

# **Official Transcript of Proceedings**

## **NUCLEAR REGULATORY COMMISSION**

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Manual Actions: Public Meeting

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UNITED STATES OF AMERICA

U.S. NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING ON INTERIM FEASIBILITY CRITERIA FOR  
FIRE PROTECTION MANUAL ACTIONS

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WEDNESDAY,

NOVEMBER 12, 2003

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ROCKVILLE, MARYLAND

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The meeting was held at 8:00 a.m. in the  
010B4 of the Nuclear Regulatory Commission, One White  
Flint North, 11545 Rockville Pike, Eva Brown, NRC  
Project Manager, presiding.

Present:

EVA BROWN, NRC

RICHARD DUDLEY, NRC

RAYMOND GALLUCCI, NRC

SUNIL WEERAKKODY, NRC

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1     Also Present:

2     JAMES BONGARRA, NRC

3     JUNE CAI, NRC

4     NANCY CHAPMAN, SERCH/Bechtel

5     FLEUR De PERALTA, TRI-EN Corp.

6     FRED EMERSON, NEI, via teleconference

7     JEFF ERTMAN, Progress Energy

8     PAUL GUNTER, NIRS

9     CATHY HANEY, NRC

10    JOHN HANNON, NRC

11    MICHAEL JOHNSON, NRC

12    PETER KOLTAY, NRC

13    ERASMA LOIS, NRC

14    ALEX MARION, NEI

15    DAVE NELSON, NRC

16    KATHLEEN O'DONOHUE, NRC Region II, via teleconference

17    RENEE PEDERSEN, NRC

18    CHRIS PRAGMAN, Exelon

19    PHIL QUALIS, NRC

20    DEANN RALEIGH, LIS Scientech

21    DAVID TRIMBLE, NRC

22    JENNY WEIL, McGraw-Hill

23

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

8:19 a.m.

MS. BROWN: Good morning. This is a category 3 meeting. During the meeting, the public is invited to participate by providing comments and asking questions throughout the meeting.

This meeting is being transcribed, so I would ask that each speaker please identify yourself before beginning. We also have Fred Emerson of NEI, various members of the regional staff on the teleconference line and it's more important that you guys do that than others.

I just want to give a little background and the staff will go through it a little more. This effort is a proposed rulemaking on interim feasibility criteria was evaluated by the staff in a SECY 03-0100 that was dated June 17th and this is in which the staff recommended that a rulemaking be undertaken by the Commission to develop and codify acceptance criteria on the use of operator manual actions as a means of protecting the safe shutdown transfunctionality during a fire in an area where redundant shutdown trains are located.

Since we believe that using licensee operator actions to achieve safe shutdown is safe and

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1 acceptable under appropriate conditions, we propose to  
2 develop an interim enforcement policy using this final  
3 feasibility criteria. The interim enforcement policy  
4 that we're talking about would exercise discretion and  
5 refrain from taking enforcement action for those  
6 licensees that rely on operator manual actions,  
7 provided that licensees have demonstrated and  
8 documented the feasibility of their operator manual  
9 actions in accordance with interim feasibility  
10 criteria developed by the staff.

11 We'll be discussing this interim policy  
12 towards the afternoon.

13 At this point, I would like to just go  
14 around the room and let everyone introduce themselves.

15 (Introductions.)

16 MS. BROWN: At this point, I'll turn it  
17 over to Sunil.

18 MR. WEERAKKODY: I'd like to welcome  
19 everybody. My name is Sunil Weerakkody. I'm the  
20 Chief of Fire Protection and Special Projects in the  
21 Office of Nuclear Reactor Regulation.

22 I'm going to spend some time going over  
23 the background so that when Ray Gallucci of my staff  
24 starts describing the interim criteria for determining  
25 feasibility, you will have the full context of where

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1 we are today and where we are heading.

2 I'm assuming everyone has a copy of my  
3 handout.

4 Let me go to page 2. The main purpose of  
5 this public meeting is to present to you to interim  
6 feasibility criteria and the basis and receive your  
7 feedback. I am really pleased to see representatives  
8 from the industry, NEI and Paul, you said you were  
9 representing?

10 MR. GUNTER: Public Interest.

11 MR. WEERAKKODY: We need that as we move  
12 forward when we finalize this feasibility criteria.

13 Let me go to page three now, and I'm  
14 simply -- most of the time will read from these  
15 things. This is pretty much the historical background  
16 as to how we got to the point where we are.

17 10 CFR 50.48 imposed fire protection  
18 requirements from Appendix R, Paragraph III.G.2., to  
19 pre-1/1/1979 licensed plants. There are three  
20 acceptable methods to protect at least one shutdown  
21 train during a fire when redundant trains are located  
22 in the same fire area. They are having a three hour  
23 passive fire barrier; a 20-foot separation and no  
24 intervening combustibles, with dire detection and  
25 automatic suppression; and the third, 1-hour passive

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1 fire barrier with fire detection and automatic  
2 suppression.

3 I'm going to read the next slide. In a  
4 post-1/1/1979, post-January 1, 1979 license plants,  
5 Appendix R, the same prohibitions I described earlier  
6 were incorporated into a Branch Technical Position,  
7 BTP or CMEB-9.5-1 and NUREG-0800 which is the Standard  
8 Review Plan.

9 The plant-specific fire protection  
10 programs and commitments were reviewed against one of  
11 these, becoming part of the post-1/1/1979 plant  
12 licensing bases, thereby incorporating portions of  
13 Appendix R, Paragraph III.G.2.

14 I'm going to my next slide, slide number  
15 4. Since mid-1990s, the NRC inspections of licensee  
16 fire protection programs have indicated many instances  
17 of reliance on "operator manual actions" rather than  
18 the accepted protective provisions of III.G.2. And  
19 the staff position was unless approved as an  
20 "exemption, (Pre-1/1/1970 plant) or "deviation" (post-  
21 1/1/1979 plant) such actions do not comply with  
22 III.G.2.

23 The next slide. Another concern we had  
24 was some of these "operator manual actions" may not  
25 have been feasible, thereby creating doubt that safe

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1 shutdown could be assured.

2 NRC and nuclear industry agreed to suspend  
3 debate over past history and focus on regulatory  
4 actions that would permit these actions provided their  
5 feasibility could be assured. We are operating  
6 independently, going forward that what would keep the  
7 risk managed and under control is making sure that  
8 when the licensee created a particular manual action  
9 to assure a safe shutdown, that they are feasible.  
10 That could be when we go forward, that would be the  
11 routine for a while then after we make the rule.

12 We go to Slide No. 7. In March 2003, this  
13 is about 7 or 8 months back, NRC issued the fire  
14 protection inspection procedure, Attachment 71111.05,  
15 an the enclosure, which is Enclosure 2. And that  
16 provided Inspection Criteria for fire protection  
17 manual actions. I can't remember the exact number,  
18 but they are about 10 criteria that the inspectors  
19 would use to make sure that when they encounter manual  
20 actions that those actions are, in fact, feasible.

21 For an interim period, while rulemaking is  
22 in progress -- acceptance criteria can be developed  
23 which would facilitate evaluations of certain manual  
24 actions.

25 Go to Slide 8 now. Look at the March 8,

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1 2003, inspection criteria that are provided in our  
2 inspection manual to ensure feasibility. They are  
3 based on inspection experience and addressed the  
4 following high level components in feasibility:  
5 diagnostic instrumentation; making sure proper  
6 environmental conditions existed to take manual  
7 actions; making sure that staffing and training was  
8 available and provided for the manual actions; making  
9 sure that the communications and accessibility is  
10 realistic and maintained; making sure that there are  
11 procedures and that those actions are, in fact, have  
12 undergone verification and validation.

13 In June 2003, this was about four months  
14 back, NRC issued SECY 03-0100, which is the  
15 "Rulemaking Plan on Post-Fire Operator Manual  
16 Actions."

17 I quote from there, "there is insufficient  
18 evidence that the generic use of these actions poses  
19 a safety issue -- that requires prompt action --  
20 [E]nforcement may not be the best remedy."

21 And let me go to the next slide now,  
22 number 10. The SECY continues, "To resolve the  
23 regulatory compliance issue, the staff has concluded  
24 that generic guidance and acceptance criteria for  
25 feasible operator manual actions should be developed.

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1 Documenting compliance would demonstrate that safety  
2 has been maintained and that the operator manual  
3 actions do not adversely affect the ability to achieve  
4 and maintain safe shutdown in the event of a fire."

5 This was the document we sent to the  
6 Commission for their work.

7 Let me go to slide 11. And again, I'm  
8 quoting from the SECY, "Even with Commission consent  
9 to proceed with rulemaking, licensees using unapproved  
10 operator manual actions would be in non-compliance  
11 Upon receiving Commission approval of the rulemaking  
12 plan, the staff will develop an interim enforcement  
13 policy to allow discretion, provided these licensees  
14 have documented the feasibility in accordance with the  
15 staff's proposed preliminary generic acceptance  
16 criteria."

17 MR. DUDLEY: Those on the bridge, can you  
18 hear?

19 MR. EMERSON: It's cutting out a little  
20 bit.

21 MR. DUDLEY: We see lights flashing from  
22 green to red and we didn't think that was good. So --  
23 okay. We'll do the best we can. We'll know that if  
24 it flashes red, that maybe we're not getting through.

25 MR. WEERAKKODY: In September of this

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1 year, the Commission issued a Staff's Requirements  
2 Memorandum on SECY that I was talking about, approving  
3 "the staff's recommendation to proceed with rulemaking  
4 to revise the FP program requirements contained in  
5 Appendix R of 10 CFR Part 50 and the associated  
6 guidance."

7 Now according to the SECY, "The Commission  
8 has approved the staff's plan to develop an interim  
9 enforcement policy to deal with these compliance  
10 issues. The staff should leverage its past experience  
11 to develop the general acceptance criteria and  
12 expedite this rulemaking effort.

13 The NRC staff position was to use the  
14 existing March 2003 inspection criteria as the  
15 starting basis for developing interim feasibility  
16 criteria.

17 I'm going to the next slide, number 14.  
18 The interim enforcement policy in no way obviates the  
19 need for licensees to continue documenting the  
20 technical feasibility of their operator manual  
21 actions.

22 Again, the staff position, the technical  
23 feasibility of operator manual actions remains  
24 paramount. And we will develop additional criteria as  
25 appropriate and need to assure technical feasibility.

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1           And before I conclude, just to make sure  
2           in summary, how we started, the schedule, we started  
3           with the criteria, two or three months ago. I know in  
4           September, we had a session at a public meeting. We  
5           went through this criteria and got some feedback and  
6           then on October 17, we had another public meeting and  
7           again, we went through this criteria and then this is  
8           the third meeting we are holding. And as I said, what  
9           we present today has the benefit of a number, a larger  
10          number of comments that we received from internal  
11          stakeholders. We are working. We got input from  
12          human factors. We have the ACRS views. We worked  
13          informally with the staff in Office of  
14          Enforcement. We worked with the staff in the  
15          Inspection Branch. We had some regional input.

16                 So what you are seeing today is what we  
17          think is the best available interim criteria. But at  
18          the same time, I want to emphasize that the reason we  
19          are here today, asking for your input, is because we  
20          want to get your input and the purpose of the meeting  
21          today is not to judge your inputs, but to take the  
22          input back, give the input proper consideration and  
23          finalize the criteria and make them good enough or I  
24          would say make them as final as we can and input them  
25          in our enforcement special task force.

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1 Thank you very much.

2 MR. DUDLEY: Are there any questions at  
3 this point? Yes?

4 MR. GUNTER: I'll defer to Alex, first.  
5 I have a question.

6 MR. MARION: This is Alex Marion. Our  
7 objective here this morning is to understand the  
8 current status of the feasibility criteria for NRC's  
9 acceptance of manual action. And depending upon that  
10 understanding, we may request an opportunity to submit  
11 comments in the more formal manner.

12 MR. DUDLEY: I think there's an  
13 opportunity for written comment also. And I'll talk  
14 about that later.

15 MR. MARION: Okay, thank you.

16 MR. GUNTER: Can I come to the table?

17 MR. DUDLEY: Please do. We might need --  
18 can you hear on the bridge?

19 MS. BROWN: Paul, can you speak for us?

20 MR. GUNTER: Certainly, my name is Paul  
21 Gunter. I'm with Nuclear Information and Resource  
22 Service.

23 MS. BROWN: You guys can hear?

24 MR. EMERSON: Yes.

25 MS. BROWN: All right.

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1 MR. GUNTER: I think before they leave the  
2 background issue, I think that it's important, at  
3 least from the public perspective that we include some  
4 essential information that's not included in the  
5 background information.

6 And that includes that the Nuclear  
7 Regulatory Commission made commitments to Congress in  
8 1993 to Congressman Dingel's committee with regard to  
9 the failure of the NRC and industry to comply with  
10 III.G.1 and III.G.2 of Appendix R.

11 And at that time Commissioner Sellin  
12 provided assurances to Congressman Dingel, that the  
13 Agency would spare no expense to bring the industry  
14 into compliance with III.G.2.

15 Slide 6, I think, raises some very  
16 significant concerns in that the Nuclear Regulatory  
17 Commission and the nuclear industry have agreed to  
18 suspend the debate over the past history.

19 MR. DUDLEY: Continue.

20 MR. GUNTER: Okay, this history that we as  
21 a public interest and public safety organization feel  
22 needs to be included is the failure to bring this  
23 industry into compliance with the -- particularly with  
24 the issue of full line fire barriers which has not  
25 been included.

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1           As I've read over the documents, the  
2           preponderance of the noncompliance comes from the  
3           failure of the full line fire barriers. This is an  
4           issue that goes back to declaration of inoperability  
5           in 1992.

6           The Agency and industry spent eight years  
7           working through compliance and testing issues  
8           culminating in a series of confirmatory action orders  
9           that the Agency and the industry agreed to.

10          We are now concerned that that history,  
11          the attempt here to erase that history, and to abandon  
12          the obligations to Congress and the obligations that  
13          the industry made to the Agency to come into  
14          compliance with the III.G.2 separation of 3-hour fire  
15          barrier and 1-hour fire barrier with suppression and  
16          detection.

17          This represents, in our view, nothing  
18          short of retreat from regulatory action and  
19          enforcement action and it is done not as a benefit of  
20          public health and safety, but rather to accommodate a  
21          non-compliance and non-cooperative industry -- and I  
22          emphasizes that the public is taking serious note of  
23          the fact that the industry has been recalcitrant to  
24          come into compliance for fire barrier issues since  
25          1992.

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1           It's extremely disturbing that after over  
2           10 years that the Agency has not only come to this  
3           point of failure to enforce compliance, but is now in  
4           he process of providing for that retreat to be  
5           codified. And without the benefit of a full and  
6           consensus process for this criteria, I would note that  
7           while the Agency is proposing to abandon its  
8           prescriptive regulation, it does not have the benefit  
9           of NFPA 805 which does not have a criteria for  
10          operator manual actions.

11           So we have the situation that these  
12          actions are being taken without the benefit of  
13          prescriptive action and without the benefit of  
14          performance-based criteria that was reached, at least  
15          attempted to be reached through a consensus process.

16           So I think that this is a very disturbing  
17          rush to judgment that provides for an opportunity for  
18          feasibility of operator manual actions and I note that  
19          there is a dramatic jump between feasibility and  
20          assurance and the public is taking note of that.

21           I think I'm just going to end right there.  
22          But I think that gives you a snapshot of where the  
23          public interest community stands right now with  
24          regard to this action and I look forward to additional  
25          comments.

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1 MR. WEERAKKODY: Let me just thank you.  
2 I appreciate the history and some of your  
3 perspectives.

4 Let me start with your last comment and if  
5 -- I want to make sure we have a common understanding  
6 that you have an opportunity in the future to give  
7 your view. In other words, some of the statements you  
8 made, you meant you did not have an opportunity to  
9 provide views on the criteria? Because the whole  
10 purpose of this meeting is to give you that  
11 opportunity and that's really important to us.

12 MR. GUNTER: I think that we recognize the  
13 opportunity. We were invited to this meeting. We  
14 weren't invited to the previous two meetings, I'll  
15 note that.

16 The opportunity to respond doesn't  
17 necessarily provide the public with the assurance that  
18 safety is the mandate here.

19 Our opportunity to respond doesn't  
20 necessarily provide that the assurance that public  
21 safety and health is the paramount issue here versus  
22 regulatory and industry budget concerns.

23 MR. WEERAKKODY: I will respond to the  
24 first point which is the opportunity to comment. We  
25 really appreciate what you say. If you have any

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1 additional comments and specific comments of the  
2 present that Ray will provide, we will welcome that.

3 MR. GUNTER: Thank you.

4 MR. WEERAKKODY: And I'm a little bit  
5 handicapped when you go back to 1993, but when I look  
6 forward, I ask myself what are the key elements in the  
7 approach as we move forward that keeps the public  
8 safe.

9 One of the things that we should note is  
10 that with input, the feasibility criteria with the  
11 inspectors in 2003, there's a lot more detail than the  
12 criteria that existed before that. I think they took  
13 a step up. Just like to you, public safety is also  
14 our number one.

15 Now I'm not sure how to respond to your  
16 questions with respect to the full compliance. I  
17 think the fact that we are making a rule. I have to  
18 agree with you, some of the statements you made in  
19 terms of not having full compliance in the  
20 prospective. But I think the most important aspect of  
21 what you said that this goes back to me, is are we  
22 doing enough, is this Agency doing enough to keep the  
23 public safety while we are in the rulemaking process?  
24 And I think the most critical item is to have good  
25 feasibility criteria in the field and continued

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1 inspections while we make the rule.

2 Now I cannot sit here and assure you that  
3 every manual action at every plant out there is safe  
4 and feasible. But I can assure you that there is a  
5 network out there, when I say network we have  
6 inspectors, residents, inspection criteria that shows  
7 that if there is a noncompliance that is affecting  
8 public safety in an unacceptable we, we engage.

9 I can give you an example. We have  
10 enforcement issues going at ANO. And we are getting  
11 feedback on inspectors there. So why do we work the  
12 issue. We know there is risk there and we are  
13 managing the risk.

14 I don't want you to leave this meeting  
15 thinking that whatever the history perspective is, we  
16 are not doing the right thing going forward.

17 MR. GUNTER: I would like to follow up  
18 with one question and with regard to the verbiage.  
19 Why did NRC choose the word feasibility versus  
20 reasonable assurance? That is, in fact, an issue of  
21 confidence.

