

1 MS. CURRAN: Yes.

2 JUDGE KELBER: Do you want to revise that?  
3 Is it definite that it will lead a better analysis?

4 MS. CURRAN: I guess you would say it  
5 would be a more reliable analysis because you have the  
6 benefit of that. Whether it would change the analysis  
7 or not, I don't know. You mentioned before that it  
8 could. We are fully aware that if we get the more  
9 rigorous analysis that we are seeking here the result  
10 may not come out in favor of hydrogen igniters.  
11 That's a chance we will take. We think what's  
12 important is to do an adequate and complete analysis.

13 JUDGE KELBER: What you are really looking  
14 for is an independent peer review of Revision 3 at  
15 this stage. Is that correct?

16 MS. CURRAN: Yes.

17 CHAIR YOUNG: Anything further on this  
18 one?

19 MR. REPKA: May I respond briefly?

20 CHAIR YOUNG: Briefly, sure.

21 MS. CURRAN: I don't have anything more.

22 MR. REPKA: First with respect to the peer  
23 reviews that were done, the RAI response on Catawba  
24 did say that the Revision 2(b) PRA would be peer  
25 reviewed by the Westinghouse Owners Group in the

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1 spring of 2002. That in fact has been done. I just  
2 wanted the record to be clear on that point.

3 JUDGE RUBENSTEIN: Is that publicly  
4 available?

5 MR. REPKA: The peer review? They are  
6 not. The second point really goes to the relief in  
7 this proceeding. The fact of the matter again is we  
8 are in the context of a SAMA contention. The question  
9 is what further relief could an additional peer review  
10 to include some so-far unstated characteristics lead  
11 to in this proceeding. The answer is nothing.

12 Given the decisions that have been made  
13 with respect to the relevant SAMAs there simply can be  
14 no further relief. In this context, we again have to  
15 go back to the language that is in the Commission  
16 statement of consideration that Judge Rubenstein  
17 alluded to earlier where the Commission in discussing  
18 the SAMA review and I'll read the language. This is  
19 from the Federal Register, June 5, 1996, 61 Fed Reg at  
20 28481.

21 Commission noted that "Although Level 3  
22 PRAs have been used in SAMA analyses to generate site-  
23 specific off-site dose estimates so that the cost  
24 benefit of mitigation alternatives could be  
25 determined, the Commission does not believe that site-

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1 specific Level 3 PRAs are required to determine  
2 whether an alternative under consideration will  
3 provide sufficient benefit to justify its cost." The  
4 Commission further explained that "Licensees can use  
5 other quantitative approaches for assigning site-  
6 specific risk significant to IPE results and judging  
7 whether a mitigation alternative provides sufficient  
8 reduction in core damage frequency or release  
9 frequency to warrant implementation."

10 Given that context of what the Commission  
11 expected a SAMA evaluation to be, it is a major  
12 stretch to argue that Duke needed not only to use a  
13 site-specific, Level 3 PRA as the basis for its SAMA  
14 which it did but also had to have some peer review  
15 that meets some unstated and unspecified standard for  
16 a peer review. The fact of the matter is what has  
17 been accomplished, what has been done as a basis for  
18 the SAMA evaluation far exceeds Commission  
19 expectations and there is simply no regulatory or  
20 factual basis for any additional relief.

21 CHAIR YOUNG: We are getting to the point  
22 of repeating these two arguments on the relief, one  
23 being that there is no further relief that can be  
24 provided and second, there is no further relief that's  
25 required. Alternatively, the intervener's view point

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1 that the relief would be a more thorough analysis. If  
2 you want to respond more directly to that, you are  
3 free to but otherwise we are getting to the point  
4 where you can very quickly summarize those two  
5 arguments and we'll know what you are talking about.

6 MR. REPKA: I will say very briefly on  
7 that point that I completely reject the notion that  
8 either Part 51 or Part 54 or NEPA require further  
9 analysis just for the sake of analysis. A NEPA  
10 analysis requires a hard look at what's relevant to  
11 the licensing decision. As I've stated before, that's  
12 been done in this case in the generic environmental  
13 impact statement, in the Commission's Part 51 rule-  
14 making and in the SEIS. Any further analysis  
15 completely divorced from the relevant issue for  
16 license renewal which is is there any SAMA that  
17 relates to equipment aging within the scope of Part 54  
18 would simply be analysis for the sake of analysis.  
19 The NRC's regulations and NEPA don't require a hearing  
20 for the sake of having a hearing.

21 I don't accept that idea that further  
22 discussion and further analysis is relief in and of  
23 itself. A hearing has to be about something. A  
24 hearing has to be about a genuine material issue which  
25 is material to the issue that's before the Commission

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1 and the Board in the context of license renewal.  
2 That's what we don't have here.

3 MR. FERNANDEZ: Your Honor, can I say  
4 something real quick? The Staff did not rely on  
5 Revision 3 of the PRA in its determination. As far as  
6 the EIS is and the final determinations by the Staff  
7 with regards to NEPA, Revision 3 was not considered in  
8 making their final conclusions and recommendations.

9 JUDGE KELBER: The Staff did not rely?

10 MR. FERNANDEZ: Did not.

11 MR. REPKA: I would point out that the  
12 supplemental SAMA evaluations in the RAI responses in  
13 January 31 and February 1 for Catawba were based on  
14 Rev. 2(b) of the Catawba PRA and not Revision 3. Some  
15 Revision 3 information was discussed later in the  
16 context of the GSI 189 but that was not the basis for  
17 the SAMA evaluations.

18 CHAIR YOUNG: We can certainly do our own  
19 research following on yours on the issue of the level  
20 of analysis that NEPA requires. With that said, we  
21 probably understand the parties' different points of  
22 view on that.

23 JUDGE RUBENSTEIN: I would only add in  
24 terms of public participation once more I'll say these  
25 analyses and the basis and the SER which require

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1 changes to the plants may give you another opportunity  
2 in a proper forum to engage in that kind of a  
3 dialogue.

4 CHAIR YOUNG: Anything further on Subpart  
5 7?

6 MS. CURRAN: I just want to round out the  
7 quotation from Volume 61 of the Federal Register and  
8 note that in the course of the discussion which is  
9 about two pages, the Commission first says that it  
10 believes it unlikely that any site-specific  
11 consideration of severe accident mitigation  
12 alternatives for license renewal will identify major  
13 plant design changes or modifications that will prove  
14 to be cost beneficial for reducing severe accident  
15 frequency or consequences.

16 I would just like to point out that was an  
17 observation. We find ourselves in one of those  
18 unlikely situations. I think that the Commissioners  
19 left the door open for dealing with those site-  
20 specific issues on a case-by-case basis. If you go  
21 down to the end of the first paragraph that Mr. Repka  
22 read when he was reading regarding the Commission's  
23 position about whether Level 3 analysis was  
24 warranted, the final sentence of that paragraph says  
25 "The Commission will review each severe accident

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1 mitigation consideration provided by a license renewal  
2 applicant on its merits and determine whether it  
3 constitutes a reasonable consideration of severe  
4 accident mitigation alternatives." So the  
5 Commissioners did leave it open to you to decide what  
6 the appropriate level of inquiry in this case.

7 JUDGE RUBENSTEIN: Wouldn't that review  
8 not be summarized in the final SEIS on the case  
9 specific analysis and SAMAs?

10 MS. CURRAN: The final SEIS did get into  
11 Level 3 consequence analysis. They in a sense did  
12 what the Commission left open as a possible approach.  
13 Mr. Repka said Duke did a Level 3 analysis.

14 JUDGE RUBENSTEIN: I'm just saying it's  
15 really not a loose end. We did properly investigate  
16 it both in the hearing and in the SEIS. We satisfied  
17 the implication of your reading of what the Commission  
18 said.

19 MS. CURRAN: I think Commission leaves it  
20 to you to determine the adequacy of the review. That  
21 is what we are asking you to do.

22 CHAIR YOUNG: All right. Let's take a  
23 break. Ten minutes. We'll go next to Subpart 6 and  
24 then one through four. Off the record.

25 (Whereupon, the foregoing matter went off

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1 the record at 2:16 p.m. and went back on  
2 the record at 2:31 p.m.)

3 CHAIR YOUNG: On to Number 6.

4 MS. CURRAN: Okay. If you'll bear with me  
5 for just a moment.

6 Contention 6 is another contention that  
7 raises or Sub-contention 6 raises global issues again,  
8 and I don't know if I need to revisit them. This  
9 relates to the Level 3 analysis and the argument  
10 that's made by the other parties is that if we --  
11 first of all, Level 3 was not included in the scope of  
12 the contention.

13 And, second, if we had wanted to raise  
14 these issues, we could have raised them in November of  
15 2001.

16 And our answers to those arguments are the  
17 same as the answers that we have given you on all the  
18 other subparts of the contention, and I'm not sure  
19 it's necessary to go over those again.

20 These issues didn't become important in  
21 our eyes until we saw Duke's evaluation using  
22 NUREG/CR-6427, and then we submitted to you a critique  
23 of the manner in which Duke had addressed those issues  
24 in its SAMA analysis, and that is what this is.

25 And the way that I would like to approach

1 this, if it pleases the Board, is to listen to the  
2 arguments that Duke may have and respond to those  
3 because I think we have also briefed this issue, and  
4 I'm not sure what value it has to go over those  
5 things.

6 JUDGE KELBER: Before we do that, you  
7 state that you only became concerned with this when  
8 you reviewed the treatment made by Duke of the numbers  
9 or the values from NUREG/CR-6427. In treating those  
10 values, did Duke use any different technique than they  
11 used with their own values that they had supplied in  
12 their environmental impact statement or report, I  
13 guess it's called?

14 MS. CURRAN: I don't know for a fact, but  
15 I would -- I think it's reasonable to presume that  
16 they used the values that they had used in their  
17 original SAMA analysis.

18 JUDGE KELBER: No, I'm asking did they do  
19 the same type of -- did they treat the numbers the  
20 same way, that is, use the same formulas, the same  
21 values other than those corresponding to what came out  
22 of 6427?

23 In other words, for example --

24 MS. CURRAN: All right.

25 JUDGE KELBER: -- computing a converted

1 cost or whatever happened.

2 MS. CURRAN: I don't know for a fact, but  
3 it seems reasonable to presume that they did.

4 JUDGE KELBER: Okay. All right.

5 MR. REPKA: Let me start by addressing the  
6 timeliness argument. That's one of three arguments  
7 we've made with respect to this proposed amended  
8 contention.

9 The timeliness argument. Clearly this is  
10 a challenge to the Level 3 analysis model used in the  
11 SAMA evaluation, and as Judge Kelber just referred to,  
12 there was no change between the original SAMA  
13 evaluation and the supplemental SAMA evaluation with  
14 respect to the Level 3 analysis, the way of converting  
15 and addressing off site consequences and averted risk,  
16 benefits, and cost.

17 So Ms. Curran's argument is that this only  
18 became important to us when we saw NUREG 6427 or how  
19 Duke addressed NUREG/CR-6427. Unfortunately that's  
20 not the standard.

21 The standard is not when it became  
22 important to the petitioner. The standard is when it  
23 should have been raised based upon the public record,  
24 and clearly the Level 3 analysis model used in the  
25 SAMA evaluation was available prior to November 2001

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1 and could have been challenged in November 2001.

2 Even the substance of this proposed  
3 amended Contention 6 is not in any way unique to the  
4 scenario of the NUREG. This is a challenge that would  
5 apply broadly to Duke's analysis of any SAMA, and that  
6 just underscores the fact that it could have and  
7 should have been raised earlier, whether or not it  
8 only became important later. The latter is simply not  
9 a relevant criterion.

10 CHAIR YOUNG: Let me just interject a  
11 question here that occurred to me. If the intervenors  
12 had raised this specific issue in the context of its  
13 earlier Contention 2 and/or any others that we're  
14 talking about today, would you argue that the  
15 contention would still have been an omission  
16 contention, which would require them to reraise all of  
17 these issues once you addressed NUREG 6427?

18 MR. REPKA: This cannot be an omission  
19 contention because that's not what it is. This  
20 contention doesn't relate to the Level 2 conditional  
21 containment failure probabilities and whether or not  
22 the NUREG 6427 Level 2 values were incorporated.

23 This contention relates to the Level 3  
24 model. The factors such as the code for assessing  
25 consequences, the decision to look at consequence

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1 consistent with the NUREG in the 50 mile radius around  
2 the plant, those are issues that are not in any way  
3 addressed in the NUREG, and they were affirmatively  
4 addressed. So you could never have characterized this  
5 particular contention as a contention of omission.

