

**Official Transcript of Proceedings**  
**NUCLEAR REGULATORY COMMISSION**

**ORIGINAL**

Title: Office of Nuclear Material Safety Safeguards  
Part 70, SRP Chapter 3, ISA

Docket Number: (not applicable)

Location: Rockville, Maryland

Date: Tuesday, May 8, 2001

Work Order No.: NRC-187

Pages 1-185

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NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR MATERIAL SAFETY SAFEGUARDS

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DIVISION OF FUEL CYCLE SAFETY AND SAFEGUARDS

PART 70, SRP CHAPTER 3, ISA

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PUBLIC MEETING

+ + + + +

MONDAY

MAY 8, 2001

+ + + + +

ROCKVILLE, MARYLAND

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The meeting came to order at 1:00 p.m. in the 10th Floor of Rockledge 2, Yawar Faraz, presiding.

PRESENT:

- Yawar Faraz, NRC
- Dennis Damon, NRC
- Lawrence Kokajko, NRC
- Mel Leach, NRC
- Bob Pierson, NRC
- Lidia Roche, NRC
- Clinton Farrell, NEI
- Felix M. Killar, Jr., NEI

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1     PRESENT: (CONT.)

2     Steve Schithel, BWXT

3     Calvin Manning, FRA-ANP

4     Larry Tupper, FRA-ANP

5     Rik Droke, Nuclear Fuel Services, Inc.

6     Sam McDonald, Westinghouse

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A-G-E-N-D-A

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

(1:03 p.m.)

1  
2  
3 MR. FARAZ: Good afternoon. This is a  
4 public meeting on Chapter 3 of the ISA Standard Review  
5 Plan. My name is Yawar Faraz. I'm the NRC's Senior  
6 Project Manager for Subpart H of Part 70. I assumed  
7 this responsibility after Tom Cox retired in early  
8 March.

9 Since some of you are seeing me for the  
10 first time, I would like to just give you a brief  
11 background of me. Before I assumed my current  
12 position, I was the project manager for the Portsmouth  
13 Gaseous Diffusion Plant for four years.

14 Before that I was project manager for  
15 Louisiana Energy Services Application for a gas  
16 centrifuge facility. That was for three years.

17 As part of certifying the two gaseous  
18 diffusion plants I led the reviews in the areas of  
19 accent analysis including identification of items  
20 relied on for safety, technical safety requirements  
21 which are similar to reactive tech. specs., and also  
22 radiation protection. I have a degree in nuclear  
23 engineering and I'm also a CHP.

24 We have prepared about 30 blue folders  
25 there at the entrance. The folders include the agenda

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1 for today's meeting, a clean copy and a redline and  
2 strikeout of Chapter 3 that we put on the web on March  
3 30th. A copy of any comments that were e-mailed to us  
4 on May 1st. Subpart H of Part 70. Also NRC public  
5 meeting feedback form.

6 If you could, please fill out the form and  
7 provide it to us at the end of the meeting. Or, if  
8 you can, mail it to us within seven days. This is one  
9 way that we can judge how well we are communicating  
10 with our stakeholders so it is fairly important.

11 There is also a sign-up sheet going  
12 around. I think it's at the entrance. If you didn't  
13 sign your name, please do so.

14 Is there anyone from the press present  
15 today? I guess not.

16 At this point, I would like to begin our  
17 introductions. I'm Yawar Faraz. I'm the NRC/ISA  
18 Project Manager.

19 MR. PIERSON: I'm Bob Pierson. I'm Deputy  
20 Director of the Division of Fuel Cycle Safety and  
21 Safeguards.

22 MR. LEACH: Mel Leach. I currently work  
23 in Region III office in Chicago but I'm transitioning  
24 in to be the Chief of the Fuel Cycle Licensing Branch.

25 MR. KILLAR: I'm Felix Killar, Director of

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1 Material Licensees at the Nuclear Energy Institute.

2 MR. SCHITHEL: I'm Steve Schithel with  
3 BWXT Technologies.

4 MR. MANNING: I'm Calvin Manning with  
5 Framatone-ANP in Richland.

6 MR. FARRELL: I'm Clinton Farrell with  
7 NEI.

8 MR. TUPPER: Larry Tupper with Framatone  
9 in Lynchburg.

10 MR. DROKE: Rik Droke with Nuclear Fuel  
11 Services.

12 MR. McDONALD: Sam McDonald, Westinghouse  
13 Plant.

14 MS. ROCHE: I'm Lidia Roche, Section  
15 Chief, Fuel Cycle Licensing.

16 MR. KOKAJKO: Lawrence Kokajko, Section  
17 Chief, Risk Task Group.

18 MR. DAMON: I'm Dennis Damon. I'm also in  
19 Lawrence's Risk Task Group.

20 MR. FLACK: Ned Flack, Project Manager for  
21 BWXT Licensing Project.

22 (Whereupon, introductions were made off  
23 the record.)

24 MR. FARAZ: Would anyone else like to make  
25 any introductory remarks for today's meeting?

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1 MR. KILLAR: I guess we could just make a  
2 few remarks. I think overall we are still concerned  
3 with the content of Chapter 3. We still see a number  
4 of issues and problems with it. You have our written  
5 comments and I assume we'll have time to discuss them  
6 later today.

7 I think probably the bottom line that  
8 bothers us the most is that we are now in a process of  
9 trying to implement this new Part 70, this new  
10 rulemaking. We are going through and submitting  
11 licenses and changes to our existing licenses.

12 We still don't have firm guidance for this  
13 area and it is impacting us. It's beginning to impact  
14 getting through the process and we are very concerned  
15 that this is occurring. We would like to see what we  
16 can do to get this thing resolved correctly and as  
17 expediently as possible.

18 Correctly is the most important thing but  
19 expediency is also very important to us. As we have  
20 all submitted our April submittals for doing the ISAs  
21 we need to know how these things are going to be  
22 evaluated so we are comfortable what we submit will  
23 not be sent back to us. I don't know if anyone else  
24 wants to add anything along those lines.

25 MR. FARAZ: Bob, would you like to make

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1 any comments?

2 MR. PIERSON: I can say a few short  
3 things. We do have your comments and we thank you for  
4 taking the time and effort to do that. We were a  
5 little bit taken aback by the extent of the comments  
6 and we felt that the comments were probably -- I was  
7 surprised by the comments because I assumed we were  
8 further along in terms of what we had hoped to be  
9 consistency from the results of our last meeting.

10 I think that as a consequence of that we  
11 probably need to focus somewhat on definitions in the  
12 rules. I would propose that at least in the beginning  
13 before we start working through this paper and these  
14 comments and trying to figure out what we've written  
15 here and decide what is acceptable that we go back to  
16 Part 70.

17 I would ask you to maybe look at certain  
18 parts of Part 70 so we can go through the contents of  
19 the application so we can understand what you think  
20 the words mean, we'll tell you what we think the words  
21 mean, and then we can get a common consensus on what  
22 the omissions of Part 70 are. Then I think we can go  
23 back and start revising the standard we planned.

24 Maybe it's a case where some look at the  
25 glass half full and some look at the glass half empty

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1 but I see right now that I'm concerned that we're not  
2 really talking to the same point. That is reflected  
3 in the comments that you are putting out.

4 I think that we have to, as somebody said,  
5 go back to proven principles to find where we need to  
6 be coming from and then we can start going in and  
7 editing the paper and talking about that. That's the  
8 only comment that I would have.

9 MR. SCHITHEL: Excuse me. I'm trying to  
10 figure out why we're so far apart as well. I think we  
11 have two different views of this document. In  
12 industry we review it more as a standard format and  
13 content guide which we made a decision a little  
14 earlier that we wouldn't develop a standard format and  
15 content guide.

16 I think your view of it is more a standard  
17 review plan. I think that might be causing some of  
18 the disconnect because if we look at this document as  
19 a standard format and content guide, we feel like it  
20 directs us into a level of information that is way  
21 beyond what we ever anticipated as we were working on  
22 the rule.

23 As we talk about those first principles,  
24 we need to make a distinction between content and  
25 review as to what the NRC reviewer needs to be

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1 reviewing.

2 MR. PIERSON: I think that's a good point.  
3 We need to look at what is done by the licensee, what  
4 is submitted by the licensee, what is reviewed by the  
5 NRC. I think that is critical in terms of the  
6 definitions that we have in Part 70 and what we mean  
7 by each, every, all, and always.

8 There seems to be a constant reiteration  
9 and going back in terms of what those mean. When you  
10 say you are going to send a summary in or you are  
11 going to send an example of what that means. That  
12 would be my only advice. It would take 30 or 40  
13 minutes at the beginning and at least define that and  
14 then I think we can have a chance in making progress  
15 later on.

16 MR. FARAZ: The comments that we received  
17 from NEI, I just wanted to let you know that it is  
18 being docketed and it will be available for the  
19 public. It will be in ADAMS. We will be providing  
20 responses to those comments, written responses at a  
21 later date.

22 Five days wasn't sufficient time for us  
23 -- five or six days wasn't sufficient time for us to  
24 go over the comments and digest them and really  
25 understand them but we are in the process of doing

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1 that. We will let you know when we will have those  
2 responses ready.

3 Looking at NEI comments, it is clear that  
4 the overriding issue is the level of detail needed in  
5 ISA Summary. I think NEI would agree with that and  
6 that is what they reflected in their comments to us.

7 As Bob mentioned, a good strategy for  
8 today's meeting would be at a very high level to go  
9 over the regulatory requirements that address the  
10 level of detail needed in the ISA Summary. We can do  
11 that by looking at the rule itself.

12 In particular, 70.65 which is in the blue  
13 folders. I would like to direct your attention to  
14 page 56229 which addresses that part of the rule. I  
15 think if you can go through each individual  
16 requirement within that part of the rule, we should be  
17 able to make progress as this meeting goes along.

18 First of all, before we begin, I would  
19 like to direct your attention to 70.65(b)(4). I think  
20 that is a very, very -- that is something that we rely  
21 on a lot in determining what you provide us in the ISA  
22 Summary.

23 If you read it, it says, "Information that  
24 demonstrates -- this is within the ISA Summary -- the  
25 licensee shall provide us information that

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1 demonstrates the licensee's compliance with the  
2 performance requirements of 70.61."

3 This is something that we feel is  
4 extremely important in terms of what is provided in  
5 70.65. Then I think we can just go down each  
6 requirement of 70.65 and I would like to ask NEI and  
7 the industry to provide its perspective of what it  
8 feels each requirement in this portion of the rule  
9 requires.

10 If you go to 70.65. I think we can skip  
11 (a), 70.65(a), because that is very straightforward.  
12 The ISA Summary is within 70.65(b). If you go to  
13 70.65(b)(1) it talks about, "A general description of  
14 the site with emphasis on those factors that could  
15 affect safety (i.e., meteorology, seismology);"

16 So if NEI can provide its perspective to  
17 us as to what its understanding is in the industry of  
18 what that requirement means and what the licensees  
19 would have to include in the ISA Summary following  
20 that particular requirement.

21 MR. PIERSON: Is that acceptable to all to  
22 do that? I think, to some extent, what's happening to  
23 us is, and I'm not sure particularly on this one, but  
24 in some cases I don't think we are coming to a  
25 consensus about what this means.

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1 We have a description in our proposal that  
2 we submitted to you for comments and you provided  
3 comments. I don't even know how much the comments  
4 address this particular one but I would just like to  
5 have something from the perspective of whether or not  
6 we think it's X or we think it's Y and just let us get  
7 it out on the table now.

8 If we can't agree on it, then at least we  
9 will know why we can't agree and we can focus on that  
10 rather than keep trying to write something that seems  
11 to be reaching an impasse.

12 MR. KILLAR: I guess we could certainly do  
13 that. We are going to be giving you off-the-cuff  
14 answers because we haven't really prepared to address  
15 these line by line and discuss them.

16 MR. PIERSON: I understand that.

17 MR. KILLAR: We can talk about what we  
18 think or think it can be bought as we discuss it.

19 MR. PIERSON: Okay. What do you think of  
20 the site description?

21 MR. KILLAR: I guess to answer the first  
22 one as far as it relates to the ISA, we felt a lot of  
23 this material we've already been providing in the  
24 general description of the facility. I can't remember  
25 if it's Chapter 1.

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1 MR. PIERSON: Chapter 1.

2 MR. KILLAR: The only thing that we do as  
3 relates to the ISA is if there is anything that we are  
4 specifically taking credit for, or what have you,  
5 above and beyond the general description that's  
6 already in Chapter 1 that we would include then in the  
7 ISA.

8 I guess the question goes back to you. Do  
9 you envision that you are going to need more  
10 information than what is currently being provided in  
11 Chapter 1 and the affects beyond the seismology and  
12 things along that line.

13 MR. FARAZ: So will you be providing that  
14 information in the ISA Summary or would you be  
15 referencing it?

16 MR. KILLAR: We would reference Chapter 1  
17 unless we felt that we need something in addition to  
18 what is already in Chapter 1 which in case we say in  
19 addition to what is in Chapter 1, we want you to know  
20 these additional situations, conditions, or whatever.

21 MR. FARAZ: I think that should be  
22 sufficient.

23 MR. DAMON: It depends. I'm not really  
24 that familiar with every single license's first part.  
25 What I think was intended here was that you would have

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1 information that might not already be current. That's  
2 what the reason for including this is.

3 There might be some other information you  
4 were using in your ISA analysis about the site and  
5 that would be a place to put that. An example of that  
6 is the frequency of hurricanes at your site or  
7 whatever.

8 MR. PIERSON: I'll tell you how I would  
9 look at this, the general description of the site.  
10 Usually in Chapter 1 you don't contain specific  
11 numbers for things like seismic acceleration. It's  
12 more of a general thing.

13 Now, if you're taking credit for some kind  
14 of seismic acceleration or some sort of frequency  
15 interval for a storm or an elevated flood level or  
16 something specific like that that impacts your ISA,  
17 you would need to include that in that general  
18 description. We're not looking for going back to  
19 relocate in South Brunswick County, Georgia, dah, dah,  
20 dah, dah, dah. That's not what we're looking for  
21 there.

22 But there are things included in Chapter  
23 1 that one could conceivably use as a general  
24 description that would need to be in your ISA general  
25 description if you were taking credit for that, as an

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1 example, for not taking some action because of the  
2 infrequency of a certain type of event like flooding  
3 or something like that.

4 MR. TUPPER: So if it was in Chapter 1,  
5 you would not need to repeat it in your ISA Summary?

6 MR. PIERSON: I don't think so.

7 MR. TUPPER: You could reference it back  
8 to that.

9 MR. PIERSON: Absolutely.

10 MR. TUPPER: As long as you write your  
11 Chapter 1 adequately to cover the various different  
12 items you take credit for in Chapter 3, you could do  
13 an entire reference to Chapter 1?

14 MR. PIERSON: That's right. That's fine  
15 with us.

16 MR. McDONALD: Similarly, if you don't  
17 take credit for something, there is no reason to  
18 include it is what I think I hear you saying.

19 MR. PIERSON: Right. I don't expect, for  
20 example -- let me give you an example. Suppose you  
21 have a roof over your facility and you are taking  
22 credit for moderator exclusion in an area and you're  
23 located in, say, South Carolina.

24 I would think that you would need to  
25 address, say, snow loading of the roof as an example.

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1 Whereas if you were located in Vermont, maybe that  
2 would be a factor in terms of assuring whether you had  
3 moderator control all the time.

4 MR. McDONALD: But you wouldn't want to  
5 know things like hurricane frequency.

6 MR. PIERSON: Sure. Right.

7 MR. SCHITHEL: I think we are prepared to  
8 acknowledge the work we have done. There is a little  
9 bit more that is currently in Chapter 1 that would  
10 need to go in here, specifically some of the  
11 seismology, weather type characteristics.

12 MR. PIERSON: Right.

13 MR. SCHITHEL: But it's not a lot more  
14 information.

15 MR. PIERSON: It's not a lot. It's not a  
16 rehash or regurgitation of Chapter 1. You are welcome  
17 to do that, if you wish, but that's not what we're  
18 asking.

19 MR. FARAZ: Move on to item 2.

20 MR. SCHITHEL: I'm just wondering. At  
21 some point we need --

22 MR. PIERSON: Do you want to go back and  
23 look at Section 1 and say if we're happy or not? Do  
24 you want to do that?

25 MR. SCHITHEL: Probably not. That would

1 probably sidetrack us.

2 MR. PIERSON: It would be easier to walk  
3 through these things and then walk back to them and  
4 then we'll probably see where we missed our consensus  
5 that we thought we had. Or we can go one at a time,  
6 whichever you prefer. What would you rather do?

7 MR. SCHITHEL: Do it the way you started,  
8 Bob.

9 MS. ROCHE: Do we have consensus here?

10 MR. McDONALD: I think we have  
11 understanding. I guess a comment I would make is that  
12 my observation of the process is that as you get into  
13 the details, that's where we tend to diverge. I'm not  
14 sure that we'll get into all that level of detail here  
15 but I think, at least, this helps us understand what  
16 the intent is.

17 MR. PIERSON: We're taking you a little  
18 bit off track from how we scheduled this meeting. I'm  
19 not asking you to commit in terms of fixed definition  
20 for each of these. I just want to understand what  
21 your perspective is so we can come to some consensus.

22 MR. McDONALD: So at least we'll  
23 understand the intent.

24 MR. PIERSON: Then we can go back to the  
25 specifics in the document.

1 MR. FARAZ: Moving on to No. 2. I'll just  
2 read it for the court reporter. "A general  
3 description of the facility with emphasis on those  
4 areas that could affect safety, including an  
5 identification of the controlled area boundaries;"

6 NEI, would you like to share a perspective  
7 on this?

8 MR. KILLAR: I don't know that we  
9 identified any issues with that. We've been providing  
10 our facility layouts, our equipment layouts, and  
11 things on that line.

12 If we've had things that were outside of  
13 the area that could affect safety such as a hydrant  
14 cylinder or ammonia tank, we have identified those.  
15 I don't know that we have a problem with the  
16 interpretation of this.

17 Are there things that you felt that we  
18 haven't identified or what have you in this area that  
19 we haven't included?

20 MR. FARAZ: There's just one thing I would  
21 like to point out is this portion of the rule talks  
22 about the control area which there is also a  
23 restricted area. I just wanted to clarify that.

24 You have a restricted area and then you  
25 have a controlled area. Just keep that in mind. We

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1 would also need to see where the restricted area is to  
2 understand.

3 MR. PIERSON: That becomes important  
4 because if a facility is located on, say, DE  
5 reservation because in terms of what we take for some  
6 of our environmental and off-site release functions,  
7 what is the control area and what is the restricted  
8 area.

9 MR. SCHITHEL: It is also important in  
10 relation as to whether the performance criteria is  
11 5,000 DAC hours at a restricted area.

12 MR. PIERSON: That's right.

13 MR. SCHITHEL: That is particularly  
14 problematic.

15 MR. PIERSON: That's a very subtle point.

16 MR. FARAZ: Item No. 3, "A description of  
17 each process (defined as a single reasonably simple  
18 integrated unit operation within an overall production  
19 line) analyzed in the integrated safety analysis in  
20 sufficient detail to understand the theory of  
21 operation; and, for each process, the hazards that  
22 were identified in the integrated safety analysis  
23 pursuant to 70.62(c)(1)(i)-(iii) and a general  
24 description of the types of accident sequences;"

25 MR. KILLAR: In this one here I think

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1 we've found where we have the -- I don't think we have  
2 a disagreement but I think we have applications in  
3 that you may take one facility and they may consider  
4 their whole process line as a simple integrated  
5 process where another facility may take individual  
6 steps in that process line as a simple process. I  
7 think it is facility dependent or facility specific of  
8 how they describe it.

9           It is also, I think, a question of the  
10 complexity of the operation. If they have a line that  
11 relies primarily on geometric controls and things on  
12 that line and there is minimal human intervention or  
13 what have you, they may feel comfortable describing  
14 that whole line or whole process as one area.

15           Where another facility may have a similar  
16 operation but they have a lot of human interaction and  
17 human intervention in which case they may break it up  
18 into three or four or maybe more descriptions. I  
19 think, again, it's facility dependent.

20           I think we discussed, and I thought we had  
21 an understanding, that we could break it up and do it  
22 through these different methods.

23           MR. SCHITHEL: I can offer a little more  
24 of a historical perspective. This particular number  
25 was the topic of a pretty detailed discussion that we

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1 had in one of our meetings on the rule. This used to  
2 say, "A description of each accident sequence."

3 We went through in great detail. It took  
4 us about a half a day to discuss that very point. If  
5 you look, it refers back to 70.62(c)(1)(i)-(iii).  
6 There's a reason that iv is not included in that.

7 If you go back to 70.62, it says you  
8 identify potential accident sequences in iv.  
9 70.62(1)(iv) says you'll identify potential accident  
10 sequences. When we came to the ISA Summary, we said  
11 we don't want all accident sequences.

12 We want a general description of the types  
13 of accident sequences. The ISA is to identify all  
14 accident sequences. The ISA Summary is to include a  
15 general description of the types of accident  
16 sequences.

17 I think the problem is we're having a hard  
18 time reconciling this with your original statement  
19 about No. 4 because we appear to be -- you appear to  
20 be concluding that in order to accomplish No. 4 you  
21 need all accident sequences. That's our view of what  
22 the standard review plan says today.

23 MR. PIERSON: That's a good summary. So  
24 what do we want to say?

25 MR. FARAZ: I think in the comments that

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1 we received from NEI, NEI took exception to all  
2 accident sequences be referred in Chapter 3. At this  
3 point I think it is fair to say that NEI has a valid  
4 point.

5 I would tend to think that the accidents  
6 that have no consequences, that are not intermediate  
7 or high consequences we can remove from the ISA  
8 Summary. It is the accidents that have intermediate  
9 and high consequences that is something we feel needs  
10 to be included in the ISA Summary.

11 Now, Steve, your point about general  
12 description, I think that applies to the intermediate  
13 and the high consequence. Am I correct?

14 MR. SCHITHEL: Yes.

15 MR. FARAZ: You are right. In looking at  
16 4 it would be very difficult for the reviewer to make  
17 a safety determination if the accident sequences  
18 aren't really provided in pure manner to the reviewer.

19 You haven't really said what is your  
20 understanding of general description means but, for  
21 instance, if you do not provide the accident  
22 sequences, you know, just provide a very vague  
23 description of such and such can occur, it's very  
24 difficult for the reviewer, first of all, to make a  
25 linkage between the controls and the accident

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1 sequence. To do that, it's very difficult for the  
2 reviewer to determine that the accident sequence is  
3 adequately controlled.

4 MR. SCHITHEL: I think that is probably  
5 the route of our problem. Our expectation of the  
6 licensing process is that the ISA Summary for a very  
7 simple process can probably describe the accidents  
8 that can happen. From complex process we can describe  
9 in general the types of accidents that can happen.

10 Based on our programs and our commitments  
11 to do it and our processes for executing an ISA and  
12 some level of vertical slicing, if you will, where the  
13 NRC would accept that our programs are adequate and do  
14 some level of vertical slicing through those complex  
15 processes, you will not be able -- I will not be able  
16 to write an ISA Summary that is big enough ever to let  
17 you sit in Washington and decide that my recovery  
18 process is safe.

19 You are going to have to come to Lynchburg  
20 and get into the underpinning of the ISA which is the  
21 criticality safety analyses, the red safety analyses,  
22 and understand that the underpinning is there on a  
23 sampling basis in order to conclude that the facility  
24 is safe to operate.

25 You can't possibly become responsible for

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1 safety and draw a conclusion that every process and  
2 every aspect of our facility is safe. We are  
3 responsible for safety. I think that is the root of  
4 our issue and our problem.

5 MR. DAMON: I think there is another way  
6 of looking at it and the question is why send us  
7 anything in respect to that one item, general  
8 description of types of accident sequences.

9 For example, if a licensee sent in and for  
10 every process that had SNM in it, you would say you  
11 could have a criticality in here. For every process  
12 that has hazardous toxic chemicals, that you could  
13 have a release of the toxic chemical.

14 That kind of information there would  
15 really be no point in going through and writing that  
16 for every process in the plant hundreds of times  
17 because there's no information content. We all  
18 sitting here around this table already know that's  
19 true.

20 That's the dilemma, I think, is that the  
21 other extreme you can put in all kinds of everything  
22 you found and you say, "That's too much." If you  
23 remember what the purpose of this information is, I  
24 think those who are tasked with writing this stuff, if  
25 they keep this following focus.