22 Feasibility does not hold the same  
23 standard as reasonable assurance. And we are  
24 wondering why you chose those terms?

25 MR. WEERAKKODY: I would rather take that

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1 back as a question to consider. I will tell you why.  
2 We have, depending on the forums we go to, whether  
3 it's ACRS or different forums, we are different  
4 choices so this is different choices. It has been  
5 suggested why not assurance criteria? Why not  
6 acceptance criteria?

7 So let us take that back as a comment.

8 MR. GUNTER: It's feasible that I could go  
9 out of this meeting and go out and become a nuclear  
10 engineer. I don't think that that's likely, but it  
11 offers up the same concerns of your choice of words.

12 MR. WEERAKKODY: AS I said, we will take  
13 it back and your point is use of the word reasonable  
14 assurance gives you --

15 MR. DUDLEY: This is Richard Dudley and I  
16 believe that maybe we did pick the wrong word in those  
17 criteria. And I think -- I know in my mind when we're  
18 working toward these criteria, I think we need to have  
19 reasonable assurance and not just that they're  
20 feasible, but that they can and will be undertaken by  
21 the licensees in the midst of a fire which is a fairly  
22 stressful time.

23 MS. BROWN: I just want to make one  
24 comment. I don't think that the choice of words will  
25 deter the appearance and the commitment to safety on

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1 the part of the inspection staff or the Agency. It's  
2 just a criteria that we're going to be using to make  
3 a determination and we'll take a look at what an  
4 appropriate word that still ensures that safety is  
5 maintained.

6 MR. GUNTER: Again, I'll just emphasize  
7 that the choice of words provides for not only a  
8 standard of confidence, but a legal standard.  
9 Clearly, what we see here is a tug of war between the  
10 Agency and the industry that is both noncompliant and  
11 noncooperative in an issue that has now been a running  
12 gun battle for over a decade.

13 This action before us right now, with this  
14 rulemaking, is nothing short of wholesale retreat by  
15 the Agency from that confrontation over safety  
16 standards.

17 MR. QUALIS: For the record, I'll make a  
18 quick comment of where feasible comes from.

19 The current existing criteria, inspection  
20 procedure, okay. That inspection procedure is used to  
21 assess essentially risk. It's a screening criteria.  
22 The use of manual action in movable barrier is  
23 currently not in compliance with the regulation.

24 All we have listed is essentially a  
25 screening criteria as a way for the inspectors to

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1 determine if a finding is green or if it should have  
2 further SPE evaluation. And the use of feasible was  
3 used as that screening criteria. If it's green-green,  
4 then the manual action was feasible or capable of  
5 being performed. It doesn't mean it was acceptable.

6 MR. GUNTER: I appreciate your indulgence  
7 and I'm going to --

8 MR. MARION: I would like to make a  
9 comment. go ahead, Paul.

10 MR. GUNTER: As a screening criteria, I  
11 think that's really fast and loose. If you're using  
12 the word -- again, feasibility is a very far reaching  
13 term and I believe the -- with the NUREG 1150  
14 recognizing fire as 50 percent change, contributing to  
15 50 percent of the risk for core damage frequency, I  
16 Think it's -- the term is far too broad to be used as  
17 a screening criteria.

18 MR. MARION: This is Alex Marion and I  
19 would like to make a comment.

20 I don't propose to debate Mr. Gunter's  
21 points, but I do want to make a statement from the  
22 standpoint of the industry actions going back to the  
23 history record that Paul represented in his comments.

24 The industry has spent millions of dollars  
25 to address the performance capability of the Thermal-

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1 Lag materials as an effective fire barrier for  
2 compliance with the NRC regulations.

3 And one of the things that we found is  
4 that performance of these materials needs to be better  
5 understood as opposed to a declaration in the  
6 regulation that says it will perform for X number of  
7 hours. And that becomes important when you evaluate  
8 what the actual fire conditions are that the barrier  
9 is expected to protect against.

10 And all of that work that was done over  
11 the past 10 years, as you correctly indicate, has  
12 gotten us to this point relative to the use of manual  
13 actions.

14 And the industry was not noncompliant, nor  
15 was it noncooperative, nor was it focusing strictly on  
16 economics. It was focusing on safety and it was  
17 focusing on compliance with the regulatory  
18 requirements. They were perceived to be structured in  
19 such a way that using risk insights and performance  
20 based concepts, cannot be effectively applied within  
21 that regulatory construct and over the years, we've  
22 gotten to this point. We have a rulemaking activity  
23 that the NRC is proceeding to apply performance-based  
24 concepts with the endorsement of NFP 805.

25 And we also have this manual action issue

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1 which we hope to get clarified as a result of further  
2 public comments. And I would suggest we move on to  
3 discuss the NRC's proposals because we're not going to  
4 be able to settle these points at this meeting today.

5 MS. BROWN: Fred, did you still want to  
6 make a comment?

7 MR. DUDLEY: I think Alex has made it and  
8 I was just going to take exception to the view that  
9 the industry thought the NRC was noncompliant and  
10 noncooperative, but Alex already said that.

11 MR. DUDLEY: I'm Richard Dudley. I'm  
12 going to move on. The next topic in the agenda is the  
13 schedule.

14 I'll be speaking from the package of  
15 handouts.

16 Again, I'm the project manager associated  
17 with the rulemaking aspect of this issue. I want to  
18 talk about the schedule for the proposed manual  
19 actions rule.

20 As Sunil has mentioned, the rulemaking  
21 plan was approved by the Commission on September 12,  
22 2003.

23 The Commission directed us to go forward with the  
24 rulemaking activity, but in the interim, while that  
25 rulemaking was being performed to allow interim

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1 discretion, interim enforcement discretion for  
2 licensees, that we're taking manual actions under only  
3 appropriate conditions.

4 The rulemaking will be conducted in  
5 parallel with the development of the implementation of  
6 the enforcement policy and the criteria we use for  
7 feasibility for the enforcement criteria will perhaps  
8 be refined with the use of further insights of  
9 research and other information so that when we go  
10 forward with a proposed rule and then ultimately a  
11 final rule, the acceptance criteria we have for manual  
12 actions may very well be different from the criteria  
13 we're discussing today that will be used for the  
14 interim enforcement criteria.

15 The proposed rule, we expect to provide to  
16 the Commission for their consideration in October of  
17 2004, and assuming that the Commission approves it in  
18 about a month or so, the proposed rule will be  
19 published for public comment and again, Paul, you've  
20 been involved with this, i the public comment, around  
21 December 2004. We should have about a 75-day public  
22 comment period.

23 On the next slide I'm going to talk about  
24 the schedule for the interim enforcement policy.  
25 Again, a little recap as Sunil has already discussed

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1 this.

2 We first released these interim acceptance  
3 criteria for manual actions on October 17th in a  
4 meeting that was public. We hadn't extended as broad  
5 of invitations as we did today. They were also put in  
6 ADAMS and made public on that date. Today, we're  
7 having the Category 3 public meeting to solicit verbal  
8 comments and written comments.

9 Since we know that some of you may have  
10 not seen these criteria before today, we're going to  
11 accept written comments up until November 28th. So if  
12 you're not ready to comment today, we understand that  
13 and you can submit written comments for a period of  
14 about a little over two weeks.

15 You can mail your comments to the address  
16 shown on here, the Chief of Rules and Directives  
17 Branch, the Division of Administrative Services. Or  
18 you can e-mail your comments to us at [nrcrecp@nrc.gov](mailto:nrcrecp@nrc.gov)  
19 is another way to transmit comments to us.

20 When we receive, with the comment period  
21 will again end on November 28th. We'll receive those  
22 comments. We'll evaluate them. We'll go over them.  
23 We'll factor them into our acceptance criteria as we  
24 feel is appropriate and our current schedule is to  
25 issue the interim enforcement discretion policy and

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1 have it be published and come into effect some time in  
2 the summer of 2004.

3 That completes my talk on schedule. Are  
4 there any questions or comments on that?

5 MR. EMERSON: This is Fred Emerson. I  
6 have a comment that since November 28th is the day  
7 after Thanksgiving, that gives us very little time to  
8 prepare and develop comments. There's only about 10  
9 working days there. I would ask for 30-day comment  
10 period.

11 MR. DUDLEY: I think this information has  
12 been published for longer than just 10 working days.

13 MR. GUNTER: When was the original Federal  
14 Register notice?

15 MR. DUDLEY: The Federal Register notice  
16 is going to go out like tomorrow. It has not been  
17 published.

18 MR. MARION: I think this is important  
19 enough where 30 days at a minimum is probably  
20 appropriate.

21 MR. GUNTER: We would agree. Actually, I  
22 think more than 30 days is appropriate.

23 MR. MARION: Let the record show that Paul  
24 Gunter agreed with the industry.

25 (Laughter.)

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1 MS. BROWN: We're writing that down.

2 MR. GUNTER: I think this is almost  
3 unprecedented in terms of the rush that's being put on  
4 the closing of the comment period and I think that  
5 it's astounding that an issue that's as long-standing  
6 and as controversial is being rushed out the door so  
7 quickly and we strenuously request that the public  
8 comment period be extended to a minimum of 30 days, if  
9 not 60 days.

10 MS. BROWN: Let me ask a question. This  
11 is not going to be the only opportunity they're going  
12 to have to comment on this criteria. Is it?

13 MR. DUDLEY: This is a comment period for  
14 the interim enforcement discretion criteria only. We  
15 will have a separate public comment period for the  
16 proposed rule --

17 MR. GUNTER: I understand.

18 MR. DUDLEY: As we go forward. This is  
19 sort of an extra opportunity that in the past some  
20 times we didn't offer the public, so we thought it was  
21 a beneficial thing.

22 But I'll take obviously --

23 MR. GUNTER: Let me just stress thought  
24 that what this interim criteria constitutes is an  
25 abandonment of III.G.1 and III.G.2. That should not

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1 be taken lightly, given the historical context of fire  
2 protection regulation.

3 MR. DUDLEY: I'll take this request back  
4 to my management and we'll see. It will probably  
5 necessitate a schedule change on our part and we'll  
6 have to request that. But thank you for your  
7 comments.

8 Are there any more comments on the  
9 schedule?

10 (No response.)

11 Okay, next is --

12 MS. BROWN: We're way ahead of schedule.

13 MR. DUDLEY: Okay, so next is a break.

14 MS. BROWN: Why don't we go ahead and  
15 take that?

16 MR. DUDLEY: We'll take 15 minute break.

1 (Whereupon, the foregoing matter went off  
2 the record at 9:02 a.m. and went back on  
3 the record at 9:18 a.m.)

4 MS. BROWN: I think Dick has a couple  
5 comments before we go into the next thing on the  
6 agenda.

7 MR. DUDLEY: Okay. So during the break,  
8 at the request of NEI and public advocacy groups, we  
9 received permission from our management to extend the

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1 comment period to a full 30-day comment period. I  
2 guess that will be 30 days from today. We'll look at  
3 the calendar and see what it is. So we will make that  
4 extension and that will cause some adjustment increase  
5 in the schedule of the enforcement discretion and  
6 we'll adjust that, and we'll go forward and get  
7 Commission approval on that.

8 So what's the next topic. Ray?

9 MS. BROWN: Right.

10 MR. DUDLEY: Next, Ray Gallucci will talk  
11 to you on the current criteria for determining  
12 acceptability of manual actions.

13 MS. BROWN: And this is the handouts that  
14 start, "Objective."

15 MR. GALLUCCI: Okay. This is Ray  
16 Gallucci. The first slide is, "Objective," "Present  
17 Interim Feasibility Criteria and their Basis,"  
18 "Receive Public Feedback." Second slide, "The Interim  
19 Feasibility Criteria for Operator Manual Actions."  
20 I'm in the Fire Protections and Special Project  
21 Section of NRR.

22 In terms of the third slide, a couple of  
23 definitions to get us started. We are defining  
24 operator manual actions as those actions taken by  
25 operators to perform manipulation of components and

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1 equipment from outside the main control room to  
2 achieve and maintain post-fire safe shutdown. These  
3 actions are performed locally by the operators,  
4 typically at the equipment. So to stress there, these  
5 are the actions that are taken outside of the main  
6 control room. When we speak locally we speak at the  
7 position of the equipment, et cetera.

8 Slide 4, operator actions, those actions  
9 taken by operators from inside the main control room  
10 to achieve and maintain post-fire safe shutdown.  
11 These actions are typically performed by the operator  
12 controlling equipment located remote from the main  
13 control room, but he's doing the controlling from the  
14 main control room themselves. So there's a  
15 distinction between operator manual actions and  
16 operator actions from now on in the slides and in the  
17 criteria.

18 The feasibility criteria apply only to  
19 operator manual actions. That is the ones taken  
20 outside the main control room, not operator actions  
21 inside the main control room. So just, again, make  
22 sure we have the definition straight for the rest of  
23 the presentation.

24 The basis for the criteria, as mentioned  
25 earlier, these were first used in the NRC inspection

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1 manual chapters 609, significance determination  
2 process. If you read through there, you'll find  
3 several of the criteria, such as staffing and  
4 training, described in there. It is consistent with  
5 remote location manual actions evaluation table in the  
6 revised fire protection SDP that has been proposed as  
7 well. So if you've seen the draft and the, I believe  
8 it's Table 5214, you'll see that these criteria are  
9 the same terminology that are being used there as  
10 well.

11 The criteria from the March 2003  
12 inspection procedure, Attachment 71111.05, Enclosure  
13 2, inspection criteria for fire protection manual  
14 actions, there were approximately ten criteria there  
15 that have been retained. A couple have been combined,  
16 a couple have been renamed, but the essence of those  
17 have been retained. There's also a couple of new ones  
18 that will go through in the process.

19 We've received input from the Office of  
20 Research sponsored study that was done by Sandia,  
21 called, "Risk Insights Related to Post-Fire Operator  
22 Manual Actions." A couple of criteria from that have  
23 been incorporated, and, again, I'll describe those.

24 MR. MARION: Ray?

25 MR. GALLUCCI: Has that been finalized or

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1 is there something going to be finalized relative to  
2 that research report?

3 MR. GALLUCCI: The Sandia research?

4 MR. MARION: Yes, the Sandia research.

5 MR. GALLUCCI: It's taken from, I  
6 understand, the NRC EPRI Fire PRA Requantification  
7 Project. It's a spinoff from that, so I believe those  
8 -- depending upon how that progresses and when that's  
9 finalized, that would probably determine --

10 MR. WEERAKKODY: I think you're looking  
11 for the real --

12 MR. MARION: Has the letter been made  
13 publicly available as a draft or is there some final  
14 product that's going to be publicly available?

15 MR. WEERAKKODY: We will check on that.

16 MR. GALLUCCI: We'll check with research  
17 on that.

18 MR. MARION: Okay.

19 MR. PRAGMAN: I have the same question.  
20 Whoever requests that make sure we have your name and  
21 address.

22 MR. GUNTER: Ditto.

23 MR. PRAGMAN: Please make sure that we  
24 have a way to communicate with you and get it to you.

25 MR. MARION: If you have it

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1 electronically, you can email it to Alex Marion,  
2 am@nei.org, or Fred Emerson, fae@nei.org.

3 MR. QUALIS: For that matter, if it's  
4 available --

5 MR. DUDLEY: You have access to ADAMS and  
6 all.

7 MR. GUNTER: Yes, sir. And we also have  
8 left our email address on the sign-in sheet.

9 MR. DUDLEY: Thank you.

10 MR. GALLUCCI: Okay. Continuing with the  
11 sixth slide, we received feedback from the September  
12 2003 meeting with the ACRS Subcommittee on Fire  
13 Protection. We've incorporated some of their  
14 comments; we're considering others. The feasibility  
15 criteria also correspond to the performance shaping  
16 factors that are used in HRA techniques, human  
17 reliability analysis techniques, specifically this RH  
18 model. And a lot of the other models again they may  
19 use different names but the concepts are there. So  
20 just these two slides summarize where are these  
21 criteria coming from.

22 The remainder of the slides will actually  
23 go through the criteria as they are currently  
24 proposed, and I'll read through each slide. It will  
25 take a few minutes if there's a comments on it and

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1 then continue onward. The first criteria -- and the  
2 order -- there's no implication by the order that one  
3 is any more important than the other. This just  
4 happens to be the order that they're listed in.

5 The first criterion is called, "Available  
6 Indications." It was formerly known as, "Diagnostic  
7 Instrumentation," in the March criteria. It is  
8 defined as diagnostic indication if credited to  
9 support operator manual actions shall be capable of,  
10 one, confirming that the action is necessary; two,  
11 being unaffected by the postulated fire; three,  
12 providing a means for the operator to detect whether  
13 spurious operation of safety-related equipment has  
14 occurred; and, four, verifying that the operator  
15 manual action accomplished the intended objective.

16 And like I said, we'll pause for a minute  
17 or two if anyone has any comments on that.

18 MR. MARION: I've got a question. This is  
19 Alex Marion. On the third sub-bullet, provide a means  
20 for the operator to detect whether spurious operation  
21 of safety-related equipment has occurred, are you  
22 really dealing with the scope of safety-related  
23 equipment or is it the scope of equipment that may  
24 include safety and non-safety but equipment that's  
25 necessary to bring the plant to a safe shutdown

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1 condition?

2 MR. QUALIS: I just made a note on that  
3 myself. We're going to have to change that to fire-  
4 safe shutdown. It will read, "equipment required for  
5 a fire-safe shutdown."

6 MR. MARION: Okay.

7 MR. QUALIS: Components required or  
8 affecting or something like that.

9 MR. PRAGMAN: Ray, I have another question  
10 about that. I'm Chris Pragman from Exelon. There may  
11 be cases where indication is needed, not because of  
12 spurious actuation but because of some other  
13 malfunction that needs to be detected. So the choice  
14 of words, putting spurious actuation in here may also  
15 have unintended consequences.

16 MR. GALLUCCI: Okay. I'll make a note of  
17 that. So those comments relate to the third bullet.  
18 Anyone else? Yes?

19 MS. de PERALTA: Yes. Fleur de Peralta.  
20 Available indications, are you implying that these are  
21 in the control room or with indications outside the  
22 control room?