6 This was a contention that needed to be an  
7 affirmative contention. By raising it when they did,  
8 the contention is raised untimely. Had they raised  
9 this contention in November 2001, obviously we could  
10 not have objected to it on timeliness grounds, but we  
11 would have objected to it on the basis grounds, which  
12 I'm going to get to.

13 But it is not a contention of omission.

14 CHAIR YOUNG: So you're saying that they  
15 would not have raised it as part of the original  
16 Contention 2. It would have been a separate  
17 contention.

18 MR. REPKA: That's correct. And it even  
19 reads like a separate contention now. I think that  
20 was one of the basic points we always raised about it,  
21 was it wasn't clear if it was going to all SAMAs or  
22 just this particular SAMA.

23 Now that the intervenors have made it  
24 clear they're looking only at this particular SAMA, it  
25 really still doesn't matter. It could have been used

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1 earlier.

2 JUDGE RUBENSTEIN: But aren't some of  
3 these assumptions that go into the models, such as  
4 plume spreading factor or source term and exclusion  
5 areas generically ordained by the NRC?

6 MR. REPKA: They are, and that's going to  
7 go to my argument that the contention really lacks a  
8 basis, but I was going to get to that third.

9 The second argument that relates to this,  
10 putting timeliness aside, is the continuing viability  
11 in light of the SEIS argument, and this is the same  
12 argument that applies to all of the others.

13 I don't want to repeat it all now, but  
14 just to put it in different, more simplistic terms,  
15 the SAMA evaluation result of this particular scenario  
16 that we're talking about and all of the other  
17 scenarios is based upon an assessment of Level 1  
18 results times Level 2 results times Level 3 results,  
19 compute an averted risk factor.

20 Now, what we did with respect to NUREG  
21 6427 was changed up the Level 2 variables. The Level  
22 3 variables didn't change at all. Those variables  
23 were, as I said, subject to challenge earlier, but the  
24 fact remains now if you use different, allegedly more  
25 conservative values in Level 3 with respect to this

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1 particular SAMA, yes, depending upon what values you  
2 choose it might lead to bigger numbers for averted  
3 risk benefit and, therefore, might make the conclusion  
4 in the SEIS different with respect to the range of  
5 possible costs of a SAMA that might be cost  
6 beneficial.

7           However, the fact would remain that where  
8 we are in this license renewal process would be  
9 exactly the same. We would have an SEIS concluding  
10 that there is at least potentially, given this range  
11 of costs and benefits, a cost beneficial SAMA that  
12 needs to be looked at in Part 50. This contention  
13 won't change the license renewal result in any way.

14           The third argument with respect to this  
15 contention is even putting timeliness aside and the  
16 fact that it's a contention for which there can be no  
17 further relief in this proceeding, is it really lacks  
18 a regulatory and factual basis. There are a number of  
19 challenges, and I don't want to repeat all of this  
20 because it's addressed in detail in our filings.

21           Most recently in the -- certainly  
22 originally in our filings last year in response, but  
23 most definitely in our February 7th, 2003 filing in  
24 response to the Board's question is there any basis to  
25 depart from accepted NRC analysis techniques,

1 regulatory guidance, or regulatory guides, this is the  
2 contention that I think most definitely falls into the  
3 category of the intervenors are arguing that we, Duke,  
4 and the NRC staff in the SEIS should deviate from  
5 accepted generic analysis techniques and guidance.

6 And it's our position that there's no  
7 basis to do that.

8 There are a lot of specific points to be  
9 made with respect to the lack of basis. We talk about  
10 the fact that the Duke PRA or SAMA analysis is based  
11 upon the MACCS5 computer code that's a well accepted  
12 code. There's no basis provided to say that there  
13 should be some other code used.

14 The basis statement includes a reference  
15 to NUREG 1738, which is a spent fuel pool study which  
16 really has nothing to do with what we're here talking  
17 about today. There's some discussion about using  
18 different source terms than Duke used, even though the  
19 fact is that Duke used plant specific source terms  
20 that the NRC concluded were in reasonable agreement  
21 with NUREG 1150, and there's no basis presented to say  
22 that some different source terms should be used.

23 And I think most fundamentally the basis  
24 statement for this proposed contention is asking the  
25 Board and the Commission and the staff in the SAMA and

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1 the SEIS to use excessively conservative values in  
2 risk analysis.

3 The assumption throughout of the  
4 contention is we should always use something, some  
5 number because it's more conservative. It's more  
6 conservative, and the net effect of that is to  
7 compound conservatism upon conservatism upon  
8 conservatism, which renders any risk analysis  
9 nonuseful.

10 I think NUREG 0184 and NUREG 0058, which  
11 are cited in our papers, as well as other papers,  
12 emphasize the importance of using realistic analysis  
13 techniques in a risk assessment in order to come up  
14 with a useful analysis.

15 And that's, in fact, what's been done in  
16 the Duke Level 3 analysis, and in the basis that's  
17 offered, both factual and regulatory, is simply  
18 inadequate to show that there's a real dispute here  
19 for which there could be relief.

20  I think there's more factual details which  
21 we could get into, but I think those are addressed in  
22 the papers, and if there's particular questions I'm  
23 happy to answer them or Mr. Brewer could answer those  
24 questions. But other than that, I think --

25 JUDGE KELBER: Well, I have a question

1 that I think is more properly addressed to the staff,  
2 but I'll ask you anyway since you're talking.

3 Does the proposal with respect to using a  
4 100 mile radius region run counter to 10 CFR 50,  
5 Appendix I, Section II, Roman numeral two, Part D?

6 MR. REPKA: Without that regulation in  
7 front of us, I don't think we can give you a  
8 definitive answer to it. Certainly we think the 50  
9 mile radius is consistent with the other applicable  
10 regulatory guides.

11 I can give you a citation if you'd bear  
12 with me for a minute.

13 JUDGE RUBENSTEIN: It's NUREG/BR-0184,  
14 Section 551.

15 MR. REPKA: That sounds right. I know it  
16 was quoted in our response.

17 JUDGE RUBENSTEIN: And 0058, also a  
18 Brookhaven report, Revision III. I think you use  
19 Section 351 of the first 0184 and 0058, Revision III,  
20 at 25.

21 MR. REPKA: I think my problem is we've  
22 responded to these too many times and I can't keep all  
23 of the papers straight.

24 Yes, NUREG/BR-0184, Section 551, states  
25 that for nuclear power plants expected changes in

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1 radiation exposures should be measured over a 50 mile  
2 radius from the plant site. That's one such  
3 reference.

4 And I think that the tenor of the Board's  
5 question last month was is there any basis for  
6 departing from established guidance, and we said in  
7 our response emphatically that there is none, and in  
8 fact, the burden would be on the petitioner to provide  
9 the basis to do that, and certainly none was offered.

10 In fact, the intervenors' response to that  
11 question was they tried to shift the burden to us, and  
12 that simply doesn't work in pleading a contention.

13 JUDGE KELBER: Well, let me read the  
14 reference I referred to in the regulations, which have  
15 a good deal more authority than the reg. guide.

16 MR. FERNANDEZ: Your Honor, can you repeat  
17 the citation, please?

18 JUDGE KELBER: It is Part 50, Appendix I,  
19 Section Roman numeral two, Part D, as in "dog."

20 ~~And~~ And what it says, and I'll elide some  
21 words here, "In addition to the provisions of  
22 Paragraphs A, B, and C above, applicant shall include  
23 the rad waste system all items of demonstrated  
24 technology and when added to the system sequentially  
25 and in order of diminishing cost-benefit returned can

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1 for a favorable cost-benefit ratio affect reductions  
2 of dose to the population reasonably expected to be  
3 within 50 miles of the reactor."

4 Now, that is referring to the rad waste  
5 system, and what I'm asking is is that regulatory  
6 authority concerning a 50 mile radius here?

7 MR. REPKA: Well, that certainly is  
8 regulatory authority that's consistent with what's  
9 used here. It doesn't address exactly the situation,  
10 but it's consistent.

11 It's also consistent with the 50 mile  
12 radius used in the NRC's emergency preparedness  
13 regulations.

14 JUDGE KELBER: Where are those?

15 MR. REPKA: That would be in 10 CFR 50.47  
16 and 10 CFR, Part 50, Appendix E, would be my  
17 recollection off the top of my head.

18 JUDGE KELBER: I think we'll have to  
19 depend on the staff to brief us on the regulations

20 MR. REPKA: And those regulations require  
21 a ten mile plume exposure emergency planning zone and  
22 a 50 mile ingestion pathway emergency planning zone.

23 MR. FERNANDEZ: Excuse me, Your Honor.

24 MR. REPKA: I have nothing further.

25 CHAIR YOUNG: Go ahead.

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1 MR. FERNANDEZ: Your Honors, as far as we  
2 understand, there's no specific provision that would  
3 control here, but all of the provisions, even the  
4 Board's own standing presumptions would lend validity  
5 to a 50 mile radius limitation.

6 But, again, it shows that there is  
7 comparable use of the 50 mile radius in several  
8 different areas. There's no specific one for this  
9 particular issue.

10 Am I to assume that it's the staff's turn?

11 CHAIR YOUNG: Yes.

12 MR. FERNANDEZ: Okay. Your Honor, we  
13 specifically wanted to address timeliness. There's  
14 three issues that the intervenor raises in this  
15 contention. They raise the plumb spreading factors;  
16 those calculations; and the 50 mile radius issue.

17 All of those three issues were apparent  
18 from the day that the ER and the license renewal  
19 application were filed with the NRC. Nothing that has  
20 happened in this proceeding has affected those three  
21 facts or the facts surrounding those three issues, and  
22 nothing in the Sandia report has anything to do with  
23 any of those three issues.

24 So to say that the Sandia report or this  
25 proceeding would in any way affect the obligation of

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1 the intervenor to timely file contentions with regards  
2 to those three issues is a non sequitur. It's a non-  
3 starter.

4 They should have filed these at the  
5 beginning, and they didn't. So they're untimely. I  
6 don't think there's really very much more to say about  
7 that.

8 Thank you.

9 CHAIR YOUNG: Back to you, Ms. Curran, and  
10 could you start by just telling us how this subpart of  
11 your amended contention arises out of 6427 or the RAI  
12 responses and/or the SEIS?

13 MS. CURRAN: A lot has been made here of  
14 the fact that I didn't raise these criticisms in the  
15 first instance, and what I have been trying to get  
16 across to the Board is that these concerns arose out  
17 of the manner in which Duke addressed NUREG/CR-6427.

18 You will not find in NUREG/CR-6427 a  
19 discussion of Level 3 analysis, but what it does is it  
20 elevates the importance of the Level 3 analysis beyond  
21 other issues that are addressed in a SAMA analysis.  
22 Because of the high conditional containment failure  
23 probability it is essential to do a thorough job that  
24 in light of that information looks at what are the  
25 risk implications of that.

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1 And that is where these concerns have  
2 arisen from.

3 CHAIR YOUNG: Are there any specific parts  
4 of the RAI responses or the SEIS that you can point to  
5 with regard to this?

6 MS. CURRAN: If you'll give me a minute.

7 CHAIR YOUNG: Okay.

8 (Pause in proceedings.)

9 JUDGE KELBER: While Ms. Curran is  
10 looking, the regulatory reference to the EPZ ingestion  
11 zone is in 10 CFR 50.47(cB) (2).

12 MS. CURRAN: I'd like to at some point  
13 address the question of the legal relevance of the  
14 various regulations that have been mentioned, but  
15 first to Judge Young's question.

16 Well, in response to RAI-5, well RAI-5  
17 asks Duke to provide the frequency in population  
18 exposure, person-rem, within 50 miles for each  
19 containment failure mode and a breakdown of the  
20 population dose by containment end state.

21 So there is certainly in the RAI and RAI  
22 responses -- this issue is addressed. What are the  
23 implications of Duke SAMA analysis with respect to  
24 risk to the public?

25 And of course, if the consequences are

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1 understated, then the risk aversion factor in terms of  
2 the dollar value will be understated and the benefit  
3 of the SAMA will be understated.

4 CHAIR YOUNG: Was there anything in the  
5 EIS specifically on that?

6 (Pause in proceedings.)

7 MS. CURRAN: I'd refer you to Section  
8 5.2.2.1. It discusses Duke's risk estimates.

9 Also, 5.2.2.2.

10 CHAIR YOUNG: Thanks.

11 MS. CURRAN: Judge Young, would you just  
12 clarify exactly what you wanted to know about the EIS,  
13 what issue it addresses, whether it --

14 CHAIR YOUNG: Oh, just how your amended  
15 contention arose out of something new in the EIS.  
16 What I was getting to was the relationship first to  
17 6427, and then second, how it arose out of the RAI  
18 responses and the EIS, with regard to the timeliness  
19 issue and how it was connected to those rather than  
20 something that would have been raised earlier.