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1           That is what I see as being a useful thing  
2 that could be accomplished with this, that you are  
3 trying to convey to the reviewer that, yes, you have  
4 thought about the different kind of accidents that can  
5 happen in this process and here are the ones that we  
6 found.

7           You synopsise it at some level that is  
8 tractable but conveys to the reviewer you really did  
9 something. You didn't just -- this is not just a  
10 proforma, there are criticalities and releases of  
11 toxic chemicals and he says, "Oh, I knew that. This  
12 is nothing for me." The idea is to convey it to them.

13           I think it's good you mentioned the  
14 difference between simple process and complex. I  
15 think there are a lot more simple processes. This is  
16 one thing I learned from looking at the actual  
17 summaries that got sent in. There is a lot more  
18 simple ones than there are complex ones.

19           That's going to be another virtue if these  
20 little descriptions is done well is that the reviewer  
21 will actually be able to essentially process through  
22 a large number of simple processes and say, "Oh, yeah.  
23 I understand this and I understand that."

24           That is where I found myself. Once I  
25 understood one of these and that the basis is going to

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1 be similar to these others, you just go through them.  
2 There is a value to it. I agree with you when you  
3 come to a complex one, it's not going to be so easy.

4 That's what myself when I originally wrote  
5 it and other people had in mind was these complex ones  
6 and why we got into this dilemma because when you got  
7 to the complex ones, we said how the heck could we  
8 ever review this except for them to tell us all the  
9 sequences.

10 I think the objective is not for you to  
11 tell us all the sequences. It's to convince us that  
12 you have done it. You have done something which  
13 identified them all.

14 MR. SCHITHEL: Do we have to tell you all  
15 of them?

16 MR. DAMON: That's what I'm saying.

17 MR. PIERSON: I think maybe that's the way  
18 to explain the process that they use.

19 MR. DAMON: Well, that's one thing. If  
20 you tell somebody, you know, this is a complex one, we  
21 used this method on this one, we found various ways  
22 you could get whatever, a criticality, and describe  
23 the ones you think are most significant.

24 If it's a complex one, describe the ones  
25 you think are more significant. Maybe you because you

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1 think they are more and more difficult to control or  
2 they need some explanation, you know. Anyway, the  
3 idea, I think, of an objective is to convince the  
4 reviewer that, yes, you've done something. You've  
5 tried to identify all the accident sequences.

6 Since the words don't say to list them all  
7 here, we can't ask you to list them all. I'm just  
8 saying that the usefulness of sending something would  
9 be to try to do that to the extent it's feasible  
10 without getting too lengthy.

11 MR. PIERSON: But still they need guidance  
12 in terms of where do we draw the line. Obviously in  
13 these cases the devil is in the details but we can't  
14 sort of just give somebody guidance that says there's  
15 a point we're not sure where to provide it. That's  
16 not going to work. We need to be more specific.

17 MR. DAMON: Well, what I'm trying to say  
18 is I don't think this is the item where the reviewer  
19 comes down and says, "Oh, you didn't comply. You  
20 didn't send me the blah, blah, blah, the general  
21 description."

22 What he's really after is some information  
23 being conveyed to him about whether you have actually  
24 done an ISA and used a method and identified accident  
25 sequences. Other than just an affidavit basically

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1 saying, "Yeah, we did an ISA." It's really trying to  
2 convey the content to some degree. Since we didn't  
3 want to say all of them in detail, then it doesn't  
4 have to be all of them in detail.

5 MR. McDONALD: I guess I would like to  
6 maybe put a specific example on the table that we at  
7 Westinghouse are obviously actively working on with  
8 you. That is, our ERBIA Expansion System Amendment.

9 In that case, we provided fault trees in  
10 our first cut which I think if you put together a  
11 fault tree would demonstrate that you have  
12 methodically thought out in a structured way what your  
13 hazards and risks and mitigation factors are, etc.

14 As an example, and I don't mean this  
15 critically, but to try to build on it the feedback we  
16 had was, "We don't understand the fault tree." So  
17 then it became a matter of a level of detail so we  
18 added a middle that basically took the fault tree  
19 provided, you know, from our reviewer's standpoint or  
20 our engineer's standpoint no added safety analysis  
21 value but he reformatted the information on the fault  
22 tree in a paragraph format.

23 Again, it comes back to Bob's point that  
24 it seems to be in the actual process. I don't  
25 disagree with your point, Dennis, that providing a

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1 structured approach so that you can judge, yes, we've  
2 gone through the process. Even with that, I think we  
3 are going to a level of detail. We seem to be caught  
4 in a debate on what's the right level of detail at  
5 which you stop. I think Bob did that pretty well.

6 Based on what I've seen in the past six  
7 weeks or so, I don't know how we get a clear  
8 definition of that level of detail right now.  
9 Certainly it has us concerned.

10 MR. DAMON: I mean, I can't make promises  
11 for Fuel Cycle Division. I'm not part of the division  
12 but my feeling is that a fault tree in general is  
13 sufficient to satisfy this and does provide a  
14 tremendous amount of information.

15 I think the thing was that in the  
16 particular thing you were citing, it was an amendment  
17 so it was that one process. They were doing what was  
18 being referred to before as a vertical slice. They  
19 wanted to look at all the details. They really wanted  
20 to understand that one process.

21 That's when I think they got into the  
22 problem with the fault tree because the fault tree  
23 boxes are these little things like this and sometimes  
24 you read what's in the box and you don't understand  
25 what's in there. They needed someone to walk them

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1 through that. I think in general fault tree is more  
2 than enough to satisfy that requirement.

3 MR. PIERSON: As I read this line here at  
4 3, it says, "A description of each process..." Then  
5 we work through and we say, "... in sufficient theory  
6 of operation for each process, the hazards that were  
7 identified in the integrated safety analysis pursuant  
8 to 70.62..." Then it says, "... a general description  
9 of the types of accident sequences;"

10 That would tell me that what you need to  
11 do is however you broke up your process, whether you  
12 want to take them in small discrete samples or large,  
13 however, you missed those processes. Then for each  
14 process you describe the hazards that were identified,  
15 i.e., criticality, fire, whatever it has to be in  
16 terms of how you poke those hazards out.

17 Then a general description of the types of  
18 accident sequences you could have. That's how I see  
19 that. I guess I don't see this as a very -- it could  
20 be an elaborate process but I think we probably need  
21 to get further into the specifics.

22 I think what we need to be careful of here  
23 is that we don't reach the point where a general  
24 description of the types of accident sequence  
25 translates into such specificity that you feel

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1 overloaded by the volume and we feel overloaded by the  
2 review undertaking.

3 What we will probably need to do on this  
4 in reality is take some sort of selected sample and  
5 probably we'll need to go to the site to validate that  
6 selected sample. Then we'll need to extrapolate from  
7 that selected sample that the aggregate meets our  
8 expectations.

9 I think with trying to lay that out, maybe  
10 the devil is in the details and we'll have to go back  
11 and do this in terms of a specific example. I hear  
12 both of you. I'm not sure you're saying the same  
13 thing but I think I could probably do something if I  
14 had the process in front of me. Maybe I'm flattering  
15 myself.

16 MR. SCHITHEL: The only thing I would add  
17 about the Westinghouse process, it sounded like it  
18 worked up until the point where you rewrote what you  
19 originally submitted.

20 MR. McDONALD: We rewrote to try and  
21 clarify.

22 MR. SCHITHEL: Why would we have to do  
23 that if the vertical slicing convinced the reviewer  
24 that the fault trees were adequate, then why would you  
25 have to write anymore information for submittal?

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1 MR. FARAZ: Well, looking at Westinghouse  
2 and a very peripheral view of it, I agree with Dennis  
3 in that fault trees should be sufficient to provide  
4 all the accident sequences for that process.

5 I think the information that was in the  
6 fault tree was kind of cryptic. Westinghouse wants  
7 its amendment quickly and, therefore, in everybody's  
8 interest could make NRC's review as easy as possible.

9 What Westinghouse provided in addition to  
10 the fault trees was very helpful for the NRC because  
11 it kind of elaborated on the accident sequences that  
12 were in the fault trees. Sam, you're right that fault  
13 trees do include the accident sequences and they  
14 should be sufficient.

15 MR. PIERSON: Unless you've got some sort  
16 of device to understand how the fault tree is set up,  
17 what the nomenclature means, what the abbreviations  
18 mean, how that works. You can take not an  
19 insignificant amount of time.

20 MR. FARAZ: But if you put yourself in the  
21 analysis of your shoes, it becomes very tedious to go  
22 through the fault trees to try and determine what the  
23 accident sequences are, what the connections are with  
24 the accident sequences and then make a safety  
25 determination based on that.

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1 MR. McDONALD: For the benefit of the  
2 other parties here, what we've agreed to, the NRC and  
3 Westinghouse, is to actually have a site visit by the  
4 reviewer which is going on as we speak. The reason I  
5 mention that, I think it's been alluded to several  
6 times that it's probably impossible to get all of the  
7 safety information for a facility in the one document.

8 In fact, it wouldn't be an ISA Summary  
9 anymore. It would probably even be more than the ISAs  
10 themselves. I think that combination of the on-site  
11 present, reviewing the total system, getting to  
12 Steve's comment before, in combination with the  
13 summaries at the end of the day what it may take to  
14 resolve the differences. Of course, we are very  
15 anxious to see how this week goes. This is a trial  
16 run for the ISAs in general.

17 MR. FARAZ: One of the reasons why we're  
18 doing that is because we don't have Chapter 3  
19 finalized. That's really an impediment. To make sure  
20 that we make a good safety determination, adequate  
21 safety determination, we are doing that.

22 It will be very difficult for us to do  
23 this for every single amendment that includes an ISA  
24 Summary in the future. I don't see us doing this kind  
25 of reviews for every single amendment. We could but

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1 that would be very, very -- it wouldn't be efficient.

2 MS. ROCHE: Also, I think Edward pointed  
3 out this amendment is very special because you a fault  
4 tree, as you pointed out, was very cryptic. At the  
5 same time you need that amendment in a matter of weeks  
6 and it makes it very hard on the reviewer. This is  
7 why we are having that site visit but for all it would  
8 not be too practical.

9 MR. McDONALD: I guess my high level  
10 concern about this discussion, of course, is that it  
11 still comes down to reaching an agreeable level of  
12 detail.

13 MR. PIERSON: We could talk about that.

14 MR. McDONALD: I don't personally see how  
15 we are going to get there very readily, at least at  
16 this point.

17 MR. DAMON: Well, Steve and I were  
18 communicating on that. When you get to something as  
19 complex as that particular process that you had there,  
20 hey, there is no easy answer. That is my reaction to  
21 it.

22 You could try to synopsize it in some  
23 broad way at the top or send the whole fault tree.  
24 It's hard to figure what to do. I'm saying there's  
25 virtue to sending -- when you've got these simpler

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1 processes, there is a virtue to sending in these  
2 shorter descriptions of these things.

3 Like I say, if it's complex and you don't  
4 want to send in the whole fault tree or you don't want  
5 to send in all the accident sequences, maybe you  
6 should just identify that, "Yeah, this is a complex  
7 process.

8 There's many different ways this can  
9 happen that involves a number of different types of  
10 controls and, I'm sorry, you'll just have to come down  
11 here if you want to dig into it."

12 MR. SCHITHEL: That might be a great  
13 alternative. I mean --

14 MR. PIERSON: We always thought that's  
15 what we would do anyway.

16 MR. DAMON: But, you know, what I'm trying  
17 to do is I really would rather that be done than  
18 somebody send us something that has no content to it.  
19 There is actually nothing to review in this Section H.

20 I think it would be useful to use it for  
21 some purpose. I see definitely you could dispense  
22 with the simpler processes by using this section of  
23 the summary.

24 I agree that when you've come to a really  
25 complex process, and by complex I mean it has a

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1 diversity of different kind of controls. Like in this  
2 case it was a process where there's moderation control  
3 and getting control of the moderator in the material,  
4 the moderator getting into the material, and it could  
5 get in by diverse ways or you had to have different  
6 types of barriers to prevent so it was very complex,  
7 you know.

8 In other cases you may have a complex  
9 process but really all you're interested in is leaks.  
10 This thing could leak from somewhere. You don't have  
11 to tell every which way it could do it. You just say  
12 one of the accidents we're addressing is leaks in this  
13 thing. We've addressed it by whatever the strategy  
14 is.

15 It's either we are relying on the  
16 integrity of the piping or we're not and we have a  
17 dike underneath or it's safe geometry somewhere or  
18 something. You just explain that and that's enough,  
19 you know.

20 In some cases when it really is complex  
21 because you can't synopsise in one sentence what the  
22 defense strategy is, then what do you do except tell  
23 the reviewer, "This is a complex one. You may have to  
24 come down here to look at this one."

25 MR. PIERSON: In looking at the SRP it's

1 implied in there a number of places. It states in  
2 there that a site visit may be necessary. There is no  
3 real guidance in there as to when a site visit is  
4 going to be required or what you've got to do when you  
5 go to do a site visit and you're talking about a  
6 verification of whatever else.

7 It's kind of spread through there. It  
8 states that as a reviewer I don't think you have  
9 criteria saying these are the types of things that we  
10 would definitely need to go off and do a site visit  
11 for and this would be the objectives of a site visit  
12 in regards to this.

13 When we crafted this initially, our  
14 thoughts were that we would do effectively a vertical  
15 slice to the degree that we could with the summary.  
16 Then we would go down to the site and confirm that  
17 portion of the vertical slice what was present at the  
18 site. Then we declared victory and we won.

19 If we found problems in either what was  
20 provided in summary with the vertical slice, then we  
21 would expand laterally to try to develop enough review  
22 to make a determination. It was never our intention  
23 to be able to go through and review each of those  
24 points of the entire ISA. We don't have the resources  
25 to do that.

1           The generalities in terms of when you do  
2 the site visit is to some degree a specific  
3 application, specific to the reviewer, and specific to  
4 where you are in the review process. I don't think  
5 that we would want to put hard and fast criteria to  
6 say if X happens, go to the site and if Y happens, you  
7 don't go to the site.

8           MR. TUPPER: I agree.

9           MR. PIERSON: We're trying to establish a  
10 basis presuming initially we would have to do more  
11 than we would after we had done --

12          MR. TUPPER: But correct me if I'm wrong.  
13 I don't see the word vertical slice.

14          MR. PIERSON: It's not vertical slice.

15          MR. TUPPER: Okay.

16          MR. PIERSON: That's just the review  
17 approach. Now, remember conceptually what the  
18 standard review plan is. The standard review plan  
19 talks to the reviewer about how to do the review. He  
20 doesn't say in terms of how one necessarily has to  
21 conduct the review down to, say, a vertical slice. It  
22 is conceptually what you need to do to work through  
23 the review process.

24                 The scope and extent of how you approach  
25 that review process is in large measure the discretion

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1 of the management, the reviewer, the resources, the  
2 facility, the status of the facility, the reputation  
3 in terms of what to present. All those things help  
4 make a decision.

5 MR. SCHITHEL: That does go back to the  
6 point, though, that there is a format and content  
7 guide and you get into a habit of checking the boxes  
8 on a standard format and content guide unlike maybe a  
9 standard review plan.

10 We in industry have rarely had an  
11 opportunity to review a standard review plan but we  
12 have had opportunities for review of the standard  
13 format and content guide.

14 MR. PIERSON: So that's the problem.

15 MR. SCHITHEL: It might be. We're maybe  
16 not coming at this from the same paradigm.

17 MR. LEACH: This is guidance to the staff.

18 MR. SCHITHEL: It's also guidance to us,  
19 too.

20 MR. LEACH: I understand that, yes.

21 MR. SCHITHEL: We decided not to write a  
22 standard format and content guide.

23 MR. LEACH: The standard review plan is  
24 not inutible. It is essentially a broad-brush outline  
25 guide to the staff on how to do a review. More than

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1 anything else it provides a check on the staff to say  
2 don't go beyond this. It's not to go to this. It's  
3 to not go beyond this.

4 Here's what constitutes an adequate  
5 review. Here's where you can declare victory. If you  
6 go through this process, your management and your  
7 organization will support you in your statement.  
8 That's what the purpose of the standard review plan  
9 is.

10 MR. FARAZ: Let me say a few words. I  
11 think it would be important for the reviewer to make  
12 a judgement on whether all accidents were considered  
13 adequately by the facility in the ISA.

14 Since you won't be providing that  
15 information in the ISA Summary, I think that is how  
16 it's going to turn out even though Chapter 2 is not  
17 finalized yet. That is the information that the NRC  
18 reviewer would have to look at within the ISA to make  
19 his determination.

20 MR. PIERSON: We would have to look at a  
21 sample.

22 MR. FARAZ: Exactly, but he has to be  
23 convinced. He can't just look at the ISA Summary and  
24 then know for sure that you considered all the  
25 accidents. In other words, the accidents that have

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1 low consequences and are not in need of a high  
2 consequence, the NRC reviewer has to determine that  
3 yes, indeed, there are immediate consequences or high  
4 consequences.

5 For that the NRC reviewer would look at a  
6 sample within the ISA Summary and then try and make a  
7 judgment on that. Otherwise, all you are providing  
8 the NRC reviewer is the conclusion that this is the  
9 conclusion.

10 The NRC reviewer has to make a certain  
11 determination and the only way it can do that is by  
12 looking at a sample within the ISA. That is a real  
13 thing. I see people shaking their heads.

14 MR. SCHITHEL: I think I agree in concept.  
15 I'm not sure I agree in extent. Maybe there's a  
16 little extent issue there but in concept I agree.

17 MR. FARAZ: The NRC reviewer cannot review  
18 the entire ISA. We need a large number of reviewers  
19 to do that and we just don't have the personnel.

20 The NRC reviewer will look at the sample  
21 and the NRC reviewer has to get a good feel that  
22 within the ISA that was performed did look at the  
23 whole accident sequences and did adequately determine  
24 that certain accidents are low consequence and do not  
25 need to be included in the ISA Summary.

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1           Then certain accidents are immediate and  
2           of high consequence accidents.       That is a  
3           determination that the NRC reviewer would have to  
4           make.   The NRC reviewer would not do 100 percent  
5           review.   It's based on a sample.   That is something  
6           that a site visit is how the NRC reviewer would do it  
7           because it would not likely be in the ISA Summary.

8           MR. KILLAR: I think the other thing, too,  
9           that concerns us a little bit, and maybe we're over  
10          cautious, is that we anticipate the reviewer to have  
11          what I would call a reasonable man standard.

12          If you have a storage vault that is poured  
13          concrete, the shelves are all metal, the fuel is in  
14          the canisters, metal canisters, the only thing you  
15          have in there is an electrical system for lighting and  
16          stuff, that you wouldn't expect a reviewer to come  
17          back and say, "How do you know there can't be a fire  
18          in there?"

19          We expect reasonableness that we won't  
20          have to answer those types of questions. I don't know  
21          what we can do to get more comfortable with that kind  
22          of thing.

23          MR. PIERSON: Well, the other side of that  
24          coin could be that one could say that we have  
25          considered the fire load and considered that there is

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1 insufficient content of the material inside the  
2 boundaries of this to make a credible fire. Then we  
3 know you have considered it.

4 Otherwise we are left in the position you  
5 might say of the reasonable man standard, but unless  
6 somebody goes down there and looks over the process,  
7 we are making the assumption that you've done that job  
8 and without you telling us that you've done that job,  
9 you may or may not have done that job.

10 One could get into a situation, not  
11 necessarily from your example but possibly from  
12 something similar, or something could be overlooked so  
13 I think it would be better to say we have assessed  
14 this for fire and concluded that there is no fire risk  
15 and we don't need to wonder whether you've done it.  
16 You told us that you've done it.

17 MR. MANNING: I think another issue is  
18 there are several examples of ISAs that have been  
19 turned in in good faith believing that we have met the  
20 criteria although it was fuzzy when it was done but  
21 the response back was these things are sorely  
22 inadequate for us to do the type of review that our  
23 management is expecting.

24 MR. PIERSON: Maybe we have a disconnect  
25 with what the management is telling the staff. Maybe

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1 that's what it is. Anyway, we're working on that.  
2 That's what we need to do. I would be reluctant to  
3 say that your ISAs are inadequate. I don't think we  
4 have really looked at them to the degree we could make  
5 a definitive statement on any ISAs being wrong.

6 MS. ROCHE: I don't know what you are  
7 referring to. Could you be more specific, please?

8 MR. MANNING: We have letters back from  
9 BWXT and Global Nuclear Fuels when they submitted them  
10 with their ISAs and their approach and said, "We are  
11 basically done. We think we have done a good job and  
12 the answer back is they are inadequate." We had a lot  
13 of those discussions our last meeting. I think that  
14 sets a lot of misgivings about where we're at today.

15 MS. ROCHE: I think you're referring to  
16 the old ISA summaries that were submitted not in  
17 alignment with Part 70 which the licensee themselves  
18 requested to have it withdrawn and also requested for  
19 us to make comments to make sure and have sort of like  
20 an idea of which way to submit the new ones in  
21 alignment with Part 70 as to help them go along those  
22 lines.

23 When you talk about ISA summaries being  
24 rejected, that's not the case. The licensees  
25 requested to withdraw those ISA summaries and

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1 requested vitals from us.

2 MR. FARAZ: My understanding is we have  
3 only two in-house currently ISA summaries based on  
4 these requirements. One is BWXT's amendment request  
5 and one is Westinghouse's ERBIA. Those are the two  
6 that we're looking at and we haven't really found  
7 information on either one.

8 MR. SCHITHEL: Well, I think you would  
9 also have a chapter in our license that contains our  
10 ISA summaries that have been submitted over the last  
11 four years that we did not withdraw.

12 They still exist and they sit there and  
13 they are part of our license application and  
14 demonstration section right now. We have acknowledged  
15 that there are some things we need to do to come into  
16 alignment with the new rule and we are doing those  
17 things now.

18 MS. ROCHE: We have the letter and I think  
19 you are referring to something else. I think what he  
20 was talking about were the ISA summaries that we sent  
21 I think in January.

22 MR. PIERSON: Let's not fight about  
23 specifics.

24 MR. SCHITHEL: The only other point on  
25 information I would offer, and I don't know if there's

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1 an opportunity for you guys to think about this, but  
2 these are existing facilities and to the extent that  
3 the existing facilities have done an ISA and incidents  
4 have occurred, the inspection group is looking at the  
5 ISA in relation to the incident that occurred.

6 I think there is a lot of valuable  
7 information as to the adequacy of the ISA that was  
8 done coming out of your inspection group that says  
9 yes, in fact, this incident occurred and the ISA  
10 evaluated it and what they thought would happen did  
11 happen.

12 There might be an opportunity to existing  
13 facilities to use that information to build confidence  
14 and possibly reduce the amount of review you have to  
15 do. I don't know if you can use that in a licensing  
16 space or not.

17 MR. PIERSON: Okay. What else do we need  
18 to say about No. 3? Number 4?

19 MR. FARAZ: Moving on to No. 4. That's  
20 what we initially started with. I'll go ahead and  
21 read it. "Information that demonstrates the  
22 licensee's compliance with the performance  
23 requirements of 70.61, including a description of the  
24 management measures; the requirements for criticality  
25 monitoring and alarms in 70.24; and, if applicable,

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1 the requirements of 70.64;" Does NEI have a  
2 perspective on that?

3 MR. KILLAR: I think this is the one that  
4 we had the biggest problem with because we don't know  
5 what would be acceptable demonstration to 70.61.  
6 We've suggested a couple of different things.

7 I don't know that we've got anything that  
8 we have identified or have been identified as an  
9 acceptable approach. We don't know how to read this  
10 right now.

11 MR. FARAZ: It is general. It starts off  
12 by saying that information that demonstrates a  
13 licensee's compliance with 70.61 so that's a very  
14 broad statement.

15 MR. SCHITHEL: I'm surprised we let it get  
16 through the rulemaking process in retrospect.

17 MR. KILLAR: There are several things we  
18 let through.

19 MR. PIERSON: I'll tell you how I would  
20 interpret this thing if no one else wants to pipe up.  
21 I'm certainly willing to listen to somebody else if  
22 you are willing to go ahead.

23 This says, "Information that demonstrates  
24 the licensee's compliance with the performance  
25 requirements of 70.61." 70.61 has a list of what I

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1 would call rather specific performance requirements;  
2 acute worker dose, acute dose but no greater than  
3 total dose equivalent; 24 average release; acute  
4 chemical exposure, and that sort of thing.