23 MR. QUALIS: Well, Fleur, it may not have  
24 to be in the control room if you have operators  
25 monitor outside the control room. But the point is

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1 let's say you're operating a plant and as you look at  
2 our old guidance, the previous guidance we have  
3 information known as 84 something or another  
4 instrumentation, diagnostic instrumentation -- 82 or  
5 83, back in the early years. And we required you have  
6 indication of pressurizer levels but not much else.  
7 That's all you protected. If you see pressurizer, and  
8 you're relying on manual actions, if you see  
9 pressurizer level decreasing, what is causing that?  
10 The operator has to be able to figure out what is  
11 causing that. Is it PORV open, is it flood aversion,  
12 is it flow interruption? You have to be able to  
13 analyze and lead the operator to the correct manual  
14 action to fix that problem or compensate for that  
15 problem.

16 MS. de PERALTA: So if I wanted to  
17 determine where a pump started or a valve opened and  
18 closed and I've got another set of indications outside  
19 the flow; is that right? You've got operators that  
20 are outside the flow intake.

21 MR. QUALIS: Yes, but you can say you have  
22 an operator in the Ox building and the indication's  
23 down at the local pump, but that doesn't that mean  
24 he's there; it depends on the circumstance.

25 MS. de PERALTA: So this implies

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1 indication of --

2 MR. QUALIS: If it's continuously met.  
3 There may be situations where you're relying on a  
4 pump. Your indication is a valve going close to the  
5 suction of discharge of that pump. If that valves  
6 goes completely closed, you may have destroyed that  
7 pump. If the operator doesn't know that immediately,  
8 I'm not going to say that the operator can't be in the  
9 Ox building monitoring the Ox building indications.  
10 I'm saying that it might be circumstances.

11 MS. de PERALTA: But your procedure is say  
12 you go and monitor. If they know that something may  
13 happen in the area and they say monitor where your  
14 pump may start or your valve may open or close and go  
15 this local indication, I mean if that's --

16 MR. QUALIS: Well, if you have an operator  
17 taking local control of the auxiliary heat water pump,  
18 he may be monitoring something there, steam pressure  
19 or feed water flow or something at the auxiliary feed  
20 water pump. That's part of operating the auxiliary  
21 feed water pump. That indication will probably need  
22 to be available.

23 MS. de PERALTA: Right. So there's the  
24 necessary control

25 MR. QUALIS: It would probably be better

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1 if it's available locally than had to talk over  
2 performance with the control room.

3 MR. BONGARRA: Just to clarify, so  
4 diagnostic indication then is not then specific to the  
5 main control room. We're looking at diagnostic  
6 indications as indications -- instrumentation at local  
7 control stations as well.

8 MR. QUALIS: Well, we're expecting that  
9 instrumentation is going to be adequate to identify  
10 the manual action, perform the manual action and  
11 verify that the manual action is completed, not just  
12 -- how can I say it -- not everything may have  
13 indications that the control room is necessary to do  
14 that.

15 MR. GUNTER: Can I raise a concern? In  
16 going to the reliance on 3G3 it seems like you're  
17 losing your time factor. The whole idea was to  
18 provide a one-hour or three-hour timeframe  
19 preliminarily diagnostics. So this criteria seems to  
20 us not to have a time factor. I mean we're talking  
21 about a cable trace, for example, that may contain  
22 instrumentation cable that could be damaged by fire,  
23 in the early stages of a fire. So where in here does  
24 the criteria provide some assurance that you're going  
25 to be able to maintain early detection and

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1       diagnostics?

2                   MR. QUALIS:     That should be another  
3       criteria.

4                   MR. GALLUCCI: Complexity in number, we'll  
5       get to that.

6                   MR. QUALIS: There's another criteria that  
7       discusses time.

8                   MR. GALLUCCI: Yes. That's one thing is  
9       a lot of the -- there is some overlap among the  
10      criteria, so until we get through the whole list, you  
11      may -- something you think may be missing you may find  
12      that it's addressed in other later criteria. Any  
13      other comments on availability indications? If not,  
14      we'll move on to the second one, which is going to  
15      stand -- it's a long one -- it's going to stand the  
16      next three slides. Let me read through all three  
17      slides before we comment on it.

18                   Okay.        On Slide 8, Environmental  
19      Considerations. Environmental conditions encountered  
20      while accessing and performing operator manual actions  
21      shall be demonstrated to be consistent with the  
22      following human factor considerations for visibility  
23      and habitability. First, fire effects shall be  
24      evaluated to ensure that smoke and toxic gases from  
25      the fire do not adversely affect the capability to

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1 access the required equipment or to perform the  
2 operator manual action.

3 Next slide. Second, temperature and  
4 humidity conditions shall be evaluated to ensure that  
5 the temperature and humidity do not adversely affect  
6 the capability to perform the operator manual action.  
7 See, for example, NUREG CR 5680, Volume 2, entitled,  
8 "The Impact of Environmental Conditions on Human  
9 Performance," or require that licensee provides  
10 rationale for temperature, humidity not being factors  
11 adversely affecting performance.

12 Next slide, Number 10. Third, radiation  
13 shall not exceed 10 CFR Part 20, Section 20.1201  
14 limits. And, fourth, emergency lighting shall be  
15 provided as required in Appendix R, Section 3J or by  
16 the licensee's approved fire protection program. For  
17 example, lit with eight-hour battery-backed emergency  
18 lighting, and the lighting shall be provided -- and  
19 sufficient lighting shall be provided for paths to and  
20 from locations requiring any actions.

21 So those three slides comprise the  
22 environmental considerations criteria, which is an  
23 extension of the one that's in the March inspection  
24 criteria.

25 MR. MARION: This is Alex Marion. I just

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1 want to kind of summarize these three elements to  
2 clarify my understanding. On the first one, on Slide  
3 8, what your concerned about is the impact of smoke  
4 and toxic -- or potential impact of smoke and toxic  
5 gases on the ability of the operator to implement the  
6 specific manual action. That's fundamentally what it  
7 is, right?

8 MR. GALLUCCI: Correct.

9 MR. MARION: Okay. On the second set of  
10 criteria in Slide 9, this is the effects of  
11 temperature and humidity on the personnel involved in  
12 implementing the action?

13 MR. GALLUCCI: Yes.

14 MR. MARION: Is that the essence?

15 MR. GALLUCCI: Yes.

16 MR. MARION: Okay. And on the last set of  
17 criteria, on the second bullet regarding emergency  
18 lighting, you cite an example for eight-hour battery  
19 packed emergency lighting. Let me just ask a  
20 question. If a licensee has an operator action that  
21 can be successfully implemented and demonstrated to be  
22 successfully implemented within a few minutes, how  
23 does that play out relative to the eight-hour  
24 requirement in Appendix R, Section 3J? I'm just  
25 trying to relate to practical application.

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1           MR. GALLUCCI: That's something we're  
2 struggling with but because there's a real good pace,  
3 especially in the performance-based evaluation where  
4 you can say that he's got to walk up, flip a switch,  
5 walk back, he can do it with flashlight. But we've  
6 also got to deal with Section 3J, Appendix R, which  
7 says that emergency lighting with eight-hour battery  
8 pack shall be available at each station and access  
9 too. Well, actually, unless we change the regulation  
10 in 3J we're going to have to -- and maybe OGC will  
11 tell me differently before we're finished -- but the  
12 way it looks like now unless we change 3J to say  
13 something else, then it's either going to be an eight-  
14 hour battery pack or exemption or deviation.

15           MR. MARION: The genesis for my question  
16 is from the concept of coherence and what we're trying  
17 to do here and make sure it fits or comports with  
18 other regulatory requirements. And I at this point  
19 don't offer a solution, but it's something that we  
20 need to think about as we move forward in developing  
21 this and implementing it in the field.

22           MR. QUALIS: I disagree. In many cases,  
23 I know in the past we've accepted, based on  
24 performance, base security lighting in exterior areas  
25 rather than eight-hour batteries, because security

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1 lighting is probably better than eight-hour batteries  
2 anyway. But 3J is pretty specific, and unless we  
3 change it I don't see how we get around it.

4 MR. HANNON: This is John Hannon. My  
5 understanding, and maybe I need to be impressing on  
6 these, 3J applies to 3G3 areas, doesn't it, or is it  
7 more complicated?

8 MR. QUALIS: It just says all areas, it  
9 doesn't differentiate.

10 MR. HANNON: Okay. Thank you.

11 MR. JOHNSON: I have a question more than  
12 a comment. This is Michael Johnson. This is  
13 primarily a question. As I look at the slides on  
14 environmental considerations, I see the words, for  
15 example, "fire effects, smoke and toxic gas do not  
16 adversely affect," and then on the next slide on  
17 temperature and humidity, "do no adversely affect."  
18 But when you go to the third slide, emergency  
19 lighting, it's, "sufficient lighting," which is really  
20 a different standard. And I just wondered is there  
21 some regulatory history, and I can wave my "I'm new to  
22 the job, explain it to me on this," that no adverse  
23 effect as opposed to ability to demonstrate that in  
24 spite of the environment can perform sufficiently to  
25 carry out the function?

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1                   MR. QUALIS:     Well, I will read the  
2 regulation. Three-J of Appendix R says, "Emergency  
3 lighting units with at least an eight-hour battery  
4 power supply shall be provided in all areas needed for  
5 operation of safe shutdown equipment and access and  
6 egress routes thereto." Now, what amount of lighting  
7 is adequate? We tried to address that in Generic  
8 Letter 86-10. We didn't really do a very good job.  
9 We said lighting should be in accordance with some  
10 illuminating engineer's handbook that no one ever  
11 committed to or used. What we've done in the past is  
12 it looks like you've got a light pointed here. Have  
13 you evaluated it with operators to see if they can  
14 work it at sometime in your start-up testing or  
15 something? But there is no real illumination as in  
16 lumens or candle standards that's ever been adopted by  
17 the Agency formally or agreed to with industry or  
18 anything else.

19                   MR. MARION:   This is Alex Marion again.  
20 Fundamentally, this kind of an issue, relative to  
21 what's clearly articulated in the regulation and how  
22 the performance of that concept that relates to that  
23 provision of the regulation can be implemented in the  
24 field, needs to get resolved, because if we don't  
25 establish a policy or some principles on it now, as we

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1 go forward with the NFPA 805 rulemaking, we're going  
2 to get into a lot of additional areas similar to that.

3 MR. QUALIS: I don't disagree, but it  
4 hasn't been resolved in the past.

5 MR. MARION: Well, you're saying it hasn't  
6 been resolved in the past. Well, that doesn't mean we  
7 shouldn't resolve it in the future as we go forward.

8 MR. QUALIS: No disagreement.

9 MR. JOHNSON: Can I follow up my earlier  
10 question with a follow-up question? I was actually  
11 looking more at the, "does not adversely affect," more  
12 than I was the lighting aspect, because at least in my  
13 mind we've got two different standards. No adverse  
14 effect for temperature and humidity or no adverse  
15 effect for fire or smoke, for example, that's a -- no  
16 adverse effect is zero. No adverse effect, is that  
17 what we mean? Is that a clear -- is that something  
18 that's clearly understand, and is that what we mean?

19 MR. QUALIS: Well, it may be one good  
20 reason to have public meetings. What kind of adverse  
21 effect is acceptable? Okay. We're saying that this  
22 is equivalent to a three-hour barrier or this is  
23 manual actions equivalent to a one-hour barrier with  
24 detection and automatic suppression. So how much  
25 adverse effect is equivalent to a three-hour rated

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1 barrier or a one-hour? We're saying that this manual  
2 action is equivalent to the other acceptance criteria  
3 of 3G2 in Appendix R. How do you evaluate it? I mean  
4 it's --

5 MS. BROWN: This is Eva. But you also  
6 need to look at the other -- the other ones are really  
7 dealing with personal safety, and the one with  
8 emergency lighting is, well, can they see what they  
9 need to do also is a part of it as well, in my mind.  
10 So I don't know that the standards necessarily would  
11 have to be because one of them is dealing with you  
12 don't want them to die from smoke inhalation, and the  
13 other one is, well, can they see once they get there  
14 to flip the switch? And so I'm not real sure whether  
15 or not they have to be. It's something we should  
16 still look at, but take a look at what those  
17 environmental considerations are. We're talking about  
18 the other ones are more personnel safety as well as  
19 plant safety, and the other one is just can he still  
20 -- is the operator still capable of doing what they  
21 need to do?

22 MR. PRAGMAN: Saying no adverse effect  
23 just by using those words means that you've taken away  
24 my ability to come up with some way to compensate for  
25 the smoke or some way to compensate for the

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1 temperature. Maybe, just throwing ideas out, I could  
2 allow extra time for a particular act or assure that  
3 there's extra time because I know I will take a little  
4 longer because of smoke, or send two operators to  
5 crank a valve because I know it will be hot and it  
6 will get done faster so we minimize our stay time in  
7 a hot area.

8 MS. BROWN: Do you have a suggestion on a  
9 better one?

10 MR. QUALIS: I think NEI will provide  
11 words in our comments.

12 MR. DUDLEY: I think the NRC -- I'm  
13 Richard Dudley. I think the NRC wants reasonable  
14 assurance that smoke and temperature and humidity will  
15 not prevent or preclude the taking of the action. I  
16 think that's what we want. I'm not sure, but I think  
17 it's very good comment that we need to work on those  
18 words, because they could be interpreted as if there  
19 was a wisp of smoke in the room, that that might  
20 adversely affect someone.

21 MR. QUALIS: Well, I've been on  
22 inspections where -- at least on two inspections where  
23 we've questioned environmental conditions because of  
24 loss of inhalation, and it became quickly apparent  
25 that the licensees had not considered environmental

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1 effects. In other examples, with the smoke, for  
2 example, we don't want to say you can't go in the fire  
3 area to do a manual action because many utilities have  
4 like a BWR reactor building is one fire area. A fire  
5 affecting one localized area in an electric cabinet in  
6 a BWR is not going to make the entire containment  
7 building, reactor building inaccessible. So we're  
8 trying to put stuff in there that you guys can  
9 reasonably evaluate and not be superscripted.

10 MR. GUNTER: At the same time, though --  
11 Paul Gunter with NIRS. I mean it's curious to me that  
12 the issue of flame is not specified. I see smoke and  
13 gas and radiation but how about fire? That's not in  
14 here.

15 MR. QUALIS: I think that's understood.

16 MR. GUNTER: Well, I don't know that it's  
17 necessarily understood that smoke is a transient, it  
18 can follow fire. Smoke is something that can go into  
19 other areas, but is there a prohibition on entering  
20 into an area with fire? Is that part of the criteria  
21 that's spelled out?

22 MR. QUALIS: Well, that's what I just  
23 said. Fire areas are defined in the plan, of course  
24 we get specific and we're talking legal definitions or  
25 accepted industry definitions. The definition of fire

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1 area for a lot of plants, a BWR, a single-fire area is  
2 typically the reactor building. That's a huge  
3 building with --

4 MR. GUNTER: I understand.

5 MR. QUALIS: -- usually five different  
6 levels. Okay. And a fire in one spot may not affect  
7 access to the manual action in another spot. The  
8 licensees have to evaluate that. And that's why we  
9 did not want to preclude fire area access. However,  
10 when we say they've got to assess the effects of heat  
11 and smoke, well, that's a fire because fires give off  
12 heat and smoke -- heat, smoke and toxic gas. That's  
13 what you're going to find from a fire. That's what  
14 we're trying to -- you know, evaluate the effects.  
15 That's all we can -- unless we just ban access to a  
16 fire area and make it real prescriptive.

17 MR. GUNTER: Well, I guess, again, the  
18 issue of Appendix R-3G2 is to prevent the passage of  
19 flame and hot gas. So the 3G2 is far more specific  
20 than this criteria in that it does specify prevention  
21 of the passage of flame, and there is the given of  
22 temperature but the 3G2 also has the temperature  
23 guideline as well as the guideline for flame. Again,  
24 I'm seeing -- I'm concerned about the elasticity.

25 MS. BROWN: Even with the 20 feet you

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1 still see that?

2 MR. GUNTER: Well, the issue -- I mean  
3 we're throwing the 20-foot separation out the window  
4 with it as well.

5 MS. BROWN: All right. So you're just  
6 talking about barriers, I want to make sure, and the  
7 20-foot separation.

8 MR. GUNTER: I mean the issue is that  
9 we're abandoning the barrier concept and that that  
10 concept provided clear criteria to prevent the passage  
11 of flame and hot gas. And it had a temperature  
12 requirement, but I won't belabor that.

13 MR. GALLUCCI: Any other comments on the  
14 environmental considerations criteria?

15 MR. GUNTER: Well, just one other. I mean  
16 given the unpredictability because we don't have -- I  
17 mean the whole issue of fire modeling is really in  
18 question here, and it's curious to me that in the  
19 absence of reliable fire modeling how much stock can  
20 we place in the word, "shall," when in fact it's more  
21 likely to be, "hope."

22 MR. WEERAKKODY: One thing I want to say  
23 is that no science is perfect but that's one area, as  
24 you know, that we probably already knew where we are  
25 expending resources to improve upon. So we have much

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1 better tools and much better understanding, so we're  
2 not working on this --

3 MR. GUNTER: I understand, but I also --  
4 I've sat in on enough ACRS meetings to know that ACRS  
5 does not share confidence in fire model.

6 MR. PRAGMAN: Okay. Question for Ray.  
7 Chris Pragman, question for Ray. On the radiation  
8 consideration, can you just tell us why you're using  
9 Section 1201 of 10 CFR 20, that's, I think, annual  
10 occupational exposure, as opposed to like emergency  
11 exposure guidelines.

12 MR. QUALIS: Well, at this point we don't  
13 want to put in the regulations plans to design a plant  
14 for a fire. We've defined in other places in the  
15 regulations, such as Appendix R, that a fire should be  
16 no worse than a loss of normal on-site power. If we  
17 go to emergency exposures, we don't normally do that  
18 on a transient and an anticipated operational  
19 occurrence. That's no worse than a normal loss of an  
20 on-site power. When you do that you're putting a fire  
21 in the same class as a -- again. The fires were  
22 never, by the way the regulations were written, never  
23 intended to go to that level of emergency. That's why  
24 we're telling you to design and plan for normal  
25 radiation exposure, not the emergency one-time limits

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1 and stuff.

2 MR. PRAGMAN: But Appendix R also says I  
3 can damage all of my trains of safety-related stuff.

4 MR. QUALIS: Actually, Appendix R says one  
5 train of equipment required to place -- you need to  
6 maintain non-shutdown conditions. They'll be free of  
7 fire damage.

8 MR. PRAGMAN: It says in the preamble that  
9 I don't need to protect safety-related equipment as  
10 long as I have one way of shutting the plant down.