21 (Pause in proceedings.)

22 MS. CURRAN: We did -- pardon me. In  
23 Paragraph 2 of this subpart, we commented while the  
24 GIS claims that the staff reviewed Duke's source term  
25 estimates in the major release categories and found

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1 these to be in reasonable agreement with estimates  
2 from NUREG 1150 for the closest corresponding release  
3 scenarios, Duke has made source term assumptions that  
4 lead to considerably smaller population doses than  
5 those predicted from NUREG 1150 derived source terms.

6 CHAIR YOUNG: Where does that quote come  
7 from? Can you give me a page? Is it from one of the  
8 two sections you gave us? And if so, can you point us  
9 to where?

10 MS. CURRAN: That would have been -- I'm  
11 sorry I didn't include the page number there -- that  
12 would have been the draft EIS.

13 CHAIR YOUNG: Right, right.

14 MS. CURRAN: Which I didn't bring. I  
15 brought the final. We can have a look and see if that  
16 statement is also made in the final.

17 CHAIR YOUNG: Okay.

18 (Pause in proceedings.)

19 MS. CURRAN: The same statement can be  
20 found at page 5 and page 12 of the McGuire GEIS, the  
21 final.

22 CHAIR YOUNG: Just to help us out a little  
23 bit further, can you point us to where on the page?

24 Okay. I see. The end of the first not  
25 full paragraph, but the paragraph that starts on the

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1 previous page. Is that where?

2 MS. CURRAN: Yes.

3 CHAIR YOUNG: Okay.

4 JUDGE KELBER: Now, why is the staff  
5 wrong?

6 DR. LYMAN: Well, actually in looking at  
7 the technical assessment for the resolution of GSI-  
8 189, which was produced at roughly the same time as  
9 the final EIS, this document comes to different  
10 conclusions.

11 So, frankly, we see it as some sort of  
12 inconsistency within the staff's own analysis within  
13 NRC, which of course, is part of --

14 CHAIR YOUNG: Excuse me. Which two  
15 documents now are you -- the two documents that come  
16 to different conclusion are the?

17 DR. LYMAN: Well, here are the --

18 CHAIR YOUNG: The final EIS?

19 DR. LYMAN: The final EIS says that at  
20 least they believe the source term -- Duke's source  
21 term estimates for major release categories are in  
22 reasonable agreement with estimates from NUREG 1150.

23 CHAIR YOUNG: Oh, 11 -- okay. In 1150.

24 DR. LYMAN: Yes, in the technical  
25 assessment summary of -- this was December 17th with

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1 the GSI-189 recommendation. They point out that --  
2 this is page 4 of that document.

3 MS. CURRAN: We have copies of that.

4 CHAIR YOUNG: Okay.

5 MS. CURRAN: If you'd like.

6 DR. LYMAN: Where they look at, in  
7 particular, what are the early containment --

8 CHAIR YOUNG: Why don't you wait until  
9 we're looking at it with you?

10 DR. LYMAN: I'm sorry.

11 CHAIR YOUNG: Bring them on up. No, no.  
12 Have him wait for you.

13 Pardon me. Thank you.

14 And I believe this will be official  
15 Exhibit 5, with the same provisions as before.

16 (Whereupon, the document  
17 referred to was marked as  
18 Exhibit No. 5 for  
19 identification.)

20 DR. LYMAN: So on pages 3 and 4 of this  
21 document, and particularly looking at the top of page  
22 4, the staff points out that the person-rem results  
23 for early failure seemed less by a factor between  
24 three and four than those found for NUREG 1150, early  
25 failures from comparable scenarios. This difference

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1 in health risk was attributed to differences between  
2 Item 4 above and the release classes from NUREG 1150  
3 for comparable scenarios.

4 The NUREG 1150 release fractions for the  
5 important radionuclides are about a factor of four  
6 higher than the ones used in the Duke PRA.

7 Now, that sounds to me like it's a total  
8 contradiction of the statement in the EIS if these  
9 documents came out the same week. It's the same time.

10 JUDGE KELBER: The statements may be true  
11 without noting any internal contradiction. I think  
12 this is simply a statement of fact.

13 Did not the alternative source term, which  
14 the Commission authorized the staff to use, the source  
15 term defined in NUREG 1465, have significantly lower  
16 lanthanide group releases than the 1150 releases?

17 DR. LYMAN: Yes, that's true, but the  
18 lanthanide releases do not dominate by any stretch of  
19 the imagination.

20  JUDGE KELBER: So was the Commission wrong  
21 though in authorizing the staff to use at the  
22 alternative source term?

23 DR. LYMAN: No, but I'm not convinced that  
24 that is actually -- that that accounts for the  
25 difference. In fact, the alternate source term is --

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1 there's no indication that that is appropriate for use  
2 in EIS analysis. If you look --

3 JUDGE KELBER: What is not appropriate?

4 DR. LYMAN: NUREG 1465. I don't think  
5 there's any guidance that something --

6 JUDGE KELBER: I thought the Commission  
7 gave explicit guidance to the staff in their  
8 acceptance of this. Were they wrong to do so?

9 DR. LYMAN: In a safety application,  
10 particular -- in fact, each application has to be  
11 approved that this is the alternate source term.

12 JUDGE KELBER: Well, the Commission will  
13 be happy to know your judgement.

14 What criteria should be used to determine  
15 what source term to use?

16 DR. LYMAN: Well, this is a long story  
17 actually. I don't think I want to talk to you about  
18 it here, but NUREG 1465 actually, the lanthanide  
19 releases were lowered arbitrarily during the --

20 JUDGE KELBER: I thought they were --

21 DR. LYMAN: -- production.

22 JUDGE KELBER: -- lowered in cases of --

23 DR. LYMAN: No, actually they were lowered  
24 by ignoring the data from reducing -- from Sandia  
25 experiments done in reducing conditions and --

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1 JUDGE KELBER: I thought they were lowered  
2 because of the experiments of PBF.

3 DR. LYMAN: By leaving out certain data  
4 having to do with reducing conditions under which --

5 JUDGE KELBER: On the reducing conditions.

6 DR. LYMAN: Right.

7 JUDGE KELBER: But the ultra tech  
8 (phonetic) experiments were done by PBF in an  
9 oxidizing condition.

10 DR. LYMAN: Right.

11 JUDGE KELBER: What about the Vega  
12 experiments done in an inert atmosphere? What do they  
13 show?

14 Do they agree with 1465?

15 DR. LYMAN: Well, actually the most recent  
16 results coming from PHEBUS and the most recent PHEBUS  
17 tests find certain cases higher lanthanide releases,  
18 and I'd advise you to look at those.

19 JUDGE KELBER: In what kind of atmosphere?

20  DR. LYMAN: That's in steam, I believe.  
21 It's a core melt scenario.

22 JUDGE KELBER: Would you expect that in an  
23 oxidizing atmosphere you would get more release of the  
24 non-volatiles or less?

25 DR. LYMAN: You'd get less.

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1 JUDGE KELBER: That's what 1465 is about.

2 DR. LYMAN: Americium metal is more  
3 volatile than americium oxide. So in a reducing  
4 environment and -- .

5 JUDGE KELBER: Not in an oxidizing  
6 environment.

7 DR. LYMAN: Right. In a reducing  
8 environment you get more vulnerable metal.

9 JUDGE KELBER: In other words, I'm trying  
10 to get from you why we should use an old source term.  
11 I'm familiar with that work, and Sequoia Release No.  
12 1 is a synthesis of various NUREG 1150 results. NUREG  
13 1150 used TIT 14844, plus some early computational  
14 methods related to aerosol transport and iodine  
15 partition functions.

16 A great deal of work has gone on since  
17 then.

18 DR. LYMAN: That's true, but that's not  
19 reflected in Duke's source term estimates, which were  
20 from the same era as NUREG 1150. They were must MAAP  
21 generated as opposed to --

22 JUDGE KELBER: Well, is MAAP a continually  
23 updated code?

24 DR. LYMAN: But it's never been validated  
25 by the NRC as far as I know.

1 But let me get away from that. It's not  
2 the lanthanide releases that dominate this obviously.  
3 It's the semi-volatile and the iodine, and if you look  
4 at the release fractions that Duke used, these are not  
5 consistent even with NUREG 1465.

6 So I'd suggest you look at the whole  
7 source term.

8 MR. FERNANDEZ: Your Honor, can we add  
9 something? I know we had our chance already, but I  
10 think the rebuttal has gone way beyond what the  
11 original argument or arguments were. So --

12 JUDGE KELBER: I'm trying to determine  
13 what determines an acceptable source term.

14 MR. FERNANDEZ: I understand, Your Honor.

15 I think all of this discussion is not  
16 really germane to the issue. I think if we go back to  
17 the 2.714 as I've alluded to before and look  
18 specifically to in which circumstances are intervenors  
19 allowed to amend their contention slate to address  
20 environmental issues specifically, the rules  
21 specifically address that issue, and what the rules  
22 say is that in order to do that, they can amend those  
23 contentions or file new contentions if the data or  
24 conclusions in the NRC's draft or final documents or  
25 any supplements relating thereto differ significantly

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1 from the data or conclusions in the applicant's  
2 document, meaning the ER.

3 At no point have they addressed that  
4 particular 2.714 requirement, and it --

5 CHAIR YOUNG: And why don't you give us  
6 the subpart?

7 MR. FERNANDEZ: That would be  
8 2.714(b)(2)(111).

9 JUDGE KELBER: Roman numeral three or --

10 MR. FERNANDEZ: Little Roman numeral  
11 three.

12 I mean, and the rules are specifically  
13 designed so that at the initial stage of the  
14 proceeding, the intervenors examine the public  
15 documents, examine the ER, and challenge the ER.

16 We proceed with the hearing. If we come  
17 to different conclusions or use different data than  
18 used in the ER, it would be unfair to tell them that  
19 they can't file a contention based on that new  
20 information if it significantly impacts the analysis.

21 So the rules specifically address, okay,  
22 the staff took a completely different tract. You're  
23 allowed a second bite at the apple. Please file new  
24 contentions.

25 That's not the case here. We never

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1 changed the 50 mile radius. We never changed the  
2 source term. We never changed the plume spreading  
3 factor. It has all been the same from the beginning.

4 So I understand that there may be other  
5 issues that may be tougher to grapple with, but I  
6 think we're spending a lot of time on this one, and  
7 this may not be one of those.

8 JUDGE KELBER: Thank you. That's very  
9 helpful.

10 DR. LYMAN: Sorry. Can I just finish my  
11 thought to close that out?

12 We point out that the iodine cesium  
13 release fractions used for McGuire's early containment  
14 failure were 1.6 percent. I don't have NUREG 1465  
15 with me, but I think for early in vessel plus the gap  
16 fraction release, it's more like 30 percent.

17 And also the lanthanide release fractions  
18 are probably a factor of ten greater than three times  
19 ten to the minus fifth.

20 JUDGE KELBER: Do you want to use my copy  
21 of NUREG 1465?

22 DR. LYMAN: Sure.

23 JUDGE KELBER: I'd like it back.

24 (Pause in proceedings.)

25 DR. LYMAN: PWR releases into containment,

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1 the gap plus early in vessel for halogens is 40  
2 percent, and for alkaline metals it's 30 percent.

3 CHAIR YOUNG: What page are you reading  
4 from?

5 DR. LYMAN: Page 13 of the NUREG 1465.

6 For lanthanides it's two times ten to the  
7 minus fourth as opposed to three times ten to the  
8 minus fifth, which is what Duke used.

9 MR. FERNANDEZ: Your Honor, can I make one  
10 clarification about the data?

11 CHAIR YOUNG: Yes.

12 MR. FERNANDEZ: I've just been told that  
13 the source term addressed in what Dr. Lyman was just  
14 talking about is release into containment. The  
15 releases in dose calculation in Duke's analysis are  
16 released to the environment. So some of the releases  
17 may not look similar because all of our stuff is left  
18 behind inside the containment.

19 JUDGE KELBER: So you're saying that there  
20 may, in fact, be considerable deposition of the iodine  
21 within the containment.

22 MR. FERNANDEZ: I believe so, yes, sir.

23 JUDGE KELBER: As happened at TMI-2, and  
24 John Ahearn calls us every day for more data on the  
25 iodine partition function.

