
11 capture the idea.

12 MR. PIETRANGELO: That's why I think an
13 implementation space that would probably be some kind
14 of screening criteria that someone could look at to
15 judge new information that was related to the inputs
16 that went tot he ODP and be able to discern pretty
17 quickly with the screening criteria whether a further
18 assessment was going to have to be done to see if the
19 categorization results would change.

20 I think consistent with what Gerry was
21 saying this morning and then some of our other folks,
22 we think this categorization is going to be pretty
23 robustly done this first time. We don't expect to see
24 a lot of changes unless you have some major, major mod
25 in the plant or some very major performance issue,

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1 that we would expect to see the categorization results
2 change.

3 So this screening criteria would probably
4 filter most stuff out, but it's another way to skin
5 this cat about achieving the result of the
6 categorization results remain valid.

7 MR. STROSNIDER: Just to follow up,
8 because I'm just having a little problem.

9 So how often -- what -- when would you
10 apply these screening criteria?

11 MR. PIETRANGELO: When you've got new
12 information related to the inputs that went to the
13 IDP.

14 MR. STROSNIDER: So somehow you'd have to
15 have a process set up where any new information to
16 plant changes, design and you'd have to be on a
17 continuous basis comparing it to a screening criteria?
18 Okay.

19 MR. SOWERS: This is actually a question
20 that hits me right directly, because I'm a PRA
21 supervisor, so it's my job to maintain the PRA and to
22 assess the impact of any changes in that PRA on any
23 applications. Literally every application that has
24 come along has had that requirement.

25 It's, frankly, one of the things that

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1 scares me quite a bit. It's one of the tip of the
2 iceberg problems. We don't know exactly where it's
3 going to go. But let me tell you what we do do now
4 that may be different from a common perception.

5 First of all, the idea of periodic
6 updates, whole updates of the PRA, we don't do that
7 anymore. We, in fact, try to do continuous updates as
8 changes are made to the plant. You might consider
9 that to be burdensome, but in fact it's quite the
10 opposite.

11 Doing a wholesale update of the PRA is
12 such an enormous task that there's no way you could
13 staff for that task every three years and then what do
14 you do with all those people the rest of the time. So
15 you've got to find a way to spread this task out over
16 time so that it's manageable.

17 So, what we at Palo Verde have done now is
18 literally to try to reflect changes to the plant; and
19 those are design changes, changes to emergency
20 operating procedures, any of those things that were
21 inputs to the PRA and make that changes to the PRA
22 continuously.

23 Part of the reason for doing this is
24 paragraph (a)(4) which, in fact, does require that
25 your PRA reflect the as-built as-operated condition of

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1 your plant. So that's a little bit of the motivation
2 that put us there.

3 Now, there are other things like data
4 updates where it doesn't make sense to do that
5 continuously and, in fact, you wouldn't get enough
6 data in one month to change the answer from the
7 previous month anyway. So those things you will do
8 periodically, and it could be every three years. It
9 could be, depending on what kind of data, the next
10 time the NRC comes out with a report on initiating
11 event frequencies, for instance. That's what drove us
12 to redo those the last time.

13 But you can't any longer look at the
14 maintenance of PRA and find a real easy to establish
15 periodicity where you say I'm updating it every X
16 often. Because now it's spread out all over the place.

17 So the first part when you talk about
18 updates to the PRA every 36 months, it becomes
19 problematic for me to go, oh gosh, how do I
20 demonstrate I've done that? I've got X parts to my
21 PRA and some of it I updated last month, and some of
22 it -- well, let's see, I think I did that 18 months
23 ago. It's just impossible for me to do that in an
24 easily identifiable way. That's the one difficulty,
25 with especially putting a time frame in the rule.

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1 It's the wrong thing to do.

2 When it gets to the second part, which is
3 assessing the impact of changes on any applications
4 that you've done, yes, you have to do that. But you
5 can do that a number of ways. I can make an update to
6 the PRA and just look at the overall results. I can
7 look at some system importances if I want to do that.
8 I can look at the little pie charts that breakdown
9 which initiating events contribute how much to my
10 current risk. I can look at the absolute change in
11 risk. And I can actually draw a fairly valid
12 conclusion fairly easily that if none of those things
13 have changed dramatically, then none of the
14 applications will be effected dramatically. And it's
15 pretty easy to do that.

16 If, on the other hand, like the last
17 change that really made a change to those was updating
18 the initiating event frequencies based on the changes
19 to the industry data. That, by far and away, had a
20 larger impact on our PRA than anything we'd done
21 before that, including about two years worth of plant
22 changes.

23 I could also look at that and go, wow,
24 look at the way these fractions on this pie chart has
25 moved. I know that that has to have an impact on

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1 importances, and then it would drive me to the next
2 level where I would go, okay, well, what did I do last
3 time? I used these values when I did my
4 categorization. Rerun the importance values, compare
5 them again, see what's changes. If it changes any of
6 the inputs into that decision process in a way that
7 would have lead to IDP to possibly reach a different
8 conclusion, back I go. But it's also -- I mean, it's
9 fairly easy for me then to take that and decide, no,
10 none of the inputs have changed. I don't need to go
11 back. I can stop there.

12 So what you end up building is kind of a
13 layered process where you look at the magnitude of the
14 change and you have to screen through it. And you go,
15 okay, I did this update. None of these things changed
16 dramatically. Therefore, my applications couldn't be
17 effected. And I'll admit, you're making some judgment
18 doing that. But I think it's fairly sound judgment.
19 And the more you work with the PRAs and understand
20 what does cause changes in the results, the better you
21 can make those judgments and define quantitatively how
22 you measure those judgments.

23 But that's what we're faced with, and
24 that's why it gets to be very difficult to write into
25 a rule a periodicity and an assessment of the impact.

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1 Because I don't think (1) that assesses the impact
2 nearly as well as you should be doing continuously so
3 you're missing the objective, which is to judge the
4 impact on the categorization when something changes.
5 And on the other hand, it can also force you to do
6 things when, in fact, you know that there has been no
7 impact. So we need to back up and, again, go back to
8 the objective in the rule.

9 You have to have some way to assess that
10 impact. And I'm not sure that we could ever decide on
11 a real periodicity. What you have to do is find a way
12 so that you know when it's important to go back and do
13 that.

14 This is also one of those things, by the
15 way, where I think we haven't done it enough to
16 completely understand how to do that, which makes it
17 more important not to write very specific statements
18 into a rule, because we're going to learn as we go
19 along. And we want to be able to easily take
20 advantage of those learning and incorporate them in
21 what we do. But that's kind of where we're at and why
22 that part's problematic to us.

23 MR. LEVINSON: Stan Levinson from
24 Frametome ANP.

25 Just to follow up on Gerry's remarks, I

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1 wanted to point out that Palo Verde's not unique in
2 this. That the certification process requires that
3 the utilities to continuously, you know, examine
4 information that's coming in, assess what the impact
5 might be on the PRA and also look at their previous
6 applications that they've used the PRA. So the
7 experiences that Gerry's relating, you know, should be
8 valid industry wide.

9 MR. BURCHILL: I'm Bill Burchill, Exelon.

10 Just to add to what's been said. Two
11 things. One is I wouldn't think there'd be any reason
12 to separate whatever quality of PRA statements you
13 want to make here from those that you're making in
14 other parts of the regulatory framework, and
15 particularly in 1.174 and, you know perhaps you're
16 impending endorsement of, you know, a standard or more
17 standards. I mean, it seems to me that's the context
18 in which PRA quality as far as the regulatory is
19 trying to provide its self-assurance should be
20 addressed. So I don't think there's anything unique
21 here.

22 The second thing is, actually, Gerry, you
23 and I had this conversation at Amelia Island about
24 what you did about past applications and if you had a
25 PRA update or if you had a plant modification that was

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1 significant. And, frankly, I think we're compelled in
2 these days where we have those types of applications
3 to go back under our own corrective action program. I
4 think that's what we discussed. And, you know,
5 address it in that context and take corrective action.

6 So if the agency needs to have an avenue
7 into saying whether or not we are maintaining validity
8 of some past risk-informed or risk -- you know, non
9 risk-informed but something that risk and information,
10 this of course would be risk-informed, that avenue is
11 already there. I mean, I don't think that there's a
12 need for something new.

13 MR. GILLESPIE: Tony, let me follow up
14 both of your points. And the reason, at least I was
15 staying quiet while you were talking, is I could take
16 some of the adjectives and adverbs out and you're
17 writing our statement of considerations potentially
18 for us, depending on how the staff is going. So this
19 is actually very, very good dialogue.