11 MR. QUALIS: Right. You have one train  
12 per your fire damage but that can affect everything.  
13 And it also doesn't -- it shouldn't be planned at that  
14 level of emergency.

15 MS. BROWN: Are you telling us that you  
16 would expect to see those levels during a fire? Is  
17 that your concern that you would expect to see high --

18 MR. PRAGMAN: I don't actually know.

19 MR. QUALIS: That's something we will have  
20 to look at.

21 MR. PRAGMAN: I don't actually know.

22 MS. BROWN: Okay.

23 MR. QUALIS: We try to write the  
24 regulations as best we can. In the past, we've had  
25 examples of smoke detectors and fire detectors and

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1 emergency lights that we worked out with individually  
2 in a licensing area, where we didn't want people to go  
3 in and do maintenance every month on emergency lights  
4 that's in 100 RAD radiation area. I mean we recognize  
5 those circumstances exist and we'll have to deal with  
6 the outlying circumstances, but we didn't want the  
7 base regulations to say you should be able to define  
8 into emergency exposure levels. That's not in  
9 accordance with ALARA.

10 MR. GALLUCCI: Moving on to the third  
11 criterion. This will be Slides 11 and 12. Staffing  
12 and training, normally separate criteria in the large  
13 guidance, they've now been combined. "There shall be  
14 a sufficient number of plant operators under all  
15 staffing levels to perform all of the required actions  
16 in the times required for a given fire scenario. The  
17 use of operators to perform actions shall be  
18 independent from any collateral fire brigade or  
19 control room duties they may need to perform as a  
20 result of the fire."

21 Slide 12, "Operators required to perform  
22 the manual actions shall be qualified and continuously  
23 available to perform the actions required to achieve  
24 and maintain safe shutdown. The training program on  
25 the use of operator manual actions and associated

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1 procedures during a postulated fire shall demonstrate  
2 that operators can successfully achieve these  
3 objectives."

4 MR. MARION: This is Alex Marion. I've  
5 got a couple questions just to make sure I understand  
6 this. On Slide 11, you refer to all staffing levels.  
7 Could you elaborate on what you're thinking of there,  
8 talking about all? Twenty-four-seven and all  
9 operational shifts?

10 MR. GALLUCCI: Whenever a fire could  
11 occur.

12 MR. WEERAKKODY: We aren't saying you have  
13 to postulate all fires or any fire --

14 MR. MARION: Yes, I understand that, but  
15 I'm not sure -- maybe I'm trying to read too much into  
16 the language.

17 MR. WEERAKKODY: A fire could happen --

18 MR. MARION: Yes, I understand, but I'm  
19 trying to relate that to all staffing levels.

20 MR. QUALIS: Alex, we may need -- you  
21 know, this is a public meeting and we're requesting  
22 comments from both industry and public, but recognize  
23 that people have to be available to do what's  
24 necessary to shut the plant down. No argument about  
25 that from anybody. We also know that sometimes people

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1 call in sick and you have other programs which allow  
2 two hours or something to call in fire brigade members  
3 or call in extra operators.

4 MR. MARION: Right.

5 MR. QUALIS: I don't know the right words  
6 to put in there for that stuff, and maybe that's  
7 something you could provide us with a contingency.

8 MR. MARION: Okay.

9 MR. QUALIS: But there will be  
10 contingencies where not everyone shows up, we know  
11 that.

12 MS. BROWN: But our intent is to be sure  
13 that you have the people available that you need to  
14 put the fire out at all times.

15 MR. MARION: Okay.

16 MR. QUALIS: At least while you're  
17 operating. Post shutdown it's not necessary.

18 MS. de PERALTA: This is Fleur. So have  
19 we gone beyond the minimum operating staff?

20 MR. QUALIS: When we do 3G3, alternate  
21 shutdown, in some cases some licensees have went  
22 beyond the tech spec of minimum staffing.

23 MS. de PERALTA: Right.

24 MR. QUALIS: You'll typically see plants  
25 do it without changing tech specs by putting the

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1 staffing requirements in their conduct of operations  
2 procedures or something. But there are plants that go  
3 beyond the five operators or whatever the minimum  
4 staffing is listed in their technical specifications  
5 to meet fire. I've seen that in the past while  
6 they're going through shutdown. You've got to have  
7 enough people to shut the plant down when you have a  
8 fire.

9 MR. EMERSON: This is Fred Emerson. Can  
10 I interject here?

11 MS. BROWN: Go ahead, Fred.

12 MR. EMERSON: In the discussion of  
13 qualification and training programs, et cetera, is  
14 there a provision or allowance for the licensee to be  
15 able to demonstrate feasibility, performance basis?

16 MR. GALLUCCI: There's a criterion on  
17 demonstration that addresses that aspect.

18 MR. EMERSON: Okay.

19 MS. de PERALTA: Sorry, this is Fleur  
20 again. The training program on the second bullet, are  
21 you going to provide criterion on an adequate training  
22 program? Is it quarterly, annually, every procedure?

23 MR. QUALIS: Fleur, I don't know that you  
24 want the fire protection folks to try to design a  
25 training program.

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1 (Laughter.)

2 MR. QUALIS: I would sort of expect when  
3 I see them do this for like the local operator actions  
4 that might be required of the operator, for example.  
5 You have qualification programs for reactor building  
6 auxiliary operators. If he's required to take  
7 emergency actions, so the specific nature of that  
8 should probably be included in his training program  
9 somehow. But I'm not going to -- unless other people  
10 want it, I feel like we shouldn't define --

11 MS. BROWN: Isn't there something in one  
12 of the NFPA standards about training and shutdown, at  
13 least for fire brigade members, and it has a  
14 periodicity?

15 MR. QUALIS: Well, we have periodicity for  
16 fire brigade members, and they have periodicity for  
17 licensed operator training. I feel like it should be  
18 included in the operator fire -- in the licensees'  
19 training programs, but I don't think we should define  
20 something separate or different.

21 MS. de PERALTA: So it's basically defined  
22 by the licensee then what they feel is adequate  
23 training?

24 MR. QUALIS: Well, it's with their  
25 existing training programs. You guys have existing

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1 programs. I don't want to redefine a new program.

2 MR. GUNTER: Paul Gunter with NIRS. First  
3 of all, in our view, this is -- what you're doing is  
4 you're defining compensatory action in that you are  
5 now providing -- you're going to provide a  
6 compensatory action to the inoperability of these fire  
7 barriers and separation cable. And I think that you  
8 should take from prior experience of the use of fire  
9 watches as a compensatory action to inoperable fire  
10 barriers to take some warning of the history of taking  
11 an operable passive fire barrier and placing it with  
12 some kind of -- the equivalent of a manual action as  
13 in the case of a fire watch. And what we noticed as  
14 we monitored this over the past decade was the  
15 documentation through licensee event reports of  
16 nesting of fire watches, falsification of fire watch  
17 records, overdosing of fire watch personnel in video  
18 display rooms on drugs. You have a whole issue that  
19 just opens the door on human reliability to replace a  
20 rated fire barrier. And it's a question that regards  
21 to staffing and training that I don't see provided  
22 here that you're going to provide a level of  
23 confidence that a rate fire barrier was intended to do  
24 and that the regulation intended to do. So that's  
25 just a concern here in that I don't see staffing and

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1 training and human reliability addressed in the same  
2 context.

3 MR. BONGARRA: This is Jim Bongarra, NRR.  
4 I think I appreciate what you're saying in terms of  
5 how it might relate to qualifications and staffing.  
6 Hopefully, the issue that you're focusing on in terms  
7 of the human reliability, if you will, that to me  
8 seems like it's more of a fitness for duty issue, and  
9 I think we address fitness for duty in terms of  
10 qualifying personnel on a broader level. So at least  
11 from my perspective anyway, I'm looking at that issue,  
12 if you will, as basically being covered under just  
13 typical fitness for duty requirements that we have,  
14 R26, I believe it is. So it's a concern. I don't  
15 mean to in any way diminish it or minimize it, but I  
16 think that it's a concern that we address independent  
17 of trying to deal with this type of a manual action  
18 issue. And hopefully it's covered on a broader scope.

19 MR. ERTMAN: Just going back to the  
20 bullets, on the second bullet -- this is Jeff Ertman,  
21 Progress Energy -- just wanted to, I guess, get the  
22 intent of the -- "The operators will be continuously  
23 available." Is the expectation the same as your  
24 normal operating staffing, such as you alluded to  
25 earlier, that if you have -- you know how many

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1 operators you need to perform your actions or how many  
2 staff members are continuously available, whatever you  
3 normally do for ensuring operators are available at  
4 the site.

5 MR. QUALIS: Well, the intent is to say  
6 like you have to have current plant requirements of  
7 operators. Sometimes we have emergencies. It may  
8 snow a lot, you may have people call in sick. You  
9 have to have contingencies for very short periods of  
10 time. I don't think this should be treated  
11 differently than other operational requirements, but  
12 you need to have requirements to have the operators  
13 there to shut the plant down should a fire occur,  
14 outside of emergency circumstances.

15 MR. ERTMAN: Just the normal process,  
16 okay. Thanks.

17 MR. PRAGMAN: This is Chris Pragman. I  
18 also question the words, "continuously available," and  
19 hope you can expand a little bit on what you mean,  
20 because that's something we struggle with sometimes  
21 even today. if an operator needs to go out to the  
22 pump house, is he no longer eligible for performing a  
23 safe shutdown manual action or not? So those words,  
24 "continuously available," can be interpreted in a  
25 number of ways.

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1           MR. QUALIS:    You're going to give us  
2           comments. Give us better words. We want the guy on  
3           site, we want him to perform the same way -- if you  
4           require an operator for 3G3, what do you require?  
5           Okay. He can't go off-site and buy pizza probably,  
6           but he could go out to the pump house.

7           MR. PRAGMAN:   Right.

8           MR. QUALIS:    Okay.

9           MS. BROWN:    But wouldn't your time line  
10          also give that? If you can demonstrate that that guy  
11          can go to the pump house and you still not lose the  
12          seal on your RCP pump, then -- you know, it's a  
13          performance-based standard. So if he can make it back  
14          within your time limit in 20 minutes -- I was at a  
15          facility that has an ocean discharge station. Their  
16          people couldn't make it back. You couldn't go to that  
17          place without getting late because it takes 30 minutes  
18          to get there. It's too late by the time they get  
19          back. It's a performance-based standard, and there's  
20          additional criteria, I think, that will address this  
21          concern a little bit more when we start getting into  
22          demonstration.

23          MR. GALLUCCI:   And complexity.

24          MS. BROWN:    And complexity.

25          MR. GUNTER:    Well, I would just add that

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1 -- Paul Gunter -- that here we see another one of the  
2 slippery slopes, that as we depart from a fire barrier  
3 -- a rated fire barrier that provided 24-7, minute-by-  
4 minute attention to the risk of fire. So I just want  
5 to make note that we're departing from that standard  
6 by providing for some loosely termed reasonable  
7 absence of the performance criteria.

8 MR. GALLUCCI: Any other comments on  
9 staffing and training? Okay.

10 Slide 13, communications. "To achieve and  
11 maintain safe shutdown, adequate communications  
12 capability shall be demonstrated for operator manual  
13 actions that must be coordinated with other plant  
14 operations with this communications capability  
15 continuously available." Comments?

16 MR. MARION: Alex Marion. Continuously  
17 available, in the last phrase, "With this  
18 communications capability continuously available," are  
19 you suggesting it has to be available all the time or  
20 available during the scenarios of implementing the  
21 required manual actions?

22 MR. WEERAKKODY: I think you can go back  
23 to the whole objective of the criteria there. Again,  
24 the whole idea is to be able to safely shut down the  
25 plant, and I would go back to --

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1 MR. MARION: Okay. I just wanted to --  
2 okay. Thank you.

3 MR. WEERAKKODY: You understand what I'm  
4 saying.

5 MR. MARION: Yes.

6 MR. WEERAKKODY: I don't want to go to  
7 another level to define that. I would say that's my  
8 intent, let that define.

9 MR. QUALIS: Alex, that's no different  
10 than our 3G3, 3L requirement to have communications,  
11 and you don't want to -- for example, affected by the  
12 fire.

13 MR. DUDLEY: But if there is better  
14 wording that would clarify that, we would appreciate  
15 your recommending that.

16 MR. JOHNSON: Twenty-one-seven, I'm sorry,  
17 24-7 was the comment that Kathy had. Mike Johnson.

18 MR. GALLUCCI: Anything else on  
19 communications? Okay.

20 We'll go on to Slide 14. Special  
21 equipment in the March criterion. March criteria this  
22 was known as special tools. "Any special equipment  
23 required to support operator manual actions, including  
24 keys, self-contained breathing apparatus, SCBA, and  
25 personnel protective equipment shall be readily

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1 available, easily accessible and demonstrated to be  
2 effective."

3 MR. GUNTER: Paul Gunter. Have you  
4 expressly exclude fire fighting equipment -- CO2?

5 MR. GALLUCCI: I believe that's addressed  
6 under the equipment preconditions.

7 MR. QUALIS: Yes. Fire fighters  
8 equipment, this is -- fire fighting equipment is  
9 equipment that's required essentially to fight the  
10 fire. That's covered by NFPA codes and covered by  
11 other parts of the plant's fire protection program.  
12 This equipment is specific for the manual action  
13 that's required. If you go out specifically and you  
14 need a breaker rack-out tool, okay, to rack out a  
15 breaker, this tool needs to be available. You can't  
16 rely on having someone chug down to a tool room at  
17 midnight and try to locate one. The tools need to be  
18 available to do the job. Does that answer your  
19 question?

20 MR. GUNTER: Yes.

21 MR. GALLUCCI: I think when we get to the  
22 last criterion, equipment preconditions, you'll see  
23 that fire fighting equipment is included under that  
24 one. Any other comments?

25 MR. MARION: Yes. This is Alex Marion

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1 again. We'll provide you some comments on this, but  
2 let me just offer a concept that I think will capture  
3 the genesis or the nature of the intent of some of our  
4 comments. For a non-practitioner of fire protection  
5 -- I'm not a registered fire protection engineer, and  
6 because of that, we rely on fire protection engineers  
7 within the industry. But being outside of that  
8 community, I look at this language and I think what  
9 does it really say?

10 And one philosophy is to keep it simple  
11 and straightforward because I look at the last phrase  
12 here on Slide 14 and it indicates, "demonstrated to be  
13 effective." So I look at keys, self-contained  
14 breathing apparatus and protective equipment, and I  
15 say to myself how do you demonstrate that those three  
16 are reasonably effective, okay? So we need to keep  
17 the structure of the language and the intent very  
18 clear so that everyone, the licensees as well as the  
19 public, et cetera, really has an understanding of what  
20 this really is intended to accomplish. And our  
21 comments will be structured in trying to clarify and  
22 focus that as much as possible, okay?

23 MR. GALLUCCI: Okay. I'll go on to the  
24 next one, Slide 15, procedures. "Procedural guidance  
25 on the use of required operator manual action shall be

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1 readily available, easily accessible and demonstrated  
2 to be effective."

3 MR. GUNTER: Paul Gunter. It's my  
4 understanding that some of these operator manual  
5 actions are quite complex. So given the complexity,  
6 how are you evaluating readily available, easily  
7 accessible and demonstrated to be effective?

8 MR. QUALIS: At this point, all we're  
9 talking about is the procedure readily available. For  
10 example, some utilities for alternative shutdown  
11 procedures stationed outside the control room in the  
12 plant. If you're going to rely on the reactor  
13 building operator to perform an action that's needed  
14 by procedure, you may want to -- you know, the  
15 procedures may need to be staged in the reactor  
16 building and maintained out there by the licensee.  
17 That's going to be their choice depending on the  
18 timing and everything else, but all we're talking  
19 about here is that the procedure's available,  
20 accessible to the operator so they can get at it, that  
21 it's been walked down, that it's verified that the  
22 procedure will work.

23 MS. BROWN: This is Eva. And I think we  
24 have another criteria that will deal with your  
25 question on complexity as well.

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1 MR. GUNTER: Well, the issue of  
2 demonstrated to be effective, it's my understanding  
3 that 3G3 was primarily there to provide for actions  
4 where the control room is abandoned. And when you  
5 abandoned the control room, you have far more limited  
6 equipment. So the issue here is how will you -- given  
7 that some of these manual operator actions are going  
8 to be reliant upon less equipment, less control, how  
9 can you demonstrate with confidence that they will be  
10 effective? That's a concern that I want noted.  
11 Correct me, the 3G3 refers to abandonment of the  
12 control room; is that correct?

13 MR. QUALIS: That shut down yesterday.

14 MR. GUNTER: Yes. So we're talking about  
15 demonstrating something with less equipment, less  
16 control than you have in the control room, and it  
17 raises the question about demonstration of  
18 effectiveness given that handicap.

19 MS. BROWN: This is Eva. I thought this  
20 was -- we were limiting this to 3G2 manual actions.  
21 Someone speak up if I'm off. Our manual actions we're  
22 only concerned with, in this case, would affect 3G2  
23 manual actions. So those actions that would be  
24 performed outside the control room at like a remote  
25 shutdown panel for 3G3 would not fall under this

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1 criteria.

2 MR. QUALIS: Yes. When I keep using the  
3 word 3G3, I'm just using it to try to say that we're  
4 trying to be consistent with our practices in 3G3.  
5 We're trying to do things pretty much with the  
6 procedures and the requirements for the manual actions  
7 similar to what we've done with the 3G3 manual  
8 actions. We're not trying to come up with new ways to  
9 control how people do business.

10 MR. MARION: This is Alex Marion. To go  
11 back to Paul's point, the capability to bring the  
12 plant to a safe shutdown condition using an alternate  
13 shutdown panel has already been demonstrated by  
14 utilities, okay/

15 MR. GUNTER: Well, it's just my concern  
16 here if you cannot meet 3G1 or 3G2, you must default  
17 to 3G3, alternative dedicated shutdown, which brings  
18 in 3L. This design decision was not meant to be made  
19 casually. Three puts in the regs for areas where you  
20 could not meet one or two. Three assumes that the  
21 nuclear power plant will be abandoned in the main  
22 control room, and this in fact is a very large jump in  
23 terms of risk and effectiveness. And that's why I  
24 bring it up here in the context of demonstrated  
25 effectiveness.

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1                   MR. BONGARRA: This is Jim Bongarra. I  
2 think that, perhaps partially, at any rate, there's  
3 another criterion that Ray has not addressed yet,  
4 which, again, is that demonstrated criterion that may  
5 help address your concern, at least hopefully in part.