1 DR. LYMAN: But you forget we're talking  
2 about an ice condenser containment which has ruptured.

3 JUDGE KELBER: I understand that, but --

4 DR. LYMAN: -- containment sprays either.

5 JUDGE KELBER: I understand that, but  
6 there's a difference between what goes in and what  
7 goes out.

8 MR. REPKA: Can I clarify just for the  
9 record what document Dr. Lyman just was reading to and  
10 handed to the Board? I didn't --

11 CHAIR YOUNG: NUREG 1465.

12 MR. REPKA: Fourteen, sixty-five.

13 JUDGE KELBER: The alternative to source  
14 code -- accident source code for light water nuclear  
15 power plants.

16 CHAIR YOUNG: Do you want to address what  
17 Mr. Fernandez pointed out earlier with regard to  
18 2.714, Subsection (b)(2)(111)?

19 And then also I think you said RAI-5  
20 responses. Did I write that down right or was that a  
21 ~~previous~~ previous one?

22 MS. CURRAN: I pointed out information  
23 that there was a question that related to consequence  
24 analysis and that it was in the RAI response.

25 CHAIR YOUNG: Okay. And then with regard

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1 to whether there were differences, significant  
2 differences, between the draft or final EIS and the  
3 data or conclusions in the applicant's document?

4 MS. CURRAN: . We didn't see the EIS as  
5 making a significant departure from the RAI responses.  
6 So we didn't amend the contention. If the EIS had  
7 said something new and important that we wanted to  
8 challenge, we would have filed another contention on  
9 that. So I don't think that particular requirement  
10 was at issue.

11 CHAIR YOUNG: So you're mainly basing this  
12 on the response to RAI-5?

13 MS. CURRAN: Yes. Well, including the  
14 response to RAI-5, but I guess, getting back to the  
15 general point that for us the triggering point, in our  
16 view, of when we needed to provide our laundry list of  
17 what was wrong with Duke's consideration of NUREG/CR-  
18 6427 was the point at which they said, "Here's our  
19 analysis."

20 ~~Whether~~ Whether or not they had included the  
21 information in response to RAI-5 or whether that  
22 question gets at everything that's in the amended  
23 contention on consequence analysis, we considered that  
24 it was at that point that we were required to identify  
25 the failings in Duke's implementation or addressing of

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1 NUREG/CR-6427.

2 CHAIR YOUNG: And when you're talking  
3 about Duke's addressing of NUREG 6427, are you talking  
4 about anything other than some of the RAI responses,  
5 the amended --

6 MS. CURRAN: That's the only place that  
7 we're aware of that Duke has responded to the NUREG.

8 And while we're on 10 CFR 2.714, I thought  
9 it might be a useful exercise to go back and do the  
10 hypothetical of what if we had filed a contention that  
11 anticipated that at some point when Duke did do an  
12 analysis what would be required, and I really have  
13 significant doubts as to whether we could have met the  
14 NRC's admissibility standard which would have required  
15 us to raise, I think, a genuine and material issue of  
16 disputed fact.

17 Well, if there is nothing in the record  
18 that addresses NUREG/CR-6427, which was the case in  
19 November of 2001, you all might have said, "Where's  
20 the beef? I mean, what is your dispute?"

21 The only kind of contention that you can  
22 put in now is a contention of omission because there  
23 isn't anything here. I mean, if you want to say that,  
24 go ahead, but it is not a genuine dispute to raise  
25 anticipatory contentions about an analysis that hasn't

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1       been done.

2                   JUDGE KELBER:    Yes, but I think Mr.  
3       Fernandez was referring on behalf of the staff to a  
4       specific provision with respect to environmental  
5       reviews, and what he said is that if the staff came to  
6       a differing conclusion in its evaluation as to, let us  
7       say, the source term, then you could at that time,  
8       without any question of timeliness, enter a  
9       contention.

10                   But this is not the case is what he's  
11       pointing out; that the staff and the applicant agree  
12       as to the source term and the plume and the region.

13                   MS. CURRAN: Well, I guess --

14                   JUDGE KELBER:    Excuse me.    Let me  
15       continue.

16                   MS. CURRAN: Sure.

17                   JUDGE KELBER: Now, the applicant did in  
18       his environmental report include calculations related  
19       to the source term, the plume, and the radium. He  
20       didn't do anything different with the values derived  
21       from 6427, except to use those values where  
22       appropriate.

23                   MS. CURRAN: Well --

24                   JUDGE KELBER: I use "he" as a generic  
25       term.

1 MR. REPKA: I would add to that, Judge  
2 Kelber, that the original center evaluation also  
3 included a SAMA related to hydrogen burn and  
4 containment failure. It didn't use the NUREG 65 in  
5 values, but there was an analysis of that particular  
6 scenario.

7 So if there was some affirmative challenge  
8 to that scenario and the Level 3 assumptions used in  
9 that evaluation, it definitely could have been raised  
10 at that time, and it could have been something other  
11 than a contention of omission.

12 Just to add one other point on the  
13 timeliness, just take one of the examples. Dr. Lyman  
14 keeps pulling more conservative numbers that we could  
15 trade into this analysis to drive up the averted risk  
16 benefit even further for no apparent purpose, given  
17 where we are.

18 But be that as it may, one of the values  
19 that we talked about earlier was the 50 mile  
20 ~~assumption~~ assumption for risk benefits.

21 Well, if we go back to our PRA summary  
22 report, Revision 2, December 1997, on page 6-25,  
23 there's a discussion of the population zone and  
24 evacuation effectiveness. It goes on, provides doses  
25 based upon a PRA, a base case PRA, assuming health

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1 effects within 2,000 miles of the plant; includes a  
2 sensitivity study considering population study only  
3 within 50 miles for the calculation of latent health  
4 effects.

5 There is information on both 50 mile  
6 assumptions, on assumption of something greater. If  
7 you take that example one step further and look, in  
8 fact, at what Duke did in the original SAMA  
9 evaluation, what Duke did was follow Supplement 1 to  
10 Reg. Guide 4.2, which was dated September 2000, NRC  
11 Regulatory Guide, which is the instructions for  
12 preparation of supplemental environmental reports for  
13 applications to renew nuclear power plant operating  
14 licenses, as a specific discussion of the SAMA  
15 evaluation and what's required.

16 It specifically cross-references the fact  
17 that a SAMA evaluation has to estimate the value of  
18 the reduction in risk and says that a detailed  
19 discussion of calculating values is found in Chapter  
20 5 of NUREG/BR-0184.

21 If one had taken the time and effort to  
22 read this in November 2001, one would have then gone  
23 to NUREG/BR-0184 and seen the fact that the NUREG  
24 specifically talks about calculating health effects in  
25 a 50 mile radius in Chapter 5 which we discussed

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1 earlier with Judge Rubenstein.

2 So I'm hearing a lot about what couldn't  
3 have been raised, but the fact of the matter is if  
4 this was an issue, it quite clearly could have been  
5 ascertained at that time and raised.

6 Now we're getting a lot of hindsight, a  
7 lot of "well, what about this," "what about that,"  
8 "what about these release fractions." There's no  
9 basis for the release fractions that are being thrown  
10 out. It simply is a lot of smoke and mirrors, quite  
11 frankly, and it's very, very late in the day.

12 MS. CURRAN: I really would like a chance  
13 to respond to that.

14 CHAIR YOUNG: You'll get a chance.

15 Let me just ask you when you're doing  
16 that, could you tell us could you have taken the  
17 information in the application at the outset and  
18 challenged parts of it based on NUREG 6427? Are there  
19 parts of the application that you could have done that  
20 analysis and raised contentions with regard to those  
21 parts?

22 MS. CURRAN: Well, I'm sorry.

23 CHAIR YOUNG: I'm asking could they have  
24 made the challenges to the application using 6427 as  
25 a basis for the challenge.

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1 MS. CURRAN: Well, certainly, I mean, from  
2 our perspective there's also a question of what we  
3 were required to do. It certainly was possible to  
4 have written a contention that said, "You, Duke, have  
5 not addressed NUREG/CR-6427, and when you do, here are  
6 all of the things that you should address."

7 CHAIR YOUNG: Well, I'm asking you to look  
8 at it from a slightly different perspective. Are  
9 there certain things -- I'm assuming that there are  
10 some things that were not in the original application,  
11 namely, any reference to NUREG 6427, and that's what  
12 you based your contention on.

13 Where there other things in the  
14 application that you could have read and looked at in  
15 the environmental report and said, "We have a  
16 contention that Duke's analysis on X page is incorrect  
17 based on," and using as a basis some parts of NUREG  
18 6427?

19 JUDGE RUBENSTEIN: In particular, for this  
20 subpart contention, the plume factor, the source term  
21 for the low population zone.

22 MS. CURRAN: NUREG 6427 does not provide  
23 a basis for challenging those things, but in  
24 considering NUREG/CR-6427, it is -- in considering the  
25 implications of that document and the findings of that

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1 document for a SAMA analysis, it is essential to look  
2 at those things.

3 So NUREG 6427 wouldn't have provided us  
4 insight into the adequacy of the Level 3 analysis, but  
5 the failure of Duke to address the implications of  
6 NUREG/CR-6427 in a comprehensive way that really took  
7 a hard look at the consequences of an accident and  
8 appropriate SAMAs, was an appropriate issue once Duke  
9 had made that attempt.

10 JUDGE RUBENSTEIN: But wasn't it, in a  
11 sense, always an appropriate issue? Isn't that how  
12 the current licensing basis relies on?

13 MS. CURRAN: Wait. I'm sorry. I didn't  
14 understand the question.

15 JUDGE RUBENSTEIN: In siting, haven't  
16 these, the plume factor, the low population zone, and  
17 the source term, been evident since this plant was  
18 licensed?

19 MS. CURRAN: Well, you know, that was  
20 another point I was going to make, which is that you  
21 will find lots of regulatory limits in NRC safety  
22 regulations that don't necessarily apply in a NEPA  
23 context. A low population zone doesn't necessarily  
24 tell you where a plume goes and how far out you should  
25 measure the impacts for an EIS.

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1                   That's a factual determination. When you  
2 cut off a ten mile EPZ or a 50 mile ingestion pathway  
3 zone, that has to do with certain goals the NRC has  
4 under its safety regulations. But those aren't  
5 necessarily co-extant with the goals of a NEPA  
6 analysis, which are generally broader.

7                   JUDGE RUBENSTEIN: Except once having read  
8 6427 and saw the nature of the calculation, these are  
9 all implicit in the calculation. So it's a leap of  
10 intelligence to marry the two, but they were  
11 available.

12                   MS. CURRAN: Well, I think what we're  
13 being asked to do here is to presume how Duke was  
14 going to address NUREG/CR-6427 --

15                   JUDGE RUBENSTEIN: No, no.

16                   MS. CURRAN: -- and we didn't do that.

17                   JUDGE RUBENSTEIN: No. This information  
18 was available in your reading of 6427. It was  
19 implicit in the calculations.

20                   MS. CURRAN: But what would our contention  
21 ~~have~~ said? What would the contention have said?

22                   JUDGE RUBENSTEIN: Well, you would say  
23 that the input to 6427 was not valid because of these  
24 reasons.

25                   MS. CURRAN: But whose input? Duke hadn't

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1 made any input.

2 JUDGE RUBENSTEIN: No, no. Well --

3 MS. CURRAN: There was no analysis that  
4 Duke had done.

5 JUDGE RUBENSTEIN: No, no, pardon me.  
6 You're right. The calculation wherein they used 6427  
7 was not valid.

8 MS. CURRAN: Whose use of 6427?

9 JUDGE RUBENSTEIN: Duke's.

10 MS. CURRAN: But Duke hadn't used 6427 at  
11 that point. So we didn't have a dispute with Duke  
12 about its use of 6427.

13 JUDGE RUBENSTEIN: But they did use it in  
14 their original SAMA calculation.

15 MR. REPKA: We had used the Level 3  
16 methodology.

17 JUDGE RUBENSTEIN: That's right.

18 CHAIR YOUNG: I guess what I'm trying to  
19 get at, if you'll excuse me --

20  JUDGE RUBENSTEIN: Well, it's an important  
21 point.

22 CHAIR YOUNG: If you had --

23 JUDGE RUBENSTEIN: These values were used  
24 in their SAMA evaluation.

25 MR. REPKA: Including of the scenario of

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1 the hydrogen combustion in a station blackout of --

2 JUDGE RUBENSTEIN: Yeah, going back to the  
3 ER.

4 CHAIR YOUNG: If you had read NUREG 6427  
5 in light of what Duke provided in their original  
6 application and environmental report and you said,  
7 "Hey, based on this NUREG 6427, the consequences take  
8 on much more importance and looking at how Duke has  
9 analyzed these three things, we find that they're  
10 insufficient in the following particulars, and their  
11 significance is illustrated by 6427."

12 Now, that's overly summarizing, but that's  
13 the kind of thing that I was sort of thinking of.

14 JUDGE RUBENSTEIN: Or you could have said,  
15 "I looked at the evaluation report, the ER" -- pardon  
16 me -- "the environmental report, and these items are  
17 important in the calculation of the original SAMA,"  
18 and I could have challenged them then.