20 Tony, you made two points and I think you
21 got reenforced by the other people here.

22 One, that there is some sense of a process
23 you could describe that you're already following. And
24 that the certification process and the other standards
25 that are now in the works would lead you to anyway.

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1 The other one, and now I'm getting into a
2 little more detail, is I think what you've said also
3 is don't put two different sets of works trying to
4 mean either different things or the same things at two
5 different places in the regulation. Do you mean that?
6 They always generate some conflict. I mean, I'll give
7 you -- my prejudice is whenever you've got words
8 someplace else so you can write it down and reference
9 it, then write it down once and have it be universal
10 verses trying to write it down twice and then trying
11 to keep everything even or writing it down slightly
12 different.

13 But would you propose then that writing it
14 down once might mean, and I guess what I'm going to
15 jump to is something someone said to catch all
16 functional failures; might that mean changing it if
17 the one place was in the maintenance rule to just
18 expand it to include that was in it as part of this
19 rule change?

20 MR. PIETRANGELO: I would not --

21 MR. GILLESPIE: I'm just -- I know this is
22 a how, but --

23 MR. PIETRANGELO: I'm not sure where the
24 appropriate place to make the one universal change is.
25 I don't think we should rely, though, on specific

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1 applications to set policy for all the rest of the
2 applications.

3 MR. GILLESPIE: Well, I'm real sensitive
4 to what we're doing in tech specs in another venue,
5 which has exactly --

6 MR. PIETRANGELO: I, too.

7 MR. GILLESPIE: -- all the same kind of
8 questions being asked. And that's not in rulemaking,
9 so I've got some sympathy for what you're trying to
10 say here.

11 MR. PIETRANGELO: And we've kind of relied
12 on reg guide 1.174 to a certain extent as setting kind
13 of the regulatory policy for risk-informed type
14 changes. I think this, while not a direct application
15 of the 1.174 guide, it certainly should be consistent
16 with that. And we know that there's no PRA update
17 periodicity specified in 1.174. There is not one
18 specified in the ASME PRA standard, to my knowledge.

19 The only other thing we have right now is
20 in our 93.01 guidance that says that for (a)(4) the
21 PRA needs to reasonably reflect the operating plant
22 conditions, the as-built condition.

23 So, I would -- I don't think we should
24 just go back and change because it happened to be the
25 first one by chance, that's where we address this.

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1 MR. GILLESPIE: Okay.

2 MR. PIETRANGELO: I don't think that's the
3 right way to do it.

4 MR. GILLESPIE: But if we rewrote it in
5 this rule to try to be more generic, should we go back
6 and take it out of that other one?

7 MR. PIETRANGELO: Well, it's not in the
8 rule. It's in our guidance, I think.

9 MR. GILLESPIE: Okay.

10 MR. PIETRANGELO: That PRA needs to be
11 reasonably consistent.

12 MR. GILLESPIE: Okay.

13 MR. PIETRANGELO: You don't see that
14 language in --

15 MR. GILLESPIE: So it'd be an advantage
16 generally to eliminate confusion is to try to have it
17 written once and just have pointers to that one place,
18 wherever that was?

19 MR. PIETRANGELO: Yes. And maybe that's--

20 MR. GILLESPIE: Okay. That's a good --

21 MR. PIETRANGELO: And maybe it's the ASME
22 PRA standard is the place it should be written down.
23 I'm not sure.

24 MR. GILLESPIE: Okay.

25 MR. PIETRANGELO: But I agree with the

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1 concept that one place and reference that one place is
2 better than trying to rewrite 18 different times in
3 the different applications.

4 MR. GILLESPIE: Okay.

5 MR. CHOEK: This is Mike Choek from the
6 staff.

7 I think we need to also remember that
8 we're just not talking about a PRA now, right?

9 MR. PIETRANGELO: Right.

10 MR. CHOEK: You're talking about the
11 categorization process to be maintained. The reason I
12 bring that up is because we let things like your five
13 analyses and your seismic margins to be used. And if
14 you're going to do something to invalidate those
15 success paths, I think we need to also update the
16 process itself.

17 I think this thing here basically what it
18 was trying to do was to say not only do you have to
19 update your PRA at a periodic basis, you have to look
20 at your process to categorization RISC-3 SSCs and make
21 sure that the process to categorization these things
22 have not been changed because you changed your plans.

23 MR. BURCHILL: Let me just add one more
24 experiential detail, adding to what Gerry Sowers said.
25 And I certainly am not speaking for everyone in the

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1 industry here, but I suspect that you would find
2 similar practices everywhere.

3 Particularly driven by (a)(4) but frankly
4 already predating that. At all of the Exelon sites we
5 have a common design change procedures. Now this is
6 not a PRA procedure, it's a design change procedure.
7 That every design change that's made has a set of
8 screening questions that must be addressed. I don't
9 want to say it's like §50.59, but it's that type of
10 thing. It's a set of screening questions that says
11 does this design change impact the PRA. And it would
12 look at things like does it -- you know, introduce new
13 initiators or does it change dependencies of important
14 support functions, or does it potentially make a piece
15 of equipment more or less important.

16 And the design engineers are trained in
17 the use of that checklist, if you will. And at any
18 point where they have a question about what the
19 interpretation would be or what the answer might be,
20 they're compelled through that process to contact
21 their local risk management engineer that we have at
22 each site and determine from him, you know, in an
23 advisory capacity what the impact might be. And
24 furthermore, if it's large enough or if it's thought
25 to be large enough, then to have the risk impact

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1 evaluated as part of the design change process.

2 And then that actually then feeds --
3 that's one of the major feeds that we have into the
4 PRA update process.

5 And Gerry said that they update
6 continuously. I suspect what he does is more evaluates
7 each particular change for importance and if it's
8 important enough, update it immediately. If not, put
9 it in the hopper for the next update period. Because
10 otherwise you'd be chasing a moving target all the
11 time, even under (a)(4). But it does assure that you
12 catch those things that are important enough about
13 changes to the plant, that you reflect them right away
14 in your -- particularly your (a)(4) process.

15 It also then provides you both convenient
16 and effective avenue of feeding directly into your PRA
17 everything that changes about the plant. So we do
18 that with both the design change process and with
19 procedure change process.

20 Now, again, I can't speak that everybody
21 in the industry does that. I think if you go to the
22 ASME standards you're going to find something similar
23 to that is called for. And I'm confident that if you
24 go through anybody that's been through certification,
25 they either do that or if they didn't do it, they're

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1 probably thinking real seriously about doing it,
2 because otherwise you simply cannot justify that your
3 PRA is representative of the as-built as-operated
4 plant.

5 So, you need to know that that kind of
6 infrastructure is out there. And if through the
7 regulatory process you need to endorse that, I don't
8 have any quibble with that. I think that's what your
9 reg guides are intending to do when they refer to, you
10 know, either the certification or the standard, or
11 whatever. But that should be relied upon in the
12 context of what we're talking about here or any other
13 risk informed application. That's part of the
14 infrastructure that assures that this all works.

15 MR. HOLAHAN: If there's anybody who
16 thinks that 36 months is better than continuous or a
17 continual update, they ought to say so.

18 MR. BURCHILL: Well, the thing is it's
19 both. As Gerry said, you do some things on a so-to-
20 speak continuous basis. There's certain things like
21 we don't go and reevaluate all our HEPS every day, you
22 know. We won't do data every day. We won't do
23 initiating event frequencies every day. You know, some
24 of those are done with some periodicity makes more
25 sense. But the periodicity might be just when new

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1 information becomes available.

2 I mean, if I don't have any really new
3 relevant initiating event information, there's no
4 sense in updating it in 36 months, I wouldn't be doing
5 anything.

6 MR. STROSNIDER: This is not an area that
7 I've been directly involved in, and I'll probably rely
8 on some of Gerry's insights here. But I think that's
9 been a very helpful discussion. Because my gut
10 reaction to this was that it would be, like I said
11 earlier, more onerous to have to go put this sort of
12 process in place. But it sounds like you're actually
13 ahead of the -- where my understanding in terms of
14 what you actually have in place. Although, we
15 recognize this is just a sample of what's out there,
16 I guess, but I think that was very helpful.