6                   MS. BROWN: I'm not real sure I still  
7 understand what your concern is. Can you elaborate a  
8 little for me so I can take better notes?

9                   MR. GUNTER: Well, you have procedures.  
10 You're saying that you want to have demonstrated  
11 effectiveness and procedural guidance for manual  
12 actions that will be taken under 3G3. But we're  
13 talking about non-compliance with 3G2, so we moved to  
14 3G3.

15                   MS. BROWN: No, sir.

16                   MR. GUNTER: Clarify for me then if in  
17 fact we're talking about inoperable fire barriers,  
18 lack of separation and compensatory actions for that,  
19 that says to me that the licensee is not meeting 3G2.  
20 And in the -- when you cannot meet 3G2, you move to  
21 3G3.

22                   MR. QUALIS: Well, that's the purpose of  
23 the rule.

24                   MR. GUNTER: Rulemaking, right.

25                   MR. QUALIS: Currently, we're finding that

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1 certain licensees don't meet 3G2 of Appendix R. And  
2 in lieu of meeting 3G2 of Appendix R they chose what  
3 in my opinion is essentially a compensatory measure,  
4 and in many cases maybe an acceptable compensatory  
5 measure, for not having the fire barrier that's  
6 required by the regulation.

7 MR. GUNTER: And that was the analysis in  
8 3G3, right, formally?

9 MR. QUALIS: Well, formally, where it says  
10 where you cannot meet the separation criteria of 3G2  
11 you have to use 3G3.

12 MR. GUNTER: Which provides the NRC with  
13 the analysis for --

14 MR. QUALIS: Correct, for a project  
15 shutdown.

16 MR. GUNTER: Yes.

17 MR. QUALIS: For safe shutdown. But what  
18 we're doing is changing the regulation, changing 3G2  
19 to say that there are certain manual actions that may  
20 be not in a pristine ideal world. A manual action is  
21 probably never equal to a rated three-hour fire  
22 barrier, but are certain manual actions good enough to  
23 provide reasonable assurance and adequate assurance  
24 for safe shutdown? And that's what we're trying to do  
25 is codify that manual actions that while maybe not

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1 equal to a rated three-hour impervious fire barrier,  
2 it's not an ideal world.

3 Certain manual actions may be adequate to  
4 provide reasonable assurance of safe shutdown and meet  
5 the assurance that we need. A 3G fire barrier is not  
6 perfect in an ideal world either. There's fires that  
7 can happen in the plants where you have greater than  
8 three-hour fire levels. It's based on a fire test  
9 that reaches certain temperatures at a certain time-  
10 temperature curve. There may be fires involving  
11 diesel fuel or cable loadings that exceed that. It's  
12 there because we decided a three-hour fire barrier is  
13 the standard that we shoot for. But with the manual  
14 actions we're looking to achieve a standard that  
15 provides us a level of assurance of safe shutdown.  
16 It's just a different criteria for 3G2.

17 MS. PEDERSEN: I think that Paul, I think,  
18 has the right approach. This is Rene Pedersen from  
19 the Office of Enforcement. The way that I understand  
20 it is what these acceptance criteria will allow is  
21 that these operator manual actions, provided the  
22 licensee can demonstrate and document that they can  
23 perform these manual operator actions, that they can  
24 do that in lieu of meeting 3G2. The NRC has accepted  
25 exemption requests from industry for these types of

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1 situations.

2 So I think what we're really trying to do  
3 is we're trying to revise the rule to provide that as  
4 a means of meeting 3G2, and in the meantime having an  
5 enforcement discretion policy that allows those  
6 operator manual actions to be performed in the  
7 meantime provided that the licensee can demonstrate  
8 and document that their actions meet the interim  
9 acceptance criteria.

10 MR. MARION: This is Alex Marion. Paul,  
11 one of the key reasons we engaged in discussion on  
12 demonstrating the adequacy of manual actions was  
13 because there were a number of situations where  
14 licensees have submitted exemptions or deviation  
15 requests for approval of manual actions. And then  
16 there are a number of other situations in the past  
17 where manual actions have been tacitly approved by NRC  
18 via other mechanisms: Inspection reports, safety  
19 evaluation reports and that kind of thing. So our  
20 objective here was to try to establish a process where  
21 the licensee does an evaluation on their capability to  
22 execute or implement the required manual action, and  
23 if that's adequate and sufficient and demonstrated to  
24 be adequate and sufficient, then that would be  
25 acceptable, okay? And that's where we're trying to

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1 establish some consistency in that process, if you  
2 will, because there was a mixed bag of approaches or  
3 processes that we used in the past.

4 MR. GUNTER: But it's also my  
5 understanding that those actions were taken as interim  
6 during the upgrading of inoperable fire barriers, and  
7 there's a far cry between the risk in an interim  
8 measure and taking an action and codifying it as  
9 gospel. And that's the concern is that we're  
10 codifying compensatory actions that were never  
11 intended to be -- I mean, granted, we're not codifying  
12 fire watches, thank God, but it's almost the  
13 equivalent.

14 MR. MARION: No. Alex Marion again. In  
15 terms of the objective of a fire barrier to mitigate  
16 the consequences of a fire, et cetera, you have to  
17 kind of keep that concept separate from demonstrating  
18 the capability to achieve a safe shutdown condition in  
19 the plant.

20 You've got two parallel efforts going on  
21 in the plant. You have a fire, the fire brigade has  
22 been dispatched to deal with the fire. Alternatively  
23 and in parallel at the same time, you have operators  
24 that are taking action to bring the plant to a safe  
25 shutdown condition, and you have to maintain that

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1 distinction. If you don't maintain it, you're going  
2 to get thoroughly confused in trying to differentiate  
3 on what's going on given the fire.

4 MR. GUNTER: Well, I think the confusion  
5 comes with the abandonment of fire barriers. And I  
6 think that we're all going to be confounded by this  
7 course of action in trying to bring this into some  
8 kind of enforcement space. That's the concern. We're  
9 moving into an area that you will now -- that what the  
10 public is going to see is an endless dialogue between  
11 industry and regulator with the inability to come to  
12 any kind of enforcement conclusion over what's good  
13 enough for fire protection and public health and  
14 safety.

15 MS. BROWN: Can I ask a question? Can you  
16 expound a little more on your concern about the risk,  
17 the increasing risk of using the short-term  
18 compensatory measures permanently? That's sort of  
19 what I was hearing. I wanted to make sure I'm --

20 MR. GUNTER: Well, again, it has to do  
21 with core damage frequency and the fact that the  
22 presence of rated fire barriers that have been tested  
23 through laboratory results is -- that's a qualified  
24 test. We're now moving to reliance upon a very murky  
25 analysis of human performance, and I don't think that

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1 that can be done with the same level of confidence  
2 that you need to assure a reduced risk in core damage  
3 frequency.

4 MS. BROWN: Thank you.

5 MR. WEERAKKODY: I don't think anybody in  
6 the room would say that if you have a three-hour fire  
7 barrier and then you have manual actions for all  
8 constants, given the exact same or equal protection,  
9 but I think where I would not agree is when you say  
10 murky. Murky, if you just left that saying, "Well,  
11 make sure you have feasible manual actions," and  
12 walked away as regulators, that's murky, but I think  
13 when you look at the level of detail we're going  
14 through, already went into the inspection criteria and  
15 the level of detail we're going through in the interim  
16 feasibility criteria, and we are not done yet, I don't  
17 think they're murky. I think we are very specific  
18 from a number of dimensions. Whether it be  
19 environment or whether it be human performance, we are  
20 taking a large number of steps to get a way of  
21 eliminating that murkiness and have the adequate level  
22 of reasonable assurance safety. It's never going to  
23 be the three-hour barrier, but --

24 MR. KOLTAY: This is Peter Koltay, and I'd  
25 just like to jump in on this three-hour barrier, not

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1 replacing three-hour barriers. This is 3G2. We do  
2 not have three-hour barriers, generally. There's  
3 generally some distance, a combination of suppression  
4 and detection, and in some cases a barrier may be up  
5 to an hour but not three-hour barriers. So I want to  
6 make clear that we're not replacing three-hour  
7 barriers here or we're using manual actions in lieu of  
8 three-hour barriers. I would say in most cases we're  
9 using manual actions in lieu of 20-foot separation and  
10 we have 15-foot separation, and I'm not sure how to  
11 put that in barrier kind of configuration. So I'd  
12 like to make that on the record that this is not a  
13 replacement for three-hour barriers.

14 MR. GUNTER: Right. But it's -- Paul  
15 Gunter -- but it's a replacement for all three  
16 criteria under 3G2.

17 MR. DUDLEY: Right. It's an option.

18 MS. BROWN: It's an option.

19 MR. GUNTER: Well, I mean it's an option  
20 that you're forced into because of non-compliance.

21 MR. WEERAKKODY: There's another way to --  
22 this is going to be -- there's another way to look at  
23 this, Paul. It's not like at time zero from two days  
24 here we start in this new direction of manual actions.  
25 And like many have said, we have had from the licensee

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1 with particular basis that are in the dark where staff  
2 has received and accepted a number of manual actions.  
3 So in a way you can -- when you look at -- going  
4 forward, what we are doing here is making that process  
5 more stringent.

6 An alternative could have been to tell all  
7 the licensees out there, say in exemptions, we review  
8 each one and approve or reject based on the acceptance  
9 of those. So those are some words that Fleur gave me  
10 a couple of days ago. If you look at where we are  
11 from a safety-wise, whatever we are doing today is  
12 going to be an improvement to that level of safety  
13 because things, whether it is in the criteria, are  
14 much more specific, even more specific than what you  
15 find in the inspection criteria.

16 MR. GUNTER: Well, if you'll indulge me  
17 just once more, public confidence would have been won  
18 if you had exercised enforcement for the confirmatory  
19 action orders that were issued in 1998 and 1999 for  
20 inoperable fire barriers. That should have been  
21 considered your first option -- enforcement. And  
22 anything else is retreat at this point.

23 MR. DUDLEY: Ray, can we move on because  
24 a lot of these criteria I think -- when we've  
25 completed the whole list of criteria, we'll still have

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1 comments, but some of the issues that are being  
2 brought up I think might be --

3 MR. GALLUCCI: Well, the other option is  
4 for me just to finish them all or do you want to  
5 continue commenting on each one?

6 MR. DUDLEY: We only have a few more.  
7 Let's just try to go through them.

8 MR. GALLUCCI: All at once?

9 MR. DUDLEY: Yes.

10 MR. GALLUCCI: Okay.

11 MR. DUDLEY: If somebody has an issue that  
12 they just don't understand, raise your hand. But as  
13 far as overall comments, let's try to finish the  
14 criteria and then go back and open it up to all of  
15 them.

16 MR. GALLUCCI: Okay. I'm going to finish  
17 out the criteria then, starting on Slide 16, local  
18 accessibility, formerly accessibility. "All locations  
19 where operator manual actions are performed shall be  
20 assessed as accessible without hazards to personnel  
21 with controls needed to assure availability of any  
22 special equipment, such as keys or ladders, being  
23 demonstrated.

24 Slide 17, criterion demonstration,  
25 formerly in the March list called verification and

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1 validation. "The capability to successfully  
2 accomplish required operator manual actions within the  
3 time allowable using the required procedures and  
4 equipment shall be demonstrated using the same  
5 personnel/crews who will be required to perform the  
6 actions during the fire. Documentation of the  
7 demonstration shall be provided."

8 Slide 18, a new criterion, complexity and  
9 number. When I say new this is relative to the March  
10 set. "The degree of complexity and total number of  
11 operator manual actions required to effect safe  
12 shutdown shall be limited such that their successful  
13 accomplishment under realistically severe conditions  
14 is assured for a given fire scenario. The need to  
15 perform operator manual actions in different locations  
16 shall be considered when sequential actions are  
17 required."

18 Continued on Slide 19, "Analyses of the  
19 postulated fire time line shall demonstrate that there  
20 is sufficient time to travel to each action location  
21 and perform the action required to support the  
22 associated shutdown function or functions such that an  
23 unrecoverable condition does not occur."

24 The next slide, another new criterion,  
25 equipment preconditions. "Possible failure modes and

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1 damage that may occur to equipment used during a fire  
2 shall be considered to the extent that the equipment's  
3 subsequent use could be prevented or at least made  
4 difficult. Credit for using equipment whose  
5 operability may have been adversely affected by the  
6 fire due to smoke, heat, water, combustion products or  
7 spurious actuation effects shall account for such  
8 possibilities. As an example, overtorquing of a  
9 motor-operated valve due to a spurious signal, as  
10 discussed in Information Notice 92-18."

11 And just before we comment on the last set  
12 of criteria, the last slide is the planned path  
13 forward to develop the final feasibility criteria for  
14 operator manual actions considering the additional  
15 input from the Office of Nuclear Regulatory Research,  
16 the Office of Enforcement, the Advisory Committee on  
17 Reactor Safeguards, especially the Fire Protection  
18 Subcommittee, and the external stakeholders, the  
19 public and industry.

20 That concludes the listing of the  
21 criteria, and so now we can comment specifically on  
22 the last few or any and all of them.

23 MS. BROWN: Let me ask a question. This  
24 is Eva. After going through all of these, if you had  
25 some concerns before, did the additional criteria

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1 address some of your concerns dealing with complexity  
2 and there was another on procedures?

3 MR. GUNTER: Paul Gunter. It actually  
4 raises concerns.

5 MS. BROWN: Okay.

6 MR. GUNTER: Again, because of the  
7 uncertainties that are brought on -- I mean all these  
8 criteria are just rife with uncertainty. The stock  
9 that you're placing in the word, "shall," again, I'll  
10 just reiterate, is dubious at best. And how can you  
11 establish any level of confidence with these criteria  
12 in the absence of a track record?

13 MR. WEERAKKODY: Paul, maybe --

14 MR. GUNTER: You're moving from a  
15 prescriptive standard to areas of performance that  
16 have never been evaluated as what you're proposing to  
17 do with it, to codify it.

18 MR. QUALIS: Actually, what we're trying  
19 to do, Paul, is to move -- we're changing the standard  
20 somewhat because one of the personal research projects  
21 I had to do in the process of the last couple of years  
22 was to research pre-1992 exemption requests that we've  
23 processed for exemptions that were provided for manual  
24 actions for 3G2. And I found, researching one of our  
25 databases, on the order of 50. Don't ask me where

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1 they are, I'm not going to be able to find it again.  
2 It was something I did.

3 But in that 50 there was absolutely no  
4 standardization of what we looked at. It appeared to  
5 be pretty much what the individual person reviewing  
6 the exemption or deviation request felt like granting.  
7 I saw standards varying from no manual actions in the  
8 first 30 minutes with no basis, okay? What we're  
9 attempting to do is to codify a practice that was  
10 preexisting. We have granted on the order of, at  
11 least pre-1992, at least on the order of 50 examples  
12 that I found in a very quick search.

13 MR. GUNTER: Were they interim? How many  
14 of them were interim?

15 MR. QUALIS: No, they were license  
16 amendment type level stuff. They were not interim.  
17 They were not compensatory measures nor were they  
18 interim. They were manual actions in lieu of a  
19 barrier. In other words, what I'm trying to do is --  
20 what we were trying to do is come up with some  
21 standard criteria to codify a preexisting practice so  
22 that licensees don't have request every time they want  
23 to do a manual action come to us with an exemption.  
24 That doesn't mean that we're trying to allow manual  
25 actions actually that are more challenging than what

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1 we've been approving in the previous world, and that's  
2 going to be one of the challenges of developing our  
3 criteria is to try to limit the manual actions to  
4 something that's reasonably simple with a high degree  
5 of success and confidence of success.

6 In the past, you'll see manual actions  
7 like two hours into a fire start the -- do a manual  
8 transfer of diesel fuel oil to the bay tank. Okay.  
9 That's two hours into a fire, there's not much concern  
10 that operators can do something like that manually.  
11 On the other hand, we've seen licensees that want to  
12 do a -- in recent inspections that wanted to do a  
13 local start of a diesel generator without control  
14 power. Whole different ball game because never  
15 practiced by operators anywhere, no licensee's ever  
16 going to allow people to operate their diesels without  
17 control power and do flashing of the field and air  
18 start manually and a whole series of manual operations  
19 that requires three of four people. They'll never  
20 practice that.

21 The challenge is to develop language for  
22 these criteria to try to limit it to what we've been  
23 approving in existing practice and not allow things  
24 that would be impossible to do. And that's going to  
25 be a challenge for us and industry and public too.

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1 We're just trying to codify what we've been doing in  
2 the past, though, without -- really without  
3 compromising public safety.

4 MR. WEERAKKODY: Well, I don't want to go  
5 away from the order of meeting which is to get input  
6 right here, right now, but at the same time one of the  
7 -- I mean when I listen to you I keep hearing the  
8 word, "uncertainty," and the uncertainty associated  
9 with human factors. Let me say something that will  
10 partially address that. If you step back and look at  
11 it, let's say the criteria we have in our -- we say if  
12 you have 20-foot separation, you are safe. Okay.  
13 Now, that's the best available method that we had at  
14 that time to keep those plants safe. I would submit  
15 to you -- I mean you don't have to react to this now  
16 -- there may be instances where using the manual  
17 actions whatever the uncertainty there is may be  
18 making that particular situation safer than -- I'm  
19 just saying that.

20 So uncertainty is there, uncertainty is  
21 there in three-hour barrier, one-hour barrier, 20-foot  
22 separations. So, really, I think if you step back and  
23 think of it, uncertainty is not a reason to throw away  
24 reliance on manual actions. When you step back and  
25 look at it, the whole -- so I'm just saying it's a

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1 matter of working with you, working with the industry  
2 to try to deliver the best criteria we can. I just  
3 wanted to share that with you.

4 MS. BROWN: Do we have any other comments?  
5 Fleur?

6 MS. de PERALTA: Fleur de Peralta. We've  
7 been doing manual actions since way back to 1981 when  
8 Generic Letter 81-12 came out in response to  
9 associated circuits. Spurious operation mitigation,  
10 it specifically says go and locally operate breaker.  
11 These actions are just -- now they're just more  
12 detailed into how we're supposed to do these actions,  
13 what the NRC expects is a successful action, and these  
14 actions have been allowed since Appendix R was issued  
15 in 1981.