19 MS. CURRAN: But in the original  
20 contention, I think we did say that this NUREG has  
21 ~~some~~ implications for the SAMA that are very significant,  
22 and we --

23 JUDGE RUBENSTEIN: If the NUREG didn't  
24 exist.

25 MS. CURRAN: When we filed the contention?

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1 JUDGE RUBENSTEIN: They used it in their  
2 SAMA calculation.

3 MS. CURRAN: Well, when we filed the  
4 contention the NUREG existed, and we said, "This  
5 NUREG has significant implications for Duke's SAMA  
6 analysis because it raises the risk."

7 So I mean, we said that. So --

8 JUDGE RUBENSTEIN: But the plume factor,  
9 the source term, and the low population zone were  
10 inherent in the ER calculation, were they not?

11 MS. CURRAN: Yes, but --

12 JUDGE RUBENSTEIN: So you could have, if  
13 you had concerns about those three factors, you could  
14 have addressed them as deficiencies in the ER report.

15 MS. CURRAN: However, it seems to me that  
16 we are entitled to rely on the orderly process as it  
17 is laid out in NRC regulation and case law, which is  
18 that if something is missing from an application, we  
19 challenge it. It's not there.

20  And then if it appears -- I mean, if Duke  
21 had not done anything in response to NUREG/CR-6427,  
22 our contention would still be in there, and then Duke  
23 -- I mean, Duke tried to moot the contention perhaps  
24 by addressing the issue. Well, actually in that case  
25 it was an NRC staff question that Duke answered or

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1 series of questions.

2 But then it becomes incumbent on us to go  
3 the next step and look at, all right, now you've cured  
4 the omission. What's wrong with this?

5 And it seems to me we have to be able to  
6 rely on the process and basically --

7 JUDGE RUBENSTEIN: Well, the process  
8 allowed you to formulate a contention if you had  
9 concerns with those three parameters on all of the  
10 SAMAs, all the SAMAs that Duke calculated when they  
11 submitted their application for license renewal.

12 MS. CURRAN: But we did not know at the  
13 time what Duke would say about the significance of  
14 this document, and I don't think it's fair to expect  
15 us to predict what Duke would say about it.

16 JUDGE RUBENSTEIN: But if 6427 didn't  
17 exist, you had an ER calculation for all the  
18 sequences, all the scenarios based on SAMA analysis.

19 MS. CURRAN: No, I didn't --

20 JUDGE RUBENSTEIN: Using those three  
21 parameters as part of the consequence analysis.

22 MS. CURRAN: But I can tell you that we  
23 were not in a position to make a blanket challenge to  
24 the adequacy of the sama analysis. What came along  
25 was this information in this NUREG which made it

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1 significant to us.

2 JUDGE RUBENSTEIN: I'll accept that.

3 JUDGE KELBER: Well, let me say I think  
4 we've beaten this horse into the ground.

5 JUDGE RUBENSTEIN: Yeah.

6 JUDGE KELBER: The fact is that the rules  
7 are fairly inflexible with the exception that Mr.  
8 Fernandez has noted. They're fairly inflexible in  
9 this respect. It may be unfair, but it's what we have  
10 to live with.

11 By the way, your Exhibit 5 --

12 MS. CURRAN: Which one is it?

13 JUDGE KELBER: That's the technical  
14 assessment summary for GSI, GSI-189. It's very useful  
15 in another respect, something that we discussed  
16 earlier, namely, uncertainty studies.

17 If I look on page 5, there's a table  
18 called Table 2, and what does it use? It uses, for  
19 example, from Duke PRA, Revision 2(b) with some  
20 variations, and Duke PRA Revision 3; it uses fifth  
21 percentile, the mean, and the 95th percentile. Very  
22 interesting.

23 I think you've aided us considerably in  
24 answering the question about the uncertainty analysis,  
25 and we thank you for that.

1 CHAIR YOUNG: I'd like to get back to what  
2 we -- well, do you want to say something in response?

3 MS. CURRAN: Yes, could we please?

4 CHAIR YOUNG: Go ahead.

5 MS. CURRAN: We'll have to come back to  
6 it.

7 CHAIR YOUNG: Since there seems to be some  
8 lack of a meeting of the minds here, I want to just  
9 give you the benefit of where my thinking is at this  
10 point.

11 It seems to me that you had every right to  
12 bring your original Contention 2 or what turned out to  
13 be Contention 2, challenging the omission of  
14 consideration of NUREG 6427.

15 Subsequent to that, when it was considered  
16 and there was new information about how Duke  
17 considered it, provided in the RAI responses and in  
18 changes to the EIS or in -- there was a draft before  
19 the RAI responses, I think, wasn't there?

20  In any event, the --

21 MR. REPKA: Yes, there was.

22 CHAIR YOUNG: In the EIS treatment of  
23 Duke's consideration of NUREG 6427, those new -- that  
24 new information, how Duke handled it and how the staff  
25 handled it after receiving the information from Duke,

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1 those were valid grounds for raising a new or late  
2 filed or amended contention based on that new  
3 information. I think there's no question about that.

4 I think part of the problem I'm having  
5 with this particular one is that it is less tied  
6 specifically to new information provided by Duke or  
7 new information dealt with in the EIS. And what  
8 you've said is that the information that was already  
9 there took on elevated importance in your mind because  
10 of NUREG 6427, but this type of information that was  
11 already there that was not new in how Duke handled  
12 6427 is something that could, it seems to me, could  
13 have been challenged at the outset by taking NUREG  
14 6427 and framing a contention that said, "We challenge  
15 Duke's SAMA analysis. It understates the consequences  
16 of accidents because it relies on assumptions that are  
17 unreasonable and unsupported in these three  
18 particulars.

19 "And part of the basis for our contention  
20 is that NUREG 6427 causes these consequences to take  
21 on added importance because of the things addressed in  
22 NUREG 6427."

23 That's the distinction I'm drawing, and  
24 I'll be looking at the portions of this contention in  
25 slightly different ways based on whether they

1 specifically arise out of new information or are more  
2 generally something that maybe took on added  
3 importance to you, but maybe could have been raised  
4 earlier using 6427 as part of the basis for the  
5 original contention.

6 If that helps you understand any more  
7 where I think we're coming from and you want to  
8 respond to that, I wanted to give you an explanation  
9 so that you can respond to it.

10 MS. CURRAN: At some point if we could  
11 take a break and then I could respond.

12 CHAIR-YOUNG: Sure, and then I think we're  
13 through with the four that you had not had argument on  
14 before, and then we just need to come back and go  
15 briefly through any new issues related to Subparts 1  
16 through 4.

17 MR. FERNANDEZ: Your Honor, can I? I  
18 mean, was the opportunity to address --

19 CHAIR YOUNG: We're not cutting off  
20 anybody's opportunity.

21 MR. FERNANDEZ: Okay.

22 CHAIR YOUNG: We're just talking about  
23 after the break.

24 MR. FERNANDEZ: What you just said  
25 about -- oh, okay. So after the break.

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1 CHAIR YOUNG: No, no, I just said we were  
2 just talking about what would happen after the break.  
3 You can still talk now.

4 MR. FERNANDEZ: Okay. What you just said  
5 just brought up two things in my mind. It's not only  
6 new information, but in 2714 it's modified by  
7 "significant." So it's not just because there's any  
8 kind of new information later developed, but that  
9 information needs to be significant with regard to the  
10 determination.

11 And although we haven't explored this  
12 today, I would ask the Board to be mindful of the  
13 longstanding Commission jurisprudence on limiting  
14 contentions that are solely on the basis of RAI  
15 responses. There's a long body of jurisprudence with  
16 regard to RAIs in relation to contentions that we  
17 haven't gotten into today.

18 CHAIR YOUNG: Right. You are right with  
19 regard to contentions that are solely based on RAIs.

20 MR. FERNANDEZ: Thank you.

21 CHAIR YOUNG: There's no question about  
22 that.

23 Anything further on this Subpart 6, or  
24 would you like to use the break and then come back and  
25 finish up on that before we move on to one through

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1 four?

2 MS. CURRAN: Yes. Thank you.

3 CHAIR YOUNG: Okay. Let's come back in  
4 ten minutes.

5 (Whereupon, the foregoing matter went off  
6 the record at 3:43 p.m. and went back on  
7 the record at 3:57 p.m.)

8 CHAIR YOUNG: Okay. We're back on the  
9 record. You were going to finish up on Subpart 6.

10 MS. CURRAN: Well, I must say that my mind  
11 has been totally arrested by your last comment, and  
12 that's where I'm at. And I'd just like to respond to  
13 that.

14 CHAIR YOUNG: I'm subject to being  
15 persuaded differently. I'm just -- I wanted to offer  
16 that to you as sort of a starting point since this --  
17 we seem to be talking around things.

18 MS. CURRAN: Well, I appreciate your  
19 sharing that, and we've considered whether there's  
20 anything else that we can say. And I think that what  
21 it boils down to is that we have a disagreement  
22 because I can't think of anything else that hasn't  
23 been said to say to you on that point, except we  
24 disagree on the law. And looking back at all of these  
25 contentions, if that is your approach, then it seems

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1 to me that it's important to highlight any subparts  
2 that do not fall under that approach. And I would  
3 like to turn your attention to Subpart 4.

4 CHAIR YOUNG: Okay. Before we do that  
5 though, just with regard to what I said, I understand  
6 your argument to be with regard to those areas where  
7 I was saying theoretically at least could have been  
8 addressed at the outset in part by using NUREG 6427 as  
9 a basis for challenging how Duke treated those  
10 particular subject areas in 1, 2 and 3. Your argument  
11 was since Duke had not addressed NUREG 6427 at all,  
12 you filed your omission contention, and before you  
13 raised specific questions about what Duke did with  
14 regard to the concerns arising out of NUREG 6427, you  
15 planned to wait until Duke had addressed 6427, and  
16 then raised questions about how Duke addressed the  
17 concerns arising out of 6427. Is that --

18 MS. CURRAN: Right.

19 CHAIR YOUNG: Okay. All right. Did you  
20 want to say anything more with regard to Subpart 6 at  
21 this point, or do we want to move --

22 MS. CURRAN: No, I'd like to move on.

23 CHAIR YOUNG: Okay. And is there anyone  
24 else who wants to say anything about Subpart 6?

25 MR. FERNANDEZ: No, Your Honor.

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1 MR. REPKA: No.

2 CHAIR YOUNG: Okay. So then move on, and  
3 if you want to -- we're talking about Subparts 1  
4 through 4 now, and if you want to take them in -- I  
5 don't know that we have any problem with you taking  
6 them in whatever order you think is appropriate, makes  
7 most sense.

8 MS. CURRAN: On Contention 1, I don't  
9 think that we have anything to add there to what we  
10 have previously said in our briefs. Maybe I should  
11 wait to see if others do, or move on to the --

12 JUDGE KELBER: In view of the time  
13 limitations why don't you move on and we'll allow you  
14 to come back if something comes up at a later time.

15 MS. CURRAN: Okay. With respect to  
16 Contention 2, I think there is an issue. It's become  
17 -- assuming for the purpose of argument that we're not  
18 going to go home tonight and change your mind about  
19 where you're headed or thinking, that there is a  
20 portion of this Contention that is still viable, which  
21 relates to those aspects of the PRA that relate to  
22 NUREG/CR-6427, and we would also argue it is very  
23 difficult to evaluate a PRA, one part of the PRA  
24 unless you have access to the entire PRA, because it's  
25 like a pyramid and, you know, one piece rests upon

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1 another. So we would argue that at least a portion of  
2 Contention 2 remains viable in terms of NEPA  
3 disclosure, the adequacy of disclosure for purposes of  
4 NEPA, of the basis for assertions that are made as to  
5 how the values of NUREG/CR-6427 were considered.

6 CHAIR YOUNG: In light of your argument  
7 today, let me ask you something. I had been assuming  
8 in your basis for Subpart 2 that when you talked about  
9 it's not possible to evaluate the adequacy of the  
10 analysis without access to the PRA, that you were  
11 talking about it not being possible for you to  
12 evaluate the adequacy. Then on the other hand, the  
13 actual Contention itself and the subheading talks  
14 about the adequacy of the support for the results in  
15 the RAI responses, and it being inadequate by virtue  
16 of the PRA not being there. Are you just talking  
17 about your own evaluation of the adequacy of the  
18 analysis, or are you talking about something else  
19 there? I'm talking about the second sentence of the  
20 basis of Subpart 2.

21 JUDGE RUBENSTEIN: Can I help you? I  
22 think in your writings you say, "The second purpose is  
23 to serve as environmental full disclosure law  
24 providing agency decision makers, as well as the  
25 President, Congress, CEQ and the public the

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1 environmental cost benefit information that Congress  
2 thought they should have about each qualifying federal  
3 action." Is that what you're accentuating?