5 That's talking about how you as a licensee  
6 assure that you don't exceed these dose limits or  
7 these requirements in 70.61.

8 What you would have in place is you would  
9 have, in effect, this is an aggregate of what you have  
10 done for your safety basis for your facility. You  
11 described what you got in terms of your management  
12 measures, how you maintain your qualifications, your  
13 quality assurance, your training, your procedures, how  
14 you apply your IROFS, how you make the judgments that  
15 the whole body of that process meets the definition or  
16 achieves these goals.

17 How I would suggest doing this is you've  
18 got in Chapter 11 the management measures. You've got  
19 in Chapter 3 the specific ISA requirements. You've  
20 got in the rest of your submittal a chapter on  
21 criticality, a chapter on chemical safety. You talked  
22 about fire protection. Each of those in part leads to  
23 a developed sense that this process is met for the  
24 ISA.

25 What I would suggest doing is taking an

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1 example or showing an example and leading the reviewer  
2 through it. Take a process system and say, "We  
3 assessed this for fire protection by such and such.  
4 We have established the criticality measures by so and  
5 so.

6 We have concluded based on integrated  
7 safety analysis that the safety margin in this  
8 facility is defined by such and such and we have now  
9 provided the items relied on for safety to preclude  
10 the accident," and walk through that.

11 That demonstrates a compliance with the  
12 performance requirements such that now you can take  
13 credit and say that, "Given your implementation and  
14 your items relied on for safety, you are not going to  
15 get an acute worker dose of 25 rem or greater total  
16 effective dose because you're not going to have a  
17 criticality. You are not going to get an off-site  
18 release or whatever it is you're not supposed to do.  
19 You're not going to have a fire."

20 Then the problem here is how this  
21 demonstrates for each thing that you are going to do.  
22 I don't think that you need to go back and you staff  
23 maybe feel differently, correct?

24 I don't think you need to go back and show  
25 each item and each process and substantiate that.

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1 That is a huge amount of work. I think you need to be  
2 able to substantiate how you do it at your site  
3 because you need to have it somewhere at your site.

4 What do you think about that?

5 MR. SCHITHEL: Can we record everything  
6 you just said and write it in the Standard Review  
7 Process?

8 MR. DAMON: Well, originally it was  
9 intended that there would be processed specific  
10 information. The idea would be there would be a  
11 general method for evaluating consequences and  
12 evaluating likelihood and those would be described  
13 somewhere as to how those were done.

14 Then when it came to the process specific,  
15 there would be a process description, accidents, and  
16 whatever information -- whatever qualifies the IROFS  
17 for this specific process had that made the accident  
18 highly unlikely.

19 The format of the NEI guidance document on  
20 the subject, that was an example of that, the table  
21 with scores in it. That is specifically the  
22 information demonstrating compliance is the  
23 combination of those as far as process specific goes.  
24 The process specific part was those tables in which  
25 the scores were given for accident sequences.

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1           If instead of doing that you do something  
2 else, and that is taken together with the generic  
3 information about methods by which those scores were  
4 assigned, and the fact that the consequences are what  
5 they are.

6           The methods is one part, the management  
7 measure Chapter 11, all these things, that's all part  
8 of the story, but the original idea was there was a  
9 place for process specific information that said,  
10 "Yes, in this particular process we qualify as highly  
11 unlikely because we have got one of these and one of  
12 these."

13           If you don't want to do that, you don't  
14 want to provide process specific information, then  
15 you've got a problem. The problem is what you have is  
16 kind of like here is the method. We've done this kind  
17 of analysis and this particular process came out okay  
18 and that's all the reviewers got.

19           MR. PIERSON: That's not all the reviewers  
20 got. The reviewers got measures. He's got the  
21 criticality check. He's got the fire and protection  
22 chapter. He's got the processes that lead all that.

23           What I would see here is not so much that  
24 you have to recapitulate or redefine all those  
25 specific process things that we've got. That what

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1 essentially this review is.

2 What I would say is you demonstrate for  
3 specific processes you've got, how that relates back,  
4 and you have met those goals, met your items to rely  
5 on for safety, how you define that. Say your ERBIA if  
6 you're a blender. How do you know that it's not going  
7 to be critical?

8 Well, we have crit. standards. You apply  
9 moderator control. We would establish fire  
10 protection. Then some of that is that you would  
11 believe that you have defined the accident sequence  
12 likelihood to be of such and such and, therefore, that  
13 is not going to develop from this off-site dose of 25  
14 rem.

15 MR. McDONALD: I take it, and obviously  
16 there is some difference as I understand the  
17 discussion we're having here, but we would still have  
18 all the ISAs at the site so at the end of the day if  
19 the reviewer wanted to come for more examples, they  
20 could go to an ISA.

21 MR. PIERSON: But you would have to go  
22 through the process that you use to define that  
23 because you can't just say we submitted a crit., we  
24 submitted a fire protection, we submitted this, and  
25 there is staff for that. You are going to have to go

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1 through and define that, demonstrate how you comply  
2 with the performance requirements.

3 MR. McDONALD: If I understand you  
4 correctly, Bob, you're saying you are really laying  
5 out the methodology. We would describe the  
6 methodology and use an example. That is where it  
7 would stop as opposed to covering every process.

8 MR. PIERSON: I'm asking the staff.

9 MR. DAMON: I can imagine -- like I say,  
10 I'm trying to think of -- it's just like this other  
11 one. The difficulty is finding a stopping point other  
12 than going to one extreme or the other here and it's  
13 difficult.

14 I can see some value to having the  
15 licensee or someone select a subset of the processes.  
16 Not every single process but a representative. By a  
17 representative subset I mean you don't want them all  
18 the same. You know what I mean? You want a variety  
19 of different situations because the process safety  
20 designs are so different.

21 They would select a subset asking to send  
22 the argument, this integrating argument for why the  
23 accident is highly unlikely for those processes, for  
24 subset 6, we'll say, and then you would have something  
25 to review.

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1 Or include them in the summary when it's  
2 sent in. Something for him to review. But if there's  
3 basically nothing but the methods description, then  
4 what will have to happen is the reviewer will make  
5 a -- he will probably select from the processes in the  
6 plant, his own representative subset. He will come  
7 down there and look at the stuff down at your site.  
8 That's the difference. It would facilitate him.

9 MR. PIERSON: Let's talk a second about  
10 that. That's an intriguing situation. What would be  
11 a fair thing to agree upon? I mean, each of the  
12 representative processes or 10 percent or 3 percent or  
13 100? What is your feeling about that? Do you have  
14 any perspective on what's going on?

15 MR. SCHITHEL: Commenting on what Dennis  
16 said, I think as licensees we are not suggesting we  
17 describe only the process. I think in the ISA Summary  
18 -- I'll speak for BWXT.

19 Our vision of the ISA Summary is that when  
20 I read it as a manager or when an operations manager  
21 reads the ISA Summary, he can take away from that ISA  
22 Summary the general kinds of accidents that can  
23 happen, and he can clearly understand why his facility  
24 is safe and the kinds of things that can make it  
25 unsafe. I think the ISA Summary has to do that beyond

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1 just describing the process for executing the ISA.

2 What I don't think it has to do is have a  
3 tabulation of sequences that quite frankly I as a  
4 manager and that operations manager don't understand.  
5 There are people who do understand it and they can go  
6 add numbers and all that.

7 You've said it yourself, Dennis, that is  
8 not terribly informative when you're trying to  
9 understand what makes the facility safe. I think  
10 we're not saying we will describe only the process,  
11 but we're also not saying we think we ought to have  
12 tabulations of accident scenarios. There is an area  
13 in there where we can clearly communicate the safety  
14 basis without tabulations of accident scenarios.

15 MR. KOKAJKO: Could I add a comment?  
16 Based on our visit to BWXT as well as Global later on,  
17 what are things that would have impressed me in both  
18 my visits was for information that would demonstrate  
19 compliance would be to say, "Okay, here are your  
20 methods and here are your processes," which I think  
21 you did lay out very clearly.

22 Somewhere between that point and what I'll  
23 call the application, there were links that were  
24 missing. Perhaps part of that is a management measure  
25 and that could be quality control. It could be

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1 training. It could be any number of things.

2 One of the things that I found that I  
3 still think is missing in this ISA Summary process is  
4 that link. For instance, if you are relying automatic  
5 engineer system, is it surveilled and how do you  
6 capture that surveillance requirement. But, more  
7 importantly, that you are relying on that as a  
8 component of your overall program.

9 If you are relying on a human performance  
10 issue or item, where is the training and how does that  
11 translate into whether it's a qual. card and a  
12 performance objective that you are training to. It  
13 could be on-the-job training. I'm not saying specific  
14 classroom. It could be any number of ways to get  
15 there.

16 MR. PIERSON: Let me ask you a question  
17 here just a second.

18 MR. MANNING: Yes.

19 MR. PIERSON: We have in our Standard  
20 Review Plan chapters on QA and management measures and  
21 so forth. Are we asking them to put in their chapter  
22 on management measures that, for example, they could  
23 say if we have an item relied on for safety, which is  
24 precluding a certain type of event or consequence,  
25 that we apply these measures to it, QA, training,

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1 operator, whatever it has to be. Is that what we're  
2 asking?

3 Or when we come down to Chapter 3 for the  
4 specific application of Chapter 3, they submit  
5 information on a certain process. When one looks at  
6 that process one concludes that the consequences of an  
7 accident involving that process could reach a certain  
8 threshold.

9 Therefore, it has to have items relied on  
10 for safety. Those items relied on for safety have to  
11 have certain attributes assigned to them to preclude  
12 the accident or the consequence of the accident  
13 involving this off-site release.

14 Now, are we asking them to again in this  
15 Chapter 3 to define for that process specifically to  
16 Chapter 3 how they applied training, how they applied  
17 QA, how they applied management measures, or are we  
18 going to accept that if they put that elsewhere in the  
19 application that they would have applied those  
20 standards to the certain types of IROFS in this  
21 particular application?

22 Isn't that part of what your problem is in  
23 terms of the packaging and the level of detail that  
24 needs to be submitted on this?

25 MR. SCHITHEL: No. I think that is

1 actually a later point where we're talking about the  
2 list of the items relied on for safety. This has all  
3 the rules.

4 MR. PIERSON: Okay. So you're willing to  
5 do that?

6 MR. SCHITHEL: Well, the rule says all so  
7 all means all. I think we are willing to tie that  
8 maintenance to that particular item unless it is  
9 generic, you know. Every administrative control is  
10 accompanied by training. I'll make that commitment  
11 right now. I shouldn't need to say it for every  
12 control. I think --

13 MR. PIERSON: And you could cover that in  
14 your chapter on training.

15 MR. SCHITHEL: I think the issue is the  
16 sequences and the description of the sequences and all  
17 the numbers and the blocks and all that kind of stuff.  
18 I just don't see that as being terribly useful.

19 Now, it is useful for the vertical slice,  
20 if you will, where you come to the site and work  
21 through the process and convince yourself that we know  
22 how to use the process we described on certain high-  
23 risk situations or a spectrum of operations like you  
24 are suggesting.

25 MR. FARAZ: If you provide the NRC a list

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1 of IROFS and try to provide them all, 100, 200,  
2 whatever the list is. There's no link between the  
3 IROFS and an accident sequence.

4 The NRC review would have a very difficult  
5 time in trying to understand what the IROFS is really  
6 doing.

7 MR. SCHITHEL: I think we can create the  
8 link in a generic sense without tabulations.

9 MR. FARAZ: If you can do that, fine.

10 MR. SCHITHEL: If it's a moderation  
11 controlled area you write a couple paragraphs about  
12 the fact that it is a moderation controlled area and  
13 you've got a whole list of controls about controlling  
14 moderation. That seems pretty clear.

15 MR. FARAZ: If you could do that, it  
16 should be sufficient. That is the key item that the  
17 NRC reviewer will be looking for, is the length  
18 between the IROFS and the accident sequence because  
19 the NRC reviewer is going to make a judgment for  
20 certain accident sequences that indeed the things that  
21 are in place are good enough.

22 Or he might come to the conclusion they  
23 are not good enough and that could result in a  
24 question. That's what the NRC reviewer is really  
25 trying to determine.

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1 MR. SCHITHEL: Or he might have to ask a  
2 question in order to make any conclusion because I  
3 think it's going to be really difficult to have 100  
4 percent understanding.

5 MR. FARAZ: If the link is not clear  
6 enough, then that will result in a question.

7 MR. DAMON: I think my impression from the  
8 safety designs I've seen is that it is overwhelmingly  
9 true that management majors like QA training,  
10 configuration management, maintenance -- well, let me  
11 back off and leave maintenance alone.

12 These other things are definitely generic  
13 things where in general you just have a section that  
14 says if the thing is an admin. control, the operator  
15 has to go through this part of our training program.  
16 He has an OJT thing that has a safety -- he gets  
17 trained in the safety procedures that go with this  
18 process and it just says that.

19 On maintenance, it would be nice in some  
20 cases if you told -- there are certain kinds of  
21 maintenance things that me as a hardware reviewer, I  
22 was in hardware maintenance for a long time, so I know  
23 the certain kind of pieces of hardware that require  
24 certain kinds of maintenance and that sometimes isn't  
25 done and sometimes it is done.

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1                   It would be nice if somebody would tell me  
2 whether they are doing it or not. In principle I  
3 don't think they need to be told. If you just have a  
4 maintenance program and then say if a thing is an  
5 engineered piece of hardware and it is identified as  
6 an IROFS, it is part of this formal program, it will  
7 get whatever maintenance it needs to be adequate and  
8 reliable.

9                   In general that is the general story. You  
10 don't need specific information about most of these  
11 things. If there is something unique you want to tell  
12 the reviewer, fine. In general there is nothing to  
13 tell. The thing that is missing from that is there  
14 are certain characteristics of the whole -- how do I  
15 put it?

16                   These things, QA maintenance and all that  
17 stuff, and the list of IROFS, these are just the  
18 individual things, the individual IROFS. There is  
19 this other story where you have the fault tree or  
20 whatever their action sequence is.

21                   Multiple IROFS fail. This one has to  
22 fail. This one has to fail. That one has to fail  
23 before you get the accident. That is the part of the  
24 story that tells you that this is unlikely all right.  
25 It's got three things that have to fail. That's the

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1 part where if there isn't process specific  
2 information, you can still do that.

3 It could have been done by the staff. The  
4 staff did that. It had a method like the NEI method,  
5 the BWXT method, the tabular thing or some other one  
6 where they say, "This is the method. We looked at  
7 each accident sequence and we gave it these scores  
8 according to these criteria written down. If it came  
9 out 4 or better, it was okay. We did that and we did  
10 it for everything."

11 There does have to be -- what I'm trying  
12 to emphasize here is this thing says, "Information  
13 demonstrates compliance." If you're not going to send  
14 process specific information demonstrating that with  
15 scores and stuff, still there is this tremendous value  
16 to have this system of scoring that has been done by  
17 the licensee and that exist.

18 Even if the information is down at the  
19 plant where the assignment of scores is not completely  
20 arbitrary, the scores have some meaning and they are  
21 done according to criteria that were down in writing  
22 that a team was following.

23 When I see information demonstrating  
24 compliance, that is actually the key part because this  
25 other stuff, the maintenance, the training, and all

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1 this, I see that as generic stuff that if there is a  
2 commitment in the license itself that says, yes, this  
3 is in the Chapter 11 of the license and it says this  
4 is our program and we do this stuff for all our IROFS,  
5 then that is the end of the story for all that stuff.

6 The process specific part is what  
7 combinations of these IROFS for that process will get  
8 you to an accident. That's the unique thing to the  
9 ISA that has to have been done during the ISA and  
10 documented somewhere.

11 Now, originally the idea was these tables  
12 would all come in the reviewer could page through  
13 them. As we see, they get to be pretty voluminous so  
14 if you don't want to send them in, but the reviewer is  
15 going to be in this position, like I say, and he's not  
16 going to have anything to look at there but the method  
17 itself.

18 Now, it would be useful if, like I said,  
19 you send some examples of the application of the  
20 method so he gets a feel for what you really are  
21 talking about and then he can select from processes  
22 and he can go down there and look at some more.

23 MR. PIERSON: Well, what examples or how  
24 much of an extent do we expect? Do we want an example  
25 of each type of process based on safety, based on

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1 outcome, based on chemical constituency, criticality?  
2 Do we want just two in general or what?

3 MR. DAMON: I mean, I could make up a  
4 list. There is actually a description in the Standard  
5 Review Plan, the section that talks about the  
6 procedure of doing the review where the reviewers are  
7 told to make a selection of processes.

8 MR. PIERSON: Why don't we take for action  
9 and for this one then we would come up with some sort  
10 of a process description that would describe what we  
11 expect to be submitted with that, the extent of it,  
12 two, three, four presumably as a sample set because we  
13 are not looking for all of it.

14 What do we think is a reasonable sample so  
15 that we could draw a judgment. We would still have to  
16 go down and maybe do a vertical on one of them but  
17 we're not asking you to come through and provide each  
18 of these processes. Would that be reasonable?

19 MR. DAMON: I mean, I could take a shot at  
20 describing something. We could reiterate back and  
21 forth.

22 MR. PIERSON: You don't need to do it now  
23 because we might even do it in Part 4 and we need to  
24 move on. Let's take that and see if we can come up  
25 with some sort of an action on that.

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1 MR. SCHITHEL: As you look at that, I'll  
2 offer up to you we have a storage facility license  
3 amendment that you guys are currently beginning to  
4 review. That is pretty much our vision of what an ISA  
5 Summary is so to the extent that you want to  
6 understand what BWXT has been talking about, that's  
7 it.

8 MR. DAMON: What I meant by a set of  
9 examples is like that particular one. That would be  
10 a good example of a storage --

11 MR. PIERSON: We need to move on. I think  
12 we understand. We'll take yours and look at it and  
13 make up a list to come up with some sort of guidelines  
14 and we'll include it either later this afternoon while  
15 we're doing this in the revised version of this.

16 MR. FARAZ: Move on to item 5.

17 MR. FARRELL: I'm sorry. I think there is  
18 a very important item related to No. 4 which we  
19 haven't really addressed and that is the second  
20 principal concern I outlined in our letter and that's  
21 dealing with the emphasis on numerical analysis in  
22 coming up with your demonstration of compliance. I  
23 know we've gone over this many, many times before. I  
24 know at the last meeting Bob mentioned that you might  
25 come up with these generic --

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1 MR. PIERSON: Not me but we. All of us  
2 came up with it collectively.

3 MR. FARRELL: Well, I don't see it in the  
4 Chapter 3 that you distributed.

5 MR. PIERSON: Remember what I said. I  
6 said we are going to have meetings and collectively  
7 come up with that.

8 MR. FARRELL: If this is guidance to the  
9 staff, there should be at least some indication.  
10 Maybe this is a work in progress. Needless to say,  
11 the idea that you can do your ISA analysis whatever  
12 manner you want to do it, but we are going to use  
13 these generic reliability or failure data to make our  
14 independent analysis.

15 That continues to be a concern in that  
16 approach to be able to demonstrate compliance with  
17 70.61. I don't know if this is something you are  
18 still interested in pursuing.

19 MR. PIERSON: Oh, we definitely are. Our  
20 objective has always been to try to replan Chapter 3.  
21 Then in terms of defining, what this really goes back  
22 to is defining what is likely, highly unlikely in  
23 terms of the outcome.

24 What we had proposed at the time was to  
25 sit down with industry in a meeting similar to this

1 and essentially divine some sort of a process so we  
2 could establish something as a guideline that we could  
3 use for failure probability or the likelihood of  
4 operation of different components. That is what we  
5 use for that rosetta stone.

6 I don't necessarily think that process  
7 needs to be codified in the standard review plan. We  
8 could put it in there if you would like or add it as  
9 an attachment later on. I don't have any objection to  
10 that.

11 What I'm really trying to avoid with that  
12 is you assign something that is highly unlikely and  
13 we're looking at it as likely. I want to work that  
14 out so if we can agree that a certain failure  
15 probability of valve is X let's do it up front. If we  
16 can't, then we won't but at least we should try.

17 There is no way we can do that in time to  
18 meet this. What it will fold on is in terms of the  
19 application of likely or highly unlikely. If we could  
20 come to a conclusion how this process works, and you  
21 gentlemen are concerned about stepping into a void  
22 where you don't know what all the parameters are, then  
23 we can do it at that point.

24 We could set up and start that process.  
25 I think we need to do it collectively. It's not

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1 something the staff is going to write down and submit  
2 to you guys for review. You guys are going to do it  
3 together with us.

4 We are going to sit in one room in public  
5 and write these things down in databases because we  
6 all have to understand the limitations on that. It's  
7 not like we have access to some secret information in  
8 terms of what the reliability of these things are just  
9 doesn't exist. We are just going to have to  
10 extrapolate the best information we can using the best  
11 judgment we can.

12 MR. KOKAJKO: I believe, as Bob said,  
13 continue on with the SRP Chapter 3 now and use what  
14 the SFPO model is which is develop interim staff  
15 guidance and that will augment the use of the SRP. It  
16 will also give you time to interact with the staff to  
17 come up with the data that is meaningful for you as we  
18 go through really the application of the SRP.

19 MR. FARAZ: Any other comments on item 4?  
20 Moving on to 5, "A description of the team,  
21 qualifications, and the methods used to perform the  
22 integrated safety analysis;"

23 MR. KILLAR: Once again, I don't see that  
24 we've had an issue with that.

25 MR. FARAZ: I agree. It's fairly

1 straightforward. Let's move on to 6, "A list briefly  
2 describing each item relied on for safety which is  
3 identified pursuant to 70.61(e) in sufficient detail  
4 to understand their functions in relation to the  
5 performance requirements of 70.61;"

6 MR. KILLAR: We've had several discussions  
7 about this and I thought we had a fairly reasonable  
8 understanding of this.

9 What our expectations were is that it  
10 would come out probably in a table format where you  
11 identify each item relied on for safety and you do it  
12 probably by process and management measures that are  
13 applied to that item relied on for safety.

14 At least that was my vision. I don't know  
15 what Steve thinks, if that is different than what we  
16 envisioned.

17 MR. PIERSON: Sounds good to me. Any  
18 comments about that? I think that's what we  
19 envisioned, too. We have the same music sheet.

20 MR. FARAZ: Just to reiterate what I had  
21 said before, the link between the IROFS and the  
22 accident sequence is very important for the reviewer.  
23 If that can be made, it will be sufficient.

24 MR. SCHITHEL: I guess the only thing I  
25 would ask is that I think we all have to make an

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1 acknowledgement that sometimes you have to see  
2 something in order to understand that link.

3 MR. FARAZ: Okay. Sure.

4 MR. SCHITHEL: You can't always read it to  
5 understand it. It's difficult.

6 MR. KILLAR: Along those same lines, I  
7 think when you look at item 6, you have to look at  
8 item 6 in relation to item 4 because --

9 MR. SCHITHEL: They are intertwined.

10 MR. KILLAR: -- they are intertwined.

11 MR. SCHITHEL: Right. Absolutely.

12 MR. FARAZ: Anything else on 6? Moving on  
13 to 7, "A description of the proposed quantitative  
14 standards used to assess the consequences to an  
15 individual from acute chemical exposure to licensed  
16 material or chemicals produced from licensed materials  
17 which are on-site, or expected to be on-site as  
18 described in 70.61(b)(4) and (c)(4);"

19 MR. KILLAR: I'll have to putt on this  
20 one.

21 MR. SCHITHEL: I'll say something but it  
22 won't be much. We're struggling with this right now.  
23 The rule language is pretty clear. It says if you  
24 permanently hurt someone with a chemical, that's bad.

25 As I give the processes to my chemical

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1 engineers and my safety people and I say, "Evaluate  
2 this process." Then I tell them, "Well, you have to  
3 have an AEGL or ERPG standards." They say, "Why do I  
4 need that? I understand these words. Why do I need  
5 that number to help me understand these words?"

6 We are wrestling with that a little bit  
7 right now. My safety guys clearly understand the  
8 words that say if you've caused a permanent injury to  
9 a person or if you caused a death because of a  
10 chemical but they're not sure they understand how to  
11 tie some other standard to those words.