16 I'm still confused a little bit about the  
17 3G1 actions, 3G1-A, emergency control stations, versus  
18 3G2, redundant systems within the same fire area and  
19 spurious operations concerns, where even if you got a  
20 redundant component outside the area, you still need  
21 to mitigate spurious operation. Does that fall within  
22 this new criteria that we're putting together? For  
23 example, steam generator cores. If one core opens up,  
24 that might be redundant to use for a safe shutdown but  
25 what about mitigating the spurious operation? Is that

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1 a 3G1 action? Is this a 3G2 action? I can't find the  
2 boundary for this 3G2.

3 MR. QUALIS: Well, 3G2 says -- and I may  
4 misquote -- but -- now I have to take my glass off to  
5 read. "Except as provided in Paragraph G3 of this  
6 section," G3 is alternative shutdown, "for cables or  
7 equipment, including associated non-safety circuits  
8 that could prevent operation or cause maloperation due  
9 to hot shorts, open circuits or forced to grounds of  
10 redundant trains assistance necessary to achieve and  
11 maintain hot shutdown conditions or located in a fire  
12 area outside primary containment, one of the following  
13 means of ensuring that the redundant trains free of  
14 fire damage will be provided."

15 Okay. Now, you're confused about 3G1,  
16 which really doesn't address any kind of barriers or  
17 any other things. But where you have redundant trains  
18 in the same fire area of cables or equipment,  
19 including associated non-safety circuits that could  
20 prevent operation or cause maloperation, and this is  
21 one of these trains, you have to meet one of the 3G2  
22 criteria or meet 3G3. That's very specific.

23 Okay. If you have a 3G1 area, and I  
24 suspect you're familiar with Palo Verde, they have a  
25 few areas where they have no redundant trains in the

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1 same fire areas.

2 MS. de PERALTA: That's right.

3 MR. QUALIS: Okay. Well, that would be a  
4 3G1 area where there's no manual action because really  
5 a fire doesn't affect both trains. You just shut down  
6 using your normal equipment.

7 MS. de PERALTA: What about a spurious  
8 operation response to what is in the area, that one  
9 train that is in the area of a steam generator core.  
10 One train of pressurizer core is in the area.

11 MR. QUALIS: So that would be an  
12 associated circuit and it would be --

13 MS. de PERALTA: Spurious operation  
14 response.

15 MR. QUALIS: Right.

16 MS. de PERALTA: So is it 3G1 gets thrown  
17 out of 3G2?

18 MR. QUALIS: Well, 3G1 really isn't --  
19 doesn't -- where you have a fire that could affect  
20 both trains, let's say you have an A-switch gear room  
21 and you have an A-switch gear room that could affect  
22 your train B shutdown.

23 MS. de PERALTA: I'm not talking about  
24 that. I'm talking about train A equipment that may  
25 spuriously operate. Train B is totally independent of

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1 the area. I've got a steam generator core that might  
2 spuriously open. My redundant loop is fire damage,  
3 three hours, it's totally away, and I need to mitigate  
4 that spurious opening.

5 MR. QUALIS: Well, you've got an  
6 associated circuit.

7 MS. de PERALTA: Correct. So does that  
8 mean that that's a manual action that does not fall  
9 into this 3G2 criteria that we're putting together?

10 MR. QUALIS: Well, sure it does, because  
11 it's an associated circuit for train B that would  
12 affect train B shutdown, but it would also affect  
13 train A shutdown if the first was in train A. I mean  
14 the idea of manual actions for 3G1 is if there's a  
15 place in industry -- I've inspected a lot of plants  
16 and I really don't know what kind of examples -- I  
17 keep hearing people say 3G1 manual actions and they're  
18 trying to misapply it the way ANO did. ANO's in the  
19 middle of an enforcement process right now because  
20 they misapplied the regulation and ignored 3G2, and  
21 that goes back to my personal opinion where I believe  
22 that in many cases industry has misapplied the  
23 regulations and tried to do what ANO did and not  
24 provide barriers. And that's where you've got to read  
25 3G2. There's not an either/or.

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1 MS. de PERALTA: I agree. It says protect  
2 one train of said shutdown with one of these barriers.  
3 And you protected that train three-hour barrier is  
4 totally outside the area. What about the items that  
5 you didn't protect and they're spuriously operating?

6 MR. QUALIS: Well, then you treat them --  
7 Generic Letter 81-12 would have treated that as an  
8 associated circuit.

9 MS. de PERALTA: Does that make it fall  
10 out of 3G2?

11 MR. QUALIS: I think I'd have to look at  
12 the specifics on paper. I'm not going to try --

13 MS. de PERALTA: Because there is a  
14 specific section on response to spurious operations.  
15 You have choices of administrative control open that  
16 breakers have never spuriously opened. You have the  
17 choice of an operator response by opening a breaker  
18 manually operating a valve. And the third item was to  
19 redesign. But you had those choices for associated  
20 circuits for spurious operation concerns. And I'm  
21 talking about, say, like my specific example, steam  
22 generator core that would open. I've got my redundant  
23 loop, free of fire damage, but I need to mitigate  
24 this. Does that mean that my operator action to  
25 locally isolate air and vent it to ensure that that

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1 core doesn't open, is that considered one of these  
2 manual actions that fall under 3G2?

3 MR. QUALIS: It would be an associated --  
4 it would be, I think --

5 MR. KOLTAY: That comes out of Appendix R.

6 MR. QUALIS: Well, it would be --

7 MR. KOLTAY: You have a stop open core.

8 MR. QUALIS: It would be an associated  
9 steam generator core.

10 MR. KOLTAY: That's right.

11 MR. QUALIS: It would be an associated  
12 non-safety circuit.

13 MS. de PERALTA: It would be an associated  
14 --

15 MR. QUALIS: It would be an associated  
16 non-safety circuit, because it could affect your  
17 ability to achieve safe shutdown. It's not a required  
18 circuit, it's an associated --

19 MS. de PERALTA: But we don't know if it  
20 could adversely affect it.

21 MS. BROWN: Let me step in. This is a  
22 little more complicated, and I would recommend that  
23 for specific items like that you discuss it with your  
24 Inspection staff, and if we need to go and look at it  
25 a little further, I'm sure that if the Inspection

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1 staff can't answer your question, then we can --

2 MS. de PERALTA: I'm just trying to figure  
3 out what falls within the scope of this 3G2 versus --

4 MS. BROWN: Recognized, but this is a  
5 little too specific, and I --

6 MR. WEERAKKODY: It's a level too  
7 detailed.

8 MS. BROWN: Yes. It's a level of detail  
9 and plant-specific. We'll be happy to address it, but  
10 it may be better directed to the Inspection staff, and  
11 if we can't get a reasonable answer through the  
12 Inspection staff, then if you refer it to us, we'll  
13 try to help. But we'll take a look at spurious  
14 actions, because I think there may be some  
15 misunderstanding on both of our parts as to where  
16 you're coming from and what the rule is.

17 MS. de PERALTA: Right.

18 MS. BROWN: So what we'd really like to do  
19 is sort of see if we have any other questions on this  
20 session, because we're going to try to get to the next  
21 agenda item.

22 MR. PRAGMAN: Chris Pragman again, and I  
23 hope this is a simple question. Given the dialogue we  
24 just had about when am I in 3G1 versus 3G2 in a  
25 particular area of the plant, I understand all the

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1 discussion we've had today is about manual actions  
2 under 3G2. One of the items that's provided under  
3 3G1-B is the allowance that systems needed for cold  
4 shutdown can be affected by the fire and I can repair  
5 them later. That does not appear again in 3G2. So  
6 are we saying that we can't take credit for repairs in  
7 a fire area that needs 3G2?

8 MR. QUALIS: Well, 3G2 doesn't really  
9 affect going to cold shutdown anyway. If you're going  
10 to cold shutdown, you're allowed manual actions,  
11 you're allowed repairs, there's just a whole bunch of  
12 things you're allowed. I mean we recognize, as you do  
13 too, that if you're in a fire that's required you to  
14 do a 72-hour cold shutdown or be able to do it -- the  
15 regulation really doesn't require you to go to cold  
16 shutdown, it requires you to have that capability to  
17 go to cold shutdown -- we recognize and you recognize  
18 that if you're in this kind of severe fire situation,  
19 you have on-site a TSC and an OSC and an EOF and a  
20 whole bunch of help and support and engineering and  
21 you're going to be making decisions.

22 You may not even decide to go to cold  
23 shutdown and your management dealing with the NRC and  
24 your engineers may decide that you're safer in hot  
25 standby. I mean there's a lot -- we understand that

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1 when you get outside this first hour or two in the  
2 region of maintaining hot shutdown conditions, you're  
3 going to have to play it by ear, but you're going to  
4 have the resources and capability to play it by ear.  
5 We know that. We require you to have the capability  
6 available to go to cold shutdown if you decide to go  
7 to cold shutdown.

8 MR. PRAGMAN: Well, the concern I have is  
9 that the discussion that just took place said this is  
10 not an example of 3G1 fire areas; this is 3G2 fire  
11 area. So I've been bounced out of 3G1 for most areas  
12 of my plant. That's the only place in the regulation  
13 that says I can repair things.

14 MR. QUALIS: Well, you're trying to read,  
15 I think, the regulation in paragraphs separately. You  
16 know, I don't want to try to get into too much about  
17 3G1 and repairs, but what we're trying to say is 3G1-A  
18 says, "One train of systems necessary to achieve and  
19 maintain hot shutdown conditions shall be free of fire  
20 damage." Now, you get down to 3G2 it says, "Trains of  
21 systems necessary to achieve and maintain hot shutdown  
22 conditions located within the same fire area one of  
23 the following means of assuring that redundant trains  
24 is free of fire damage shall be provided." Once you  
25 get to go into cold shutdown, you're no longer

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1 maintaining these hot shutdown conditions, so you're  
2 outside of the bounds of 3G2. That's why we're not  
3 trying to address cold shutdown issues. They're not  
4 part of 3G2 issues.

5 MR. WEERAKKODY: Can I -- Chris, even  
6 though I didn't fully understand the question and the  
7 answer --

8 (Laughter.)

9 MR. QUALIS: Did the answer make sense.

10 MR. WEERAKKODY: First off, even if we --  
11 an easier question like this: Even if we give you the  
12 right answer or what you think is the right answer --

13 MR. PRAGMAN: I liked his answer, but --

14 MR. WEERAKKODY: But what I am saying is  
15 please make sure that you ask that question properly  
16 and provide it to us as a comment. Otherwise it's  
17 going to get recorded in the meeting minutes. So  
18 that's why I said no matter how you look at it, it  
19 doesn't benefit any of us to go very, very deep into  
20 that.

21 MR. MARION: Alex Marion. I've got a  
22 couple questions and comments on the last set of  
23 slides. Beginning with Page 17, the reference to time  
24 allowable, this refers to the time necessary to  
25 implement that specific manual action; am I correct on

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1 that?

2 MS. BROWN: No.

3 MR. MARION: No?

4 MS. BROWN: This is Eva Brown. I think  
5 we're talking about the time needed for some of your  
6 limiting damage to equipment you may need to safety  
7 shut down. So I might be saying yes to your question.  
8 It's sort of like you need to ensure seal cooling in  
9 a PWR within 20 minutes. That manual action needs to  
10 be taken within the time allowable to assure that you  
11 have seal cooling for the RCP pump. I think that's  
12 what we're getting the allowable time --

13 MR. DUDLEY: I think if you go to Slide 19  
14 under complexity of numbers, we say that you have to  
15 do the analysis of the fire time line.

16 MR. MARION: That was my next question.

17 MR. DUDLEY: I think that that slide is  
18 what determines the time allowable.

19 MR. MARION: Okay. Alex Marion again.  
20 Since we skipped to Number 19, what do you mean by  
21 postulated fire time line? From the time the fire's  
22 identified until safe shutdown is achieved or the time  
23 the fire's identified and some particular system  
24 function recovery action is implemented?

25 MR. KOLTAY: I think the time line ties

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1 into the equipment affected that may be impacting  
2 where you need to recover from a transient that you  
3 may have. In other words, you may be limited because  
4 if you don't recovery that piece of equipment, you  
5 have so much time before you lose control of the  
6 plant, and that could be like in Chapter 15, accident  
7 scenarios.

8 MR. QUALIS: Well, it's also going to be  
9 dependent upon the approaches the licensee takes.  
10 There's two types of procedures in general at the  
11 scene. There's the type of procedure that says if  
12 there's a fire in a certain area, the operator shall  
13 do A, B, C, D, E and F. I don't know those are  
14 called, event procedures, but they're driven by the  
15 event. There's another type of procedure called  
16 system-based procedures where the operator don't take  
17 an action until they see that event.

18 Your time evaluation is going to have to  
19 be based on the responsible plant. If it's an event-  
20 based procedure and you have any fire in the B pump  
21 switch gear room, whatever, okay, and you say, "Do  
22 this, this, this, and this," well, then your plant  
23 conditions are going to have to be based on that time  
24 line. If you've got a symptom-based procedure, well,  
25 the operators recognize that a certain occurrence has

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1 occurred, that's what you're going to have to base  
2 your response on.

3 MS. BROWN: This is Eva. And it also goes  
4 to -- I think you're sort of getting to what is T  
5 equals zero, which is an issue that I've had a lot of  
6 discussion with licensees in my inspection life. You  
7 can call T equals zero, a lot of people do it from the  
8 time they decide to scram the plant, some people from  
9 when they see effects. I think in my experience I've  
10 done it from when we've seen the fire start or fire  
11 effects on the equipment.

12 But regardless of where you start that,  
13 the staff will be making their own time line sort of  
14 also and taking a look and seeing whether or not what  
15 you've chosen as your T equals zero is reasonable  
16 based on what you should see from the fire effects.

17 MR. MARION: All right. Thank you for  
18 that clarification. I do have a few other comments  
19 and questions. On 17 again, you indicated at the very  
20 end of the sub-bullet that the documentation of the  
21 demonstration should be provided. Is that something  
22 that should be submitted to the NRC in advance or be  
23 available to the inspectors.

24 MR. WEERAKKODY: The second.

25 MR. MARION: Okay. Available to

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1 inspectors. Okay. Thank you.

2 MR. QUALIS: If we wanted it in advance,  
3 we would have just said send us deviations.

4 MS. BROWN: Yes.

5 MR. MARION: Onto Number 18, just a  
6 comment. I don't necessarily need a response, but it  
7 seems to me that this particular write-up is subject  
8 to extensive and broad interpretation. Because one's  
9 perception of complexity is obviously going to be  
10 different than another person's. And here it appears  
11 that the staff has already determined that there has  
12 to be a limitation imposed on the number of manual  
13 actions based upon complexity and the total number,  
14 obviously. But if the licensee can demonstrate that  
15 they have adequate staffing to execute the required  
16 amount of manual actions, then is that acceptable or  
17 is there going to be an arbitrary limit imposed? Just  
18 a comment. We don't need to answer that, but we're  
19 probably going to submitting a comment along those  
20 lines.

21 MS. BROWN: But I think some of that --  
22 this is Eva -- some of that will be mitigated by your  
23 time line also, because I don't think you're going to  
24 be able to get real complex with some of the events.  
25 I think the events will prevent you from getting a

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1 whole lot and very complex just by the nature of the  
2 time line.

3 MR. PRAGMAN: This is Chris Pragman. If  
4 you're looking at the time line and you're looking at  
5 staffing, you've addressed how many is too many  
6 already. This becomes a redundant criteria really.

7 MS. BROWN: That's interesting.

8 MR. GALLUCCI: This one criterion,  
9 complexity in number, it's recognized that this really  
10 applies to all of them. And it was decided rather  
11 than write up something about complexity in number  
12 under each criterion, it was better to capture this  
13 separately, recognizing that if these criteria are not  
14 independent, then there may be some overlap, but it's  
15 felt it's better to in some cases restate the obvious.

16 MR. JOHNSON: This is Mike Johnson. In  
17 effect, there are other overlaps, as Jeff mentioned.  
18 There's one on procedures that says -- that goes to  
19 demonstration. Well, you have event demonstration  
20 that happens under training qualification. So I think  
21 Jeff's comment is exactly right.

22 And, Alex, I do note your concern about  
23 complexity in number and comment on that specific one.  
24 I think it's a good one which is what we're trying to  
25 do and to make sure that it's clear. I actually don't

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1 -- when I read complexity in number I don't think that  
2 there was any notion about a pre-conceived limit as  
3 long as the emphasis -- I think the main part of that  
4 criteria is that there would be successful  
5 accomplishment under realistically severe conditions  
6 that is assured for a fire scenario. I think that's  
7 the main thing on that.

8 MS. BROWN: All right. If we don't have  
9 anything else, I want to sort of poll the room. We're  
10 ahead of schedule. Fred or Kathleen, do you have any  
11 comments? Still with us? Okay. We want to sort of  
12 poll the room to see whether or not we wanted to take  
13 a break right now or try to push through, because  
14 we're significantly ahead of schedule. I'd just like  
15 to --

16 MR. DUDLEY: To try to finish before  
17 lunch.

18 MS. BROWN: A break? You want to finish  
19 before lunch?

20 MR. WEERAKKODY: I'm for --

21 MS. BROWN: Let's push through then. Then  
22 let's push through.

23 PARTICIPANT: Do people want a five-minute  
24 break?

25 MR. DUDLEY: Five-minute break.

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1 MS. BROWN: Five minutes? Okay. Let's do  
2 five minutes.

3 MR. DUDLEY: Five-minute break; back at  
4 11.

5 (Whereupon, the foregoing matter went off  
6 the record at 10:55 a.m. and went back on  
7 the record at 11:02 a.m.)

8 MS. BROWN: All right, my new agenda and  
9 goal for this meeting is for us to go ahead and push  
10 through. Phil and Paul?

11 What we'd like to do is if we can is to go  
12 on to our next agenda topic and take our comments and  
13 hopefully we can adjourn a lot sooner than intended  
14 after giving a reasonable time for any additional  
15 comments from the public, unless anyone has an  
16 objection.

17 So with that, I would like to go ahead and  
18 turn over the meeting to Renee Pedersen of OE to  
19 discuss the proposed interim enforcement policy.

20 MS. PEDERSEN: Just to reiterate again,  
21 the Commission did approve, once they approved the  
22 proposed rulemaking, they approved the staff's  
23 recommendation to develop an interim policy and that  
24 was SRM was dated September 12th.

25 So what the next step would be is that the

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1 staff would submit this interim enforcement discretion  
2 policy and it would go up to the Commission in the  
3 form of a Federal Register notice and it would be  
4 approved by the Commission. This would be in addition  
5 to the existing NRC enforcement policy.