4 MS. CURRAN: .Yes.

5 JUDGE RUBENSTEIN: I thought so.

6 CHAIR YOUNG: Thanks. Go ahead. I think  
7 I interrupted you.

8 MS. CURRAN: I don't think I had anything  
9 pending.

10 CHAIR YOUNG: Any more on Subpart 2?

11 MS. CURRAN: I guess I would also draw  
12 your attention to Footnote 1, which mentions the  
13 aspects of NUREG/CR-6427 that implicate the Level 1  
14 PRA analysis, and so to the extent that Level 1 is  
15 used at all in considering NUREG/CR-6427, we would  
16 argue that that information should be disclosed. So  
17 it's not just Level 2, there are certain portions of  
18 the Level 1 analysis that are relevant.

19 CHAIR YOUNG: Well, you're alleging that  
20 it's ~~inadequate~~ inadequate because it's not disclosed.

21 MS. CURRAN: That's right. But if there  
22 is -- I mean, I'm anticipating there may be some  
23 ruling as to the scope of disclosure that we could  
24 seek in this Contention, and so we'd ask you to  
25 consider that to the extent the Contention is limited

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1 to Level 2, issues raised directly in NUREG/CR-6427,  
2 they include mostly Level 2 issues, but some Level 1  
3 issues. And again, I'm making arguments in this  
4 fashion to save time. . We are not in any way  
5 abandoning our basic position, but I'm trying to be  
6 efficient here.

7 CHAIR YOUNG: That's fine. All right.  
8 We're not assuming that you've given up anything that  
9 you've provided us in writing.

10 MS. CURRAN: Okay. Subpart 3 is really  
11 related to Subpart 2, I think.

12 CHAIR YOUNG: But since you're -- if  
13 you're through with Subpart 2 --

14 MS. CURRAN: Oh, I'm sorry.

15 CHAIR YOUNG: -- would the other parties  
16 like to speak to Subpart 2 separately?

17 MR. REPKA: Did we miss 1?

18 CHAIR YOUNG: We skipped 1.

19 MR. REPKA: Okay.

20  CHAIR YOUNG: We're going to come back to  
21 that later if we need -- if there's time.

22 MR. REPKA: We can talk about 2 now if  
23 that works.

24 CHAIR YOUNG: Okay. Go ahead.

25 MR. REPKA: Contention 2 is a challenge to

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1 not so much the PRA itself, but the public  
2 availability of the PRA. We've already discussed it  
3 at length today, but there's a great deal of  
4 information related to the PRAs in the public domain.  
5 In addition, the entire SAMA methodology was described  
6 in the original environmental report. There was  
7 additional information in the RAI responses. And  
8 given all that, we continued to hear that NEPA somehow  
9 requires further disclosure. What exactly needs to be  
10 disclosed I'm not sure, but we hear the general charge  
11 that there needs to be further disclosure.

12 Our position is that there is no  
13 requirement to have a PRA to support a SAMA  
14 evaluation. The NRC SAMA requirements assume that the  
15 SAMA evaluation could be based upon an IPE and an  
16 IPEEE evaluations that were done many years ago and  
17 that are publicly available. The information in the  
18 staff's SEIS is publicly available. I think that  
19 there's more than sufficient information in the public  
20 record to support the NEPA decision that has to be  
21 made in this license renewal context, and I think any  
22 suggestion otherwise completely and arbitrarily would  
23 inflate what the issue is before us in license renewal  
24 in NEPA space or in safety space.

25 The fact of the matter is, in addition,

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1 all of this is ignoring the conclusion reached in Part  
2 51, in Table D-1 based upon the generic environmental  
3 impact statements that the environmental consequences  
4 of severe accidents are small. The NRC's basis for  
5 that NEPA determination is also a matter of public  
6 record, so the basic premise of Contention 2, that  
7 somehow it would be a violation of NEPA to not  
8 disclose further information is just fundamentally,  
9 and factually, and legally wrong.

10 The second point on this Contention is,  
11 and I think this is specifically recognized by the  
12 Commission in CLI 02-28, is it continues to  
13 fundamentally confuse the issue of pleading a  
14 Contention and discovery. And under the NRC's case  
15 law, including the case law cited by the Commission  
16 itself, there's absolutely no basis to require  
17 discovery before Contentions are admitted. And, in  
18 effect, this Contention is trying to do exactly that.

19 CHAIR YOUNG: It might be good if you --  
20 obviously, we're not going to equate anything with  
21 discovery and order discovery at this point, so it  
22 might be better for you to focus, or at least for you  
23 to additionally focus your argument on the aspect of  
24 the contention that relates to adequate support, and  
25 to the issue of supporting the SAMA analysis by

1 publication of the PRA. That's the context in which  
2 I think we need to look at it, because we would agree,  
3 I think probably all of us, that we're not going to be  
4 ordering discovery at this point.

5 MR. REPKA: And that's the argument, the  
6 first argument I made, that there is adequate basis  
7 for the SAMA evaluation included in the SEIS and all  
8 the other documents of record relating --

9 CHAIR YOUNG: And you said that -- and it  
10 does sound like you're getting to the merits when you  
11 make that argument.

12 MR. REPKA: No, that's just a statement of  
13 fact, that the SEIS is there, and I think you have to  
14 look at --

15 CHAIR YOUNG: Well --

16 MR. REPKA: You have to look at the issue.

17 CHAIR YOUNG: The word "adequate" almost  
18 implicitly assumes that one using the word, either  
19 positively or negatively, has an opinion on what's  
20 adequate. But I think it's sort of difficult to say  
21 that whether something is adequate or not is just  
22 simply a statement of fact. And I think that you tend  
23 to be arguing the merits, and we know that you  
24 disagree with the questions about adequacy, but the  
25 question that I asked you this morning remains in my

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1 mind; and that is, are not intervenors permitted to  
2 question the adequacy of the analysis? And that seems  
3 to me to be the more relevant issue, than whether or  
4 not you believe that the analysis that's been done to  
5 date is adequate or not.

6 MR. REPKA: Let me answer that by saying  
7 that everything I've alluded to provides context to  
8 the response. And the point is, there is a vast  
9 amount of information about the PRA, about the SAMA  
10 evaluation, and in the SEIS that's a matter of public  
11 record. That's the context. I won't say whether  
12 that's adequate or not.

13 Now turning the question of adequacy  
14 around, the process of pleading a Contention is not  
15 for me to conclude that that's adequate, or me to  
16 prove that's adequate. A Contention must allege  
17 what's inadequate and what we've heard is inadequate  
18 is publication of the entire PRA. And I think that  
19 that assertion is so broad and so obviously erroneous,  
20 that that can't be the basis of a Contention. Beyond  
21 that, it has no regulatory basis because there's no  
22 requirement even to have a PRA, much less publish the  
23 PRA. Given all that --

24 CHAIR YOUNG: But there is a question of  
25 scientific validity of an analysis. Correct?

1 MR. REPKA: But a Contention must argue  
2 what's not valid, what's not scientifically valid.  
3 This Contention, Contention 2 doesn't do that. It  
4 just says --

5 CHAIR YOUNG: Well, Mr. Repka, though it  
6 seems to me -- I understand that you've pointed out to  
7 us that the summary, Revision 2 summary is a very  
8 extensive summary. It's a long summary, but just ont  
9 he face of it, an argument that says an analysis  
10 that's based on a summary that doesn't provide support  
11 in the form of the data that are being summarized in  
12 the summary has at least some logical sound of reason  
13 to it, and so I guess what I'm trying to do is get you  
14 to focus on not what you believe is adequate or  
15 inadequate, but when could an intervenor faced with a  
16 situation in which the support for a SAMA analysis is  
17 in the form of a summary of a PRA, and they wanted to  
18 see the underlying data, the material that's being  
19 summarized and contended that the analysis is not  
20 sufficiently thorough because it does not -- it's not  
21 supported by the underlying data. It's only supported  
22 by a summary.

23 MR. REPKA: That Contention would have to  
24 have some specificity and basis to say this is not --  
25 this is what's not adequate, this is what's not

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1 adequately supported. This Contention doesn't do  
2 that. This Contention is a broad statement that  
3 simply says the PRA is not available, and must be  
4 available, so that Contention fails for lack of  
5 specificity.

6 CHAIR YOUNG: Well, if the argument  
7 though, if the basis that's put here is that to  
8 publish summary results does not provide adequate  
9 support for the SAMA analysis, and that NEPA requires  
10 a more thorough analysis than what has been provided,  
11 which would, as I understand the argument, include not  
12 just the summary, but the underlying data.

13 MR. REPKA: Well, the question then  
14 becomes why not? Why is it not adequate? What's  
15 wrong? What's missing? That needs to be stated for  
16 an admissible Contention. Then number two is, you  
17 still have to show that that would lead to a different  
18 result, and it would have to be something that would  
19 suggest that the --

20 CHAIR YOUNG: And you're saying --

21 MR. REPKA: -- Staff's conclusion in the  
22 SEIS is unwarranted. That conclusion --

23 CHAIR YOUNG: So hold on. Hold on.  
24 Before you go further, when you say there still has to  
25 be a showing that there's a different result, you

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1 understand that you're arguing a different  
2 interpretation of NEPA than the intervenors, who are  
3 saying that the relief that they want is a more  
4 thorough analysis, whatever the result.

5 MR. REPKA: We had this discussion this  
6 morning, and I don't want to repeat that all again.

7 CHAIR YOUNG: Right. And as I understand  
8 your point on that, you just disagree with their  
9 analysis, with their NEPA analysis.

10 MR. REPKA: My point is that --

11 CHAIR YOUNG: What NEPA calls for.

12 MR. REPKA: -- the scope of NEPA analysis  
13 has to be limited, informed, constrained, defined by  
14 the NEPA question that's before the Agency, and that  
15 question is a narrow one in license renewal. So given  
16 that question, one can't say that what's available is  
17 inadequate without addressing that specific -- some  
18 specific basis for concluding an inadequacy in light  
19 of the issue before the Agency.

20 CHAIR YOUNG: And you think that -- your  
21 point of view is that the basis that's offered, the  
22 examples of the difficulty, the basis that's offered  
23 is insufficient.

24 MR. REPKA: That's correct, both factually  
25 and legally.

1 JUDGE KELBER: I wonder if I could address  
2 our practical question, and that is the factual  
3 question of inadequacy or adequacy, or whatever that  
4 means. The IPE and the IPEEE have both been  
5 published, and of course, NUREG 1150 has been  
6 published. And I assume that IPE included many fault  
7 trees, and event trees, and gut sets and thinks of  
8 that narc.

9 MR. REPKA: That's correct.

10 JUDGE KELBER: Now could one take those  
11 fault trees and event trees, and take the data from  
12 the summary and substitute that at the appropriate  
13 nodes in the fault trees and event trees, redo the  
14 calculation and get new results that one would hope  
15 would be the same as your's in Revision 2?

16 CHAIR YOUNG: Does the summary provide  
17 enough information that you could do that?

18 MR. REPKA: Mr. Brewer is going to answer.

19 MR. BREWER: I don't believe that you  
20 could take the data directly and substitute it into  
21 the fault trees of the IPE submittal. But I do  
22 believe that the summary report provides all of the  
23 relevant data that would allow someone to do a hand  
24 calculation, understanding the specifics of the plant  
25 which you could gain from the IPE submittal. You

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1 could understand how the plant works from the IPE  
2 submittal. You could take the information that we  
3 provided in the summary report; for example, we  
4 provided the loss of off-site power frequency, and we  
5 cited a reference for it, and the methodology for how  
6 we calculated that loss of off-site power frequency.  
7 And understanding that, and comparing it to the IPE  
8 you could see how much of a difference the frequency  
9 of loss of off-site power would make.

10 We also provided the data for the diesel  
11 generator reliability. You could go to the IPE and  
12 understand what that means in terms of the change in  
13 the reliability of the diesels, so I believe that you  
14 could do a relatively simple hand calculation to  
15 determine whether or not the station blackout  
16 frequency is supported by the information we provided.

17 JUDGE RUBENSTEIN: This would determine  
18 the adequacy or inadequacy of your numbers?

19 MR. BREWER: Yes.

20 JUDGE KELBER: Now excuse me, I wanted to  
21 carry on with something now. Let me go on now to  
22 Level 2. First place, NUREG/CR-6595 developed a  
23 technique of using simplified Level 2 assumptions in  
24 which you do not need to explore Level 1. You simply  
25 use those as initiating points on the event trees.