17 MR. REED: Yes. I think I'm hearing
18 Gerry, and these guys can correct me if I'm wrong,
19 that what we put in 36 months, although it sounds like
20 it would be relief, it's actually not a relief. They
21 would feel the obligation to show, demonstrate somehow
22 that 36 months they've updated the entire PRA.
23 Whereas, I hear they're really going to update the PRA
24 as the information becomes available, you know, and as
25 it makes sense to do so. And that's what makes

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1 technical sense.

2 MR. DINGLOR: Mo Dinglor from Wolf Creek.

3 That's really the problem, Tim, is how you
4 show that update and the documentation. Because as
5 everybody says, there's some updates and then there's
6 some not and yet there's no change significant, you
7 don't update it. But then we'd have to show that
8 there is that process. So it's very burdensome to us
9 to do that. And this way we can look at it and keep
10 adding and go on. If it's significant like go digital,
11 you're going to update the PRA and the categorization
12 because it's significant to us.

13 MR. LEVINSON: Stanley Levinson,
14 Framatome.

15 Following up on what Mo said. I mean,
16 from my experience doing certifications, a lot of the
17 plants have direct input to their PRA group on changes
18 that are being made, you know, in design, in operation
19 procedures, in EOPs. so that's part of the paperwork
20 trail that the PRA group uses to show whether -- when
21 they evaluate those, whether they have an impact. And
22 if they do, then to make a change. And that's built
23 into a lot of the processes. You know, like Bill was
24 saying that Exelon it's just PRA design doesn't
25 matter. It's part of the process and it's built into

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1 the paperwork trail.

2 MR. STROSNIDER: Unless there's some other
3 discussion on that point, I wanted to come back to
4 something if I could from the presentation with regard
5 to the updating.

6 I want to make sure we understand. I
7 think part of NRC's logic in looking at this, and Tim
8 talked about this in the introduction this morning, is
9 that we're looking at approving a process. This is a
10 process that's put in place. And if there's going to
11 be changes made to that process, what sort of
12 regulatory controls appropriate? And that was the
13 perspective, and I'm not sure that I understand the
14 comment in that context.

15 MR. HEYMER: You mean the §50.59?

16 MR. STROSNIDER: Well, I thought you were
17 making a comment about the fact that in §50.69 there
18 was some discussion about controls and changes,
19 separate -- and what I was trying to understand if you
20 had an issue with that or if there was input that
21 maybe I missed?

22 MR. HEYMER: Well, we were just wondering
23 if there's any necessity to have change control in
24 there when the current processes are in place, we can
25 handle the change. We will control the changes.

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1 I mean, you've got a specific section,
2 §50.69(g) change control that handles that. And we
3 just wondered why that was in there. If it would make
4 for clarification, it kind of confused us a little bit
5 because we think the --

6 MR. STROSNIDER: And that's why I wanted
7 to get some discussion on the issue.

8 MS. McKENNA: Let me just give a couple of
9 comments about why we had those sections in there and
10 then people can judge.

11 Eileen McKenna from the staff.

12 And then people can judge whether or not
13 we were effective and what we were trying to do.

14 In the first section we really had two
15 things. One with respect to changes to the
16 categorization process. And, you know, I think in the
17 past with things like §50.59 really didn't work for
18 something like that because you don't have the right
19 measures, if you will, of when the changes are
20 significant enough that you should go back through
21 some review process.

22 So we're looking to say, well, okay we
23 want some means of judging, you know, if you're making
24 procedure changes that deal with the categorization
25 process to look through and satisfy yourself that

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1 you're still meeting the rule and have the record of
2 that as some means for the staff to be -- you know,
3 have some way of dealing with that in the future.

4 The second one was kind of in the
5 treatment process. I think what I hear you're saying,
6 you're proposing to put that in the QA plan and use
7 §50.54(a). I think we were looking at that, we didn't
8 know if we wanted to open up this whole reduction in
9 commitment issue about when, you know, prior review or
10 not prior review, so we kind of lumped that in the
11 same pile of we'll check back, are you still meeting
12 the rule requirements since we hadn't settled at that
13 point how detailed those rule requirements were,
14 whether that's relief or it's more onerous, I'm not
15 sure we can really settle.

16 While we're on the change control, and
17 something Bill was talking about, our paragraph 2 was
18 really dealing with change to the facility to the
19 extent that they may impact the risk part of things
20 rather than the design bases, §50.59 kind of world; we
21 were looking for some means of you're changing the
22 plant, which I think you were pointing to some of the
23 things that you might impact by changing your
24 facility, and that that be part of the process.

25 Now, maybe those words don't capture the

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1 best way to do it, but that was what the intent of
2 those different provisions were.

3 MR. PIETRANGELO: Yes, I think that's
4 valid given that we didn't know what the level of
5 detail and the rule was going to be. I said this
6 morning our premise as a starting point for this was
7 to try to use what's out there now. And if there's a
8 need identified, and there's a compelling reason to go
9 invent something new, that's fine. But there's not,
10 if we can satisfy ourselves that, for example, the
11 current commitment management guidance with regard to
12 the categorization process asks you the questions
13 about what the staff relied on when they approved your
14 submittal, I think it does that. We've looked at it
15 and we think it does ask the right questions that the
16 §50.59 would not.

17 On §50.54(a) with regard to treatment, it
18 terms of reduction and commitment, that is the current
19 threshold for determining whether prior staff's review
20 is necessary for some change in treatment.

21 At least at first blush on our part we
22 were thinking if you removed one of those elements
23 that are in the definition of industrial treatment,
24 that probably would be a reduction in commitment, and
25 it's have to be of that magnitude that you take that

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1 entire thing out of your program. It would probably
2 be the level. But, again, given the low safety
3 significance of this and the functional monitoring
4 that continues and such, it most cases you probably
5 wouldn't see a lot of requests for prior staff review
6 and approval on that.

7 One last point before we leave these
8 things that relates back to the last thing on updating
9 the PRA. In §50.69(f)(iii), which is on the rule
10 language regarding submittal. Okay. It says "A
11 description of the scope, level of detail, and
12 technical acceptability of the PRA used in the
13 categorization process including the measures taken to
14 provide an adequate level of PRA quality."

15 We had talked about this yesterday and
16 we'll probably provide it to you in the written
17 comments, but I thought it pertained to what we were
18 just talking about. What we were going to suggest is
19 a change to that language to read as follows: "A
20 description of the measures taken to assure that the
21 quality of the PRA used was commensurate with this
22 application." Okay.

23 That's very consistent, I think, with what
24 the 1.174 guide says. And what we were looking for in
25 rule language was to be able to point to something

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1 that we're already doing that we could rely on to meet
2 that part of the rule. And in this particular case it
3 would be the peer review process.

4 I think as Stanley indicated before, the
5 peer review process looks at your update process for
6 the PRA and grades you on it. Okay. And, again,
7 we're trying to rely on things everybody's already
8 done and build it into this process. And at the rule
9 it's that kind of PRA quality commensurate with the
10 application, but there's something we've already done
11 we think that meets that particular requirement. And
12 that's how we get efficiencies and implementation
13 without, again, specifying a periodicity up front or
14 in this particular case, regurgitating everything
15 we've all done in peer review.

16 So, I think this one does relate back to
17 this whole PRA quality update frequency issue, and
18 even though these are in two different sections of the
19 rule.

20 MR. HEYMER: As we said, what we went over
21 this afternoon aren't the complete comments that we
22 have. We have several others. And although we
23 covered treatment this morning, we did struggle quite
24 a bit with the language that is associated with
25 §50.69(d)(3) on RISC for SSCs. And we're not quite

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1 sure what the intent and where we think we're going
2 with RISC-4. So we might try and give you some
3 feedback on that. It wasn't clear from us what we were
4 trying to say here.

5 MR. GILLESPIE: I'm going to challenge the
6 staff. Is there anyone who would like to stand up and
7 try to make it clear?

8 MR. REED: I'll take the first cut. This
9 ought to confuse issue beyond all hope.

10 There are basically two different ways of
11 handling RISC-4 that are in redline here. The first
12 one is basically the cleanest one, which says that
13 §50.69 isn't going to add anything new to RISC-4. And
14 what that does is by saying nothing new, it means
15 anything in place stays in place unless it's
16 specifically taken out by paragraph (e). Well, that
17 same alternative would take all the special
18 treatments, whatever they are, off of RISC-4.