6 The expectation for that Federal Register  
7 notice, it would contain statements and considerations  
8 for these interim acceptance criteria. And those  
9 statements of consideration will not only include the  
10 technical basis, but would also include the  
11 disposition of public comments.

12 Basically, the scope of the policy, it  
13 would be that under the interim policy, the NRC will  
14 enforce or excuse me, will exercise enforcement  
15 discretion and normally not take enforcement action  
16 for those licensees that rely on unapproved operator  
17 manual actions that they have taken in lieu of meeting  
18 the requirements in III.G.2, provided that these  
19 licensees have demonstrated and documented the  
20 feasibility of their operator manual actions in  
21 accordance with the interim acceptance criteria that  
22 are going to be included in the enforcement policy  
23 statement.

24 The NRC may take enforcement action when  
25 a licensee's operator manual actions do not meet those

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1 interim acceptance criteria or the requirements in  
2 III.G.2. Basically what we're looking at is that it's  
3 not that a licensee -- we're not imposing these  
4 interim acceptance criteria. This is an alternative  
5 to meeting the requirements in III.G.2. I think that  
6 needs to be clear.

7 The policy, which of course is going to be  
8 subject to subsequent Commission approved associated  
9 policy guidance or regulation, would be in effect for  
10 60 days upon publication in the Federal Register,  
11 until a final revision of the rule would come out and  
12 become effective. Now I put 60 days in here upon  
13 publication in the Federal Register and that's to  
14 allow licensees the time to look at these interim  
15 acceptance criteria and demonstrate and document that  
16 their operator manual actions meet those criteria.  
17 This is something that we have put in the interim  
18 policy for the fitness for duty issues.

19 This was a time that was thought possibly  
20 reasonable for licensees to accomplish what they need  
21 to do. So that's open for discussion. That was  
22 something that was put in there as a starting point.  
23 If licensees don't believe that that's a reasonable  
24 amount of time, I think we would definitely want to  
25 hear about that.

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1           And then finally, I think what we would  
2 put, what we would include in actual statements of  
3 consideration because again, the enforcement policy,  
4 being something that gets published in the Federal  
5 Register and has widespread dissemination, we always  
6 include the most current policy statement on the  
7 website, so it's easy to know where the NRC stands on  
8 issues.

9           What we would do in the statement's  
10 consideration is we would make it clear that for those  
11 situations where a licensee has had a previous  
12 inspection and they have a documented green inspection  
13 finding for the SDP involving the unapproved operator  
14 manual actions, I think the expectation would be that  
15 provided that licensees can now demonstrate and  
16 document the feasibility of those operator manual  
17 actions, in accordance with the new interim acceptance  
18 criteria included in this discretion policy, that, in  
19 essence, would be the corrective action. If your  
20 manual actions now meet those interim acceptance  
21 criteria, then they would no longer need to be in the  
22 licensee's Corrective Action Program. And hopefully  
23 that will solve some issues that industry has.

24           I think what we're trying to do by doing  
25 this, is we want to have an efficient process to align

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1 the regulatory requirements and our safety objectives.  
2 We want to make sure that what we do ultimately  
3 maintains safety. We want to do this in a way -- we  
4 understand -- we want to balance the need for this  
5 expedited regulatory guidance. We hear you. We want  
6 this now.

7           However, I think we're also responsive to  
8 the fact that we need to have public participation in  
9 this strategy because this strategy is somewhat new by  
10 allowing licensees to take these operator manual  
11 actions provided that they meet these interim  
12 acceptance criteria prior to the rulemaking is  
13 definitely a new strategy that we're trying to use and  
14 again, we're looking for balance and ultimately we  
15 want to make sure that we maintain safety by doing  
16 this.

17           MR. QUALIS: And recognize that there may  
18 be cases where you start evaluating previously green  
19 findings using the new criteria, especially with the  
20 addition of the Information Notice 9218 as we get off  
21 the associated circuits issue and start inspecting  
22 associated circuits. That's why that was not one of  
23 the original inspection evaluation criteria.

24           If one of your manual actions is dependent  
25 upon repositioning a valve that has its torque and

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1 limits which is bypassed, now that manual action may  
2 not be acceptable. It may be a high risk manual  
3 action. There may be certain things that you have to  
4 look at as a result of the additional criteria. It  
5 may turn into -- may increase risk.

6 MS. PEDERSEN: I think that's important to  
7 emphasize. Really, I look at this as somewhat of an  
8 iterative process. Again, it's a balance.  
9 Ultimately, the rulemaking may look a little different  
10 than these interim acceptance criteria. To the extent  
11 that we're on a learning curve and through this  
12 process, it comes to light that the criteria that are  
13 in the policy need to be modified. I think the  
14 Commission would want those criteria modified. I  
15 think the goal is, I mean if we had a crystal ball  
16 would be to have these criterion be the rulemaking  
17 language. And to the extent that we can try to do  
18 that, I think that that's what we're trying to do with  
19 this policy.

20 MR. PRAGMAN: This is Chris Pragman. A  
21 question. You said for previous green SDPs?

22 MS. PEDERSEN: SDP findings for that  
23 inspection procedure.

24 MR. PRAGMAN: I understand if someone has  
25 been delivered a green finding, isn't that the end of

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1 the enforcement process for that?

2 MS. PEDERSEN: Well, a green finding is  
3 not an enforcement action. I want to call time out  
4 because I realize that sometimes the language gets a  
5 little bit mutated.

6 A green finding is just that. It's a  
7 green finding. To the extent that there's a  
8 regulatory requirement that was not met, that green  
9 finding would normally be treated as an NCV under the  
10 policy.

11 MR. PRAGMAN: Right.

12 MS. PEDERSEN: It's my reading of the  
13 inspection procedure that if an inspector looked at  
14 operator manual actions and viewed them as acceptable  
15 for those criteria in the inspection procedure, they  
16 were documented as green findings. They were not  
17 documented as green NCVs.

18 However, it's my understanding that a  
19 green finding would still be placed in the licensee's  
20 Corrective Action Program. And so the question  
21 becomes well, what are we supposed to do with it,  
22 right? So I think what this does it provides that  
23 flexibility for licensees to go back, look at what had  
24 been previously viewed as being acceptable, in  
25 essence, now look at it against what we're currently

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1 holding up at the criteria. And to the extent that  
2 you can say yeah, I meet that, then I think that that  
3 would be the end of the story.

4 MR. QUALIS: Currently, Chris, we had a  
5 NCV or a Level 4 violation at one of your facilities,  
6 but it was green. It's in your Corrective Action  
7 Program. A violation actually would exist would  
8 because you do not meet the III.G.2 criteria. Either  
9 a 1-hour barrier with protection of suppression, 20  
10 feet with no intervening combustibles and detection of  
11 suppression or a weighted 3-hour fire barrier. How do  
12 you close that item on the Corrective Action Program?  
13 How do you get rid of it? What they're telling you is  
14 that you're having another option. You can still go  
15 back and meet one of the barrier criterias.

16 MS. PEDERSEN: Exactly.

17 MR. QUALIS: Or you can meet the interim  
18 enforcement criteria as a satisfactory means of  
19 resolving the Corrective Action Program issue. In the  
20 past, up until we get this, you can't do that. You  
21 cannot close a Corrective Action Program issue out, it  
22 would be a violation. A certain utility trying to  
23 close out a barrier issue with manual actions, the  
24 Region couldn't accept that as corrective action  
25 because you're closing out a violation with a

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1 different violation. That's not an accepted way of  
2 dealing with corrective actions.

3 MR. PRAGMAN: I'm thinking of a specific  
4 example I have where a plant of ours found all the  
5 actions, the inspector found all the actions feasible,  
6 went with the green finding because of the III.G.2 and  
7 the inspection reports says no action is required by  
8 the licensee. The actions are feasible and NRR is  
9 going to change the rule.

10 MR. QUALIS: I think that's an overload of  
11 the purpose.

12 (Laughter.)

13 MS. PEDERSEN: Right, so this comes into  
14 play and now you have a homework assignment, yes. You  
15 need to go back and make sure they're acceptance for  
16 the new criteria and to the extent you document that,  
17 I think that's the end of the issue in the Corrective  
18 Action Program.

19 MR. QUALIS: Listen to Renee instead of  
20 your inspection report.

21 (Laughter.)

22 MS. BROWN: That was the guidance at that  
23 time. They're not in conflict and they don't  
24 contradict. At that time that was the guidance that  
25 they may have been given by their management on how to

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1 deal with that issue, but this is how we're going to  
2 proceed from the time that this policy is issued.  
3 Because when the rule comes into effect, if I come to  
4 your plant and I look at that exact same one, if you  
5 don't meet these criteria you're getting a violation  
6 from me.

7 MR. PRAGMAN: Okay.

8 MS. PEDERSEN: Against III.G.2 --

9 MS. BROWN: Against III.G.2.

10 MS. PEDERSEN: Not against the interim  
11 acceptance criteria because someone asked me that  
12 question. What if they don't meet these criteria?  
13 Again, it's a choice. We're offering this up as an  
14 option. It's a vision of what the rulemaking would  
15 be. You always have, you can always comply with  
16 III.G.2. That's the existing regulation.

17 So I think the expectation is if Eva were  
18 to come out after the policy was in effect, what would  
19 be documented in the inspection report, a recognition  
20 that the licensee does not meet the requirements of  
21 III.G.2. However, because the licensee has  
22 demonstrated and documented that they're operator  
23 actions meet these interim acceptance criteria, the  
24 NRC will refrain from taking enforcement action for  
25 those particular incidents. And that would be

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1 documented. So there's a record there.

2 I think again, we need balance. What we  
3 want to try to do is regulate with public confidence.  
4 We need to have this information documented.

5 MR. MARION: This is Alex Marion. Just to  
6 make sure I understand, this policy is forward looking  
7 or it is forward looking and can be used to close out  
8 any current findings?

9 MS. PEDERSEN: Right.

10 MR. MARION: The latter.

11 MS. PEDERSEN: The latter. And I think it  
12 could also be viewed as backward looking because  
13 again, this is your opportunity to look, for the  
14 licensee to look at what they have at their facility  
15 and move forward.

16 MR. MARION: Let me ask the next obvious  
17 question. If a licensee has a documented acceptance  
18 by NRC of the use of manual action, does that use of  
19 manual action have to be reconsidered in light of the  
20 new inspection criteria?

21 MS. PEDERSEN: Yes.

22 MR. MARION: Okay. So let's make sure  
23 it's very clear on how it's documented.

24 MS. PEDERSEN: It doesn't exist in an  
25 exemption request and it approves it. That's not part

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1 of your license. You have what you have. The  
2 inspection report doesn't meet that threshold.

3 MS. BROWN: None of that counts as an  
4 approval that you guys pretend that we have approved  
5 manual action?

6 (Laughter.)

7 MS. PEDERSEN: She said it. I didn't.

8 MS. BROWN: I did.

9 MR. QUALIS: Alex, what doesn't have to be  
10 considered is manual actions that are prior approved  
11 in an SE or an exemption request or what was noted  
12 earlier, but if manual actions approved in SEs, those  
13 are not being challenged by this rule.

14 As a matter of good practice maybe they  
15 should -- a licensee should look at the manual actions  
16 and ensure that they can meet all this criteria  
17 because if they can't, I'm sure some hot shot  
18 inspector is going to say how can you really take  
19 credit for this and it's going to be a yellow finding  
20 or something in my inspection report, even though you  
21 may meet your licensing basis. It may still be risk.  
22 I recommend you do consider that these criterion  
23 don't. We didn't just make them up out of -- most of  
24 them make sense, in my opinion.

25 MR. MARION: This is Alex Marion. I

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1 didn't mean to suggest that the NRC staff use the  
2 cavalier approach to develop this criteria. What I  
3 was driving at was to make sure we understand what the  
4 threshold is relative to what's been previously  
5 approved that does not have to be revisited versus  
6 what needs to be revisited. And in no way do we go  
7 after previously approved exemptions that are  
8 approved.

9 MR. QUALIS: Right.

10 MS. BROWN: That are part of your  
11 licensing basis.

12 MR. QUALIS: Part of your licensing basis.

13 MS. BROWN: I think some inspections I  
14 have been on, they have said well, you looked at it in  
15 an inspection for it and didn't find it to be a  
16 problem, therefore it is acceptable.

17 MR. QUALIS: The worst you'll see out of  
18 these criterion which you prior approved manual  
19 actions is if-- this may give inspectors some bases  
20 for believing that you may not be able to perform  
21 certain manual actions at some utilities. And then  
22 you'll not be in violation space because we approved  
23 a manual action. Then you'll get into risk and  
24 implementation space, different area.

25 MR. JOHNSON: Let me just say that, Mike

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1 Johnson, I think it is possible, although it probably  
2 won't happen very often that you will have an  
3 inspector who looks at, it's an old criteria or  
4 whatever it's called, what the final rule says and  
5 says you know, I know that the licensee, this licensee  
6 should receive an exemption, however, whatever we  
7 approved and added to that plant's licensing basis,  
8 are not feasible by this criteria and therefore this  
9 would constitute a performance deficiency and get a  
10 color and go to the SDP. I think that's entirely  
11 possible although probably not -- it probably won't  
12 happen all that often.

13 MR. QUALIS: I hope you're right, but  
14 inspectors are doing walk downs.

15 MS. BROWN: Well, I think Renee has  
16 another problem.

17 MS. PEDERSEN: I think one of the concerns  
18 and I think the Commission articulated it in the SRM  
19 is the issue of consistency. And we're always  
20 concerned about consistency. From our office, we  
21 don't necessarily establish the training issues, but  
22 I think as an agency, I think the expectation that  
23 when this policy, prior to it going into effect, that  
24 there will be training for the inspectors to make sure  
25 that they're applying this, that they're evaluating it

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1 and there's some consideration of even having  
2 discussions within the agency when an issue arises in  
3 one region that it would be discussed with the  
4 technical experts to make sure that we have an issue,  
5 an element of consistency between inspector and  
6 inspector and region or region.

7 MR. JOHNSON: I guess my point was a  
8 little different actually and I'm not trying to alarm  
9 us, but just keep in mind what the ROP is trying to  
10 do, I just came from another meeting of what the ROP  
11 is trying to do --

12 (Laughter.)

13 It's entirely possible that performance  
14 deficiency could exist even though a licensee may be  
15 in compliance with their licensing basis and that  
16 performance deficiency gets documented, gets colored  
17 through the SDP and then we enter a discussion about  
18 does the -- then 5109, then you decide whether or not  
19 you're going to back fit. So there's some threshold  
20 about whether the licensee has to even go back or  
21 whether we, as an agency, require the licensee to go  
22 back and do something that goes beyond what we had  
23 previously approved.

24 But -- and I don't know that it's going to  
25 happen. I believe Paul, Phil, I'm sorry, I believe

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1 Phil -- I don't believe it's going to happen all that  
2 often and when it does happen, I think we're going to  
3 handle it in a way to try to make sure that we are  
4 consistent. But I do believe that it's going to  
5 happen on occasion.

6 MR. KOLTAY: Just like in any other area.

7 MR. WEERAKKODY: One of the simple  
8 elements would be to something that -- if we have  
9 agreed to a piece of hardware and then you find that  
10 the hardware isn't working, then you have a  
11 performance issue there.

12 MR. QUALIS: Well, Sunil, sort of. The  
13 difference being that with these manual actions that  
14 the agency, at least in fire protection, has never had  
15 any licensee, you know, a standard review plan,  
16 there's never been any list of criteria that a  
17 reviewer should look at. There's been no  
18 standardization. Licensees, to my knowledge, had any  
19 standardization and this is the first time we're  
20 attempting to get together and come up with some kind  
21 of standardization that people can look at across the  
22 country and all do things the same way and it wouldn't  
23 surprise me if there's not some that's below that  
24 standard. I mean that's --

25 MR. MARION: Alex Marion. You can never

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1 say never.

2 Let me just point out for purpose of  
3 clarification that no one leave the impression that  
4 the utilities have been operating these plans with  
5 manual actions that across the board have been  
6 unapproved by the NRC.

7 As I mentioned earlier, it's a mixed bag  
8 of approvals through various processes. One side we  
9 have formal exemption mediation request process. On  
10 the other side you have some reference to a review of  
11 that particular manual action in an inspection report  
12 and if you can imagine our objective is to establish  
13 criteria that everyone understands on how these manual  
14 actions can be evaluated, moving forward, as well as  
15 clearing up the open items that may exist as a result  
16 of current inspections.

17 MS. BROWN: I guess at this juncture, I'd  
18 really just like to open it up to just general  
19 questions from the public, any topic and just --

20 MR. DUDLEY: Let me violate your rule and  
21 ask a general question from the NRC staff.

22 Just so I'm clear and if I'm clear  
23 everybody else is clear, we're saying that these  
24 interim criteria would be for the performance of  
25 manual actions with compliance or equivalent with

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1 compliance for Section III.G.2 of Appendix R. A  
2 licensee performing these manual actions that meet our  
3 interim acceptance criteria would still need to employ  
4 detection and suppression for the fire in the fire  
5 area that caused the need for the manual actions.  
6 That's my understanding. Is that -- do I have that  
7 right?

8 MR. GUNTER: What about 3R barriers?

9 MR. DUDLEY: Well, 3R barrier does not  
10 require detection and suppression.

11 MR. GUNTER: Right.

12 MR. DUDLEY: So they can have 20 feet of  
13 separation, detection and suppression. They can have  
14 a 3-hour barrier without detection and separation, but  
15 if they use manual actions in lieu of any of those  
16 other items, they have to have detection and  
17 suppression in the area where the fire occurred that  
18 caused the need for manual actions.

19 MR. QUALIS: We're trying to maintain  
20 defense-in-depth principles that we talked about in  
21 the first hour. I don't think that was clearly  
22 discussed, but I wanted to make that clear that that  
23 is the NRC's position and we should have probably  
24 focused on that a little earlier.

25 MS. de PERALTA: The first I heard of that

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1 was at an NIA meeting in September, a requirement for  
2 suppression. There are manual actions that are taken,  
3 or several of them before it became an issue that has  
4 nothing to do with suppression and detection. It just  
5 talks about risk of fire damage.

6 MR. QUALIS: We're trying to keep it  
7 consistent.

8 MS. de PERALTA: We're trying to stay  
9 within the rule. You may as well jump to III.G.3  
10 alternatives. It doesn't make any difference to do a  
11 rulemaking if you're going to require the same  
12 requirements as an alternate that should have  
13 capability, which is similar to a policy. Why bother  
14 wasting time, but right now you just go to 53.