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1 And NUREG/CR-6427 includes a large number, I think 12,  
2 of simplified Level 2 event trees. Could one then  
3 take data that's based on the IPE or the IPEEE, I  
4 forget which, could one then take values from the  
5 Level 2 part of your Revision 2 and use them in the  
6 simplified event trees?

7 MR. BREWER: I think what you're asking is  
8 if someone had the results of the Level 1 PRA as  
9 summarized in our Rev. 2 SAMA report, and tried to put  
10 it into the event trees, simplified event trees of  
11 6427, yes, you could easily do that, because it broke  
12 it down simply by fast station blackout scenarios, and  
13 slow station blackout scenarios.

14 JUDGE KELBER: Okay.

15 MR. BREWER: So yes, you could take our  
16 Level 1 results from the SAMA report and directly  
17 input it into the 6427 event trees. And what we did  
18 in reverse was we knew the early containment failure  
19 probabilities that they got, and we substituted those  
20 into our PRA, so you could do it in either direction.

21 JUDGE KELBER: You could go back and  
22 forth.

23 MR. BREWER: Yes.

24 JUDGE KELBER: Okay. Staff.

25 CHAIR YOUNG: Were you finished? I'm

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1           sorry.    What I was just doing was looking for  
2 something, and I just found it, so it might be simpler  
3 if I ask Mr. Repka now.

4                        What I'm looking at right now is our  
5 order, LBP 0205, and our discussion of the original  
6 Contention here.    I'd be looking at the original  
7 documents if I had them with me, but I don't.  They're  
8 in my office.  And what I'm looking to was to see  
9 whether you had made the argument about aging issues  
10 before, and you did.  And you argued that, "The issues  
11 raised by this Contention are not any way associated  
12 to an equipment aging issue, or any other" -- I'm  
13 reading the bottom of Slip Opinion at 89, "or any  
14 other issue unique to the period of extended operation  
15 and are, therefore, outside the scope of this license  
16 renewal proceeding."

17                       The reason I was looking for that is that  
18 your -- part of your argument that you've made already  
19 this morning, and that we've talked about, but which  
20 we keep coming back to, part of your argument, that  
21 there's been a sufficient analysis and that any  
22 further analysis will take place in the context of GSI  
23 189 is based on your argument that the issues  
24 contained in the original Contention - well, I'm  
25 sorry, contained in the amended Contention - are not

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1 related to aging issues or aging management issues.  
2 And it seems to me that we didn't buy that argument,  
3 and the Commission did uphold the admission of the  
4 original Contention. And so what I would ask you to  
5 address is, if that argument didn't knock out the  
6 Contention in the first place, the original Contention  
7 relating to this SAMA, why should it have any greater  
8 effect in knocking out the amended Contention or any  
9 parts of it at this point, if it didn't before?

10 MR. REPKA: Because the context has  
11 changed. The original Contention that was admitted  
12 and was upheld by the Commission was that the SAMA  
13 evaluation is inadequate because it didn't address  
14 NUREG/CR-6427, the Contention of omission.

15 CHAIR YOUNG: Right.

16 MR. REPKA: So I don't believe we made the  
17 aging argument about that Contention back in December  
18 of '01.

19 CHAIR YOUNG: Well, we --

20 MR. REPKA: We may have made different  
21 arguments, but - -

22 CHAIR YOUNG: I don't think that we would  
23 have said you did if you hadn't.

24 MR. REPKA: Well, I don't recall.

25 CHAIR YOUNG: And I -- we quoted, let's

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1 see --

2 MR. REPKA: It's not --

3 CHAIR YOUNG: We quoted your response at  
4 page 94, your response to the Contention.

5 MR. REPKA: I don't have that document so  
6 I can't say what was said.

7 CHAIR YOUNG: Right. But just take my  
8 word for it for a hypothetical. Take my word for it,  
9 that you did make that argument, and that that  
10 argument was not upheld then. Why should it be upheld  
11 now, just logically.

12 MR. REPKA: Okay. Because the question  
13 was different then. The question before the Board at  
14 that point was, is there an admissible Contention on  
15 the SAMA evaluation, and the Commission said the NUREG  
16 was a sufficient basis to suggest that something more  
17 needed to be done in the SAMA evaluation. The issue  
18 now is different.

19 The issue now is the SAMA evaluation has  
20 been done, including the 6427 data, and the SEIS has  
21 been issued. And the SEIS has concluded that there is  
22 no aging management issue involved and, therefore, the  
23 issue of implementation of any CLB, Current Licensing  
24 Basis change can be addressed in the Part 50 context,  
25 so for a Contention at this point, given the SEIS

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1 conclusion, would have to challenge whether or not the  
2 ultimate conclusion of the -- there is no argument  
3 that the Staff's conclusion is wrong. In fact, the  
4 Staff's conclusion is agreeing with what the  
5 intervenors would have them conclude, but there is no  
6 argument then on the relevant license renewal  
7 question; which is, now does that SAMA relate to aging  
8 management effects, equipment aging and aging  
9 management effects? The answer to that is no, the  
10 Staff has determined, and there's no challenge to that  
11 issue.

12 CHAIR YOUNG: I'm sorry. The basis of  
13 your saying that it's different now is then simply  
14 that the Staff has made that determination, and that's  
15 not subject to question in this proceeding?

16 MR. REPKA: That determination would be  
17 subject to question in this proceeding. It has not  
18 been. The question of whether or not this SAMA  
19 relates to equipment aging has not been challenged in  
20 this proceeding by either the original Contention or  
21 any of the proposed amended Contentions, so that's a  
22 scenario that simply is not --

23 CHAIR YOUNG: But that's not the subject  
24 matter of this part of the amended Contention. And  
25 you're sort of turning it around, and my question to

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1 you was, if aging was not enough to knock out the  
2 Contention in the first place, just purely from a  
3 logical standpoint, I'm not seeing that the fact that  
4 the Staff has made that conclusion makes it any more  
5 relevant than it was before, for purposes of  
6 Contention's admissibility.

7 MR. REPKA: I think the questions are two  
8 very different questions. What we were facing back  
9 then before a SAMA evaluation was done with the NUREG  
10 data, versus what the Staff's conclusion is now given  
11 that the NUREG data has been included. The relevant  
12 license renewal question is now before us in a very  
13 different way.

14 CHAIR YOUNG: But couldn't we have knocked  
15 it out, or couldn't the Commission have reversed us  
16 based on SAMA, and for that matter, NUREG 6427, not  
17 addressing any aging issues?

18 MR. REPKA: Well, I don't remember what  
19 argument we made then, but they could not have  
20 reversed you back then based upon the argument I'm  
21 making now because it's a different argument. The  
22 argument now is the Contention has been overcome by  
23 events. It's been overcome by analysis, and there's  
24 no challenge to the relevant inquiry in the NEPA SAMA  
25 context, which is, do we have a SAMA that relates to

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1 Part 54? And the answer is no.

2 CHAIR YOUNG: What you're doing is you are  
3 arguing that the reason why there's no need for a more  
4 extensive analysis in what we've called "NEPA space",  
5 is because that more extended analysis is going to be  
6 done in Part 50 space as a CLB issue, because it does  
7 not involve an aging issue.

8 MR. REPKA: That's true.

9 CHAIR YOUNG: Okay.

10 MR. REPKA: And that's exactly why it  
11 can't be addressed here.

12 CHAIR YOUNG: Okay. That's your argument.  
13 Okay.

14 MR. FERNANDEZ: Just for clarity's sake,  
15 and I don't know if I was the only one that was  
16 confused in the exchange you just had with Mr. Repka.  
17 To me, and I don't know if to anybody else, it wasn't  
18 clear what Contention you were talking about could not  
19 be "knocked out", based on the --

20 CHAIR YOUNG: The original Contention that  
21 we admitted as Contention 2.

22 MR. FERNANDEZ: So you're not talking  
23 about the ones before us right now?

24 CHAIR YOUNG: I was comparing the ones  
25 before us, specifically Subpart 2, to the original

1 Contention.

2 JUDGE RUBENSTEIN: She was looking for an  
3 analogy between the original Contention's scope of the  
4 hearing and the current issue.

5 CHAIR YOUNG: With regard to whether it  
6 related to aging issues or not.

7 MR. FERNANDEZ: Any one of the subparts in  
8 particular?

9 CHAIR YOUNG: Subparts of what?

10 MR. FERNANDEZ: Which one of the eight  
11 were you talking about?

12 CHAIR YOUNG: Well, we're right in the  
13 middle of talking about 2 right now.

14 MR. FERNANDEZ: Two, okay. Just making  
15 sure. Thank you.

16 CHAIR YOUNG: Okay. Anything further from  
17 Duke? Staff.

18 MR. FERNANDEZ: We have nothing to add,  
19 Your Honor.

20 CHAIR YOUNG: Okay. Do you have anything?

21 MS. CURRAN: Yes. Well, just on this last  
22 issue that you raised, I just wanted to point  
23 something out; that I guess I want to clarify it for  
24 the Board, because I think it's something misleading  
25 in the EIS. It's a statement on 5-30 of the McGuire

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1 EIS.

2 CHAIR YOUNG: Hold on one second. It's  
3 somewhere here. Page what again?

4 MS. CURRAN: 5-30.

5 CHAIR YOUNG: Go ahead.

6 MS. CURRAN: This is a paragraph that I  
7 have read over and over again, with this question in  
8 mind, "What is the Staff's view of the relationship  
9 between Part 54 and Part 51?"

10 CHAIR YOUNG: You're talking about the  
11 paragraph that starts, "The Staff concludes"?

12 MS. CURRAN: Yeah. And there's two  
13 sentences kind of in the middle of the paragraph. One  
14 says, "However, this SAMA does not" - and they mean  
15 the SAMA of hydrogen - "does not relate to adequately  
16 managing the effects of aging during the period of  
17 extended operation. Therefore, it need not be  
18 implemented as part of license renewal pursuant to 10  
19 CFR Part 54." And I just want to point out our  
20 interpretation that this document is not a Part 54  
21 document. This is a Part 51 document, so it's -- I  
22 guess it's reasonable to point out that this SAMA is  
23 not a measure that has to be taken to address aging  
24 issues under Part 54. But that does not address the  
25 question of what the Staff's action should be with

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1 respect to a Part 51 SAMA issue.

2 I just want to clarify that, because I  
3 found it something confusing in here, and I find  
4 Duke's -- the distinction that Duke tries to make, and  
5 I think it's important to go back to, what is a SAMA?  
6 What do the Part 51 regulations require for SAMA  
7 analysis? And they do not mention aging. They just  
8 talk about how if a SAMA analysis wasn't done before,  
9 it needs to be, and that's all.

10 MR. FERNANDEZ: Your Honor, again for the  
11 sake of clarifying something for the Commission.

12 CHAIR YOUNG: Are you finished?

13 MS. CURRAN: I'm done on that point.

14 CHAIR YOUNG: Okay. Go ahead.

15 MR. FERNANDEZ: I believe the Commission  
16 spoke specifically to what Ms. Curran just addressed  
17 on page 22 of their Slip Opinion. And I believe I  
18 previously cited Footnote 77, where if we have any  
19 questions as to how to interpret Part 54 and Part 51,  
20 the question has been addressed by the Commission  
21 already, unless the Board would like to take a  
22 different position. But the Commission specifically  
23 said that these types of decisions, meaning decisions  
24 related to these types of SAMAs are relegated to Part  
25 50.

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1 CHAIR YOUNG: Right. And I think we went  
2 around this same circle earlier. And the question I  
3 think I asked you before about that was, if we're not  
4 talking about the decision, we're not talking about  
5 the ultimate outcome, but we're talking about the  
6 analysis that needs to be performed under Part 51,  
7 that seems to be a different thing than the decision.  
8 This is something that is a recurring thing, the issue  
9 of the ultimate outcome, the decision that's made  
10 about what measures need to be taken being a separate  
11 thing, a different thing from the analysis that the  
12 thoroughness, and breadth and depth of the analysis  
13 that is taken as part of the EIS. And I'm not sure  
14 that I agree with you that the two things are the same  
15 thing, and that the Commission by referring to the  
16 decisions, is automatically incorporating in that the  
17 analysis that would be done in the EIS that might  
18 eventually be used in any Part 50 decision.

19 As a matter of fact, the Commission quotes  
20 and says, "NEPA does not mandate the particular  
21 decisions an agency must reach, but only the process  
22 the agency must follow while reaching its decisions."  
23 And I think that what we're focusing on here is the  
24 process the agency must follow. And the questions  
25 that have been raised have to do with the thoroughness

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1 of the analysis that must occur during that process.