12 MR. DAMON: Well, I think that they want -  
13 - what this is for is where you actually -- the only  
14 place I think we are just really -- these kind of  
15 standards are used is if you have enough of some toxic  
16 chemical or radiologic -- yeah, toxic chemical where  
17 you think you are going to exceed  
18 the dose -- you will actually cause those effects to  
19 an off-site person so you would actually have to do a  
20 calculation.

21 MR. PIERSON: Off-site and on-site.

22 MR. DAMON: Then the calculation to see if  
23 the dose level is going to get to that level then in  
24 order to figure out that you need to tell us what that  
25 exposure level is that you are going to use as the

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1 criterion for saying the person off-site isn't going  
2 to have the effects that are referred to.

3 MR. SCHITHEL: It's the on-site ones that  
4 is the tough one because that applies on-site as well.  
5 If I have a big nitric acid spill, geez, I don't have  
6 to model that thing to know that if that guy stays  
7 there, he's going to be hurt bad. I don't need an  
8 AEGL to tell me that. So we're struggling with the  
9 on-site one.

10 MR. FARAZ: What you are saying, Steve, is  
11 that there may not be a correlation between the AEGL  
12 and the health effects.

13 MR. SCHITHEL: Yeah, I don't think the  
14 AEGL helps you understand the potential health effect  
15 in those on-site scenarios. We are not prepared to  
16 argue about that. We are just struggling with it  
17 right now.

18 MS. ROCHE: We like to use it as some  
19 criteria, some standard that would help you if you are  
20 making your calculations or whatever.

21 MR. SCHITHEL: See, that doesn't --

22 MS. ROCHE: I'm sure if you see the body  
23 all crisp, you'll know.

24 MR. DAMON: I've heard it said, and I  
25 think Global said it. They had a powder process they

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1 showed us and they were talking about all the  
2 different ways powder could spill out of this thing.  
3 I said, "Well, why are you doing this? Tell me if any  
4 of these will actually give the operators an  
5 inhalation radiological dose exceeding these limits."  
6 They said, "No."

7 Well, tell me why. What this is  
8 addressing is why does he know that's true. If he  
9 explains to me how he can determine that that's true,  
10 that's all I need to know. I don't care if he gives  
11 me the number but if he has some way of showing why.

12 MR. SCHITHEL: But that's not an AEGL  
13 number. That's his calculation.

14 MR. DAMON: Yeah, that was radiological  
15 but, I mean, the chemical -- if the answer is that he  
16 doesn't, it's easier to do it the way you said it. If  
17 there's a big spill, I don't care what the number is.  
18 He's going to get it.

19 If the argument is, no, he's not going to  
20 get it, then, okay, explain how that rule sort of  
21 guides you to creating those quantitative expressions  
22 or values when you might not need to in order to just  
23 comply with the rules.

24 MR. SCHITHEL: It's not worth debating and  
25 taking a lot of time here.

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1 MR. KILLAR: To me the issue is you say  
2 proposed qualitative standards so basically we're  
3 supposed to come up with the proposed standard and  
4 that is where we come up with and kind of fall short  
5 on what is a proposed standard, AEGLs or what have  
6 you.

7 Or you go back to 70.61 and you talk about  
8 acute chemical exposure to an individual can lead to  
9 irreversible long-lasting health effects, do you go  
10 back and look at the chemicals you have in your  
11 facility and determine what the criteria is for each  
12 to meet one of these type things?

13 It's kind of a hard thing to get your hand  
14 around to come up with a reasonable number. The  
15 extremes are easy. It's the gray area in the middle  
16 that is where the problem is.

17 MR. DAMON: I mean, this is just a  
18 suggestion. I mean, one thing for the on-site that I  
19 can imagine is there are different kinds of release  
20 scenarios, different scenarios like an explosion would  
21 be a different scenarios like an explosion would be a  
22 different scenario from just a leak where the material  
23 just flows onto the floor.

24 For each of those you say how big a one  
25 would we assume would give the local operator an

1 exposure exceeding the thing so it would be quantity  
2 or size of material released instead of an air  
3 concentration or something like that.

4 Pick a number, you know, and say below  
5 this we are pretty sure he's not going to get exposed.  
6 The virtue of this is to have a cutoff so you can say,  
7 look, this spill doesn't count. This one doesn't  
8 count. This one doesn't count. Otherwise, any kind  
9 of spill or timing release there is an issue. It's a  
10 suggestion. Just the released amount

11 MR. SCHITHEL: We'll work through it. We  
12 all will.

13 MR. PIERSON: Is there anything else we  
14 need to discuss here? Let's go on to 8.

15 MR. FARAZ: Item No. 8, "A descriptive  
16 list that identifies all items relied on for safety  
17 that are the sole item preventing or mitigating an  
18 accident sequence that exceeds the performance  
19 requirements of 70.61;"

20 MR. KILLAR: We don't have an issue with  
21 that. We feel actually this is a subset of the list  
22 that we are providing you up in Item 6, I think it is.  
23 All we're doing is saying out of all the items we have  
24 on the list, these two or three or maybe none are sole  
25 items relied on for safety. In most cases I don't

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1 know if we have very many if any.

2 MR. SCHITHEL: If we do, we'll make them  
3 go away.

4 MR. DAMON: Let me describe one that I  
5 think is there where I don't really think you need to  
6 put it on your list, and that is the fact that you  
7 have a training program. At a high-risk facility  
8 you've got a training program that is such that anyone  
9 could be involved in or be in a position to handle or  
10 move special material.

11 They know that is only supposed to be done  
12 by trained qualified people following written  
13 procedures. If you didn't have that, you could have  
14 accidents where somebody goes out, collects up enough  
15 high-risk material and makes a nuclear criticality.

16 That sole thing, the fact that you have a  
17 training program that people aren't will nilly  
18 supposed to run around handling this stuff. This is  
19 the kind of event that has happened.

20 I've got at least two anecdotes where  
21 untrained people, people who did not know they weren't  
22 supposed to just handle special nuclear material went  
23 out and piled this stuff up and it was a sheer miracle  
24 they didn't have a criticality. That's a sole item.

25 MR. PIERSON: But this wasn't one of our

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1 licensees?

2 MR. DAMON: No, this was not one of ours.  
3 The two anecdotes I have are DOE licenses.

4 MR. SCHITHEL: A lot of things broke down.  
5 That's not a sole item. Awful lot of things broke  
6 down for that to happen. That's not even close to a  
7 sole item.

8 MR. DAMON: What I mean by a sole item is  
9 -- see, that's why I think of the double petition  
10 process changes is because the fact that you violated  
11 a lot of different procedures, there's only one  
12 process change. That's when they actually move the  
13 physical material.

14 MR. PIERSON: If the accountability in  
15 high-risk facilities is sufficient, then that is  
16 hopefully not likely to happen.

17 Are we ready to go on to 9 then?

18 MR. FARAZ: The last item, No. 9, "A  
19 description of the definitions of unlikely, highly  
20 unlikely, and credible as used in the evaluations in  
21 the integrated safety analysis."

22 MR. KILLAR: We know what you want but  
23 we're not sure how to provide it.

24 MR. PIERSON: Well, I think that process  
25 will eventually get us there. I mean, obviously you

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1 are free to sit down and come up with some kind of  
2 process yourself because it is certainly up to you.

3 If you've done that, we'll accept that and  
4 look at it. I think what you get into is you get into  
5 a situation where we're not interested in having you  
6 go back and do reliability data on valve failures and  
7 even human actions in terms of infiltrating the  
8 procedures.

9 It's difficult to provide that sort of  
10 information unless we just all agree that if a person  
11 is trained, if the person has a procedure in hand, and  
12 if they are a qualified operator, that you can assign  
13 a certain expectation in terms of how likely it is  
14 that they are going to do something.

15 If we can all agree on that, that would go  
16 into this thing I was talking about earlier. Then the  
17 application of multiple examples of that would throw  
18 you likely or highly unlikely based on some subject  
19 table in terms of whether it is likely to happen,  
20 never likely to happen, likely to never happen in any  
21 of the plants ever.

22 Decide on the definitions and move  
23 forward. Now, what it comes down to is when you do  
24 that, it's easier to make the comparison with numbers.  
25 Once we do that we end up being criticized by people

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1 that we are moving into a quantitative approach to  
2 this process.

3 We can talk in terms of words or in  
4 numbers, either one. It makes no difference to me as  
5 long as we all get to the point that we can agree on  
6 what they all mean. Then I think we can work through  
7 this process fairly expeditiously.

8 MR. SCHITHEL: I think our biggest concern  
9 is when we begin to talk in terms of numbers I still  
10 have a concern that there is a fundamental flaw in  
11 trying to take a commissioned strategic goal that  
12 there be no criticalities, turn that strategic goal  
13 into no criticalities in the next 100 years.

14 That's not what the commission said. They  
15 said no criticalities so why is 100 better than 1,000  
16 or better than 10. They said no so you've taken a  
17 concept that the commission has put forth and turned  
18 it into a number and then tried to back into a number  
19 that quantifies highly unlikely.

20 I think there is a fundamental flaw in  
21 that logic. I think it's a very easy thing for a  
22 commission as a policy to say we don't want any  
23 criticalities in this industry. We want no  
24 criticalities. Commendable goal and strategic goal  
25 but not anywhere close to being something that you

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1 would back into a number from. That's how you seem to  
2 have arrived at it.

3 MR. PIERSON: That's not exactly how we  
4 arrived at it.

5 MR. SCHITHEL: That's what the Standard  
6 Review Plan does.

7 MR. PIERSON: The Standard Review Plan is  
8 using that as an example. What we are really trying  
9 to do is come up with some kind of commonality in  
10 terms of what constitutes high unlikely, unlikely, or  
11 credible.

12 If you push that back into the realm of  
13 healing experience and try to make some kind of a  
14 common thread there, you could define terms so you can  
15 say highly unlikely is something that's going to  
16 happen on this sort of frequency, likely it's going to  
17 happen on this sort of frequency, and credible it will  
18 happen on this sort of frequency.

19 Then you could put those together so that  
20 if you could demonstrate the certain processes or  
21 certain attributes you design would give you highly  
22 unlikely or unlikely to use in a series. If they are  
23 mutually independent, you can boot strap up to do  
24 something that is highly unlikely.

25 Like I said, it makes it easier if you

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1 assign probabilities but it's just to facilitate. If  
2 it creates an anxious situation, then we can do  
3 something else.

4 MR. SCHITHEL: We see it as a contentious  
5 facilitator if you will.

6 MR. PIERSON: It may be but it's like  
7 trying to define something in writing without an  
8 alphabet. One can work through a process and  
9 eventually communicate but --

10 MR. SCHITHEL: But we are forgetting our  
11 experience. This industry has operated in a double  
12 contingency principle for years and years and that  
13 experience has proven adequate. The application of  
14 that has proven quite adequate.

15 MR. PIERSON: I will say we are not  
16 repudiating double contingency. We are willing to  
17 acknowledge that in most cases double contingency will  
18 take you to some function that we would consider  
19 highly unlikely by most.

20 MR. SCHITHEL: Why do you say most?

21 MR. PIERSON: Because we have some  
22 examples from some licensees where they have applied  
23 controls and attribute them as being what I would call  
24 unlikely so that the aggregate is highly unlikely.  
25 When, in fact, they probably were somewhere down in

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1 the credible range.

2 MR. SCHITHEL: That's not double  
3 contingency.

4 MR. PIERSON: That's exactly right.  
5 Exactly right.

6 MR. SCHITHEL: Double contingency equals  
7 highly unlikely. There's no room for however.

8 MR. PIERSON: It may be if it's applied  
9 correctly but there are people 00

10 MR. SCHITHEL: But if it's not applied  
11 correctly it's not a double contingency.

12 MR. PIERSON: We're in circular logic here  
13 but there are members of your industry, and I don't  
14 want to name any names, that have taken situations  
15 where they have said a control was X and multiple  
16 examples of this control constituted a situation which  
17 they allowed to be exhibited as double contingency.

18 While where one looked at the control that  
19 was put in place and the application of those  
20 controls, it was something that was credible. You  
21 have two credible events and two credible events don't  
22 put you in a situation where you are highly unlikely.

23 You can argue that is not double  
24 contingency. I agree that's not double contingency  
25 but what we're looking for to make the definition from

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1 our perspective, if you want to say double contingency  
2 is highly unlikely is go through the thought process  
3 that you used to develop each of those controls.

4 If you can say here how we will apply  
5 control when it had these attributes, then you should  
6 get the point and then we could acknowledge that in  
7 your situation double contingency means highly  
8 unlikely. That's all. We can try. We'll do what we  
9 can.

10 MR. MANNING: You've got some definitions  
11 in the current SRP that talk about qualitative  
12 determinations of highly unlikely and unlikely. The  
13 way I understand the words, I can work with that.

14 MR. FARAZ: Do you think you -- Dennis was  
15 talking about this earlier, a scoring scheme that a  
16 lot of the licensees are using is extremely helpful  
17 for the reviewer and a scoring scheme like the sample  
18 in Chapter 3, something like that is extremely useful  
19 for the NRC reviewer.

20 What it does is it allows the reviewer to  
21 make a judgment on the licensee's judgment as to  
22 whether something is unlikely or highly unlikely.

23 Also it provides consistency between  
24 licensees and that's what you were talking about  
25 earlier this morning is consistency. We want to be

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1 consistent. The only way you can develop that without  
2 a scoring scheme, the only way you can get consistency  
3 is if you have one reviewer review all the ISA  
4 summaries from now on and that's just not feasible.

5 I have already stressed that something  
6 that allows the reviewer to easily judge the  
7 licensee's judgment. A lot of this is judgment. In  
8 fact, most of it is judgment. It's not very  
9 quantitative. Something like that would be really,  
10 really helpful and would make our reviews a lot  
11 easier.

12 MR. PIERSON: Are we ready to move on? Do  
13 you want to take a short break, say five minutes? Do  
14 you guys need a break?

15 MR. FARAZ: I think we can take a break.

16 (Whereupon, at 2:46 p.m. off the record  
17 until 2:55 p.m.)

18 MR. PIERSON: What is it you want to do?  
19 At least we can say we agree on what parts we agree  
20 on. Then if we can't agree on some of those, we can  
21 go back to what we discussed earlier and start an  
22 approach for how we could revise it to be something we  
23 could agree on.

24 Would you rather go through the general  
25 climates you've got or what? I think to some extent

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1 we sort of addressed those as blocking through the  
2 general description of the content of application.  
3 That was the hope anyway. As we start putting back  
4 into these specifics, then we can capture that.

5 I think one other thing I would like to  
6 point out, one of the comments that you mentioned, you  
7 said why doesn't the standard review plan essentially  
8 follow the guidance of 70.65 in the nine sections  
9 there. We are perfectly happy to do that.

10 To some extent it already does. Some of  
11 the places there may be where we have taken something  
12 and divided it in two groups. I think we've got 14  
13 sections or something instead of nine but we are  
14 perfectly happy to make that work that way.

15 MS. ROCHE: But we have really nine. It's  
16 just that we have divided some training in two parts.

17 MR. PIERSON: We can do that.

18 MR. FARAZ: I did that in the redline  
19 strikeout. We don't have a problem in following that.

20 MR. PIERSON: I would suggest we start  
21 working through this. We seem to have general  
22 consensus on No. 1, a general description. Somehow  
23 allude to that and declare victory on that or what do  
24 we need to do here?

25 MR. FARAZ: Okay. I think we could

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1 probably go to the nine elements and just discuss  
2 those. Or do you want to discuss the purpose of the  
3 reviewer as well? I think if we can just look at the  
4 acceptance criteria, then we will probably get the  
5 most bang for the buck.

6 MR. PIERSON: I don't know. I think we  
7 need to just walk through this thing. Let's go  
8 through this so we know where we are here.

9 NEI, you have proposed this purpose of  
10 review. You have essentially rewritten 3.1 in your  
11 submittal. Is that correct?

12 MR. KILLAR: Let me kind of give you a  
13 little bit of where we're coming from. The way you've  
14 got what you propose there, I think, is what we were  
15 looking at, is that there are two basic things; the  
16 ISA summaries and the ISA programmatic requirements.  
17 That was our expectations.

18 Then when you start going through Chapter  
19 3 you get into the ISA results and summary. That's  
20 where you start to lead into confusion. When you say  
21 ISA results of summary, what do you mean by these?  
22 Does this mean that the ISA results are what's in the  
23 ISA Summary or the ISA results are the ISA and the ISA  
24 Summary is a summary of those results?

25 MR. PIERSON: Let me provide a little

1 background on that. The staff's purpose in their  
2 review is to give them comfort on your integrated  
3 safety analysis. The summary is what you provide as  
4 a submittal to allow the staff to provide some review  
5 and some comfort in terms of how they could achieve  
6 that.

7 It should be a mechanism to allow them to  
8 make a decision coupled with any necessary site  
9 reviews or something to accommodate that. We are not  
10 approving the ISA Summary. We are reviewing the ISA  
11 Summary to make a judgment on the integrated safety  
12 analysis.

13 MR. FARRELL: I think the rule says  
14 something to the effect that the applicant must submit  
15 the ISA Summary for approval. By approving the ISA  
16 Summary, you are kind of indirectly addressing the  
17 adequacy of the ISAs.

18 MR. PIERSON: The purpose of our review is  
19 not to prove or disprove the ISA Summary. The purpose  
20 of the review is to make a judgment on integrated  
21 safety analysis. You submit the ISA Summary and  
22 that's what we formally review coupled with going to  
23 the site.

24 The objective of this process is for the  
25 staff to be able to conclude that the integrated

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1 safety analysis is something that is substantiated,  
2 what the purpose of this review is.

3 MR. FARRELL: Is the ISA Summary --

4 MR. PIERSON: -- that we approve. That's  
5 right.

6 MR. FARRELL: If you go back to these kind  
7 of high-level issues that we raised, to me this is the  
8 biggest area of misunderstanding is how can the person  
9 assign the job of looking at the ISA Summary  
10 indirectly obtain a feeling or understanding that the  
11 ISA was done at an adequate level of detail and  
12 sufficiently good method and so on.

13 I think we saw a disconnect in the way  
14 Chapter 3 was written in that you were hoping for a  
15 lot of the information to be included with the ISA  
16 Summary that would facilitate the reviewer making that  
17 determination of the adequacy of the ISA. I think one  
18 of the points that I was trying to make, or some of my  
19 comments is we agree whole heartedly on that. That is  
20 the strategies.

21 The ISA is the critical document but we  
22 need to put so much information in the ISA Summary to  
23 convince the reviewer but we must also make sure the  
24 reviewer understands that you've got all this  
25 information available to cite; the supporting

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1 documentation, the ISA, the crit. analysis.

2 This to me was the real problem that I see  
3 is trying to overcome in Chapter 3. What level of  
4 information is sufficient for the ISA Summary to  
5 provide at least a road map to get back at judging the  
6 adequacy of the ISA.

7 MR. KILLAR: I thought about that on the  
8 way of the metro today and I came up with a solution  
9 so this is a metro solution. It's got about that much  
10 credibility for now.

11 The way we could possibly do that is as  
12 you go through the chapter, and I want to clarify that  
13 we also have distinct requirements of the programmatic  
14 requirements which are 70.65(5) or whatever it was.  
15 I think those are separate and distinct by themselves,  
16 the qualifications of the team and the structure of  
17 the team and things like that. I think that is a  
18 separate item all by itself.

19 As far as the ISA and the ISA Summary, I  
20 think a way to address this as you go through Chapter  
21 3 is you put in what your expectations are for what  
22 will be in the ISA and then below that is what the  
23 reviewer expects to see in the ISA Summary that  
24 reflects that. That way there is a distinct  
25 difference between what's in the ISA and then what the

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1 reviewer expects to see in the ISA Summary.

2 You get that demarcation, so to speak, as  
3 to where the level of detail is as to what goes in the  
4 ISA Summary. That is just a way of trying to get  
5 around this issue of where you cut in your ISA  
6 analysis summary.

7 MR. PIERSON: Sounds reasonable to me.  
8 Any comments about that?

9 MR. FARAZ: So what you're saying is that  
10 Chapter 3 could reflect what's in the ISA separately  
11 and then reflect what should be in the ISA Summary  
12 separately.

13 MR. LEACH: Right.

14 MR. FARAZ: Essentially what you are  
15 proposing is a two-tier approach to Chapter 3 because  
16 the comments don't seem to reflect that. Your  
17 comments seem to say that this is something that  
18 should be limited to the ISA Summary.

19 MR. KILLAR: The reason is that we were  
20 looking at Chapter 3 as only talking about what is in  
21 the ISA Summary and what we understand from our  
22 discussions today as in previous discussions is that  
23 the reviewer has to make sure they are comfortable  
24 with the whole ISA and the ISA Summary is just to help  
25 to give them that confidence level.

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1                   They's got to expect these things in the  
2                   ISA as a result of what they are going to look at. I  
3                   think if you make that demarcation clear in Chapter 3,  
4                   we can go back, say, to Chapter 3 that covers ISA and  
5                   we have a distinction between what's done at the site  
6                   and what is submitted to the reviewer.

7                   MR. PIERSON: I think that is a very real  
8                   suggestion.

9                   MR. FARRELL: Let me ask you a question.  
10                  If the license applicant submits the license in a  
11                  format that follows the 11 chapters of the SRP,  
12                  Chapter 3 deals with the ISA, what would you expect to  
13                  be described in there? Maybe Steve or others could  
14                  say. What do you see going into Chapter 3 of the  
15                  license application as opposed to what is being in the  
16                  ISA Summary?

17                  MR. SCHITHEL: It's primarily the  
18                  methodology. Chapter 3 will have -- it describes the  
19                  methodology. It describes what you are protecting  
20                  against. It describes some commitments to teams and  
21                  the qualifications of the teams.

22                  It describes the acceptable accident  
23                  analysis methods, what ifs, checklist, etc. It  
24                  describes how the ISA is documented. It describes the  
25                  content of the ISA Summary. Those are commitments to

1 these other ground rules that we will operate under in  
2 executing the ISA and developing ISA Summary and  
3 submitting it.

4 MR. KILLAR: See, that's what I would call  
5 the programmatic issues, the programmatic part of the  
6 ISA.

7 MR. DAMON: Another way of saying it, I  
8 think, is the part of the ISA program you don't expect  
9 to change. I mean, it's going to be the same ten  
10 years. You know, it may change. Once in five years  
11 you might change it but it doesn't have detail in it  
12 about things that you may from time to time adjust.

13 I don't know if this is true but some  
14 people may have methodologies where the architecture,  
15 the methodology is going to stay the same but they may  
16 change their criteria around and move things around.  
17 If you are going to do that, put that part of the  
18 methodology in the ISA Summary because you only have  
19 to update that annually.

20 MR. PIERSON: Steve, we agree with your  
21 suggestion of taking the ISA and as you're talking  
22 about the purpose of the review and then you have a  
23 sub-tier down there, maybe a last paragraph or  
24 something and say, "The ISA Summary would contain..."  
25 That would be provided as part of the submittal. I

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1 don't have any problem with that.

2 MR. KOKAJKO: Let me take that one step  
3 further. The standard review plan is guidance to the  
4 reviewers. Correct? So if we are reviewing the ISA  
5 Summary, perhaps we should only address just the  
6 summary itself and focus on the content of what we  
7 would expect of the ISA Summary.

8 MR. PIERSON: The problem with that is at  
9 some point we need to do this vertical slice so if we  
10 describe what our expectations are for ISA, and we  
11 have included what the ISA Summary is and we send  
12 somebody to the site, then we don't have somebody  
13 going to the site and not understanding what the  
14 entire scope of the Integrated Safety Analysis should  
15 be.

16 MR. KOKAJKO: Would a better vehicle be  
17 inspection guidance?

18 MR. PIERSON: I don't think it's part of  
19 the inspection guidance because it's part of the  
20 license review.

21 MR. KOKAJKO: It would be confirmatory.

22 MR. PIERSON: No, it's not confirmatory.  
23 It's part of the license review. That's part of what  
24 we established at the ground rules.

25 MR. KOKAJKO: I wonder if -- SRP typically

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1 if it is guidance to the staff, I think the two-tier  
2 approach, I wonder if this is the vehicle for that  
3 latter portion.

4 MR. PIERSON: In some cases it would be  
5 overlapping but what it distinguishes it tells the  
6 reviewer what the Integrated Safety Analysis is and it  
7 will tell you what Integrated Safety Analysis Summary  
8 is.