15 MR. DUDLEY: I'm hearing that this is a --  
16 this will not require detection suppression which is  
17 our current policy. You're saying licensees will not  
18 use this alternative, that they will go to III.G.3.

19 MS. BROWN: Wait a minute. This  
20 discussion is about 3-hour barriers specifically.

21 MS. de PERALTA: Three hour, one hour.

22 MS. BROWN: One hour still requires  
23 detection. We're not changing that part of III.G.2.

24 MS. de PERALTA: Right, but what I'm  
25 saying is that if you're going to credit manual

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1 actions and require suppression and detection, you may  
2 as well go to III.G.3 option. It doesn't necessarily  
3 mean you're evacuating the ultimate shutdown, but  
4 you're not evacuating the --

5 MR. QUALIS: That may be true in some  
6 cases where it would be inconsistent with the III.G.3  
7 requirements where we do allow manual actions for  
8 III.G.3.

9 MS. de PERALTA: Correct.

10 MR. QUALIS: We're being consistent with  
11 those requirements that we have for III.G.3, that you  
12 have detection and suppression.

13 We're also trying to maintain defense-in-  
14 depth. Fire protection, defense-in-depth is a very  
15 important principle and I'll read them out. To  
16 prevent fires from starting. That one is not  
17 challenged.

18 MS. de PERALTA: Right.

19 MR. QUALIS: Now we're talking manual  
20 actions in lieu of barriers where we're to detect,  
21 rapidly control -- this is the second level -- and  
22 extinguish promptly those fires that do occur without  
23 detection and suppression, that level of it, defense-  
24 in-depth is scratched.

25 To provide protection for structure

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1 systems and components important to safety so that a  
2 fire that is not promptly extinguished by the fire  
3 suppression system will prevent, not prevent safe  
4 shutdown of the plant. That's the third layer of  
5 defense-in-depth. Well, without the passive barriers  
6 that we have, by removing that, we're removing that  
7 layer of defense-in-depth. So without the barrier,  
8 okay, and without detection and suppression, now we're  
9 just down to one layer of defense-in-depth, really,  
10 and then operator actions. We're down to preventing  
11 fires from starting and operator actions. We're  
12 taking on two levels of defense-in-depth.

13 I hear what you're saying, but we'll take  
14 your comments and discuss it --

15 MR. PRAGMAN: Phil, if you look at 3F of  
16 the SAR, it requires detection in any area of the  
17 plant where there's a credible fire hazard to safe  
18 shutdown. Not every plant is required to meet that,  
19 but every plant is required to have detection,  
20 whatever the Appendix A review process was. So you  
21 already have detection in all the critical areas.

22 MS. BROWN: Well, I guess my perspective  
23 in some of the areas I've looked at, there are very  
24 few that I saw that didn't have detection suppression  
25 where we would be concerned with the inadequate

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1 barrier. I mean really, the only thing that this  
2 changes is your 3-hour barrier, so you're telling me  
3 you have a lot of degraded 3-hour barriers where you  
4 don't have detection and suppression, that you would  
5 be using manual actions for. Is that -- I mean for  
6 the most part in most of the plants, there are not a  
7 lot of 3-hour barriers that I think are degraded  
8 significantly enough that this would come into play.

9 MR. ERTMAN: This is Jeff Ertman,  
10 Department of Energy. I think what this gets back to  
11 the question what's -- for the associated circuit and  
12 the spurious actions or spurious actuations, the  
13 actions for that, versus this narrow III.G.2. I think  
14 that what -- presented this way, I think we will  
15 really need to have that addressed now.

16 MS. BROWN: Spurious and?

17 MR. ERTMAN: What is the scope and when is  
18 something a III.G.1 action or an action for a spurious  
19 actuation and we may have a manual action in place if  
20 this occurs, if it's an associated circuit and is  
21 damaged and that's a different level than what I  
22 believe we're talking about for III.G.2. So the way  
23 we collect all of these actions, at least today, don't  
24 necessarily differentiate. We make sure that they're  
25 achievable.

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1           So if we are looking at adding or ensuring  
2           that there's suppression and detection, then I think  
3           that's going to drive defining that better in the near  
4           term. If that makes any sense.

5           MR. HANNON: I have a question going back  
6           to the basics again. I may have to get refreshed  
7           here, but my understanding has been for some time now  
8           in the III.G.2 area, it was an area which included  
9           redundancy safe shutdown trains. Okay? And by  
10          definition that area needed to have protection and  
11          suppression. So except for the 3-hour barrier -- so  
12          it would strike me that if you've got a III.G.2 area,  
13          namely one that has both redundant safe shutdown  
14          trains in it, it's going to have some level of  
15          detection and suppression in there.

16          MR. PRAGMAN: The 3-hour barrier protects  
17          that one cable at the expense of everything else in  
18          the room, whereas the suppression system protections  
19          everything in the room to some extent. Either one is  
20          equivalent in Appendix R.

21          MR. DUDLEY: So the real issue is  
22          suppression. You're telling me, I think, that  
23          detection is there in almost all cases, but there may  
24          be instances where suppression is missing or  
25          incomplete or partial.

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1 MR. PRAGMAN: Yes.

2 MR. ERTMAN: To use Phil's example  
3 earlier, you have a BWR with a reactor building in  
4 this one area. You may have detection throughout most  
5 of that area, but you probably won't have suppression  
6 everywhere. That's dependent on the hazard and so  
7 forth.

8 MS. BROWN: But those are III.G --

9 MR. ERTMAN: Pre-III.G.2 to III.G.2, if  
10 you protected certain circuits, but then you may have  
11 some actions in there, we get into associated circuits  
12 and other things. I think the line is --

13 MS. BROWN: Let me ask this question. I'm  
14 familiar with one, you're familiar with -- but in that  
15 area they don't have any 3-hour barriers. Take for  
16 example that initial four when you come into a boiler.

17 MR. QUALIS: Well, some boilers do.

18 MS. BROWN: Yes, some do, but I know  
19 specifically where this question is going to end. So  
20 a lot of those, you take 3-hour barriers where they're  
21 not actually 3-hour barriers like in your risk  
22 analysis and sometimes you -- there's some protections  
23 there that I think are strange, I guess.

24 MR. ERTMAN: And there are some specific  
25 exemptions for those areas, but I was just speaking,

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1 in general, boilers in general. Some are protected,  
2 some areas aren't and they're divided differently.  
3 But --

4 MR. QUALIS: I don't think it's the intent  
5 of our rule change to say that every area of the plant  
6 can shut down for every fire scenario without fire  
7 barriers, that manual actions are an acceptable way of  
8 completely operating the plant for any fire anywhere.  
9 There are some fire areas where you may need barriers  
10 and current regulation says that you'll have a 3-hour  
11 barrier. You'll have a 1-hour barrier with detection  
12 and suppression or you'll have an intervening manual  
13 action with detection and suppression. By saying  
14 "with detection and suppression" for the manual  
15 action, we're saying that the manual action may  
16 compensate for a trackable 1-hour barrier or lack of  
17 detection and suppression. By taking away detection  
18 and suppression, we're saying a manual action is  
19 equivalent to a 3-hour rated barrier. And that's a  
20 real stretch for me. You know, you guys can make your  
21 comments and we'll discuss, but I'm not sure --

22 MS. BROWN: Yes, we'll take that. You  
23 give us good comments.

24 MR. MARION: We'll do our best.

25 (Laughter.)

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1           Let me just offer an observation. A lot  
2 of good discussion once we got into a couple of  
3 examples, I think represented the difficulty of  
4 consistently implementing the body of fire protection  
5 regulations because of the diversity of the  
6 requirements and the various interpretations. It  
7 seems to me that if we can just focus as best as we  
8 can to demonstrate the adequacy of these manual  
9 actions for the appropriate conditions, given the fire  
10 hazard and the impact of the fire, what do you do  
11 alternatively to bring the plant to a safe shutdown  
12 condition?

13           If we stay with that framework, okay, I  
14 think we'll be successful in achieving our mutual  
15 objectives.

16           I found some of the specific examples  
17 interesting because there are just in this room  
18 diverse interpretations and expectations. But if we  
19 all focus on demonstrating the capability of getting  
20 those safe shutdown, I think a lot of these things can  
21 be resolved.

22           MR. GUNTER: Paul Gunter. The question  
23 though is the difference between adequacy and  
24 feasibility. I think there is -- those are different  
25 qualifiers and I don't think they can be equated,

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1 necessarily. That's a real concern.

2 MS. BROWN: Let me ask you, is there an  
3 inference that when we say feasible that that somehow  
4 precludes adequacy? And let me ask -- because in my  
5 mind, when I say feasible, it's only feasible if it's  
6 adequate to protect public health and safety and  
7 maintain the plant's safe shutdown. So I'm trying to  
8 -- you get the inference that it doesn't do that?

9 MR. GUNTER: I think the word feasible  
10 ties the hands of enforcement behind that back. And  
11 that you will be in one continuous argument with  
12 whether something is feasible or whether something is  
13 adequate. I think it's a standard that enforcement is  
14 going to have to establish. Or they won't be able to  
15 establish.

16 MS. BROWN: I'm still -- I still want to  
17 understand the conflict.

18 MR. GUNTER: Like I said earlier, it's  
19 feasible that I could leave here today and go and  
20 enroll in engineering school. That's --

21 MS. BROWN: But it's --

22 MR. QUALIS: You view feasible as being  
23 not impossible.

24 MR. GUNTER: I can tell you that it's  
25 feasible that I can go enroll and become a nuclear

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1 engineer.

2 MS. BROWN: Right, but feasible --

3 MR. GUNTER: And how would you prove it  
4 otherwise?

5 MS. BROWN: Feasible is not the standard  
6 though.

7 MS. PEDERSEN: Can I say something?

8 MR. GUNTER: Feasible is the criteria.

9 MS. PEDERSEN: Can I say something? I  
10 understand your comment about the word feasible  
11 because I, myself, had some concern with the word  
12 feasible and the way that I looked at it, it's either  
13 acceptable or not which is why on the handout that  
14 I've provided, not to be inconsistent with my co-  
15 workers, but I use the words interim acceptable  
16 criteria to specifically address your concern, Paul,  
17 because they're going to be evaluated and they're  
18 either going to be acceptable or not.

19 Statements of consideration are going to  
20 include the technical bases. The conclusion of why we  
21 think this is the right thing to do, you will see  
22 words, in the Federal Register notice, "reasonable  
23 assurance of adequate protection of public in  
24 connection with this practice." You will see those  
25 type of words.

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1           If we can't say those words, we can't go  
2 forward.

3           MS. BROWN: I mean feasible, it's not  
4 feasible unless it accomplishes. It is acceptable in  
5 our minds. We may be redefining what constitutes --  
6 if we use the word which I don't think we are. I  
7 think we're going to change it.

8           MR. DUDLEY: Well, I think for the  
9 purposes of the rulemaking, I can go forward with the  
10 proposed rule. I don't need to use the word feasible.

11          MS. BROWN: Right.

12          MR. DUDLEY: And that will eliminate for  
13 the proposed rule this ambiguity and maybe we can do  
14 that also for the enforcement discretion. I think  
15 that would be something we should certainly try to do.

16          MS. PEDERSEN: Well, as I said on the  
17 handout, I've just gone ahead and I've used the  
18 language "interim acceptance criteria" because again,  
19 it's either acceptable or it's not.

20          MR. DUDLEY: But the one thing I want to  
21 focus on is on our slide 18, for complexity and  
22 number, what I want to focus on is that our definition  
23 of acceptable here is that the actions such that their  
24 successful accomplishment under realistically severe  
25 conditions is assured for a given fire scenario.

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1           Our threshold and criterion is not  
2 feasibility. It's reasonable assurance and we've used  
3 an unfortunate choice of words that may not convey  
4 that and I think we can fix that in the future and not  
5 use those words.

6           MR. MARION: Please, for the record, NEI  
7 takes full responsibility for the term "feasibility".

8           (Laughter.)

9           MS. BROWN: We appreciate that, Alex. Are  
10 you going to give us a new word?

11          MR. MARION: Absolutely.

12          MR. DUDLEY: Sunil has a few summary  
13 comments.

14          MS. BROWN: Let us make sure -- I wanted  
15 to make sure that the other individuals we had, Fleur,  
16 did you have any comments?

17          MS. de PERALTA: I'm good.

18          MS. BROWN: Nancy? Fred, are you still  
19 with us?

20          Sunil?

21          MR. WEERAKKODY: What I wanted to say was  
22 thank you very much. I think back at your gifted  
23 meeting, the objective of the meeting was to get your  
24 comments on the interim feasibility/interim criteria.  
25 But I'm not hung up on the word as much as what do we

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1 do to achieve the intent.

2 What I really do want to emphasize that I  
3 know we have the meeting records. I know Ray was  
4 taking a lot of notes here, sitting here, but please  
5 anything that you think is very important that we need  
6 to address on this question please send us your  
7 comments that contain your specific comments. That  
8 gives weight to what everybody else in the NRC -- we  
9 can address the comments. That's the only thing I  
10 would emphasize and again, thank you very much.

11 MR. DUDLEY: Again, the address for those  
12 comments is on my handout for schedule. There's a  
13 mailing address on there and there's also an e-mail  
14 address you could use to submit those comments.

15 MS. PEDERSEN: Just one more comment, what  
16 we'll do in the Office of Enforcement is we will put  
17 the latest information, we'll post it on our website.  
18 The Federal Register notice, once it gets published,  
19 we will have it there available to let people know.  
20 If it turns out that the comment period is extended,  
21 we'll highlight that on our enforcement web page.

22 MR. DUDLEY: We have committed to extend  
23 it. We're not exactly sure, but the date will be  
24 roughly 30 days from today's date. I have to look at  
25 a calendar and establish --

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1 MR. GUNTER: But let me be clear. It's 30  
2 days from the appearance in the Federal Register  
3 notice that we're looking at.

4 This is a very small meeting. In fact, if  
5 you're looking for public comment, you need to market  
6 from the appearance in the Federal Register because  
7 that's where the public will be noticed.

8 MR. DUDLEY: Okay. That will delay it  
9 another week and a half or so, but okay.

10 MR. GUNTER: What's the rush? You've been  
11 out of noncompliance for decades.

12 (Laughter.)

13 MS. BROWN: All the violations I've read

14 -- MR. GUNTER: That alarms us. It sort of  
15 feels like a stampede is happening.

16 MR. DUDLEY: No.

17 MR. GUNTER: That's what it appears. It  
18 looks to us that the NRC is being stampeded and that  
19 does not prompt safety decisions. That prompts  
20 political and economical decisions.

21 MR. WEERAKKODY: I think I need to clarify  
22 that. The only reason that we were comfortable with  
23 what we proposed to you is because we had put this  
24 criteria October 17th in public comment. There is no  
25 rush. We heard you. We heard NEI. We're going to

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1 make adjustments. There is no rush. We will do what  
2 is necessary.

3 And the other thing, we were looking at  
4 these interim criteria where you get second  
5 opportunities to comment.

6 MS. BROWN: And we've had these criteria  
7 out in the inspection procedure for -- since March.

8 MR. DUDLEY: Peter, did we get public  
9 comment?

10 MR. GUNTER: It's internal.

11 MS. BROWN: No, that's -- it's available  
12 on the website.

13 MS. PEDERSEN: It's not a specific  
14 solicitation. I hear what you're saying and I just  
15 want to reinforce that we are interested in public  
16 comment. This is a new strategy. We're trying to do  
17 the right thing.

18 And again, as I said before, the criteria  
19 that is going out in the Federal Register notice in  
20 that policy statement is not cast in stone. This  
21 could likely be an iterative process as we gain more  
22 information and experience of public comments, so  
23 please keep that in mind.

24 MS. BROWN: And we heard a lot of good  
25 comments today. I think it will help us do some good

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1 revisions to language as well that we hope to get in  
2 written comments, but I also want to make sure you  
3 recognize that the inspection staff is out writing  
4 violations and findings. This in no way has -- will  
5 stagger the efforts, inspection efforts of the staff.  
6 This is just how they're going to deal with findings  
7 that they see.

8 We are not, by any means, closing our eyes  
9 to issues that affect safety in the plant and we are  
10 working vigorously to assure that the plants are  
11 operated safely, through these triennial inspections.  
12 And so you sort have been characterizing it as the  
13 industry has been out of compliance for all this time.  
14 There may be some individual places or manual actions  
15 that might have been inappropriate for a time, but  
16 we're definitely not turning a blind eye to those  
17 issues in the inspection arena. We're just dealing  
18 with the policy issue here.

19 I want to make sure that you recognize it.  
20 We're still out there actively enforcing III.G.2.

21 MR. GUNTER: Well, there's a qualitative  
22 difference between enforcement and identification of  
23 unresolved safety issue.

24 MS. BROWN: Yes sir.

25 MR. GUNTER: And unresolved safety issues

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1           linger far too long in too many examples.

2                       MS. BROWN:   Yes sir.

3                       MR. MARION:   This is Alex Marion.  I just  
4           have -- from the discussion there were two takeaways  
5           or two action items I made note of.  One was relative  
6           to the draft Sandia letter report or missed insights  
7           related to post-fire operated manual actions.  We  
8           agreed that you'll look at releasing that to the  
9           public?

10                      MR. WEERAKKODY:  Yes.

11                      MS. BROWN:   We can do that.

12                      MR. MARION:       And secondly was the  
13           enforcement discretion -- the item or the bullet in  
14           the handout material, bullet number 6, relative to the  
15           60-day effective date or the effective period upon  
16           publication in the Federal Register notice, whether or  
17           not that was sufficient amount of time.  We'll take a  
18           look at that and provide you comments on that.  I just  
19           am not in a position right now to tell you if it's  
20           good or not.  Okay?

21                      MR. DUDLEY:   Okay, and the NRC made the  
22           commitment to extend the public comment period.

23                      MR. MARION:   Yes.

24                      MR. DUDLEY:   I'll now argue for 30 days  
25           from the date of publication in the Federal Register.

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1 MS. PEDERSEN: And that will be  
2 highlighted again on the website, trying to maximize  
3 public awareness of what it is we're trying to do in  
4 this initiative.

5 MS. BROWN: If there aren't any further  
6 comments, I'd like to adjourn the meeting. You can  
7 turn them in now or you can mail them to us. That's  
8 fine.

9 Thank you very much.

10 (Whereupon, at 11:46 a.m., the meeting was  
11 concluded.)

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