19 Now, the second alternative then only
20 takes off the maintenance rule and it leaves
21 everything on. So the question is, well what's going
22 on the staff here, it's schizophrenic. Well, we are,
23 and psychotic and all kinds of others. But what it
24 really goes to, at least it's my feeling and we really
25 people that are on the ground level at the plant to

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1 really give some feedback here, that most of the
2 requirements on RISC-2 are really technical
3 requirements; that the treatment that it gets isn't in
4 the regulation. It may be outside the regulation, but
5 we don't see it in the regulation. So from a purely
6 rulemaking standpoint, we can't see it there.

7 You know, I agree the reg guides and a lot
8 of other things that people do and maybe they've been
9 armed twisted for 20 years to do these things, I
10 understand that, but when I look at that I see
11 technical requirements. Like there may be some
12 technical requirements for seismic two-over-one. Okay.
13 But I don't see the special treatment requirements.
14 Yes, things got to be supported so it doesn't fall.
15 Or, you know, EQ. Perhaps there are some people out
16 there that are saying there may be a handful of
17 components throughout the industry that actually do
18 have §50.49 requirements on non-safety-related stuff.
19 So maybe there's some stuff there that really falls in
20 this.

21 But I think the balance of it, the really
22 special treatment requirement that really is on that
23 is the maintenance rule. And that's one we would take
24 off in Box 4. So that's why you see that split.

25 I don't know if that makes it clear at all

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1 why those two alternatives are there. And really to
2 understand is what's on this stuff over here in 2 when
3 it goes down to 4, we don't want to lose technical
4 requirements in Option 2. We want to maintain the
5 design bases. If the design bases functional
6 requirements down there, of course we want to maintain
7 them. And that's what we're trying to do is put a
8 structure together that tries to maintain those design
9 base requirements.

10 So did that hopelessly confuse it, or --
11 Eric?

12 MR. JEBSEN: Eric Jebesen, Exelon.

13 Now I am somewhat more confused, but
14 actually I guess it clarified the question for me. So
15 now I'm not sure. One way I could construe what you
16 said is that the staff's not sure what's out there,
17 but they're nervous about saying don't do any of it
18 because we're not sure exactly what it is anyway.
19 Okay. But that's not what you're saying. Okay. So
20 then I'm going to -- okay. Now it looks like I know
21 some -- and I'm not the expert in here for all the
22 systems at the plant at where I work, but I know, say,
23 for ATWS or a blackout you have certain things that
24 are picked out of Appendix B that say you'll do this
25 this way and this this way, and say you might have

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1 like half a dozen things. And so I would expect that,
2 for example, say you found something in part of your
3 blackout diesel, for example, that you had always done
4 a certain way under Appendix B because it was this
5 augmented quality type things, special treatment
6 thing, that it turns out when you did your PRA really
7 wasn't that big a deal. So you want to move that
8 down.

9 And I would say then it's fair to say,
10 well, all that special stuff I was doing, I don't have
11 to do that. I'm just going to get it and make sure it
12 works. I'm not going to change any design
13 requirement. It still has to open and supply air at
14 a certain pressure or something like that. I'm just
15 not going to use that special treatment part or that
16 Appendix B augmented quality part. I can now procure
17 it under my industrial program.

18 So that's what I'm thinking of. I like
19 the idea of saying well if it's not safety significant
20 and the reason we had you do augmented quality on some
21 of this stuff is it was important to safety or we
22 thought it would be safety significant, if it turns
23 out it's not, well then don't do that anymore. And
24 since it seems less laborious to list all the possible
25 things and then accidentally miss one that one

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1 licensee might have, it just seems easier to say don't
2 do it.

3 MR. SHUAIBI: This is Mohammed Shuaibi
4 with the staff.

5 The question, though, is when you take the
6 ATWS and say important to safety §50.69 equipment that
7 is not safety related, and you drop it to Box 4, then
8 what you end up saying when you say that, you're still
9 going to have the technical requirements and you're
10 going to maintain those. What you end up saying is
11 very close to what you're doing in RISC-3. And that's
12 what we're looking for, is something to -- I think
13 what that portion of the rule is saying is we need
14 something on that to maintain its functionality.

15 MR. HEYMER: But what you have here
16 initially is alternative 1 which I read along with
17 alternative 1 in the commercial type treatment
18 controls was no new requirements. So that seemed to
19 me that we were going to apply existing requirements
20 so there was no reduction.

21 Then went to alternative 2 and 3, it said
22 the only requirement that's removed is the maintenance
23 rule. So I got the impression that I was, more or
24 less -- I was in a worse position in Box 4 than I was
25 for 3.

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1 MR. REED: The way alternative 1 works is
2 there's -- it says no new requirements, but then
3 you've got to look down at §50.69(e) the title, and it
4 says the removed from RISC-3 and RISC-4. So
5 everything comes off of RISC-4 and we don't put
6 anything else on.

7 So alternative 1 is really nothing on
8 RISC-4.

9 And actually, when you go back to the old
10 SECYs that's exactly what we said. So then we got
11 ourselves in this bind of trying to understand, you
12 know, what is over on this side and the technical
13 requirements -- do we need to something -- maintain
14 the technical requirements. And when we looked at
15 things like ATWS and station blackout, for example,
16 the quality, the augmented quality stuff, at least in
17 our minds, so far we don't see that in the
18 regulations. Okay.

19 I agree with your concept, at least
20 personally I agree. Maybe not the staff, but I
21 personally agree and Gary can correct me here in a
22 second. But if it wasn't important in there, you
23 could take it out of the augmented quality program.

24 Okay. He's not stomping on me yet.

25 And you could do that outside the -- you

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1 don't need a rulemaking to do that. I don't have to
2 do that Option 2 in §50.69 because it's not in §50.63.
3 I think there's a generic plant or something to follow
4 it on to the ATWS rule, so there's sort of a weird
5 reference there and you could almost interpret that
6 one way, perhaps it's in perhaps it's not, but in
7 §50.63 I think it's clear, at least to me -- as clear
8 the regulation could ever be -- that it's really not
9 in there. I know there's a big reg guide that
10 implements that that puts a lot of stuff on there, but
11 that's a reg guide. And you're probably committed to
12 it and there's that change process to that.

13 Does that help? Gary, did you have any
14 questions?

15 MR. HOLAHAN: I'm not sure if corrections
16 is the right word.

17 It seems to me the thing the staff is
18 struggling with is under what you've called this first
19 option. There are two very different sorts of things
20 that end up in Box 4.

21 There are balance of plant unimportant
22 from a safety point of view and really traditionally
23 unregulated stuff. But also in that box are low
24 safety significance, but things that had rules written
25 about them, like ATWS equipment and maybe station

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1 blackout and a few odds and ends.

2 So I think the reason there are
3 alternatives there is people are struggling with
4 whether those things, acknowledge that they're all
5 below the line, they're low safety significance -- Box
6 3 is low safety significance, Box 4 is low safety
7 significance.

8 If there is ATWS equipment or station
9 blackout equipment of low safety significance ought it
10 to be treated more like Box 3 or should it be treated
11 more like the other stuff in Box 4? And I think
12 that's what those issues are about.

13 MR. SOWERS: I understand your question,
14 and I think all you need to do is follow it more step
15 to understand what our problem with it is.

16 If I take the stuff that is currently
17 subject to an augmented quality program, okay, and
18 it's either going to end up in Box 2 or Box 4. If
19 it's in Box 2, I will continue to apply the augmented
20 quality program. If in Box 4 I say well, I'm going to
21 implement something similar to Box 3, oh, but wait,
22 Box 3 we just decided was an augmented quality
23 program.

24 So, what I come to very quickly is well,
25 shucks, I'm not even going to bother to do those.

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1 Because it doesn't matter whether it ends up in Box 2
2 or Box 4; I'm going to end up treating it exactly the
3 same. I mean that's where you end up as soon as you
4 decide to put the same kind of controls in Box 4 for
5 stuff that was previously regulated as we put in Box
6 3. You've decided there is no difference and there
7 will be no change.

8 So everything that was subject that we
9 called this important to safety stuff just completely
10 gets removed from this equation. And the only way to
11 undo that is to reach the conclusion, and I believe
12 it's a valid conclusion, that when he hung this
13 important to safety label on a lot of things, which
14 actually I think we only define in the EQ rule, we
15 painted with a broad brush. We have a better brush.
16 And if we use the categorization process now, what
17 we're saying is the broad brush was broad and there's
18 some stuff in there that, in fact, is not important to
19 safety and does not deserve any of the controls that
20 we previously applied to them.

21 If you can't bring yourself to that
22 conclusion, don't bother with it. It's not worth it.

23 MR. HOLAHAN: In effect what you would do
24 if you moved important safety things from Box 2 to Box
25 4, you're using the categorization process as the new

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1 definition of important to safety?