9 MS. ROCHE: If we are in any way relating  
10 it to the parts that we are addressing.

11 MR. KOKAJKO: And I have a question for  
12 Steve. When you mentioned the methods of Ansiteen  
13 Falls documentation, such content as that. Would this  
14 also be the place where you would tie those discrete  
15 facility elements to ensure for somebody's safety such  
16 as training quality, surveillance, maintenance  
17 program, things that Dennis alluded to earlier?

18 MR. SCHITHEL: Chapter 11 would do that  
19 and the SRP chapter on Chapter 11 I think will allow  
20 for us to do that.

21 MR. KOKAJKO: Even if it's information  
22 that would be useful to determine that you meet the  
23 performance goals under item 4?

24 MR. SCHITHEL: Yes. I think that's why  
25 Chapter 11 is written, because it describes all those

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1 management measures and the expectation that those  
2 could be applied to the items relied on for safety.  
3 There is linkage here. You are correct. There is  
4 linkage.

5 MR. FARAZ: So do we expect any item to  
6 provide us another redline strikeout version to  
7 incorporate this comment?

8 MR. PIERSON: Let's hold that until the  
9 end I suggest.

10 MR. KILLAR: As I said, it was a metro  
11 idea so it has to grow a little bit.

12 MR. PIERSON: I think what we should do is  
13 walk through the portions of this that we can do and  
14 then work through it.

15 MR. FARAZ: I think the way the Chapter 3  
16 is written, it is intermixed. What NEI has done is  
17 wherever Chapter 3 talked about the ISA or alluded to  
18 the ISA, I formed that out in saying that should only  
19 cover the ISA Summary.

20 I haven't gone through all the NEI  
21 comments in detail but there are certain places where  
22 I would agree. There are certain places where I would  
23 disagree. I guess we can go through the comments  
24 individually and see how far we can --

25 MS. ROCHE: Through the ISA you mean.

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1 Through the chapter.

2 MR. FARAZ: Through Chapter 3.

3 MR. MANNING: Before we go on, I feel  
4 quite strongly that this is the right approach that we  
5 should be focusing on, the ISA Summary here and  
6 further guidance for doing a vertical slice perhaps is  
7 something that should be added to towards the tail end  
8 of this SRP.

9 The item, the paper, the materials that  
10 that reviewer is going to have, first off, is the  
11 summary and he's going to be making an initial cut on  
12 whether we provided what he needs to do his homework  
13 so he can go out and do a vertical slice. I think it  
14 needs to definitely cover the ISA Summary.

15 MR. PIERSON: We agree that it needs to  
16 cover the ISA Summary. The question is whether it  
17 should also cover the ISA.

18 MS. ROCHE: I think dividing it as you  
19 wish might be more confusing. We could try to the  
20 two-tier whenever possible. Sometimes it may not be  
21 possible because we are going to fall into that the  
22 comment is repetitive and redundant. We have to be  
23 careful with that one. Why don't we do through the  
24 ISA chapter and see if we can work it out.

25 MR. DAMON: What I think is going to

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1 happen here is this is going to be very difficult for  
2 us if we start marching through this to keep straight  
3 what it is you're doing because there are two -- how  
4 do I put it? If you talk about it and you say, "I'm  
5 reviewing the ISA Summary to see if this is a good ISA  
6 Summary," I regard that as not a very important thing  
7 in one sense.

8           Yeah, admittedly if it's a bad ISA  
9 Summary, then the reviewer is in trouble. He hasn't  
10 gotten the information that he would like to do.  
11 Ultimately he's not really interested. That is not as  
12 important as whether the ISA was done accordingly.

13           MR. PIERSON: Let's walk through this.

14           MR. FARAZ: The title of Chapter 3,  
15 Integrated Safety Analysis, you suggested that we say  
16 Integrated Safety Analysis and ISA Summary. I think  
17 that goes along with what we were discussing so it  
18 should be fine.

19           Then under 3.1, Purpose of the Review, you  
20 provide a comment No. 2 and you provided some  
21 additional language. Could you elaborate on that  
22 comment?

23           MR. FARRELL: These are more motherhood  
24 type statements explaining what is the relation  
25 between the ISA and the ISA Summary and the fact that

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1 it is the latter document that the reviewer has to  
2 sign off on saying this is acceptable.

3 It also tries to address the issue that  
4 the ISA Summary does not and was never intended to  
5 provide enough information to enable the reviewer to  
6 establish the safety basis or to judge the  
7 acceptability of the ISA.

8 That is where I thought it might be better  
9 to put a paragraph at the beginning saying look folks,  
10 you are going to have to make at least one site visit  
11 to the facility to go over the background information.

12 There is nothing radically new. I thought  
13 it might be just a little better to say what is the  
14 road map and what are you going to be doing. That's  
15 all I tried to suggest here.

16 MS. ROCHE: Yes, but if you look at page  
17 32 at the bottom, Area of Review, I think it  
18 describes.

19 MR. FARRELL: It actually mentions on I  
20 think four different occasions that the reviewer might  
21 have to go to the site to expect some of the  
22 background data which is fine.

23 I'm not objecting. I just was trying to  
24 consolidate that all in one. When you are laying out  
25 the road map this is the information you've got. This

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1 is what you're going to have to do probably to provide  
2 the validation and so on.

3 MR. PIERSON: There are a couple of things  
4 that you have provided there that are a little bit  
5 difficult to walk through here. If you walk down to  
6 I think your second paragraph after your comment, you  
7 say, "The NRC neither receives or approves the  
8 applicant's or licensee's ISA."

9 As I tried to explain earlier, we are not  
10 in a mode to review the ISA but if we disapprove of  
11 the ISA, then we would not approve of the application.  
12 Do you understand the distinction there?

13 MR. FARRELL: This is kind of taking the  
14 words out of the regulation. This is legally correct  
15 and technically correct but I understand what you're  
16 saying, yes.

17 MR. PIERSON: You're not implying  
18 something?

19 MR. FARRELL: No. Just a statement of  
20 fact.

21 MR. FARAZ: There's just an additional  
22 sentence in the paragraph. This would be the third  
23 sentence. "After maintaining that facility," we would  
24 say, "The NRC determines the acceptability of the  
25 applicant's ISA. The NRC does this by reviewing and

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1 approving the ISA Summary."

2 MR. FARRELL: I'm sorry. I lost you but  
3 what you said sounds good.

4 MR. FARAZ: I'll repeat it. I'll repeat  
5 it. "The NRC determines the acceptability of the  
6 applicant's ISA. The NRC does this by reviewing and  
7 approving the applicant's ISA Summary."

8 MR. FARRELL: Sounds fine.

9 MS. ROCHE: Where are we?

10 MR. FARAZ: I'm in the second paragraph,  
11 your second paragraph looking at your comments.

12 MS. ROCHE: The one that repeats the  
13 regulations?

14 MR. FARAZ: Right. It starts by saying,  
15 "The NRC neither receives nor approves." This is the  
16 redline strikeout version that you received from NEI.

17 MR. PIERSON: Other than that, are we  
18 willing to accept essentially what they provide here?

19 MR. FARAZ: I think by in large it looks  
20 fine.

21 MR. PIERSON: I'm happy with it if  
22 everybody else is happy.

23 MR. FARAZ: I'll tell you what. We'll  
24 provide you at a later date with our responses to your  
25 comments, written responses.

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1 MR. PIERSON: That would be helpful.

2 MR. FARAZ: What we say here shouldn't  
3 necessarily be cast in stone and then this is how it's  
4 going to be.

5 MR. PIERSON: We hope to make progress,  
6 too. We are not going to noodle 3.1. Unless we have  
7 a significant problem we want to move on to 3.2.

8 MS. ROCHE: It's the same. 3.3?

9 MR. FARAZ: On to 3.3. We have these  
10 minor comments here. We thought about including the  
11 ISA safety program including the ISA commitments. I  
12 don't have a really strong commitment on that.

13 MR. FARRELL: It's not a major point but  
14 if you read the rule, the safety program includes  
15 three components, one of which is the ISA. I'm just  
16 trying to be consistent with the rule.

17 MS. ROCHE: That's okay. Under the ISA  
18 commitments he put in "including the ISA commitment."  
19 That's fine.

20 MR. FARRELL: I don't want to belabor it.  
21 I don't mean to nit pick all this stuff.

22 MR. FARAZ: Okay. I'm in 3.3.2. We had  
23 ISA Results that you want to change to ISA Summary.  
24 That goes back to is it the summary that we are  
25 reviewing and approving?

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1 MR. PIERSON: It is the ISA Summary that  
2 we are reviewing and approving to make a judgment on  
3 the ISA.

4 MR. FARAZ: Right, but this portion of the  
5 chapter, does it apply to the ISA Summary or does it  
6 apply to the ISA in general?

7 MR. FARRELL: This is the ISA Summary.

8 MR. PIERSON: This is the ISA Summary  
9 because these are the things that you have to submit,  
10 1, 2, 3, 4, 5, 6, 7, 8, 9.

11 MS. ROCHE: Wait a minute. What we had  
12 before here, "The staff reviews ISA results (primarily  
13 the ISA Summary, but may include other ISA  
14 documentation.)" Change it to what?

15 MR. PIERSON: What they're saying is they  
16 think it should say, and I tend to agree, that we're  
17 talking about what is submitted to the ISA Summary.  
18 This says ISA results. They are bringing that down  
19 more narrowly to the ISA Summary for what is actually  
20 being submitted to us for review.

21 MS. ROCHE: I agree because this is,  
22 again, one of those redundant things. Too many words  
23 perhaps.

24 MR. FARAZ: What I would offer is that in  
25 addition to the ISA Summary if necessary the NRC staff

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1 may want to review some other ISA documentation. I  
2 think if we can throw that in there, I think that  
3 would probably --

4 MS. ROCHE: Yes. Say, "The ISA Summary  
5 which may also include other ISA documentation."

6 MR. FARAZ: "And, if necessary, other ISA  
7 documentation." Okay.

8 MS. ROCHE: Is that okay?

9 MR. FARAZ: Okay.

10 MS. ROCHE: That's fine then.

11 MR. PIERSON: The rest, moving through, is  
12 essentially the compilation of 70.65.

13 MR. FARAZ: Yes, 70.65. We agree with  
14 your renumbering.

15 MR. PIERSON: We're trying to make the use  
16 of each and all and every consistent. We will try to  
17 do that.

18 MR. LEACH: Under 1 do we want to capture  
19 our thought in the site description and then that  
20 stuff that's not captured in Chapter 1?

21 MR. PIERSON: I think we do that later on.

22 MS. ROCHE: Yes, we do.

23 MR. LEACH: We talked about those things.

24 MS. ROCHE: Compliance.

25 MR. FARAZ: Team qualifications. I would

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1 say a few words on the methods. What I would propose  
2 is that you struck out a portion of the write-up under  
3 ISA methods. I would add that to team qualifications  
4 and ISA methods. I'm looking at NEI's comments.

5 It's No. 5, struck out comment 16. If you  
6 start from the second sentence, "If methods are  
7 adequately described in the license application, there  
8 will be no need to duplicate..." I think that is good  
9 information for the NRC reviewer. I would propose  
10 that we keep that.

11 MS. ROCHE: Is that okay with you?

12 MR. PIERSON: That's fine.

13 MR. FARAZ: Under 7 that you've struck out  
14 and made it 9, that's fine. You struck out  
15 "likelihood" from "definitions" and you changed that  
16 to "definition of terms." I would go back to the rule  
17 and just say "definitions of unlikely, highly  
18 unlikely, and credible," because those are the terms  
19 used in the rule.

20 Then the same thing, the same philosophy  
21 for item 8 that you've struck out and made item 4 is  
22 fine. Rather than saying "Compliance with 10 CFR  
23 70.61," use the rule language that says "Demonstration  
24 of compliance with 10 CFR 70.61."

25 MS. ROCHE: Okay. I see what you're

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1 saying.

2 MR. FARAZ: I think there is value in  
3 trying to use the words that are in the rule in the  
4 ISA Summary as much as possible and we agree with you.

5 MR. SCHITHEL: Would it help in this  
6 section to try to capture the thought process Bob went  
7 through in relation to this demonstration of  
8 compliance with 70.61?

9 It really results from an understanding of  
10 the license commitments and the management measures  
11 and the whole spectrum of information and that there  
12 is not an expectation that the reviewer is going to be  
13 able to go some place in the ISA Summary and  
14 specifically find this little block of information  
15 that demonstrates to the clients 70.64. I thought  
16 that was a real good thought process you described.

17 MR. PIERSON: We could get out the  
18 transcripts and find the paragraph.

19 MR. SCHITHEL: I think that would help the  
20 reviewer.

21 MR. PIERSON: I'll disavow everything.

22 MR. FARAZ: The rest of your comments  
23 under item 4 is fine. Item 6 is fine. The new 8 is  
24 fine.

25 MR. PIERSON: Okay. 3.4.1.

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1 MR. FARAZ: 3.4.1.

2 MS. ROCHE: Felix do you like that table?

3 MR. KILLAR: I have a certain personal  
4 preference for the table, yes.

5 MR. FARAZ: I couldn't understand -- I'm  
6 on page 21 of NEI's document, 3.4.2, NUREG-1513. I  
7 decided we're about to finalize NUREG-1513 and you  
8 wanted it not to be referenced?

9 MR. FARRELL: No, that's not the case.  
10 It's just that we discussed this a lot at the February  
11 meeting as to when should 1513 be used. I remember  
12 Tom Coffs and maybe Dennis made some comments that  
13 certain aspects of 1513 were not updated to  
14 incorporate the changes made in Part 70. Certain  
15 information maybe on choosing methodologies I think  
16 was fine but use it judiciously.

17 MS. ROCHE: True. And 1513 was updated  
18 and then we got a comment from another stakeholder  
19 that said when is it going to be published so it's in  
20 the process of being published.

21 MR. FARRELL: It is? Okay.

22 MR. LEACH: That's the revised version?

23 MS. ROCHE: The revised version which is  
24 why it took us a while because it was finished but it  
25 was not in alignment with the latest. Dennis put

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1 something else and Yawar worked on it and now it is  
2 ready.

3 MR. LEACH: That sounds find. I was just  
4 uncertain as to what the status was and if we could  
5 continue referencing it or not. Okay. That's fine.  
6 Good.

7 MR. FARAZ: 3.4.3.1. I'm not sure I  
8 understood.

9 MS. ROCHE: That's what we did. What do  
10 you mean?

11 MR. FARRELL: Well, yeah. This is talking  
12 about -- I think the thought here was, again related  
13 to the ISA. "Part 70 contains a number of specific  
14 safety program requirements related to the ISA.  
15 Acceptance criteria for these requirements are  
16 addressed by contents of the ISA summary." I think  
17 generally here I was just trying to focus on the ISA  
18 summary.

19 MS. ROCHE: Rather than the ISA?

20 MR. FARRELL: Rather than the ISA, yes.  
21 For example, the next sentence. "These include the  
22 primary requirements that an ISA be conducted." I  
23 guess you could leave that in. It has some historical  
24 interest but it's not something you would expect a  
25 licensee to be committing to because he's already done

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1 the thing.

2 MR. DAMON: I think you misunderstand.  
3 This whole section that starts with -- let me see  
4 here. Where is it? Yeah, the whole thing of 3.4.3.1  
5 is the amendment to the license that has to do with  
6 ISA so the idea about commitments is it's a commitment  
7 to continue doing ISA.

8 It says we will from now on whenever we  
9 have an amendment, whenever we create a new process we  
10 will do an ISA on it. That kind of thing. Whenever  
11 we make a change that requires a change to the ISA, we  
12 will update the ISA on that process. It's not kind of  
13 stuff.

14 MR. FARRELL: I did not understand.

15 MR. DAMON: It's having an ISA chapter in  
16 your license to talk about how you do ISA at your  
17 facility.

18 MR. FARRELL: This comes in under the  
19 change mechanism in making changes to the facility or  
20 whatever. Then you've got to run it through your ISA  
21 process.

22 MR. DAMON: Yes. In fact, that is really  
23 the most useful thing in an ISA type chapter. I mean,  
24 naturally it's going to tell you which method to use.  
25 It's going to have methods. We all talked about that.

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1           Actually the part that is different from  
2 methods is the part that is really programmatic. It  
3 says the ISA program or the ISA manager or whatever  
4 and ISA will be done and that kind of thing.

5           MR. FARRELL: I misunderstood. You are  
6 quite right.

7           MR. FARAZ: I think the changes you  
8 propose in 3.4.3.1 appear reasonable.

9           Process Safety Information, No. 2.  
10 Comment 34 on page 22 of the NEI document. You have  
11 deleted a large section from the ISA summary. What I  
12 would propose is that --

13           MR. FARRELL: Well, actually it hasn't  
14 been deleted. If you read it those are all  
15 commitments and all I did is take all those  
16 commitments and stick them back into 3.4.3.1 which is  
17 the safety program commitment. They are all there.

18           MR. FARAZ: I didn't see starting from the  
19 second sentence, "The ISA must account for any changes  
20 made to the facility..." down to the fifth sentence.  
21 It says, "The applicant commits to using an ISA  
22 Team..." It goes on to say, "...to those used in  
23 conducting the original ISA."

24           That portion I didn't see transferred but,  
25 if it is, that's fine. If not, then we'll just add

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1 that as well.

2 MR. FARRELL: Also, again this historical  
3 interest, some of that referred to the ISA  
4 specifically and my focus here was looking at the ISA  
5 summary so if it wasn't relevant --

6 MR. FARAZ: Okay. The same comments  
7 applies to comment No. 35 in that a portion of that  
8 was not included. That's the third sentence down to  
9 the end starting from, "If a proposed change results  
10 in a new type of accident sequence..." I didn't see  
11 that.

12 MR. FARRELL: It should be in No. C on the  
13 previous page. "The applicant commits to evaluate  
14 proposed changes to the facility or its operations by  
15 means of the ISA methodologies." That where I was  
16 trying to put it in there.

17 MR. FARAZ: Okay.

18 MR. FARRELL: If it's not quite, just  
19 change it.

20 MR. FARAZ: Under comment 36, I agree that  
21 the last sentence says, "Sufficient features,  
22 criteria, equations, and data must be provided..." It  
23 goes on to say, "...such that the processes show that  
24 the performance requirements of 70.61 can be met."

25 The word sufficient is gone away and you

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1 took out that whole sentence. Is there something that  
2 you would propose to replace that?

3 MR. FARRELL: No, it's useful. I guess it  
4 went somewhere. I'm sorry but I just don't remember  
5 right now.

6 MR. FARAZ: Okay. We can read and propose  
7 something.

8 MR. SCHITHEL: I guess the issue is  
9 providing it to the staff. When we provide it to the  
10 staff, we agree that it must be included in the ISA  
11 Summary.

12 MR. FARRELL: Provided to the staff at the  
13 site. We'll make it available as opposed to providing  
14 it which may mean sending it into headquarters.

15 MR. TUPPER: Why don't we just change that  
16 to, "Sufficient features, criteria, equations, and  
17 data must be available at the site."

18 MR. FARRELL: That would do very well.  
19 That was the objection, I'm sure.

20 MR. FARAZ: I'm on page 23, right at the  
21 top, comment 37. You have deleted that one sentence  
22 that says, "The applicant commits to implement all  
23 IROFS..." What I would offer is to move that sentence  
24 down under management measures. I think that's where  
25 it applies.

1 MR. FARRELL: Management measures enable  
2 you to make that to them. They provide the support to  
3 that commitment. It is certainly a commitment.  
4 Whether it's under management measures I'm not sure.

5 MR. PIERSON: Were you thinking about  
6 moving that up to the commitment section?

7 MR. FARRELL: I think that should be in  
8 the commitment section, yes. You go through and you  
9 define and you designate the IROFS and then you have  
10 to commit to keep them in place and maintain by means  
11 of management measures.

12 I think CDO is more of a facility change  
13 process. It doesn't hurt to make it a separate  
14 heading.

15 MR. FARAZ: You eliminated 3.4.3.2 ISA  
16 Summary. Is that what you were considering this --

17 MR. FARRELL: At the time we prepared this  
18 we were looking -- this document would focus on the  
19 ISA Summary.

20 MR. FARAZ: Maybe you can go back to the  
21 ISA results and include the ISA Summary.

22 MR. FARRELL: You could do the two-tier  
23 approach.

24 MR. FARAZ: I would agree that accidents  
25 that do not have high consequences or intermediate

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1 consequences shouldn't be in the ISA Summary. But  
2 when you talk about what we would expect of the ISA  
3 Summary, maybe we can relook at these comments and see  
4 how we can address it down to the word all.

5 MR. SCHITHEL: We even contradict  
6 ourselves. Clinton throws the word each back in  
7 there.

8 MS. ROCHE: He's also redundant and  
9 repetitive. Did you hear that, Clinton?

10 MR. FARRELL: I tried not to hear it. I  
11 think here I was trying -- you added a sentence, a  
12 very good sentence, somewhere. I guess I don't have  
13 the red copy here but you mentioned specifically that  
14 the ISA summary should have information on the high  
15 and intermediate consequence events somewhere. That's  
16 excellent.

17 I guess what I was trying to say here is  
18 we need to provide information on each of those high  
19 and intermediate ones but not necessarily on the low.

20 MR. FARAZ: As far as what you determine  
21 as low consequences would be something that the NRC  
22 reviewer would go to the site.

23 MR. FARRELL: Exactly. That was one of  
24 the critical things that has to be evaluated,  
25 methodology. Where do you call something to establish

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1 the boundaries between those three.

2 MR. LEACH: Are the lows really low.

3 MR. FARRELL: Exactly.

4 MR. FARAZ: For instance, if you are using  
5 a computer code to determine what the consequences are  
6 at the fence line and you use it and you use various  
7 assumptions and input data that goes into the computer  
8 code. You determine that it is of low consequence.

9 The NRC reviewer can look at your model  
10 and make exception to some of the assumptions that you  
11 have made. He could disagree with the applicability  
12 of the computer code and say that, well, it's not  
13 really applicable in this situation. Those questions  
14 will be provided to you. I think that is how we will  
15 do the review.

16 MR. SCHITHEL: I'm still committed to  
17 general types of accident sequences even for the high  
18 and intermediate consequences versus each.

19 MR. PIERSON: Do we accept that?

20 MR. SCHITHEL: That's what the rule says.

21 MR. FARAZ: That's what we discussed  
22 earlier at length.

23 MR. SCHITHEL: That's why I said each  
24 found it's way back in here. It shouldn't have.

25 MR. FARAZ: Again, comment No. 40 is

1 saying the ISA Summary, not the ISA. You may want to  
2 keep that in for the ISA.

3 MR. PIERSON: The next comment 41, I  
4 think, we have already agreed to accept that.

5 MS. ROCHE: Comment No. 42, I think that  
6 would be very useful information for the NRC reviewer.  
7 That was the intent so we can modify that sentence  
8 there, couple sentences.

9 MR. PIERSON: Your comment here, if I  
10 could say something, where you say, "For example, if  
11 the 100-year storm occurred last year and there is one  
12 more year remaining in the plant's life, would not the  
13 likelihood of another 100-year storm be somewhat  
14 diminished?" That particular year or any given year  
15 the 100-year storm has the same problem.

16 MR. LEACH: We've had 500-year storms --  
17 sorry, we've had 200-year storms on the Mississippi in  
18 the last five years.

19 MR. PIERSON: Given the probability and  
20 assuming the basis is correct, if you've had one it  
21 doesn't mean you are going to go for another 99 years.  
22 I'm assuming.

23 MR. FARAZ: I think information that might  
24 be useful to the NRC reviewer is not just 1000-year  
25 storm but maybe 500-year because various accelerations

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1 would apply to various processes on site, or could  
2 apply to various processes on site. That will give  
3 the NRC reviewer a better feel for what the  
4 accelerations are.

5 MR. SCHITHEL: I'm not sure "for existing  
6 facilities" what you're going to do with that. We  
7 built to building codes in our chemical factories.  
8 They are what they are. I don't think anybody claims  
9 they would stand up in an earthquake of sufficient  
10 magnitude.

11 MS. ROCHE: This applicable.

12 MR. PIERSON: This goes beyond --

13 MR. SCHITHEL: I understand. It doesn't  
14 mean a lot to us for our existing facilities in a lot  
15 of respects.

16 MR. FARAZ: Under Facility, No. 2, it  
17 talks about controlling the boundaries. I would add  
18 to that also, and we didn't do this so this is  
19 something new that restricted areas also be  
20 identified.

21 MR. SCHITHEL: Are you guys looking at  
22 that piece of the rope, the restricted area, that one  
23 performance criteria at the restricted area?

24 MR. PIERSON: When you say looking at  
25 that, in terms of revising it or changing it?

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1 MR. SCHITHEL: I had heard there was some  
2 discussion going on about whether that found its way  
3 in there by mistake or intentionally.

4 MR. PIERSON: Who would have released that  
5 information?

6 MS. ROCHE: That is not true information  
7 so it stays, it stays in the rule.

8 MR. SCHITHEL: Okay. We won't dredge it  
9 up here. It's just way out of sync. There's nothing  
10 going on to do anything about that unless we petition  
11 or something.

12 MR. FARAZ: On comment No. 43, page 26,  
13 you deleted the sentence that talks about "includes  
14 arrangement drawings and process schematics showing  
15 the major components..." Can you shed some light on  
16 this, please?

17 MR. PIERSON: Yes, that is information  
18 that is very detailed in nature that I don't think is  
19 covered by a general type of information required in  
20 the ISA Summary. We are discussing general -- we are  
21 doing processes. To me that's -- we send in 1,000  
22 arrangement drawings I don't think that's going to be  
23 very helpful to reviewing the ISA Summary.

24 MR. PIERSON: Is this another case where  
25 it's ISA versus ISA Summary?

1 MR. KILLAR: I think what it's saying, it  
2 says if appropriate there. There are some things  
3 where -- for example, specifically the drawings part.

4 MR. PIERSON: We're not asking for  
5 blueprints.

6 MR. KILLAR: There were in some of the ISA  
7 process summary descriptions like a drawing of -- you  
8 know, like a real cartoon. This thing is over here  
9 and this thing is over here and that's why you don't  
10 have to worry about this thing interacting with that  
11 thing.

12 There are cases where a drawing is useful  
13 of if it's appropriate, put it in. That's a general  
14 feedback for me and many of the reviewer's people --  
15 like you say, sometimes you've got to go down to the  
16 site to see things.

17 Sometimes the only thing you have to see  
18 is the relative location of something and sometimes  
19 you don't need to go down to the site. It will be  
20 just as easy to make a little drawing and say it kind  
21 of looks like that.

22 MS. ROCHE: It simplifies review and  
23 perhaps avoid unnecessary site visits.

24 MR. LEACH: Except the "if appropriate"  
25 only applies to the chemical flow sheets. It doesn't

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1 apply to all the others. Do we need to move the "if  
2 appropriate" up front?

3 MS. ROCHE: Well, we were trying to say  
4 the process schematics if appropriate including  
5 perhaps.

6 MR. SCHITHEL: I think you are correct.

7 MR. FARRELL: In fact, in one of my  
8 comments in general there is more information in the  
9 process descriptions than there needs to be. But then  
10 occasionally there is kind of a key piece of  
11 information missing.

12 MR. PIERSON: Would the same thing be true  
13 in C so instead of saying "includes schematics," "If  
14 appropriate schematics include safety and..."

15 MR. FARAZ: Steve, do you have any  
16 comment?

17 MR. SCHITHEL: It just depends on whether  
18 the glass is half full or half empty. We are going  
19 probably end up debating some of these issues during  
20 actual application.

21 MR. FARAZ: The next comment, No. 45,  
22 "Process operating ranges and limits." You're saying  
23 that need not be in the ISA Summary. That is  
24 something that should be in the ISA.

25 MR. MCDONALD: That was my suggestion,

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1 yes.

2 MR. FARAZ: We have to think about that.  
3 It says we're doing this two-tier approach. You might  
4 want to clarify that this information could be in the  
5 ISA if we agree.

6 MR. SCHITHEL: One of the things we keep  
7 doing here is talking about the ISA as if it were a  
8 product. The ISA is a compilation of many processes.  
9 I don't want anybody to be confused and think they can  
10 come to the site and we'll pull out a book that says  
11 ISA.

12 The ISA has many foundations. It has  
13 safety evaluations. It has drawings. It has all  
14 these things are in different places. As long as we  
15 understand that we can continue to talk about the ISA  
16 as if it were actually something.

17 MR. FARAZ: Is one of the management  
18 measures then that you have a road map of what pieces  
19 fit into which ISA?

20 MR. SCHITHEL: It's the process safety  
21 information, that compilation of information, yes.

22 MR. FARAZ: And if an NRC reviewer comes  
23 to the site, he can pick up a document and you'll be  
24 able to tell him that this is part of the ISA or not.

25 MR. SCHITHEL: If it's a control document,

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1 it's part of the ISA probably because there is just a  
2 whole population of control documents on our site that  
3 feed someone.

4 MR. FARRELL: Even somebody's  
5 qualification card.

6 MR. KILLAR: I think the appropriate  
7 terminology is ISA is a process. It is a thing that  
8 was an analysis that was done. Like Steve said, the  
9 process safety information is the physical documents  
10 and things.

11 MR. PIERSON: I can live with the  
12 disconnect in language as long as we understand.

13 MR. FARAZ: I'm on page 27. Can you say  
14 why you deleted that?

15 MR. FARRELL: That paragraph might have  
16 been appropriate when ISA methods was a separate item,  
17 one of the 14, but now, according to the rule, it's  
18 team qualifications and ISA methods lumped together.

19 MS. ROCHE: To keep it consistent.

20 MR. FARRELL: Yes, to be consistent.

21 MS. ROCHE: If we are going to go out over  
22 the 9, sure. They have to keep the right subtitles.

23 MR. FARAZ: Comment in the middle of the  
24 page regarding NUREG-1513.

25 FARRELL: Yes, it's appropriate. I had

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1 better jump the gun here on comment No. 47. This is  
2 the first time that the reviewer is faced with  
3 evaluating risk. We are totally in agreement if you  
4 want to think in terms of risk but my concern was all  
5 of a sudden, bang, he's looking at risk and he has no  
6 idea as to how to calculate that risk. I refer to  
7 somebody totally new reading this document so I was  
8 wondering if you might want to put a few words in  
9 there explaining it.

10 MR. FARRELL: I think that's fine.

11 MR. PIERSON: Do you have any problem with  
12 that?

13 MR. LEACH: One thing since you made that  
14 to clue the qualification team as well as methods.  
15 Nothing in this section now addresses the team so you  
16 need to add a paragraph about the team or a reference  
17 to the team.

18 MR. FARAZ: 48. I don't have a position  
19 on that.

20 MR. PIERSON: On the face of it, it sounds  
21 like a reasonable comment but there may be somebody  
22 who has some insight that I'm not aware of we need to  
23 take into consideration.

24 MR. FARAZ: Comment 49 seems reasonable.  
25 Comment 50.

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1 MR. LEACH: I'm sorry. On 49 I understand  
2 what you're saying but what you're saying is the  
3 second half, the second set of sentences really says  
4 the same as the first one, as long as you meet the  
5 criteria. The only difference in the second part is  
6 the reasonable assurance statement.

7 MR. FARAZ: Comment No. 50, that is the  
8 link that we need between the IROFS and the accident.

9 MR. PIERSON: We leave each in there.  
10 They say, "Method shows clearly how each designated  
11 IROFS acts to prevent to mitigate the consequences."  
12 I think as long as you say "each designated" that  
13 would be okay rather than saying each IROFS. We're  
14 not saying designated. We are saying each. You're  
15 happy with that.

16 MR. FARRELL: Yes.

17 MR. PIERSON: Each is probably a little  
18 bit too --

19 MS. ROCHE: 280.

20 MR. PIERSON: We probably do need to --

21 MR. FARRELL: A list briefly describing  
22 each item relied on for safety.

23 MR. PIERSON: Each IROFS acts to prevent  
24 or mitigate the consequences. We scratch designated  
25 here.

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1 MR. FARAZ: Comment No. 51 deals with  
2 double contingency. What you're saying is that double  
3 contingency should be sufficient and we had a  
4 discussion on that earlier.

5 MR. PIERSON: We need to make a  
6 description there of whether or not consideration is  
7 put out.

8 MR. FARAZ: The following comment where  
9 you added highly unlikely is very good. We had  
10 unlikely there but it really should be highly  
11 unlikely. We appreciate your input.

12 Do you have a problem with comment No. 52?

13 MR. PIERSON: I don't.

14 MR. FARAZ: No. 52 on page 30. We  
15 discussed this about AEGL and ERPG.

16 MR. MANNING: Just for consistency with  
17 chapter 6, for example, you use some standard which  
18 has never been published or you have to develop a new  
19 standard to justify your choice. Back it up with some  
20 data or whatever.

21 MR. FARAZ: The new No. 9 you have changed  
22 title from Definitions of Likelihood to Definitions of  
23 Terms. I would just like to keep Definitions of  
24 Likelihood because that's in the rule.

25 MR. MANNING: Before you mentioned you

1 were going to change it to be consistent in areas  
2 where the reviewers are going to say definitions of  
3 highly unlikely, likely, and credibility.

4 MR. FARAZ: Yes, because that's in the --  
5 you want to add that?

6 MR. MANNING: That's what we should do.

7 MR. FARAZ: Good point.

8 MR. DAMON: See, this kind of thing  
9 relates to -- the definition of terms relates to that  
10 double contingency stuff that we talked about before.  
11 Like it says here methods relate and definitions work  
12 like together, you know.

13 If you are going to use double  
14 contingency, it's pretty clear what two means but  
15 every other single term in the double contingency  
16 statement has to be defined as to what would meet it  
17 and what would not meet it. Otherwise, there is no  
18 methodology there. If everything would qualify to  
19 meet all the criteria in there, then any two things in  
20 the universe would qualify.

21 That's my problem with double contingency.  
22 What I mean by robust or whatever is that you have a  
23 criterion for when you do or don't meet what is  
24 sufficiently independent, for example. That's a tough  
25 one. There are circumstances that you would say it's

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1 not independent.

2 MR. SCHITHEL: There's a whole chapter in  
3 the license that talks about it. There's no reason  
4 for it to be inadequately described. We have devoted  
5 a whole chapter of our current licenses to talk about  
6 it for crying out loud. If it's inadequate today, for  
7 goodness sakes, where have we been?

8 MR. DAMON: I'm not talking about BWXT.  
9 There are other licensees who use the term.

10 MR. SCHITHEL: I'm talking collectively.  
11 Where in the world have we been? We've got a whole  
12 chapter on criticality safety in every single license.  
13 If it's inadequate today, good gosh, what's wrong?

14 MR. DAMON: I agree.

15 MS. ROCHE: Okay. It's 4:00 so we have  
16 two options. One is to continue and the other one to  
17 stop.

18 MR. MANNING: I would just as soon  
19 continue. I would rather not fly back across the  
20 country next week.

21 MR. PIERSON: Let's keep on moving on.

22 MR. FARAZ: All we're doing is giving you  
23 our perspective and we are discussing the comments.  
24 We will be providing written responses. We mentioned  
25 that so you won't need to come back.

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1 MS. ROCHE: Let's move on. You don't need  
2 to come back.

3 MR. FARAZ: 55. I don't have a problem  
4 with that.

5 MR. PIERSON: I don't have any comments  
6 all the way up through 34.

7 MR. FARAZ: Yes, I'm on page 34.  
8 Quantitative Guidelines you have deleted the  
9 discussion that talks about quantitative guidelines  
10 have been developed. Can you shed some light on that?

11 MR. FARRELL: Well, I don't think the  
12 first -- what I struck out there really doesn't say  
13 anything. It's obvious we are all working towards  
14 trying to assess compliance with 70.61. I just don't  
15 think there is any need to repeat that.

16 MR. PIERSON: The definitions are based on  
17 NRC strategic risk performance goals.

18 MR. FARRELL: Very clear.

19 MR. FARAZ: I think what is being said  
20 over here is that it would be easy for the reviewer to  
21 correlate the guidelines to the licensees in  
22 compliance with 70.61.

23 MR. SCHITHEL: But what if the numbers  
24 aren't right? Nobody has made a determination of what  
25 the numbers should be. Okay? You are going to

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1 arbitrarily say now that these numbers are right and  
2 then go judge the facilities that are sitting there  
3 that we have already judged to be safe. What if you  
4 find the facilities aren't safe? That doesn't mean  
5 the facilities aren't safe. That means the number is  
6 wrong.

7 MR. PIERSON: It could be but it also  
8 could be --

9 MR. SCHITHEL: The number is wrong. So to  
10 go in and presuppose we can lay a number here almost  
11 sets you up for the later determination that the  
12 facility is not operating in compliance with 70.61.

13 That is the industry's fear that a  
14 facility that has already been judged and determined  
15 to be operating safely and has a license is somehow  
16 going to be judged not in compliance with 70.61 when  
17 we start throwing numbers at the scenario or at the  
18 process.

19 MR. FARAZ: I think that's what the ISA  
20 should be doing. That's the goal of the ISA.

21 MR. SCHITHEL: I disagree whole heartedly.  
22 The goal of the ISA was to capture the safety basis of  
23 the facilities and that's why we petitioned for  
24 rulemaking. The role of the ISA was never to  
25 reestablish the safety threshold, if you will, at fuel

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1 cycle facilities.

2 MR. FARAZ: So what you're saying is that  
3 the ISA is really documentation issue and not a safety  
4 issue.

5 MR. SCHITHEL: That's what we all agreed  
6 when we went in the petition for rulemaking. That was  
7 where the discussions that occurred at the commission  
8 level starting in 1991.

9 MR. KILLAR: The facilities have never  
10 been questioned through all the hearings, through all  
11 the commission briefings. The staff and the industry  
12 both have started out saying the facilities are being  
13 safely operated.

14 MR. SCHITHEL: Now, we did acknowledge  
15 that we may not have identified all the accident  
16 scenarios. We did acknowledge that executing the ISA  
17 would help us to identify those with the understanding  
18 we would go back and apply the same safety thresholds  
19 that we have applied that have made these facilities  
20 safe. I do not rebench my baselining safety at these  
21 facilities.

22 MR. FARAZ: I see the purpose of the ISA  
23 as identifying areas where you may have over committed  
24 but you don't need to have the amount of rigor that  
25 you may have.

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1           Then conversely also identifying possible  
2 areas where sufficient rigor was not provided. I  
3 think that is the purpose of the ISA and that is there  
4 to enhance safety, not to say whether the plant is  
5 safe or not.

6           MR. SCHITHEL: But if you arbitrarily  
7 establish a number that is a safety threshold and that  
8 number is different than the safety threshold that has  
9 been applied to that plant and you come in and get  
10 those two together, now the entire plant doesn't meet  
11 the safety threshold.

12          MR. FARAZ: You are saying that a number  
13 has already been applied to the plant?

14          MR. SCHITHEL: I'm saying a process has  
15 already been applied and that process is called double  
16 contingency.

17          MS. ROCHE: I thought you said the number  
18 has been applied already to the plant so do you have  
19 such numbers?

20          MR. SCHITHEL: You take a number and try  
21 to apply it to the process. I may have misstated  
22 that.

23          MR. PIERSON: Well, it seems to me that  
24 there is truth in what you both said. It's clearly  
25 that an ISA ideally will be in a situation where if

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1 there were some oversights or some inadequacies, if  
2 you would identify those and put some sort of measure  
3 there to compensate.

4 I can see where your situation would be  
5 that we would define, say, some sort of numerical or  
6 quantitative guideline for highly unlikely and find  
7 that is required for all the processes. Then march  
8 through the process and find one that didn't meet that  
9 threshold.

10 It's possible that could happen because,  
11 remember, double contingency has buried in it the raw  
12 process of what the control is. There is also these  
13 intrinsic measures of redundancy and depth that aren't  
14 always captured and can't always be captured in terms  
15 of how far, what your K effect is, how far you are and  
16 what the likelihood of things is.

17 All these different factors come in. You  
18 could, I guess, in theory be in a situation where you  
19 have applied a double contingency and you could be at  
20 the low threshold of highly unlikely or even below  
21 that where because of the actual implementation of all  
22 the things that happened, the actual consequence or  
23 likely the consequences is relatively low but it would  
24 be difficult to qualify it.

25 I guess what I would suggest is that we

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1 accept your definition, "Quantitative definition and  
2 likelihood are based on NRC's strategic risk  
3 performance goals."

4 We would take from that that we would have  
5 to be able to work with your double contingency or  
6 whatever factors you apply and be able to extrapolate  
7 that and come to the same conclusions because if the  
8 double contingency is breaking down you're not going  
9 to meet your strategic risk performance goals anyway.

10 MR. SCHITHEL: I'm not concerned about the  
11 oneies and twoies. I'm concerned that if you came in  
12 and found half the processes and there is a danger  
13 that could happen.

14 MR. PIERSON: I don't think so.

15 MR. SCHITHEL: If you say double  
16 contingency is 10 to the -5 probability, that will  
17 happen. I can tell you that right now.

18 MR. PIERSON: I don't think that's what we  
19 should say. I think what we should say is double  
20 contingency in terms of likely and highly unlikely  
21 would really be a spectrum somewhere from 10 to the -4  
22 to 10 to the -6 if you want to put a numerical value  
23 on it. Otherwise you are putting too much  
24 specificity.

25 I think that comes back to what we were

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1 talking about, defining these likelihoods and  
2 consequences and the numbers. I like to use numbers  
3 because it's sort of better but if we don't, then we  
4 can probably work better. Do you agree?

5 MR. FARAZ: What I would add is that you  
6 wouldn't necessarily say that double contingency as 10  
7 minus 4 or 10 minus 5, it's the totality is what we  
8 are concerned with. Just because, you know, a site  
9 loses double contingency does mean a criticality will  
10 occur. There's always margin. And that's what we  
11 have to also consider. You say --

12 MR. SCHITHEL: But, you can't take credit  
13 for that margin unless you develop safety controls.

14 MR. PIERSON: That's right. That's right.  
15 But, what you could -- but, what you can be in a  
16 situation with is where you've applied double  
17 contingency to a process. It's relatively low on the  
18 spectrum. It doesn't maybe necessarily meet the  
19 highly unlikely, but implicitly the margin is such  
20 that you are highly unlikely but you never quantified  
21 the margin because it's difficult to quantify  
22 something like that.

23 MR. SCHITHEL: I could never sell that to  
24 you.

25 MR. PIERSON: No, you couldn't. That's

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1 right. But, that's what double contingency is.  
2 That's the basis of double contingency.

3 MR. DAMON: One thing that might help is  
4 separating this section that talks about quantitative  
5 guidelines and putting it somewhere else because it  
6 follows right after this section acceptance criteria  
7 for quantitative definitions and likelihood which was  
8 put in there in case some facility like MOX or  
9 somebody chose to do quantitative analysis, a new  
10 facility set up quantitative goals and meet those  
11 goals.

12 But, the quantitative guidelines are not  
13 directly related to that. In other words, the  
14 quantitative guidelines really are kind of a stand  
15 alone little study of what would happen if half your  
16 processes in your plant were  $10^{-4}$ . You know, where  
17 would you end up and what it's trying to do is point  
18 out that when you start reasoning in quantitative  
19 terms, there are consequences to having -- you know,  
20  $10^{-5}$  might sound like a small number, but if you got  
21 a thousand of them, it's  $10^{-2}$  and if you got ten  
22 facilities then it's  $10^{-1}$ . So, it's just drawing that  
23 consequence out of a bottom line number like that.

24 Just to give a reference point to anybody  
25 who wants to talk about numbers because some people

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1 talk about numbers and they're just orders of  
2 magnitude off from where they would probably have to  
3 be and so, this quantitative stuff kind of stands by  
4 itself as a little reference point of discussing  
5 quantitative numbers and what they mean and why they  
6 have to be divided by number of accidents and so on.

7 So, that people who get into that don't  
8 start getting confused about where they've got to be,  
9 you know. It's not intended to be this is a number  
10 you've got to meet. The only person that has to meet  
11 a number is the guy who signs up for it.

12 MR. PIERSON: But, I think what they're  
13 concerned about is if we read this what was here  
14 before when it said quantitative guidelines had been  
15 developed because the staff will need to correlate  
16 applicant's definitions of highly unlikely, unlikely,  
17 and credible with quantitative guidelines developed  
18 and used by the staff to assess compliance with §  
19 70.61.

20 That's pretty prescriptive in terms of  
21 demanding a number and I don't think that we can push  
22 for that. I don't think we have the regulatory basis,  
23 but I do think that we could say quantitative  
24 definition of the likelihood are based on NRC's  
25 strategic risk performance goals because that's what

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1 the rule requires and then we're going to have to  
2 perhaps do some patching to go from one to the other,  
3 but I don't think that there's no -- there's nothing  
4 in the rule that says we have to provide that or they  
5 have to provide that quantitative connection there at  
6 least as I see it.

7 Any comments?

8 MR. KILLAN: I agree with you.

9 MR. PIERSON: Do you agree, Dennis? I  
10 mean--

11 MR. DAMON: Well, I agree that certainly  
12 the licensee who's not doing anything quantitative  
13 doesn't have to necessarily draw that connection. The  
14 question ultimately will be whether a particular  
15 combination that the licensee may say -- say for  
16 example, the licensee has his own criteria for  
17 planning what qualifies as doubly contingent and most  
18 of those are perfectly okay, but one of them will --  
19 the question is which ones of those are okay and which  
20 ones are not okay. Are they just automatically okay  
21 or how does the reviewer decide that all the  
22 combinations of situations that the licensee says are  
23 okay, you know, or highly unlikely? How does the  
24 reviewer decide that he agrees yes, that's highly  
25 unlikely?

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1           So, that's the dilemma you're faced with.  
2           If the reviewer has to apply some kind of a method or  
3           a criterion, if the reviewer has the same methodology  
4           as the licensee, then he's okay. But, I think what  
5           ultimately any of these methodologies have to do is  
6           they have to convince themselves by some kind of  
7           argument and sometimes it is a quantitative argument  
8           that the life accident actually is highly unlikely  
9           meaning some quantitatively sufficiently low number,  
10          you know.

11           MR. SCHITHEL: Aren't we just creating a  
12          problem that doesn't exist today?

13           MR. DAMON: No, I don't agree it doesn't  
14          exist. I think what's true is that there's a  
15          potential for processes that actually exist out there  
16          or that could be designed in the future to not be  
17          highly -- have access not be highly unlikely because  
18          the criteria for designing them aren't sufficiently  
19          well specified.

20           MS. ROCHE: I guess it goes back to the  
21          fact that it doesn't only apply to you to the fuel  
22          site.

23           MR. PIERSON: Yes, well, it doesn't --  
24          it's not just --

25           MS. ROCHE: Think about it. At these it's

1 guiding through this time.

2 MR. PIERSON: Well, let's get back to the  
3 point here though. We can't -- there's nothing in  
4 rule that allows us to do what this paragraph as we  
5 wrote it. I mean if push comes to shove, we can't do  
6 that.

7 MS. ROCHE: But, it doesn't say that we  
8 can't.

9 MR. PIERSON: What it says is quantitative  
10 guidelines -- what it used to say is quantitative  
11 guidelines that were developed because the staff will  
12 need to correlate applicant's definition of highly  
13 unlikely and credible with quantitative guides  
14 developed and used by the staff would subsequently  
15 apply to § 70.61.

16 The fact of the matter is there's nothing  
17 in the rule that allows us to do that.

18 MR. FARAZ: But, Bob, if you look a couple  
19 of paragraphs up, it says an applicant may choose to  
20 provide correlated definitions of highly unlikely.

21 MR. PIERSON: That's fine.

22 MR. FARAZ: So, it's -- yes, it's allowing  
23 that option.

24 MR. PIERSON: But, the point is this  
25 paragraph stands by itself here. There's nothing in

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1 this paragraph. If you want to say at the discretion  
2 of the applicant, quantitative guidelines may be  
3 developed because the staff would like to have them  
4 correlated with this definition, then that would be --

5 MS. ROCHE: We could say that maybe if you  
6 want to.

7 MR. PIERSON: But, I think it's better to  
8 say what proposed here. But, the point is it's  
9 written here. We cannot go down that path. It's not  
10 included in the lexicon of the rule.

11 MR. FARAZ: Okay.

12 MS. ROCHE: What he's proposing is to the  
13 NRC strategic goals.

14 MR. PIERSON: So, I would accept what you  
15 have proposed here. It seems to me that quantitative  
16 definition of likelihood are based on NRC strategic  
17 risk performance goals and I think that we could get  
18 from that proposal back to something that'll make a  
19 case. Because if it doesn't, then clearly we've got  
20 a problem that meets the definition of a rule.