2 MR. SOWERS: That's exactly right.

3 MR. JEBSEN: It's your tool to define or
4 you have a better way to define important to safety to
5 determine.

6 MR. BURCHILL: I want to go back to my
7 friend from the morning of is credited and beat this
8 a little bit more. Because the specific statement
9 that's made in the proposed concept language, which
10 might be considered for a rule -- is that good, do you
11 like that one -- is in section or article (d) under
12 (2), which is for RISC-3 (iii) it says: "If a RISC-3
13 function is credited in the categorization process"
14 and I think what we said this morning was that means
15 it's in your PRA, anything in your PRA, that we
16 "monitor the performance or condition of the SSC."
17 This is in Box 3.

18 And I guess I'm going back again. I
19 wasn't sure what the conclusion of our discussion was
20 this morning. Are you going to go back and reconsider
21 the use of this "is credited" and the imposition of
22 that whole population having to go under this
23 monitoring? And are we going to go back to just
24 what's above and below the line, or what are we going
25 to do there? I didn't quite understand where we came

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1 to.

2 MR. HOLAHAN: The answer to the first part
3 of your question is yes, we're going to reconsider
4 that. Are we going to reconsider and resolve it this
5 afternoon? I think the answer is no.

6 One of the things we're supposed to be
7 doing here is collecting information, you know,
8 various views and our core team is going to have to go
9 back and reconstruct a version of the rule which they
10 think is, you know, the best. You know, meets the
11 goals in the most optimal way and present that, you
12 know, to their management, hopefully next week.
13 Although I see a little disconnect between the staff's
14 next week and Tony's paper of next week. And I'm not
15 quite sure how those line up.

16 But, yes, I think -- you know, on my
17 little green card I've got basically, you know, two
18 major issues that need to be resolved, and this is one
19 of them. And I have one other one. And Tony knows
20 what it is. It's license amendment versus commitments.
21 It's a big issue, I think.

22 MR. REED: I think everybody's getting a
23 little itchy. Why don't we just take five minutes.

24 Excuse me. Let me do that again. Why
25 don't we just take five minutes and try to stick --

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1 MR. HOLAHAN: How long? How long did you
2 say?

3 MR. REED: Three -- three minutes. Come
4 back and then Ken Balkey will do a little bit of a
5 status on the ASME code.

6 I have a couple of questions up here.
7 We'll try to get to and get some discussion. And then
8 Steve West is going to give us the next steps. But we
9 have a little bit of time left and it's important to
10 get back real quick. So, thanks.

11 (Whereupon, at 2:26 p.m. off the record
12 until 2:33 p.m.)

13 MR. BALKEY: The American Society of
14 Mechanical Engineers greatly appreciates the
15 opportunity to be part of this workshop today on a
16 very important subject. And how we arrived at the
17 information we provided today came from the September
18 27th letter that came out, and I'm referring to page
19 6 on §50.69(e) dealing with requirements removed from
20 RISC-3. And the statement in there says RISC-3 SSCs
21 need not meet, and you come down to item (4) it says
22 "Omit 10 CFR 50.55a from the list and rely on ASME
23 code risk-informed code case(s) which would be
24 implemented through either code relief or by revising
25 10 CFR 50.55a in the future."

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1 And there's another alternative as well,
2 which is essentially that all the requirements in the
3 low safety significant would be removed other than
4 possibly the repair and replacement, because there's
5 a specific code case being developed for RISC-3
6 treatment in that area.

7 And the ASME Board on Nuclear Codes &
8 Standards has a task force that was put together to
9 support risk-informing Part 50 to cooperate with the
10 NRC and the industry on this initiative. And when our
11 task team got this -- I volunteered to ask the staff
12 was there anything we could help for the workshop. And
13 when I spoke with Eileen McKenna and others, statement
14 was that you have a lot of code cases out there, where
15 are they in terms of what do they do, are they
16 approved by ASME, have they been endorsed by the staff
17 already under the current regulatory process, and can
18 they fit into §50.69 or I also added in NEI-00-04 as
19 well, too.

20 And with that, with a little bit time, I
21 did some interviews with Craig Sellers, whose joined
22 me today. Craig's very active in O&M Committee on in-
23 service testing. Robert Graybill has been working
24 with me on the repair/replacement code case and has
25 been a longtime member of the in-service inspection

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1 group under section 11.

2 But we put together a status. Had the
3 opportunity to talk with a number of staff members who
4 are active in the codes to get where the staff was in
5 their endorsement of this effort. So the staff here
6 tries to work through §50.69 in this particular
7 requirement that you'd have the latest information we
8 could gather.

9 The information I'm going to present
10 reflects my opinion based on all these interviews.
11 Jerry Eisenburg of ASME said that the staff does need
12 this in writing, we'll be happy to follow up with an
13 official letter.

14 We've had three major initiatives in ASME,
15 and I'm going to take them in the order that they
16 evolved.

17 The first one deals with the requirements
18 effected by ASME Section XI. Section XI is the
19 section of the boiler code that provides requirements
20 for in-service inspection of nuclear plants.

21 Now, I know a number of folks in the room
22 are familiar with ASME's codes and standards, but for
23 those who may not be, we use terms: Codes, standards,
24 and code cases in our discussion here. I'd like to
25 help clarify what they really mean.

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1 A standard -- an ASME standard provides a
2 set of technical definitions and guidelines that are
3 developed so that items can be designed, manufactured
4 or analyzed uniformly to provide safety and
5 interchangeability. The ASME standards are called
6 voluntary because they are used voluntarily and do not
7 have the force of law.

8 At this time the PRA standard which is
9 nearing completion, I do have a slide on that on its
10 status, the PRA standard is a standard. It can be
11 voluntary at this time. It's not been pulled in as a
12 mandatory requirement into a code of regulation.

13 Now, a code, when we say ASME code, and
14 the codes we have Section XI and also the OM code, the
15 operation maintenance code. These are codes. They're
16 referenced through 10 CFR 50.55(a). And so when you
17 hear of ASME code, the standard has now been adopted
18 by a government body or a local state or federal
19 agency worldwide. And ASME codes has been adopted in
20 a number of countries and/or states or local
21 jurisdictions enforce those law primarily for boiler
22 and pressure vessels in dealing with fossil power
23 plants, oil refineries and so forth.

24 Now, a code case. Generally most code
25 cases deal with an interpretation. Somebody has a

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1 question on what the code language meant and a code
2 case is written to sometimes provide that
3 interpretation. The code cases also allow for
4 alternatives to be developed beyond the existing code
5 rules, and particularly for new technology including
6 the risk-informed ISI and the risk-informed IST were
7 brand new technologies or ASME and the code cases have
8 a lifetime of three years. And they're allowed to
9 gain experience from the initial use within the
10 industry, and a decision is then made do we then bring
11 it into the code itself or do we just reaffirm the
12 case, or do we abandon the case. And you can end up
13 in any of those three situations.

14 So with that background, where we are in
15 ASME Section XI, code cases dealing with in-service
16 inspection and repair placement of pressure retaining
17 items, we have two code cases. Code Case N-577 and N-
18 578. They do two things.

19 They do categorize the piping segments
20 into high safety significant or low safety significant
21 categories; that's for N-577-1. N-578 uses a different
22 process and categorizes into high, medium and low
23 categories.

24 And the next piece is once those
25 categories are set identifies how many -- need to be

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1 done within those segments and it also provides the
2 inspection rule.

3 So, therefore, we are providing both
4 categorization and treatment together in those two
5 cases.

6 Now, one of the things that was worked out
7 with the staff, we had meetings just like we're having
8 today. We had meetings on this topic about four or
9 five years ago. And the staff said that the code case
10 was written at a fairly high level, but given it was
11 a new technology, they said they needed more guidance
12 than just those code cases.

13 And the two industry groups Westinghouse
14 Owners Group and the Electric Power Research Institute
15 then developed topical reports that the staff has
16 since endorsed. And at the last count, there's about
17 80 reactors of 20 are approved, 20 reactors are in for
18 review and there's another 30 or 40 due to be
19 submitted here over the next six months or so. It's
20 one of the most successful applications ongoing right
21 now on a voluntary basis.

22 But when I talked to the staff about
23 endorsing the code case which would replace those
24 topical reports, the staff is still reviewing that
25 because there's concern that there's not enough level

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1 of detail in those two code cases when compared to the
2 submittals that came in under the -- against those two
3 topical reports which were pretty sizeable documents.