21 MR. FARAZ: Fifty-six is fine. Fifty-  
22 seven fine.

23 Now at the bottom of page 35 and guideline  
24 value. The four times  $10^{-5}$ . Oh, we'll just add that.  
25 That's per event per year. That's what -- the same

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1 thing for  $10^{-5}$ .

2 Fifty-eight reasonable.

3 MR. MANNING: That's usually dangerous.  
4 We've got a little -- I guess a big concern on the  
5 table. I'm talking about today we're just looking at  
6 -- the unlikely having a guideline value of four times  
7  $10^{-5}$  and highly unlikely with the guideline value of  
8  $10^{-5}$ . I'm not sure that the uncertainty isn't larger  
9 than the difference between those two values. What do  
10 you suggest?

11 MR. FARAZ: To do something that -- this  
12 is new.

13 MR. MANNING: Well, it seems to me an  
14 order of magnitude difference between unlikely and  
15 highly unlikely has been used in the past. Go back to  
16 table A-4 and it ought to be consistent. I just  
17 fundamentally believe that this process is great as  
18 long as we don't put too much credibility in the  
19 number used. It tells us relative to our facility,  
20 where we ought to be placing emphasis and in putting  
21 additional safety improvements where we may have over  
22 designed in the past.

23 MR. LEACH: I would agree that what is a  
24 -- risk -- or using risk of probability numbers as a  
25 magnitude is only one --

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1 MR. DAMON: That's why the MOX people  
2 dispensed with that other guideline, that other  
3 -- the concept of unlikely. They went to a single --  
4 they said we can't distinguish between these two  
5 levels. You know, they're too close together. So,  
6 they just have -- they just took the upper one.

7 I mean I agree the reason it was put in  
8 there was you might have a facility sometime where  
9 that wasn't -- it wasn't true. In other words, if  
10 there were sort of a category of accidents that fell  
11 in that regime and the staff wanted to alleviate that  
12 potential situation from imposing a higher or more  
13 stringent requirement that would go with fatal  
14 accident and imposing that on things that weren't  
15 really fatal. So, that's why that's -- it's purely in  
16 there for a technical reason. It's probably not of  
17 any practical value.

18 MR. PIERSON: The other thing is that  
19 these  $10^{-5}$ , this third column, is added. That wasn't  
20 in our original submittal of March 30.

21 MR. FARAZ: Right.

22 MS. ROCHE: That's right. It was noted by  
23 NEI. So, he's making his comments.

24 MR. FARRELL: I was just curious. Okay.  
25 Let's assume we have a thousand accidents and then we

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1 have NI and NH. What does that work out to? Okay.  
2 And then eventually in an appendix I think somewhere  
3 you actually used this numbers and this shows you  
4 where they come from based on the strategical. So, I  
5 just put it in for --

6 MR. PIERSON: That's fine with me. I  
7 don't mind.

8 MR. SCHITHEL: The whole application's  
9 really dangerous. I mean what happens if we have ten  
10 more facilities. The number of accident scenarios.  
11 Are we all now not in compliance with the rule?

12 MR. PIERSON: That's an issue.

13 MR. SCHITHEL: Well, why set ourselves up  
14 for the issue in this silly standard review plan? I  
15 mean way down -- we're not -- this is -- that's a  
16 policy issue and we're down here with a standard  
17 review plan.

18 MR. PIERSON: Why create the scenario  
19 where it -- it's a self-fulfilling scenario and it's  
20 going to become an issue. It's a policy issue. It's  
21 not a standard review plan issue. What value is it to  
22 the reviewer?

23 MR. DAMON: Actually, it was more  
24 something that would have been a value to the  
25 licensees to develop the methods by which they

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1 determine that accidents are sufficiently unlikely at  
2 their facilities.

3 MR. SCHITHEL: But, I just explained to  
4 you that we have facilities and we've already  
5 determined that and we've done that -- we've verified  
6 that by doing the ISA project.

7 MR. DAMON: And if you find an issue,  
8 you'll deal with it. Right?

9 MR. SCHITHEL: And we have dealt with it  
10 and --

11 MR. PIERSON: So, what do you suggest?

12 MR. SCHITHEL: I would suggest you leave  
13 it out.

14 MR. PIERSON: Leave out what?

15 MR. SCHITHEL: The whole strategic goal  
16 connection that takes you down to a probability.

17 MR. PIERSON: So, what will you talk about  
18 here? Quantitative guidelines we've talked about  
19 including that or leaving this little table or what  
20 are you talking about?

21 MR. SCHITHEL: If you want to establish  
22 quantitative guidelines, just pick a number and put it  
23 in here and leave out all this mathematical  
24 manipulation about the bases and everything. Because  
25 that is of no value to the reviewer.

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1 MR. PIERSON: What you'd say is like for  
2 highly unlikely we have assumed that it's somewhere  
3 say  $10^{-4}$  to  $10^{-6}$ . For likely, we assume that it's  $10^{-3}$   
4 or two or whatever it is. Credible is  $10^{-1}$ .

5 MR. SCHITHEL: And if you need a technical  
6 document somewhere internally NRC says why that number  
7 was chosen and ties that to the strategic objectives,  
8 fine, but it --

9 MR. PIERSON: We'll take this for  
10 advisement.

11 MR. SCHITHEL: Yes, there's no value to  
12 that reviewer.

13 MR. PIERSON: We can go back and talk  
14 about this some more.

15 MR. FARRELL: The length of this  
16 description has been shrinking through progressive  
17 reviews and I think it's --

18 MR. PIERSON: We used to have several  
19 pages worth.

20 MR. LEACH: So, when we get to nothing,  
21 that should be the goal?

22 MR. FARRELL: But, I think -- this is one  
23 of the things I mentioned in my comment 57 that really  
24 this is a matter that the reviewers shouldn't really  
25 be too concerned about. These are the numbers  $10^{-4}$

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1 and  $10^{-6}$  is this and that's what he's got is a little  
2 cheat sheet to work with.

3 MR. FARAZ: On 59, I propose to rewrite  
4 that. Is just asking us to rewrite it.

5 MR. PIERSON: I would say so, yes. To me  
6 the categories are very well defined. They're not  
7 broad. Maybe I misunderstood the intent of the  
8 sentence.

9 MR. FARAZ: Well, what we're trying to say  
10 over here is that high consequence can go from --  
11 anywhere from 100 gram to a worker up to whatever.  
12 There's no limit -- upper limit. For a member of the  
13 public, it's going to be five gram, you know, and up.  
14 So, 25 gram is like the lower limit and that's what  
15 we're trying to say over here is that it's not the --  
16 the limit is not 25 gram for high consequence event.  
17 It's 25 gram and up. So, if a member of the public  
18 can receive 100 gram or 200 gram, well, that's a high  
19 consequence accident and that's how we should prevent  
20 it. But, you should prevent, you know, insure that  
21 the likelihood is such that if it's a very, very  
22 significant consequence, you know, then that's how it  
23 should be prevented.

24 MR. PIERSON: Okay.

25 MR. FARAZ: That's the -- it's not like

1 one level of protection. It's -- you know, it's a  
2 graded period approach.

3 MR. SCHITHEL: So, there are more than two  
4 consequence criteria?

5 MR. FARAZ: Well, let me put it to you --  
6 let me put it to you this way.

7 MR. SCHITHEL: And two measures of highly  
8 unlikely. There's more than one definition of highly  
9 unlikely?

10 MR. FARAZ: Let me put it to you this way.  
11 If a member of the public, the nearest residence let's  
12 say, can receive up to a 1,000 gram. That's fatal.  
13 Would you apply the same kind of protection for that  
14 accident as you would if a member of the public can  
15 receive 25 gram?

16 MR. PIERSON: The question is not would I  
17 apply it differently. The question is does the rule  
18 require me to. The rule doesn't require it.

19 MR. FARAZ: Well, okay.

20 MR. PIERSON: As a -- as a good operator  
21 and as a conscientious person, yes and being  
22 responsible for safety, yes, we would do that. But,  
23 we're talking about what the rule requires and -- and  
24 it doesn't require that.

25 MR. SCHITHEL: It's not a scaled severity.

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1 MR. FARAZ: And what the other -- he is  
2 saying is that we have to consider that.

3 MR. SCHITHEL: But, that's not in line  
4 with the rule.

5 MR. PIERSON: But, that's not in line with  
6 the rule. There's not a scaled severity that we  
7 apply. It might be good engineering judgment in terms  
8 of their application then, but that's not what the  
9 rule requires.

10 MR. DAMON: All right. No, what I think  
11 is true -- I mean seriously if this were to come up,  
12 won't come up at any of these facilities here but at  
13 MOX or something, you know, if there was a massive  
14 accident, it could kill hundreds of people. There is  
15 a provision in the rule that can be invoke. It  
16 doesn't happen to be this stuff that has to do with  
17 part -- with § 70.61. It's § 70.23 which quotes the  
18 Atomic Energy Act. It says minimize risk to life and  
19 property and I think if there were an accident, that  
20 would probably -- you know, a horrendous thing and  
21 somebody wasn't doing enough about it, that's what  
22 would be invoked.

23 MR. LEACH: And it's not going to be an  
24 issue of whether your ISA summary was written well  
25 enough.

1 MR. SCHITHEL: Right. It's a completely  
2 different issue, yes.

3 MR. DAMON: So, I think you're right. It  
4 would be better to take out the connection between  
5 highly unlikely and the extreme accident.

6 MR. PIERSON: The rule says the  
7 applicant's proposed equipment and facilities are  
8 adequate to protect health and to minimize danger to  
9 life and property. The proposed -- the applicant's  
10 proposed -- to protect health and to minimize danger  
11 are adequate where the danger is said to require  
12 consideration that the applicant appears to be --  
13 that's what you're talking about. Is that correct?

14 MR. DAMON: Yes, but, that still doesn't  
15 say that for a 500 gram accident you have X and for a  
16 1,000 gram accident you have Y. There's no scaling.

17 It's not -- no, in other words, you  
18 wouldn't -- you wouldn't take -- all I'm saying is how  
19 would you deal with that situation. You wouldn't use  
20 § 70.61. You wouldn't use high unlikely. You would -  
21 - you would appeal to that requirement there and say  
22 that we don't think your minimizing risk enough, you  
23 know. The risk -- it is a risk thing. It's  
24 consequences times likelihood. We say gee, this is a  
25 big risk. It's not minimized enough.

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1           So, I -- I'm kind of agreeing to take this  
2 discussion out of here, you know. I know I think --  
3 I think Steve Schithel is right. That the rule  
4 doesn't very well support -- the rule language does  
5 not very well support what this says.

6           MR. PIERSON: So, what are we agreeing to  
7 take out? What page? Page 36?

8           MR. FARAZ: This is the paragraph under  
9 comment 59? So, what you're saying, Dennis, is that  
10 there are other provisions in the Act that would be  
11 invoked for situations like that.

12          MR. LEACH: Just to remove that paragraph.  
13 That work for everybody?

14          MR. FARAZ: I have a problem with the  
15 comment 60. Same thing with 61.

16          MS. ROCHE: What did you say on 60?

17          MR. FARAZ: I also got a problem with  
18 that.

19          MS. ROCHE: They're redundant.

20          MR. FARAZ: Same thing with 61. Sixty-two  
21 appeared reasonable. Same thing with 63. Same --  
22 same with 64. Sixty-five, can you put somebody on  
23 that?

24          MR. FARRELL: Oh, sorry. I think one,  
25 two, three are fine. They could stay, but -- oh, four

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1 and five seem to be more appropriate for discussion in  
2 the Nuclear Criticality Safety Program. I just looked  
3 back on chapter 5 and there -- they seem to be  
4 addressed there, but they appear here I guess.

5 MR. FARAZ: Okay. Sixty-six appeared  
6 fine. Same thing with 67. Sixty-eight is okay.

7 MR. DAMON: I think one of the  
8 misunderstandings of the terms in this comment 69 it  
9 refers to all and each and is being used too much. I  
10 think you're right. The language could be -- it could  
11 be said better, but what I think we're trying to get  
12 at here was that you're reviewing the ISA summary, but  
13 what you're reviewing it for is to get a feeling that  
14 the actual ISA that was done succeeded in identifying  
15 all of the accidents, you know. So, you get -- it's  
16 easy to get balled up with the syntax. You know,  
17 you're not saying the ISA summary has all the  
18 accidents, but that it convinces you that or gives you  
19 a reasonable assurance that the licensee has done  
20 this.

21 MR. FARRELL: Yes.

22 MR. DAMON: With his ISA, you know.

23 MR. FARAZ: Just to reiterate, what we're  
24 doing here is we're providing you all first crack at,  
25 you know, what our feeling is on all the comments.

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1 So, if you see something different in our written  
2 product, you know, don't be surprised. This is just  
3 based on our very quick few day review. We only had  
4 like five or six days to -- to look at it. So, you do  
5 understand that. I just want to make that absolutely  
6 clear.

7 I'm on page 40. I had some slightly  
8 different way of saying that, but I -- the thing I'm  
9 saying is essentially what you are saying. This is on  
10 top of page 40. Unless you all are making some --

11 MS. ROCHE: The thing what your saying, he  
12 doesn't know where you wrote that.

13 MR. FARAZ: Well --

14 MR. PIERSON: Demonstrate completeness.  
15 So.

16 MR. FARRELL: I think the words I struck  
17 out there in accordance with the criteria of NUREG  
18 13, that deletion should be reversed.

19 MR. FARAZ: Okay. That's fine.

20 MR. FARRELL: It's now at 1513 and --

21 MR. FARAZ: But, I'm looking at the -- the  
22 previous changes. That matter -- another comment  
23 there, what I wanted to say was to demonstrate  
24 completeness the general description of types of  
25 accident sequences must be identified using systematic

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1 methods. So, it's the inconsistent references. So,  
2 it's the identification of those accidents that should  
3 be -- be using some systematic method.

4 MR. FARRELL: Fine. Okay.

5 MR. DAMON: See comment 70 about -- that's  
6 put in there. It says no, you know. It's acceptable  
7 if no accident was overlooked. Is that -- that's --  
8 that's to cover the case where the reviewer actually  
9 thinks of an accident sequence that isn't -- that he  
10 sees has not been included. It's something -- it's  
11 not, you know, it's not in the analysis. So, that's  
12 prima facie evidence that something was overlooked.  
13 You know, he won't necessarily spot everyone of them  
14 if any were overlooked, but if he spots one, that's an  
15 accepted -- a nonacceptance criteria. Although  
16 probably should give him guidance on that.

17 MR. FARAZ: Seventy-one appeared fine.  
18 Yes, talk about comment 72.

19 MR. FARRELL: You don't have to lay out  
20 the -- to general -- your descriptions of general  
21 types of accident sequence on the table. Not  
22 necessarily I guess.

23 MR. PIERSON: You're still in agreement  
24 that you have A, B, C, and D that --

25 MR. FARRELL: Oh, yes.

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1 MR. FARAZ: On number 73, you're saying  
2 that safety limits and safety margins should not be  
3 required in the ISA summary. Should that be something  
4 that would be in the ISA including safety limits?

5 MR. SCHITHEL: Not everybody, you know,  
6 has a requirement in their license to calculate safety  
7 margins. I understand that today.

8 MR. FARAZ: Right. Right. But, you know,  
9 as far as safety limits are concerned, is that  
10 something --

11 MR. SCHITHEL: Well, they can't put them  
12 in there if they don't know them.

13 MR. KILLAN: They operate with double  
14 contingency. They don't look to see how close they --  
15 they have as far as how much margin they have in  
16 additional double contingency or even single  
17 contingency. So, they don't have margin or a --

18 MR. FARAZ: Right. We might propose a  
19 change to that.

20 MR. DAMON: You know, my own view about  
21 safety margin is that it's only used in certain  
22 circumstances by licensees. I mean double batching is  
23 an example. Okay. That's what I call a safety  
24 margin. If he -- it's not -- it's not a question of  
25 determining where critical is. It's that -- so that,

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1 you know, one -- a second batch actually won't make it  
2 critical. So, whenever that's true that that's being  
3 used, it -- like we say, I've a mass control here.  
4 You could say it's -- it's a double batching thing.  
5 You know, this is a double batching situation. That's  
6 all that's meant here is that that should be referred  
7 so they -- he doesn't have to know the actual --  
8 necessarily the quantitative margins.

9 The same thing with like overloading a  
10 transfer card or things like that. Most of the reason  
11 why these events don't result in a criticality is that  
12 it requires a gross overloading. So, that's what I  
13 mean by safety margin. You may not be able to  
14 quantify it, but just it should be stated the reason  
15 this thing is a good item or item for safety is  
16 there's a big safety margin here.

17 And, in fact, BWXT does a good job of that  
18 in this recent submittal. They explain why there's a  
19 safety margin here with this parameter over, over  
20 again and so, I didn't realize the extent to which  
21 that's true that in these facilities that's really  
22 what's being relied on, I don't know, half the time,  
23 two-thirds of the time. It's not the combination of  
24 controls. It's the safety margin.

25 MR. SCHITHEL: The deviation one thing.

1 If it gets back enough, it's going to take you  
2 critical. I mean if I put enough fuel in a pile, I'm  
3 going to go critical regardless of all my controls  
4 there. You're right.

5 MR. DAMON: But, I mean it's true. What  
6 -- in Westinghouse submittal, is this big blender  
7 hopper. Okay. It's given up mass control. It's only  
8 in moderation control. It's the same reason. The  
9 reason that's a safe process is probably the safety  
10 margin, you know, that is there. In other words, if  
11 the guy measured out one gram too much por former, it  
12 ain't going to go critical.

13 MS. ROCHE: Let's move on. Very few  
14 pages.

15 MR. PIERSON: Seventy-four, I agree with  
16 that. Do you --

17 MR. FARAZ: I don't have a comment number,  
18 but you changed some -- the wording in the last  
19 paragraph in page 41. No, with 75. Before you get to  
20 75. It's a description of each IROFS must identify  
21 what measures such as maintenance ready. Wait. I  
22 think you are saying the same thing.

23 MR. FARRELL: They really just wanted you  
24 to say which -- for any IROFS one of the associated  
25 measures.

1 MR. FARAZ: Yes. That's fine. That's  
2 fine. I misunderstood. Seventy-five looked -- looked  
3 reasonable.

4 MR. FARRELL: My comment number 26 really  
5 addresses how the issue of criticality monitoring was  
6 developed in chapter five pretty thoroughly and I know  
7 the rule states in the § 70.65 wants you to  
8 specifically address § 70.24, but maybe this is  
9 something that can be referenced back to your  
10 description of your nuclear criticality safety  
11 program. But, that's not the only reasoning behind my  
12 comment there.

13 MR. SCHITHEL: There's a little bit of  
14 information overkill. I mean if we had tried to map  
15 the actual doses at the criticality detectors for  
16 every conceivable scenario at every conceivable  
17 detector, we've got over 200 of them in our plant, it  
18 might get a little bit onerous.

19 MR. PIERSON: So, what are you suggesting?

20 MR. SCHITHEL: I'm trying to figure that  
21 out right now, Bob. I got somebody working on trying  
22 to figure out how to meet the intent of this. So,  
23 actually I don't have a good suggestion right now.

24 The rule just says we'll describe the  
25 criticality monitoring system and how it meets the

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1 requirements or something to that effect.

2 MR. PIERSON: Yes, but it doesn't say it's  
3 described in the ISA. It says the criticality acts  
4 and requirements. This could be -- is this -- are  
5 you -- in the critic chapter.

6 MR. SCHITHEL: It's in the ISA summary  
7 description as well though.

8 MS. ROCHE: It's § 70.64.

9 MR. SCHITHEL: It's in § 70.65 see (4).

10 MS. ROCHE: It says here § 70.64.

11 MR. SCHITHEL: See (4). It says  
12 description of -- the requirements for criticality  
13 monitoring alarms in § 70.24 and, if applicable,  
14 requirement § 70.64. So, you got with § 70.64. It  
15 says criticality control. The design must provide for  
16 criticality control including adherence to the double  
17 contingency clause.

18 MR. FARAZ: The long portion is in 65. It  
19 says information that demonstrates the licensee's  
20 compliance with the performance requirements of 61  
21 including a description of the requirement for  
22 criticality monitoring and alarms.

23 MR. PIERSON: It says the requirement for  
24 criticality monitoring and alarms in § 70.24. But, §  
25 70.24 is essentially the program that your crit

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1 chapter addresses.

2 MR. SCHITHEL: § 70.24 gives you the  
3 performance criteria. The 20 reds at a meter.

4 MR. PIERSON: But, isn't that what  
5 criticality -- isn't that what you're doing for your  
6 criticality chapter?

7 MR. SCHITHEL: Yes, well, I don't know if  
8 it's in there right.

9 MR. PIERSON: It basically describes what  
10 you -- when you have to have a crit program in place,  
11 the grams limitation. It describes what the  
12 monitoring system shall be. Emergency procedures for  
13 the area. The whole -- that's basically your crit  
14 check. That's not your ISA check.

15 MR. SCHITHEL: That's true.

16 MR. PIERSON: That's my point. I mean the  
17 question here for the -- this is -- would it be  
18 sufficient to refer back -- just refer you to your  
19 crit check. Not going through this extra process and  
20 I think my sense is yes. Do you agree with that? I  
21 mean --

22 MR. SCHITHEL: Let's look at that, but I  
23 think that -- I think that I could accept that --  
24 that.

25 MR. PIERSON: You could use as a refer

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1 back despite the fact that the requirement says that  
2 you got to have for crit guideline remarks to § 70.24.  
3 It's basically referring you back to § 70.24. They've  
4 already covered that as part of the crit review. I  
5 don't know that we need to have -- regurgitate that.

6 MR. DAMON: Some licensees all they say in  
7 the crit chapter is we comply with § 70.24.

8 MR. PIERSON: Well, they'd have to say  
9 something more than that.

10 MR. DAMON: Yes.

11 MR. PIERSON: They'd have to say something  
12 more than that.

13 MR. FARAZ: As long as this --

14 MR. SCHITHEL: And I think that might be  
15 our case. Trust us.

16 MR. FARAZ: The intent of what we're  
17 saying in this paragraph is also included elsewhere  
18 and that should be sufficient, but, you know, if it --  
19 if like Dennis says, you know, all they say is -- is  
20 meet § 70.24 and then --

21 MR. FARRELL: And you get -- I say you get  
22 before the crit chapter --

23 MR. SCHITHEL: But, my point is something  
24 we didn't even comment on and that is, you know, it  
25 goes a little far in asking for the actual neutron and

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1 gamma doses. That --

2 MR. DAMON: Yes, that's -- that's -- I  
3 agree.

4 MR. SCHITHEL: That's a bit far.

5 MR. DAMON: I agree with that that when  
6 you figure out what could -- something -- some other  
7 thing that could be put in there. Want to rewrite  
8 that.

9 MR. PIERSON: We even may need to delete  
10 that. I'm not sure that's even in. Think about that.

11 MR. FARAZ: Seventy-seven looked  
12 reasonable. So did seventy-eight.

13 MR. SCHITHEL: This was a particular --  
14 this was a good comment. This was a particularly  
15 tough thing for us to figure out where to put the  
16 information demonstrated in compliance with § 70.64  
17 when we submitted the new facility. Because those are  
18 programmatic design things, you know. We have a  
19 quality system, an ISO 9000 design system and  
20 everything and those were things that would probably  
21 land in management measures under a new licensing  
22 scheme and format. But, they're not there yet. So,  
23 we had to figure out a way to satisfy this and it  
24 didn't fall in the ISA summary. We just sent it in as  
25 a white paper so to speak attached to the application.

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1 So.

2 MR. FARAZ: Number 79 talk about the  
3 rosetta stone template and we discussed this earlier  
4 that our intent was never to include a rosetta stone  
5 template in the ISA. Maybe we will at a later date.

6 MR. PIERSON: They were trying to avoid a  
7 quantification. You guys go back and think about  
8 that. I don't have strong feeling one way or the  
9 other. I didn't want to imply that quantification is  
10 necessary. The purpose of this so-called rosetta  
11 stone, this template, was to provide a mechanism so  
12 that we all could speak from the same point. So that  
13 if you came in with an application, the staff would  
14 know where you came from. We'd know where we came  
15 from and we'd have a common point for comparisons so  
16 we wouldn't end up with this --

17 MS. ROCHE: Consistent.

18 MR. PIERSON: Consistent so the staff in  
19 the industry wouldn't end up arguing about what the  
20 reliability of a val one where who cares. I mean  
21 there's -- probably the uncertainty would overwhelm.  
22 You just come up with a number that was reasonable and  
23 apply that.