4 And there is a relationship of this to
5 Option 2, because while plants are doing this under
6 the current existing rules, when you go to §50.69 we
7 take advantage of that application to build our repair
8 replacement case, which is built directly for Option
9 2.

10 So if the NRC has an endorsed reg guide,
11 if the two code cases are not yet endorsed in reg
12 guide 1.147 at the time you're doing this rule
13 development, then §50.69 and NEI-00-04 can still
14 reference back to the topical reports which would
15 allow the licensing process for somebody moving into
16 Option 2.

17 On the repair replacement effort there are
18 two code cases. It's a more complex application. And
19 that's the aspect that we go through all pressure
20 retaining items. We're taking the information we had
21 from the piping segments from the ISI work and have
22 extended that process to the other pressure retaining
23 items so that we can put items into high and low
24 safety significant and put them into the four box
25 scheme.

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1 So code case N-658 provides a link back to
2 the prior ISI code cases and links it to Option 2
3 §50.69 and the NEI guideline. But there's a second
4 piece to it. The development as a classification,
5 ASME is a fairly sizeable organization and the
6 categorization process came up through the working
7 group on risk-based examination, subgroup water cooled
8 systems. How to change the treatment for the high and
9 the lows and also safety related versus non-safety
10 related was done through the subgroup on repair,
11 replacements, modification. So the two branches
12 developed code cases.

13 And Bill Holsten's been the gentleman
14 whose been spearheading the treatment effort. Robin
15 and I, and another set of individuals, have been
16 working on the classification case. And we have the
17 cases where they do match up with one another.

18 The categorization case has already been
19 approved by Section XI, and it was issued for letter
20 ballot to the main committee of the boiler code.
21 That's the highest consensus standard body in ASME for
22 the boiler and pressure vessel code.

23 That code case is due -- the comments are
24 due in on November 20th. We expect a number of
25 comments back in on it.

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1 The standards committee is made up of just
2 not representatives of the nuclear industry, but it
3 has representatives from the oil companies, chemical
4 companies, fossil power plants and other industrial
5 boiler applications. So they have to buy into this
6 process as well, too.

7 We expect comments but our task team will
8 take those comments and bring those back through the
9 process.

10 At the same time, Bill Holsten is working
11 through his subgroup to have the treatment defined and
12 in the RISC-3 area, we do make reference over to the
13 B 31.1 for piping, B 16.34 for valve replacements. We
14 referred to some API, American Petroleum Institute
15 standards for tanks and other pressure vessels, and we
16 also refer to Section VIII, which provides pressure
17 vessels for the fossil power plant industry. And
18 they're working that out.

19 Now, you just can't lift that code
20 straight over. You have to still stay -- you're
21 meeting all your design bases considerations and make
22 sure you're meeting the function. Where the changes
23 come in is when you look at the installation, the
24 welding and braising; there are differences between
25 what Section XI currently requires in the nuclear

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1 treatment versus what we do in the industry.

2 But the track record for ASME's boiler and
3 pressure vessels has been outstanding. If you look
4 back at incidents 50/60 years ago to the number of
5 incidents across, it's actually very, very good.

6 So that is being letter validated as we
7 speak with the subgroup, but there's a meeting coming
8 up in December, and we will have a real good status of
9 how we have these tied together and give a better
10 projection of when we would expect them to be
11 approved.

12 The ASME Board on Nuclear Codes and
13 Standards, which is the policy group overseeing all
14 the nuclear codes and standards, we have it that we
15 really -- I can't tell how hard people's been working
16 to keep this on track so it matches up with your time,
17 with the NRC's timeline and NEI's timeline. And that
18 includes the NRC staff.

19 Staff has been -- we've had a number of
20 task team calls from members of Option 2 task team
21 have worked with the ASME task team to resolve issues,
22 particularly on the repair/replacement categorization.

23 Wolf Creek and Surry are both testing now.
24 Wolf Creek went through it's IDP and used the code
25 case. Had a two hour phone call earlier this week with

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1 representatives who were at that meeting, and they're
2 going to make suggestions to the categorization case
3 based on that trial application, and the timing is
4 very good for that case.

5 But the thing for the staff to consider is
6 those cases probably won't be endorsed by reg guide
7 1.147, and you'd probably have to be looking if you
8 want to use it to endorse it in §50.69. And NEI
9 already has it referenced in their guideline, and I
10 think that's the current plan.

11 Now, in terms of either code cases, the
12 ASME recognizes that we have so many plants implement
13 ISI, it's time to bring it into the code. So the
14 working group on risk based examination for ASME has
15 a new appendix that they've drafted that would be
16 nonmandatory, but it is part of the code and it would
17 bring all the work from code cases N-577 and 578 and
18 the topical reports. It folds that altogether. So
19 they would be in the code and then that, of course,
20 would get endorsed through §50.55(a). But that's more
21 long term and that'll be beyond the time frame we're
22 talking for §50.69.

23 On IST, the Operations and Maintenance
24 Committee has also been active, and there's about
25 seven code cases they've developed. I won't go

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1 through all of them. The most important one is OMN-3.
2 The component importance working group for the
3 Operation & Maintenance Committee had developed a
4 process, how to use a PRA to put valves and pumps into
5 high safety significant and low safety significant
6 categories and, of course, was tied through the whole
7 movement on reg guide 1.174 through 1.178. And that
8 code case is consistent with reg guide 1.175. But it
9 just does a categorization. And I would feel that the
10 categorization there is also consistent with what's
11 been proposed in §50.69. But the important ones are
12 OMN-4, 7, 10 and 12 because once you put the pumps and
13 valves into a high group and a low group, we knew we
14 had to change the testing. And in the high group it
15 was even -- and those code cases suggest even more
16 enhanced testing, particularly like on pumps to take
17 advantage of lube oil analysis or other advanced
18 vibration techniques to predict degradation. But the
19 low safety significant code cases provide how to
20 extend the test intervals out, but also does require
21 some monitoring and tracking of data in that
22 particular case.

23 Now, the IST, I was talking with Craig,
24 there's about a half dozen plants who have developed
25 submittals and Comanche Peak had their program

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1 approved. But there's some things to learn from ISI
2 and IST relative to what we talked about today.

3 In ISI we worked out a process with the
4 templates up front and we also were able to work out
5 well how do we maintain the low safety significant
6 group. Well, ASME has a pressure test with visual
7 exams, and plants do that as part of their code
8 testing. And that suffices to give us information on
9 the low safety significant that we don't have leaks
10 out there and we do have degradation in piping systems
11 that are low.

12 And also the staff has done an excellent
13 job working with the industry because they developed
14 a program how to roll it right into the -- the ASME
15 code operates on periods and intervals; periods of 3
16 years we have to get certain percentages of exams
17 completed and then over a 10 year interval you have to
18 have a 100 percent of all of your locations examined
19 at that point. But the staff found a very good way
20 how to let the plants do their work and roll it into
21 the program without making them wait for many years
22 for approval.

23 On the IST, the issue's not with the code
24 cases or with NRC approval. It comes down to to
25 implement this becomes very difficult. There are many

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1 more plant procedures that have to be changed on the
2 in-service testing. And work has been done at
3 Comanche Peak. Now that they have it done, they say
4 it's very successful. But on Option 2 here we're going
5 to have the case of putting things in the categories,
6 looking at the treatment. But the amount of items
7 that have to be looked to be changed at the plant are
8 pretty significant, but we should be able to learn
9 things from the IST work of how we can make that
10 transition from our current requirements to a risk-
11 informed requirement. And, actually, South Texas is
12 leading the path. They're now looking at
13 implementation, they're looking at all their
14 procedures of how to do that.

15 And once again, the code cases for OMN,
16 there's been an effort underway now to bring those
17 into a new section of the OM code. It's called ISTE.
18 And ISTE essentially brings all the information in
19 from the code cases that have been in existence for
20 the last 3 or 4 years. But once again, that won't be
21 available until after 2002 and it would be endorsed
22 through §50.55(f).

23 And the last one I have, I was asked the
24 latest status on the PRA standard. I've identified
25 what the scope of the standard is. It was approved by

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1 the Committee on Nuclear Risk Management which also
2 reports to the Board on Nuclear Codes and Standards.
3 But as the item was approved, it went out for public
4 comment, and the NRC had more comments to provide. But
5 I'll be honest with you, a number of folks rolled up
6 their shirt sleeves and said "Okay, let's dig into
7 these and give them address so we can keep this on
8 track," and that's exactly what was done. A team of
9 folks worked real hard to address the additional
10 comments the staff provided, and the proposed
11 standards are back to the Committee on Nuclear Risk
12 Management for approval. The board has it tracked and
13 we hope to get this thing out in early 2002, within
14 the first quarter.