24 If you feel that that leaves you in a  
25 vulnerable situation and you want to have something

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1 captured before we go final on this, we could probably  
2 do that. It would delay the this, but we could have  
3 another meeting and just set down and work out some  
4 numbers or whatever we wanted to do or definitions or  
5 how we're going to do it and move forward. Just pass  
6 that as an appendix or an addendum to this. It's up  
7 to you. Whatever you wish.

8 MR. FARRELL: I think we have issues of  
9 greater importance than that, but this does seem to be  
10 something we do want to work with you on. If this is  
11 going to be an integral tool to the staff to insure  
12 the consistency of reviews, then it would be nice  
13 to --

14 MR. PIERSON: Have it put in this?

15 MR. FARRELL: I think so, yes. But, I  
16 don't -- but, on the other hand, I can argue against  
17 myself. We don't want to delay this thing another six  
18 months.

19 MR. PIERSON: Well, I don't think we --

20 MR. FARRELL: We can't do that.

21 MS. ROCHE: How about if we finalize this  
22 and then we add the other one and -- but, we'll be  
23 working alone at the same time.

24 MR. PIERSON: We'll work out -- we'll work  
25 out a schedule. We're getting farther along than I

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1 thought we would on this. When we finish this up, we  
2 could schedule another meeting to, you know, get back  
3 to you with the comments and so forth and then we'll  
4 try to schedule this rosetta stone meeting.

5 MR. FARRELL: Okay.

6 MR. PIERSON: And just come up with some  
7 reasonable numbers and some reasonable proxies and  
8 we'll just see what happens.

9 MR. FARRELL: That would be very valuable.

10 MR. PIERSON: Okay. All right. I think  
11 that's pretty much of my comments.

12 MR. TUPPER: Did we do page 45?

13 MR. PIERSON: Forty-five. Number 80.  
14 That's it.

15 MR. FARAZ: This is how far I've gotten  
16 until this morning. So, if we can just talk about  
17 comment 80.

18 MR. PIERSON: Yes, this is the issue where  
19 your -- it goes back to your concern about the  
20 introduction of risk into this -- well, we really have  
21 never defined risk previous to this point. We had it  
22 at one other place.

23 MR. FARRELL: Exactly.

24 MR. PIERSON: Took that out. Right. And  
25 I think what we need to do for this probably is

1 rethink this and talk about in terms of the  
2 performance goals.

3 MR. FARRELL: Yes, that would be a good  
4 solution.

5 MR. PIERSON: And I think we can probably  
6 do that. Are we not? We're not ready to do that yet.

7 MR. FARRELL: Okay.

8 MR. PIERSON: That's --

9 MR. FARRELL: Okay. Well, why don't we  
10 just leave this 3522 then for future --

11 MR. PIERSON: Okay.

12 MR. FARRELL: -- a rewrite in terms of  
13 performance goals as well.

14 MR. FARAZ: Do you have anything different  
15 than what we just talked about? This little comment  
16 in 36. See value and defining of 86.

17 MR. FARRELL: Number 86? Oh. I don't  
18 know. Do you have a problem with that? Looks pretty  
19 -- okay to me. You know the other one going down the  
20 list where you changed nine to -- 14 to nine. No, I  
21 think we've got something we can work with here.

22 MR. PIERSON: Good. That's great. I  
23 really appreciate the Xerox. It's a lot of work.

24 MR. FARRELL: Maybe before we go we can  
25 have a little bit -- are we up against a time limit

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1 now? Can we -- can we spend ten minutes --

2 MR. PIERSON: Sure.

3 MR. FARRELL: -- making some general  
4 comments about appendix A. I know this is something  
5 we talked about ourselves and the reason we didn't  
6 provide any comments on it, I just wanted it deleted  
7 entirely. After bashing our heads against the wall,  
8 I think that was the solution, but I'd have to -- it's  
9 not a very productive one right now. So, maybe we  
10 should just score some ideas on that. Steve, would  
11 you like to kick this one off?

12 MR. SCHITHEL: Thanks. I feel partially  
13 responsible for appendix A. In that when we started  
14 the ISA, we said we needed a technique for consistency  
15 and we went in the chemical book and it tells you how  
16 to do this little scoring thing. We said boy, that's  
17 pretty neat. Can we frame that against double  
18 contingency and apply that technique to get the other  
19 disciplines up to where criticality safety has always  
20 been and it will add some consistency to criticality  
21 safety as we go through the facility and whatnot.

22 Unfortunately, the scoring technique and  
23 those tabulations of scores have taken on a life of  
24 their own and in retrospect, had I known then what I  
25 know today, I would have said no, let's not do that.

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1 Let's just say we'll apply double contingency to all  
2 the other disciplines.

3 I would never have -- had I known where  
4 the scoring sort of concept would get us, I might have  
5 chosen not to do it at all. It was a useful tool for  
6 a while and it can be a useful tool going forward, but  
7 for this SRP to suggest that it's an acceptable and  
8 it's really the only acceptable method presented  
9 unfortunately, I think is an oversell and I think it  
10 sells a lot of these other guys who don't want to do  
11 that scoring way short. There's ways to do this  
12 process.

13 And I know it's thrown in there as an  
14 appendix and as an acceptable example, but there's no  
15 -- there are no others. So, I'm not sure what --

16 MR. PIERSON: Well, what are you  
17 suggesting? That you would think that you would need  
18 another example? Like appendix A and appendix B? Is  
19 that what you're suggesting?

20 MR. SCHITHEL: How would your reviewer use  
21 this acceptable example if somebody didn't choose to  
22 implement it?

23 MR. PIERSON: You saying rather than --  
24 give me an example how they're set and what you're  
25 talking about.

1 MR. SCHITHEL: Okay. I'm a license  
2 reviewer now and I've got this SRP and I go to  
3 appendix A and it's got this acceptable example and  
4 what's been submitted doesn't look a thing like it.

5 MR. PIERSON: The question is whether it  
6 would be useful to have more than one examples of an  
7 acceptable example?

8 MR. SCHITHEL: It might be if you could  
9 develop it. But, I don't know how many examples of --  
10 you still run the risk that even if you had three  
11 acceptable examples, somebody gives you a fourth, a  
12 number four that doesn't look like the threes.

13 MR. PIERSON: That's always the case.  
14 But, the -- what we were trying to do when we started  
15 down this process was to avoid having people go down  
16 blind allies.

17 MR. SCHITHEL: Right.

18 MR. PIERSON: That's really the question  
19 and you're in sort of a situation because you've  
20 worked through this process and I think you probably  
21 understand where the blind alley is, but on the other  
22 hand, hypothetically, if there were someone coming in  
23 with a new application some years in the future, would  
24 they necessarily have that. I don't know. I guess  
25 they could contact NEI and you would instruct them on

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1 where the blind allies were.

2 MR. DAMON: No, I mean -- seeing as the  
3 rumor how long ago this all was put in there, at the  
4 time, there were a lot of licensees that hadn't done  
5 what you had done. They weren't where you were at.  
6 So, I -- we read over -- we wrote the first part the  
7 acceptance criteria and said these are the things you  
8 should think about in evaluating a method and they  
9 just refer to the same things as they're in a double  
10 contingency statement. I mean basically, you know.  
11 You think these are the elements that you have to  
12 think about, but we said, you know, if somebody reads  
13 this SRP and they're trying to figure out what we're  
14 really going to accept and they've never tried this,  
15 it's just going to go right over their head. So look,  
16 we got to put in concrete example. Well, we couldn't  
17 copy your method outright. We felt it was  
18 proprietary. Okay.

19 MR. SCHITHEL: It's not. It's right out  
20 of the chemical -- it's right out of the red book.

21 MR. DAMON: You'd like that to be the  
22 second example?

23 MR. SCHITHEL: I don't know.

24 MR. DAMON: So, anyway, we -- so, we put  
25 -- you know, we put some other method in there. Said

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1 here's an example. It's a scoring method. So, that's  
2 all it is. In fact, it is not intended to be used  
3 like a cookbook for something. It just has the same  
4 structure as the kind -- in other they -- somebody  
5 comes and looks at your method, they should say oh,  
6 yes, that's the same thing. It's just a different,  
7 you know, different version of it.

8 But, the dilemma of acceptable. What is  
9 an acceptable method? That's a tougher one. That's  
10 why we get to this template stuff of, you know, really  
11 what is -- if you want to get serious, what would you  
12 really say is acceptable or not.

13 But you could -- you know, you could put  
14 in an appendix B that laid out a double contingency  
15 thing which when you analyzed the different  
16 combinations that it came out the same -- it would  
17 come out the same thing as the 01234 scheme that  
18 you've got.

19 MR. SCHITHEL: Well, that might be useful  
20 though. I mean if your real goal is to provide  
21 something useful to a licensee who hasn't begun yet,  
22 that might be more useful than what's in there now.

23 MS. ROCHE: Do you think we should --

24 MR. DAMON: I can see where the thing  
25 that's in there now is too complicated for most

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1 people.

2 MR. SCHITHEL: I guess maybe as a  
3 suggestion maybe -- the SRP's a dynamic process and  
4 we're going to get to rev one and rev two eventually.  
5 Maybe you drop it out for now and let some of these  
6 licensees who are getting things reviewed get them  
7 reviewed and then you've got a basis for more examples  
8 and it could go back in later.

9 MS. ROCHE: Or you could take a shot at it  
10 now. Developing another.

11 MR. PIERSON: Well, what's your  
12 recommendation on that?

13 MR. SCHITHEL: To the existing licensees,  
14 it doesn't have enough value for us to work on it.  
15 The appendix won't have enough value for us to spend  
16 a lot of time working on it.

17 MR. PIERSON: We're very happy with the  
18 appendix.

19 MS. ROCHE: The staff is.

20 MR. PIERSON: The staff feels like it is  
21 a significant step in terms of being able to educate  
22 new reviewers coming into the process about how they  
23 need to do it. I don't know. Maybe we'll find out  
24 differently, but that's my sense.

25 MS. ROCHE: Perhaps at a later date as you

1 suggest, you know, maybe I could come up with another  
2 this -- this program.

3 MR. PIERSON: I hate to just throw it over  
4 the fence because it will become one of these, you  
5 know, gray matter things. People will keep a copy.

6 MS. ROCHE: Yes.

7 MR. PIERSON: And it'll live. So, maybe  
8 the better way to do it would be to try to fix it to  
9 be something better and if we -- if it's too specific,  
10 try to come up with another example or another --

11 MS. ROCHE: At a later date.

12 MR. PIERSON: Or even now if we could --

13 MR. KILLAN: Could we use it as part of  
14 the basis of starting the Rosetta stone?

15 MR. PIERSON: We could. I mean that's a  
16 possibility.

17 MR. SCHITHEL: Even if we leave it in as  
18 appendix A and just kind of overlay that.

19 MR. PIERSON: Well, let's take that for  
20 advisement. I think there's some good comments. But,  
21 I want to caution you that I'm not quite ready to kick  
22 it over the fence because I'm afraid if we do that it  
23 will live. Be like Dracula's dog. Keep coming back.

24 MR. MANNING: Well, at this point, those  
25 of us who are actively working on the ISA in hopes of

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1 getting it right the only thing we've really got to go  
2 by at this point is appendix A on the way to package  
3 it.

4 MR. PIERSON: Was there something there  
5 that you feel like you'd like to change or recommend  
6 based on your working through the process? If there  
7 is, let us know. We'd like to know that. Because if  
8 it's useful to you, but it would be more useful if you  
9 provide some change to it. We'd certainly welcome  
10 that.

11 MR. MANNING: We struggle right now as we  
12 go through the process in a couple of areas. For  
13 those who are very detailed making sure the  
14 dimensional analysis works out on everything is  
15 bothersome. But--

16 MR. PIERSON: Well, any suggestions --

17 MR. MANNING: -- where you feel compelled  
18 to go that way because that's the only thing we've got  
19 to say that we've got a high probability of having  
20 acceptance once we're done.

21 MR. PIERSON: Well, like I said, if you  
22 feel that there is some way you could modify that that  
23 would prove it and not lose any of the value, by all  
24 mean send it in and we will consider that.

25 MS. ROCHE: Sure.

1 MR. FARRELL: There are some areas in  
2 appendix A that contain some very useful information  
3 by themselves. But, I think when you try to tie them  
4 together, they don't flow very well.

5 MR. PIERSON: That is true.

6 MR. FARRELL: For example, there's one  
7 table were you assign a numerical value based upon the  
8 type of IROFS and the text says you can incorporate  
9 this in some manner, but how that's actually done is  
10 never shown and that might stymie a reviewer. But,  
11 there is some very good by themselves snippets of  
12 information and I think that could be woven into good  
13 guidance.

14 MR. PIERSON: Well, we welcome comments on  
15 that and I think your idea of taking that template of  
16 the rosetta stone and trying to weave that in there is  
17 probably useful as well.

18 MR. SCHITHEL: I've got fully detailed  
19 engineering procedures on how to execute that. They  
20 stack up about that high. That say specifically how  
21 to do that. If we want to throw those out on the  
22 table as we're working on this thing, we can do that.

23 MR. PIERSON: It's more of a question for  
24 you guys than for us.

25 MR. SCHITHEL: All right. We'll be happy

1 to take whatever we can.

2 MR. DAMON: I mean the message that that  
3 appendix was trying to get across was the idea that  
4 one would develop actual criteria of some kind for  
5 what would constitute acceptable combinations of  
6 controls and that's all it's trying to say. The fact  
7 that you used actual numbers, you don't actually need  
8 to do that. It just -- that's a convenient way of  
9 doing it, but you can -- I mean one of the crit people  
10 actually did this one day. He tried to put together  
11 all different combinations of crit controls and he  
12 just got too -- this huge list of all kinds of things  
13 and it's just very cumbersome when you do it by brute  
14 force. So, the scoring thing is an easier way.

15 But the idea was to suggest that rather  
16 than a completely holistic evaluation where the -- the  
17 OSHA method kind of was like this. They say okay, at  
18 the end of your PHA, you all sit around with the ISA  
19 team. You say okay, guys, do you think this is a good  
20 enough safety design and if they say no, they make  
21 recommendations and they submit them to management and  
22 we just felt that the way BWXT was doing it was more  
23 clear and that it applied some kind of criteria as to  
24 what combinations actually ought to be considered  
25 acceptable.

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1           But, my own view is any method like this  
2 is just, what do you call, I would call them a  
3 screening method for you to sort of know when you  
4 don't really need to worry about something too much  
5 and they're useful I think to focus your attention on  
6 something where you may have a question though. If  
7 something comes out with a low score, then, you know,  
8 why do we think this is okay and what I've discovered  
9 is, you know, like I said before safety margin often  
10 is the real answer. Is the reason these things are  
11 safe is they've got big safety margins on them.

12           MR. FARAZ: If a NRC reviewer looks at a  
13 certain accident scenario and determines that there  
14 are two Robique administrative controls, in his mind,  
15 Robique administrative controls in place, he will  
16 clearly question that. Every time the case is that  
17 there is ample margin beyond those controls, that's a  
18 showing that the criticality would not occur. That's  
19 been my experience. There's always that very, very  
20 large safety margin that exists.

21           Some kind of a screening method that would  
22 bring out these kind of scenarios that the NRC  
23 reviewer concentrates on and screens out the, you  
24 know, the strong robust controls from any further  
25 review. I think it's very, very -- will expedite a

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1 review. He won't have to look at as many accident  
2 scenarios and the controls that are in place will show  
3 that safety is maintained.

4 So, that's something that would be very,  
5 very -- that is very beneficial to the NRC reviewer  
6 and it also provides a very consistent, you know,  
7 avenue that the NRC reviewer can use for all  
8 licensees. So, he's not, you know, it's a means of  
9 obtaining consistency and I think that's very  
10 important.

11 MR. PIERSON: So, we'll take that -- we'll  
12 look at that. You people look at it. If you have any  
13 comments, bring them in and we'll retain it, I guess,  
14 at least for now and take the -- try to work the  
15 template in as well. Because I do think it has some  
16 valuable information and I think that it's valuable  
17 enough that the likelihood that if we pretend like  
18 we're not using it, it's still going to be -- it's  
19 still going to be something that we ought to use  
20 because it's got information there. Okay?

21 MR. KILLAN: One last question, based on  
22 today's meeting and the input, what have you, what  
23 type of turnaround should we expect on -- say in the  
24 iteration of chapter three?

25 MR. PIERSON: Well, I'd like to propose if

1 you -- you all are controlling the resources, but we  
2 walked through the comments and I'd like to maybe have  
3 another meeting in maybe a month or so. Do you think  
4 we could support that?

5 MR. FARAZ: A month would be --

6 MR. PIERSON: Six weeks? That's pretty  
7 long. Yes, I think we're going to have to --

8 MR. FARAZ: We'll try and expedite it.

9 MR. PIERSON: Yes.

10 MR. FARAZ: We will do our best, but the  
11 comments are very -- fairly extensive and --

12 MR. PIERSON: But, we've accepted a lot of  
13 them and walked through them.

14 MR. FARAZ: Right.

15 MR. PIERSON: So, I don't think there's a  
16 lot --

17 MS. ROCHE: Let me suggest that we'll get  
18 back to NEI. But, I would say between four and five  
19 weeks because we're going to have it all no matter  
20 what.

21 MR. FARAZ: I'll be off two weeks.

22 MS. ROCHE: That's right. That's right.  
23 He'll be off for two weeks.

24 MR. PIERSON: Well, do you guys want to  
25 what -- but, I'd like to try something maybe by --

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1 certainly by the middle of June and what I would  
2 suggest we could do is go through this process and  
3 we'll send you back a response on the status of the  
4 comment. We've tried to capture them here which ones  
5 were okay. A lot of them were okay and we'll also try  
6 to revise the language to reflect the comments. You  
7 can do the same thing if you wish.

8 I think that by and large we've accepted  
9 a lot of what you've said. So, it's not going to  
10 require a lot of change on our part. We can get that  
11 electronically.

12 I think that we'll leave appendix A as it  
13 is for now and we'll put -- leave still on hold at  
14 least for the interim because we don't have the  
15 resource to work at this rosetta stone template issue  
16 and what we try to do is come back in say six weeks or  
17 whatever happens to be time frame after we've given  
18 you the comments and you've revised this and maybe  
19 come to some consensus and say this really represents  
20 what we're doing.

21 Now, we're down to the stage of maybe  
22 minor edits and that sort of thing because I think  
23 we've made some significant progress.

24 MR. FARRELL: You mentioned earlier your  
25 intention to provide written comments to what we had

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1 sent into you. I don't -- I would suggest you not  
2 spend a lot of time. I think we've really discussed  
3 them pretty thoroughly.

4 MS. ROCHE: I agree with you.

5 MR. PIERSON: I agree.

6 MS. ROCHE: I agree with you. I don't  
7 think it's necessary.

8 MR. PIERSON: But, the point is though  
9 this is a public process. It's not just us with NEI.

10 MR. FARRELL: Sure.

11 MR. PIERSON: And you've provided comments  
12 to us.

13 MR. FARRELL: Yes.

14 MR. PIERSON: And we need to disposition  
15 of those comments in some fashion. We can't just go  
16 through and say well, here's a version. Addressed all  
17 the comments. In some fashion, you're going to have  
18 to tie that together.

19 MS. ROCHE: Well, can we -- when we look  
20 at these comments and we come with another draft,  
21 could that be construed as our response?

22 MR. SCHITHEL: Can you make reference to  
23 the meeting transcript?

24 MR. PIERSON: We probably could. Let us  
25 think about that.

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1 MS. ROCHE: Yes, I think it makes sense.

2 MR. PIERSON: But, I -- but, we're  
3 probably going to have to do something. There's some  
4 of these comments where we're going to have to think  
5 of some words.

6 MR. SCHITHEL: Sure.

7 MR. PIERSON: I don't want to put these  
8 people on the spot here. There's a process that we  
9 need to work through and we need to -- we need to --  
10 we can't just keep flipping graph. We need to show --  
11 explain what we did so that if somebody's trying to  
12 look in from outside, they can make the same -- come  
13 to the same conclusions that we have.

14 MS. ROCHE: Or perhaps our response could  
15 be we excepted this and this and this comments and if  
16 any there is a difference, those we'll respond to.

17 MR. PIERSON: That's what we have to do.

18 MS. ROCHE: And that could address the  
19 process.

20 MR. SCHITHEL: That would simplify your  
21 work I think.

22 MS. ROCHE: Yes.

23 MR. PIERSON: Right.

24 MS. ROCHE: Yes.

25 MR. PIERSON: I think that's probably

1 true.

2 MR. SCHITHEL: Okay.

3 MR. PIERSON: So, given that, we'll try to  
4 shoot for sometime in that mid-June time frame. It'll  
5 probably -- it may be the third week of June.  
6 Something like that. I'm not sure, but whatever.

7 MR. MANNING: If the meeting's the third  
8 week of June, when would we see the actual comments so  
9 that we can come to the meeting prepared?

10 MR. PIERSON: Well, what I'd like --

11 MR. MANNING: Three days before, four  
12 days.

13 MR. PIERSON: Well, what we'd try to do is  
14 we'll try to revise this and you got your resources.  
15 You know what you can do.

16 MS. ROCHE: I know what I have, too.

17 MR. PIERSON: Yes. And we'll try to  
18 revise the process and talk about comments and try to  
19 get that so you have it, you know, in a reasonable  
20 time frame because the objective of the next meeting  
21 would be to say this is --

22 MS. ROCHE: Let's put it this way. We had  
23 80 how many comment?

24 MR. PIERSON: Eighty-five comments.

25 MS. ROCHE: Eighty-five -- 86 comments.

1 Okay. We have agreed on most of them.

2 MR. PIERSON: Yes.

3 MS. ROCHE: You gave it to us five days  
4 ago? So, I think it's --

5 MR. PIERSON: Well, we could -- we'll try  
6 to do that --

7 MS. ROCHE: -- fair that if we have the  
8 meeting by mid-June, we may give it to you with the  
9 same amount of time.

10 MR. PIERSON: No. No, we'll try to do --  
11 we'll try to do a better than that if we can. I'd say  
12 early June.

13 MS. ROCHE: By -- we'll try to do better.

14 MR. PIERSON: We'll try.

15 MS. ROCHE: But, we'll let you know.

16 MR. PIERSON: Well, let me talk to the  
17 branch chief and Lidia and we'll try to come up with  
18 a schedule. But, the objective will be shoot for mid-  
19 June for the meeting and shoot for early in May --  
20 early June for the disposition and comments if we can  
21 do that.

22 MR. SCHITHEL: Five-day turnarounds for us  
23 or for me personally are quite difficult to -- to --

24 MR. PIERSON: Yes, they are --

25 MR. SCHITHEL: -- allocate time and I

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1 assume you have the same difficulties.

2 MR. PIERSON: Right. So, if we could do  
3 that, then by mid-June we could sit down and we could  
4 go for a goal to capture the rest of this and say this  
5 done and then focus whatever you need to do to  
6 appendix A, create a new appendix B, and put the  
7 rosetta stone together over the next like two or three  
8 months after that.

9 MR. SCHITHEL: Okay.

10 MR. PIERSON: But, at least then you'd  
11 have something down constitute the guidance.

12 MR. KILLAN: Is there anything we can do  
13 to help? We can do help with any of our resources?

14 MR. PIERSON: Let me get back to you on  
15 that.

16 MR. KILLAN: Talk to Marty or what have  
17 you to see if we can get some additional resources to  
18 help get this project moving along because, you know,  
19 we're out of work and we want to have this guidance  
20 wrapped up.

21 MR. PIERSON: You could take -- well, I'm  
22 not sure. Let me think about that. I don't want to  
23 say no, but there's probably -- there are probably  
24 some things we could do.

25 MS. ROCHE: We'll work it out.

1 MR. PIERSON: We'll get in contact with  
2 you on that.

3 MR. SCHITHEL: Sometimes learning curves  
4 take longer.

5 MR. PIERSON: Any comments? Want to end  
6 the meeting?

7 MR. FARAZ: Yes, we can I guess conclude.  
8 So. Thank you very much for attending and we hope to  
9 see you again in another month.

10 (Whereupon, the meeting concluded at 5:15  
11 p.m.)

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**CERTIFICATE**

This is to certify that the attached proceedings  
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