15 So if the standard become approved by ASME
16 in early 2002, then the staff will have to look how
17 you would endorse it for everything and you probably
18 would want to address how you want to pull it in. Do
19 you want to pull into §50.69 or NEI-00-04. But that's
20 why we left it to be defined.

21 Okay. And that concludes my remarks.

22 MR. REED: Okay. Steve West is going to
23 give us a wrap-up and next steps, and if we still have
24 time, have a couple of questions after Steve. We're
25 running out of time quickly.

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1 MR. STROSNIDER: Well, tim, I just very
2 quickly though wanted to just see if there's any
3 consensus standard being set. NEI-00-04 is already
4 looking to incorporating some of this. I mean, it
5 sounds like, you know, there's some agreement to
6 trying to use the codes and standards in this process.
7 Okay. Which is good. You know, I remind everybody
8 that NRC has a law which basically says try to
9 optimize use of those sort of things, and we do think
10 it's an efficient way to do business.

11 MR. BALKEY: And ASME has really tried to
12 be responsive. Since you issued the Advanced Notice
13 of Proposed Rulemaking, people have really worked
14 quite hard as volunteers, including staff from NRC
15 that we keep our things approved to be in line with
16 your efforts and NEI.

17 MR. WEST: Good afternoon. I'm Steve
18 West. Tim and Eileen work for me, I work for Cindy and
19 am involved in the Option 2. I recognize most of you.

20 I'm going to talk about the wrap-up and
21 next steps, but I think I'll do the next steps first
22 and then thank you for coming.

23 Believe it or not, all the staff and the
24 managers back at the NRC that are working on Option 2,
25 they really want to demonstrate some progress and put

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1 something out that shows that we're, you know, we're
2 really getting somewhere. There's a lot of activity
3 going on, other things are happening in parallel, but
4 there's not a deliverables. You know, people don't see
5 a lot of progress.

6 And, in fact, this workshop wasn't a part
7 of our plan. It got planned and then actually we're
8 holding it a little later than we had anticipated.
9 So we're generally feeling behind schedule.

10 Our plan is to demonstrate progress by
11 what Sam mentioned this morning, publishing a early or
12 preliminary draft of actual rule language. Not rule
13 concepts, but rule language. And we're looking to do
14 that on fairly quick turnaround from this point. And
15 so that's going to be our major activity, although
16 we're going to do it, hopefully, in a very compressed
17 period of time.

18 And the plan would be to assess the
19 results of this workshop, the input that we got today
20 -- and we got a lot of good input, I think -- and have
21 the core team do that and go to the RILP next week,
22 actually a week from today, and give the RILP
23 agreement on draft rule language with the objective
24 for the goal of publishing that before the end
25 November.

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1 And when you consider that there's about
2 two weeks of administrative effort required in there
3 to publish a *Federal Register* notice and get stuff to
4 the webmaster and actually published, it means we
5 really haven't left ourselves much time to play
6 around.

7 In fact, I've been told by an influential
8 RILP member with long hair and a beard that the RILP
9 is expecting the core team to come to them next week
10 with a recommendation, one recommendation, not a
11 series of alternatives, which has happened a few
12 times. And that the RILP should be able to come to
13 agreement on that recommendation or some variation of
14 it in one RILP meeting.

15 So, this is will be historical if it
16 happens, but if you see rule language out on the web
17 before the end of the November, you'll know that we
18 made history.

19 Anyway, that's kind of the term or
20 immediate actions that we have planned.

21 The slide lists some other things that are
22 ongoing, and I think most of you are involved in
23 these, at least some of these, and you know what's
24 going on. But we're continuing with our reviews of the
25 proposed NEI guidance documents and trying to develop

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1 guidance for implementing Option 2 and for what would
2 required for a submittal, an Option 2 submittal, for
3 example. And we're continuing work with the pilot
4 plants. In fact, Eileen and Glenn went down last week
5 or week before to Wolf Creek and observed some pilot
6 activities.

7 So those things are continuing going along
8 pretty well.

9 Let me get into the next slide here.
10 What's next and what remains?

11 As I mentioned, obviously we want to get
12 the draft rule language out, an early draft. This
13 won't be a proposed rule, it will be basically a
14 snapshot of the staff's thinking at the time that it's
15 posted.

16 We also hope to, along with the rule
17 language itself, post any other supporting information
18 that we may have developed to that point. For
19 example, if we have portions of the regulatory
20 analysis or statements of considerations completed, we
21 would also post those to give you a better idea of
22 where we're at and what's left to go.

23 So, that's the kind of near term, as I
24 mentioned.

25 We do, of course, have to prepare a

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1 proposed rulemaking package, the formal package that
2 you're used to under our rulemaking process. And our
3 publish schedule, which you can find in the Chairman's
4 Tracking Memorandum, would call for us for us to have
5 the proposed rulemaking package to the Commission in
6 April of next year. So only a few months away,
7 actually. And that's still our schedule.

8 We did send a signal to the Commission
9 that that may change based on this workshop and other
10 obstacles we may have to overcome, but at this point
11 we still are working to that schedule. So April time
12 frame.

13 And after the proposed rule, of course,
14 comes comment period and then the final rule.

15 For planning purposes, we typically, you
16 know, off the top of our heads would say between
17 proposed rule and final rule is about a year. And I
18 think for this rulemaking we said for whatever reason,
19 15 months. So that would be our formal schedule at
20 this point, and that would be 15 months from the time
21 the proposed rule is published. You know, we're not
22 sure how much time it's going to take the Commission
23 to act on the proposed rule once we send it up.

24 Our plan has been up to now, and is still,
25 to with the proposed rule publish the proposed

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1 regulatory guide on how you would implement the rule,
2 the draft reg guide with the statements and
3 consideration in the proposed rule and reg analysis
4 and the other things you normally see with a
5 rulemaking, and maybe even a standard review plan,
6 draft standard review plan if we go with the prior
7 review approach, which is looking more and more like
8 we're going to be doing.

9 We do have some options. We could, for
10 example, later decide if we get too bogged down in the
11 details of the guidance to go with the approach we
12 used on §50.59 where we pushed the rulemaking through,
13 continue the work on the guidance in parallel with
14 that, but maybe make it a situation where we get the
15 final rule out and then give us some time to finish up
16 with the guidance. And the rule becomes effective
17 some period of time after we come to agreement on
18 guidance. So we do have some options there, too.

19 Anyway, that's our plan. You saw the real
20 plan, it looks like a real plan, but you know that's
21 our plan.

22 Any questions on where we're at, next
23 steps? Good.

24 Okay. Thanks for coming.

25 No, seriously, as Gary mentioned just a

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1 little while ago, I think we got some really great
2 feedback today. I really appreciate the -- first of
3 all, I appreciate the effort that those of you who had
4 to travel, you know, from more than just around the
5 beltway to get here, I really appreciate the effort
6 you put in to get here and to get home.

7 And also the effort that you put in to
8 develop comments and to pass information along to us.
9 It's obvious that the working group did a great job in
10 getting some thoughts together, and also the
11 individuals from plants provided some great input.
12 I've already heard some feedback from staff and
13 managers that have been here about how enlightening
14 some of the comments and information have been. I
15 think we really got a lot that will help us shape the
16 draft rule and move forward.

17 MR. HOLAHAN: Steve, when will these
18 people hear next? What form and in what time frame?

19 MR. WEST: They should be watching the
20 *Federal Register* towards the end of the month and the
21 webpage for the draft rule language. That would be
22 our next formal communication that we'd put something
23 out.

24 I'm trying to think -- I don't think
25 anything would show up in the CTM or any place else

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1 before then. That's probably be the next, you know,
2 start looking.

3 Anybody could always call Tim or Eileen to
4 get the status also where we're at. We have no problem
5 giving you an update if you want to call in. You can
6 call Tim or Eileen or David Diec in the back and we'll
7 be happy to give you an update.

8 But be looking for the *Federal Register*
9 towards the end of the month, hopefully, if we're on
10 schedule.

11 MR. PIETRANGELO: If history is made by
12 the end of November, do you anticipate another public
13 meeting in December time frame to bat that around?

14 MR. WEST: To talk about the draft rule
15 language?

16 MR. PIETRANGELO: Yes.

17 MR. WEST: It's possible. That's one of
18 the things we have to decide on is -- I mean, we have
19 options, too, with the draft rule language. I mean,
20 one thing we could just float it out there and not
21 even ask for comments. Yo know, just run it by
22 everybody and see if anybody's interested enough to
23 comment without being asked. Or, we could ask for
24 comments, or we could ask for comments and have a
25 meeting, or have a meeting and then ask for comments.

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1 That's one of the things we'll be talking to RILP
2 about is, you know, for that particular interaction
3 what we want to do.

4 MR. GILLESPIE: Tony, let me ask, because
5 we are trying to --

6 MR. WEST: One more thing. I don't think
7 it would happen in December. I'm just kind of
8 guessing.

9 MR. GILLESPIE: To keep us on schedule and
10 to keep moving, depending on the kind of comments that
11 you guys would send in as an industry, keeping in
12 perspective that a proposed rule is not a final rule,
13 it's the next step, that we're going to have make a
14 judgment or do we feel even with the comments and
15 considering the comments and how we consider them, are
16 we in good enough shape to go as a proposed rule in
17 that context. Even the proposed rule may have one or
18 two open questions still on it, we've published rules
19 before that have two questions.

20 So as long as we don't try to polish the
21 apple too shinny, we get to stay on schedule and we
22 get to progress to the next level and make some of the
23 compromises Steve's discussed on when are we going to
24 get guidance polished up and finished and everything.

25 So the schedule becomes kind of important

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1 to us. If you make milestones, then you tend to make
2 progress. And you continue to lay them and have more
3 meetings, then sometimes we don't make the progress
4 we'd like to make.

5 MR. PIETRANGELO: Yes. This reminds me a
6 little bit of the CLIP process in a way. Because --

7 MR. GILLESPIE: Don't remind anybody of
8 the CLIP process.

9 MR. PIETRANGELO: Well, we're trying to do
10 things on the front end to make the backend quicker,
11 okay. You know, one way or another whether you have
12 a meeting or not, we'll give you feedback on whatever
13 comes out of the end of November, and then you've got
14 to go forward and do it. But I think the goal is to
15 try to make the proposed rule while not the perfect
16 comprehensive thing the final rule will be, good
17 enough such that you won't get a deluge of comments
18 that delays the backend of this process.

19 I guess I was a little bit troubled by
20 what Steve said in terms of normally it's 12 months,
21 but we thought we needed for this, yet we've got this
22 up front process we're using now that in my mind
23 should have shortened that backend.

24 MR. WEST: Well, we're still using -- I
25 mean, if you look back through the CTM we have the

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1 same schedule. We haven't changed our schedule. So we
2 haven't really factored in this new part of the
3 process, because frankly we're not sure if it's going
4 to help or not. I mean, we're optimistic that it will,
5 but time will tell.

6 Like I said, we sent a signal to the
7 Commission that we're going to reevaluate the schedule
8 periodically. And I think after this workshop and
9 these RILP meetings we will take a close look at our
10 schedule. And it may be shortened.

11 And Frank reminded me. I should have
12 mentioned, we also probably will issue more than one
13 of these informal drafts of the rulemaking. You know,
14 once we get one out, hopefully this one this month,
15 we'll be able to issue them, you know, at each
16 refinement if we want. If we think we're making
17 progress and we want to share with the stakeholders
18 where we're at.

19 So I would expect to see actually more
20 than one over time.

21 MR. HOLAHAN: Sort of a continuous update
22 process?

23 MR. WEST: Continuous. Yes. Well, I was
24 thinking we could wait 3 years, but I think that'd go
25 over very well.

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1 MR. DIEC: Steve, this is Dave Diec from
2 the staff.

3 While continuing to update the draft rule
4 language, we're not going to republish in the FRN at
5 all. We just republish on the webpage only.

6 MR. WEST: Right. Right. I think the
7 *Federal Register* notice will say keep checking back
8 because there could be a new one up there.

9 Any other questions? I think, Tim, did
10 you want to try to go through your couple?

11 MR. REED: We got actually two comments
12 that we haven't gotten to, and we'll give a shot here.

13 With respect to functionality of RISC-3
14 components, please discuss what the current treatment
15 practices actually assure regarding design bases,
16 safety function areas to discuss seismic capacity,
17 local load and pressure drop, EDG, loading during
18 design base LOCA.

19 Is any of my technical want to start this
20 discussion. I mean I'm not sure -- whose comment --
21 where were you going with this comment? Okay. It's
22 our own guy.

23 MR. KELLY: I could probably answer some
24 of it. But the reason why I thought it would be
25 important for us to come to some kind of

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1 understanding, a mutual agreement or at least think
2 about what it is that we actually do -- achieve with
3 our current treatment so that we understand if we
4 relax that treatment, at least we understand what that
5 starting point is of what we've actually achieved with
6 the current treatment. And that's the question in
7 essence was saying, you know, can we come to an
8 agreement of what we actually do achieve with it
9 today.

10 MR. REED: I think Jack's going to
11 probably -- no, Jack's not going to. Well, I've heard
12 Jack give his answer many times.

13 MR. STROSNIDER: Let me say something just
14 sort of generally, and then I think maybe some of the
15 tech staff can certainly do a better job on this.

16 But I think there's at least two things.
17 You know, we accomplished some level of confidence in
18 functionality under the design bases conditions.
19 That's the intent of it, okay, to say yes -- as I
20 pointed out earlier in part of the discussions we --
21 in terms of performance base when you look at some of
22 the special treatment rules, you're really not getting
23 feedback and the rules are written to address things
24 like procurement and design, and etcetera, to make
25 sure that you have that confidence of functionality.

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1 And the other piece of that which, I
2 guess, actually is also related confidence, but
3 there's some documentation, let me put it in that
4 terms, that goes along which provides a trail, okay,
5 that says this is why you have that confidence, which
6 is -- when we've looked at this stuff before, part of
7 the discussion is can we provide the functionality and
8 reduce some of those other things like the paper trail
9 that, you know, is the additional confidence that --
10 maybe you need some of it, maybe you don't. All right.

11 So I think at least there's two things
12 that occur to me, and one is the technical here's what
13 you got to to assure yourself some level of confidence
14 that the thing will function and then there's some
15 records of how you -- to provide some assurance that
16 in fact you've done that from a quality assurance
17 point of view, I guess.

18 So, I think those are two pieces, which
19 have certainly come up in our discussions in terms of
20 how much of each of those do you need. But that's
21 just sort of a reaction, sort of big picture.

22 John, you were going to say something.

23 MR. FAIR: Yes. I didn't realize -- John
24 Fair, I didn't realize it was our own staff asking the
25 question. But the current criteria when you get into

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1 things like seismic and EQ have a lot of detailed
2 specified criteria. And in order to show
3 functionality in some cases you do testing. The
4 question is when you take away the special treatment
5 requirements and you go to some other industry
6 standards, is the criteria good enough to demonstrate
7 the equipment actually functions? And so that's the
8 type of question we're looking for.

9 MR. REED: Okay. I have one more comment.
10 I think we could start the workshop all over with that
11 last comment, so I'm going to jump to the next one
12 real quick here, and I think this is a lot easier.

13 And the question is please explain the
14 concept of "cherrypicking" and that's by system and/or
15 by role and how can that be accomplished within the
16 language of the rule concept? Must all SSCs be
17 classified regardless of the scope of the
18 implementation, i.e. full categorization? And the
19 answer is the rule's flexible. In fact, if you look
20 close, you can pick whatever rules you want within
21 §50.69(e) and also you can do it for whatever scope of
22 systems you want. In fact, the middle section says
23 you can tell us what scope of systems that you're
24 considering doing this for.

25 Now, you also have to look at the rest of

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1 the rule because of the rest rule will tell you have
2 to adopt all those -- there's paragraph (c)
3 requirements and categorization of PRA. And so it may
4 look somewhat more flexible than it really is.
5 Because even when you want to categorization something
6 down to Box 3 for a couple of systems, you're really
7 taking credit for a lot of stuff up in one and two,
8 and then you have to start monitoring for those things
9 in your PRA.

10 So, it's as flexible as we can make it,
11 basically. That's the simple answer to that.

12 That's all the comments we got.

13 I think we're all set. Thanks again,
14 everybody, for coming. Appreciate all the input. And
15 I'm sure we'll see you around soon.

16 (Whereupon, at 3:13 p.m. the Workshop was
17 concluded.)

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