2 MR. FERNANDEZ: And if I may kind of add  
3 one more thing, Your Honor.

4 CHAIR YOUNG: Sure. You can challenge  
5 what I'm saying. I mean, I'm just --

6 MR. FERNANDEZ: No, I --

7 CHAIR YOUNG: -- giving you my  
8 understanding.

9 MR. FERNANDEZ: I see your argument, and  
10 I guess what should guide us here, must guide us here  
11 is 2.714, and as the Applicant's Counsel has advocated  
12 before --

13 CHAIR YOUNG: But isn't that a different  
14 issue? I mean, we're talking about a different issue.

15 MR. FERNANDEZ: I think it's

16 CHAIR YOUNG: WE have to follow all of  
17 them, because that's a different issue than the one  
18 that the Commission is talking about here. Right?

19 MR. FERNANDEZ: Your Honor, if I may, let  
20 me finish, and I think you'll see where I'm going. If  
21 you look at what the burden is on the intervenors with  
22 regards to when they challenge the adequacy of the  
23 information, let's say we take it as a fact that  
24 adequacy and the actual decision are two separate  
25 things. If you're going to challenge that adequacy in

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1 the proceeding --

2 CHAIR YOUNG: The intervenors.

3 MR. FERNANDEZ: If the intervenor is going  
4 to challenge the adequacy, they need to meet 2.714.

5 CHAIR YOUNG: Right.

6 MR. FERNANDEZ: And they need to  
7 specifically meet the requirement that the licensee  
8 has brought up, that the Contention if proven would  
9 entitle them to some relief that's not already there.

10 CHAIR YOUNG: And again, that's where we  
11 get back to this circle that we've been in all day,  
12 that the relief is the outcome, or the relief in the  
13 context of this proceeding in the EIS is the  
14 thoroughness of the analysis.

15 MR. FERNANDEZ: Well, Your Honor --

16 CHAIR YOUNG: And they're saying that it's  
17 the thoroughness of the analysis.

18 MR. FERNANDEZ: If their Contentions were  
19 truly as they represent them to be based on  
20 NUREG/CR-6427, the outcome would have been the outcome  
21 in that report, which was to have hydrogen igniters in  
22 that type of facility. And that issue is relegated to  
23 GSI 189.

24 CHAIR YOUNG: I'm not sure you understood  
25 what I said. I think that what we're going around in

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1 circles on is the distinction between outcomes and  
2 analysis that may be taken into account in reaching an  
3 outcome.

4 MR. FERNANDEZ: I understood you. I think  
5 we're disagreeing.

6 CHAIR YOUNG: Then maybe you need to  
7 explain it better, because I'm not following, how the  
8 outcome relates to what we're talking about here,  
9 because they're not arguing outcome.

10 MR. FERNANDEZ: Your Honor, when they  
11 first -- when they filed their contentions, they first  
12 alleged there was an omission. Then they supplemented  
13 and they in some Contentions, not in all of them,  
14 challenged adequacy of some of the information. With  
15 regards to the adequacy of the information, they never  
16 challenged the Staff, except for in some instances.  
17 And in regards to those instances, they made certain  
18 untimely claims. But what we're trying to say is that  
19 regardless of whether you're challenging the outcome  
20 or the adequacy, you still need to satisfy 2.714.

21 CHAIR YOUNG: There's no question about  
22 that.

23 JUDGE KELBER: I'm bothered by the use of  
24 the word "adequacy".

25 CHAIR YOUNG: I think probably adequacy of

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1 the analysis would be a better --

2 JUDGE KELBER: Adequacy of the analysis.  
3 I'm not sure, adequacy to what end? In other words,  
4 is it adequate for a decision maker to proceed? Yes.  
5 Is it adequate for a decision maker to proceed on  
6 something else? Maybe not. Let me take a home made  
7 example, the adequacy of my income. My wife says, I  
8 want to buy the Krup Diamond, your income isn't  
9 adequate. That's her contention, it's not adequate.  
10 By the way, I don't think my wife event wants the Krup  
11 diamond.

12 CHAIR YOUNG: What about the adequacy?

13 JUDGE KELBER: So I think the question,  
14 when you say adequacy of information, it's adequacy to  
15 what end, to what use? And that's what bothers me  
16 about the loose phrase, "adequacy of information." It  
17 has to be -- adequacy is a descriptive term. Is it his  
18 efforts were inadequate, his efforts were adequate?

19 MR. FERNANDEZ: I think what Your Honor is  
20 getting to is the requirement that there has to be an  
21 appropriate basis to the claim that there is no  
22 adequate analysis of the information. I think the  
23 Applicant has argued that before, and I think we  
24 argued that in our pleadings, that even when they  
25 challenge the adequacy of the information, they never

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1 provide an adequate basis.

2 JUDGE RUBENSTEIN: Every time I hear  
3 adequacy, I hear a sentence which says this is  
4 inadequate because of the following basis, which has  
5 this impact and these consequences on the decision  
6 process.

7 JUDGE KELBER: I agree with that.

8 MR. REPKA: I want to say I agree with  
9 that, and I agree with Mr. Fernandez. And I would say  
10 that you can't look at the issue of thoroughness and  
11 adequacy divorced from the question of, what is the  
12 issue before us, and what has been determined?

13 JUDGE RUBENSTEIN: And what specifically  
14 is deficient?

15 MR. REPKA: Right. And what's lacking  
16 here is any specificity as to the deficiency. And  
17 what is not being recognized is the conclusion that's  
18 been reached. The question of adequacy of the  
19 documentation may have a very different answer if the  
20 conclusion had been the opposite; which is, that there  
21 is no cause justified SAMA. There might have been.  
22 You might look at that whole question in just a much  
23 different than you would have read it --

24 JUDGE RUBENSTEIN: Except you would still  
25 be required to provide a basis and/or an independent

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1 calculation, or expert opinion, or some specifics so  
2 that one can follow the logic of your rebuttal.

3 MR. REPKA: I agree. But I think when  
4 you've already concluded that a CLB change will be  
5 considered in a Part 50 space, you're in a much  
6 different posture with respect to looking at the  
7 thoroughness of the SAMA evaluation because you need  
8 not necessarily consider all of these other things  
9 that might have been considered, because you've  
10 already reached --

11 CHAIR YOUNG: Let me ask you a question,  
12 Mr. Repka. Let's say that the EIS on SAMAs said we  
13 read what you said, and we sort of like it. We  
14 flipped a coin, and this is what we're going to do.  
15 They've made a decision. Does that carry with it the  
16 determination that the analysis that they used to  
17 reach the decision was adequate? They're two separate  
18 issues logically, aren't they?

19 MR. REPKA: You can't answer that question  
20 outside a specific set of facts, but the last point I  
21 made --

22 CHAIR YOUNG: Well, you can answer that  
23 question.

24 MR. REPKA: -- would simply be that you  
25 would look at that question on adequacy. One of the

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1 things you would consider is what is the result that  
2 was reached. If they had flipped a coin and come to  
3 the conservative or bounding result, you wouldn't  
4 necessarily be as concerned with all the underlying  
5 analysis, because you know it's going to be analyzed  
6 in Part 50 space. If you had flipped a coin and said  
7 I'm not going to look at this any further, you would  
8 be much more vulnerable to a charge --

9 JUDGE RUBENSTEIN: That goes to subjective  
10 motivation - -

11 MR. REPKA: Correct.

12 JUDGE RUBENSTEIN: -- on how you view it,  
13 and that's not part of 2.714, and the basis for a  
14 valid Contention.

15 JUDGE KELBER: It seems to me, if I may  
16 put it succinctly, the question of adequacy can be  
17 defined as, is the conclusion on non sequitur? If the  
18 conclusion does not follow from the analysis, then the  
19 analysis is inadequate in some respect, or the  
20 conclusion is inadequate in some respect, or both are  
21 inadequate. But if its conclusion is not a non  
22 sequitur, I guess it would have to be then a sequitur.

23 JUDGE RUBENSTEIN: In the terms of the  
24 regulation it would be of no consequence.

25 JUDGE KELBER: Yes.

1 CHAIR YOUNG: I'm not sure we're all on  
2 the same wavelength here still. I still think that  
3 there are some issues having to do with the  
4 thoroughness of the analysis, whatever the result is.  
5 And that being a separate issue from the decision. And  
6 the Commission referred to it as the process the  
7 agency must follow, as distinguished from the  
8 decision. And I'm not sure that after all the  
9 discussion we've had to this point, that any further  
10 at this point will make a whole lot of sense right  
11 now. Maybe when we go back and read the transcript of  
12 today's arguments, and read the case law on what NEPA  
13 requires in an EIS with regard to the thoroughness of  
14 the analysis, we'll be able to make a more informed  
15 decision. But how about we each, each of you on this  
16 Subpart 2, we're on 2, I guess, finish up. Is there  
17 anything more on 2, or can we move to 3?

18 MS. CURRAN: I just have a couple of  
19 points to make.

20 CHAIR YOUNG: Okay. We're still on 2.

21 MS. CURRAN: I think Mr. Repka said there  
22 was lots of information on the record, a vast amount  
23 of information. And I just want to emphasize that we  
24 have a factual dispute here as to the amount of  
25 meaningful information that is on the record. And

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1 we've been through with you this morning the various  
2 documents that are and are not on the public record.  
3 But the fact remains that the two most recent  
4 revisions of the PRA, which differ from the IPE and  
5 IPEEE that are on the public record, are not publicly  
6 available. And that the only documents related to  
7 Revision 2 or 3 that are available consist of a  
8 summary of the Revision 2 and Revision 2(b) PRA.

9 Now whether or not this is ultimately  
10 determined to be an adequate amount of information  
11 remains to be seen, but what you have to determine is  
12 whether we've created a material -- raised a material  
13 disputed fact, and we believe that we have given  
14 concrete examples in this Contention of information  
15 that we would need to see in order to make a reasoned  
16 determination. And that is the standard here.  
17 Adequacy isn't just a vague, undecipherable term.  
18 It's a question of whether a reviewer could look at  
19 the information and reach the same conclusion, using  
20 reason. That's all we're asking for here, and I do  
21 not think it's too much, considering the gravity of  
22 the safety issues that are involved.

23 JUDGE KELBER: Do you think Mr. Brewer was  
24 wrong in his statement earlier about using the  
25 information to recreate the PRA?

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1 MS. CURRAN: Well, I don't know. I mean,  
2 I --

3 JUDGE KELBER: Did you try it?

4 MS. CURRAN: Well, I'm going to let --

5 DR. LYMAN: I don't think that's what Mr.  
6 Brewer -- you're saying you can recreate an entire  
7 PRA, and I don't think that was the point that was  
8 made.

9 JUDGE KELBER: Oh, I think what Mr. Brewer  
10 said, that if you take the summary information and you  
11 take the IPE, you can use that to recreate what the  
12 Revision 2 PRA would look like.

13 DR. LYMAN: But we're talking about all  
14 the documentation for the summary information. The  
15 IPE doesn't have any more -- the IPE, at least the  
16 publicly available version that I've seen has as much  
17 -- doesn't have any more information than the Revision  
18 2, so the Revision 2 is essentially an update of the  
19 IPE.

20 MR. REPKA: Mr. Brewer will respond.

21 MR. BREWER: When we submitted our IPE, we  
22 submitted the complete PRA, which included all of the  
23 fault trees for all of the systems, as well. And  
24 actually, whenever we submitted the summary report,  
25 there was a summary appendix that included all of the

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1 dominant failures for all the systems. Unfortunately,  
2 I guess that's been taken out of the public record as  
3 part of the security issues related to 9/11, but that  
4 information was initially available, as well. So I  
5 think you could easily take the information from our  
6 summary document and go back to the IPE, and recreate  
7 the station blackout core damage frequency that we  
8 reported.

9 In addition, we've tried to explain --

10 CHAIR YOUNG: Without the stuff that was  
11 taken out for security reasons. Is that what you're  
12 saying?

13 DR. LYMAN: Yes.

14 CHAIR YOUNG: Okay. Go ahead.

15 DR. LYMAN: The diesel generator failure  
16 probabilities are still in the report. The results  
17 which compare the frequency from before to the  
18 frequency now is still in the report. The loss of  
19 off-site power frequency that we used, and the  
20 reference for how we calculated that is in the report.  
21 In fact, even in diesel generator it tells how many  
22 failures we counted, and how many demands, and how  
23 many run hours we were using to calculate the failure  
24 rate of the diesel generator, so I think there's a  
25 substantial amount of information there. And I think

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1 you could very easily take just the initiators that we  
2 described in our response to the RAIs and diesel  
3 generator reliability, and compare that to before and  
4 after, and you could probably explain the change in  
5 core damage frequently directly, even with just a hand  
6 calculation.

7 JUDGE KELBER: Well, that's what I did.  
8 I think we need to move on.

9 DR. LYMAN: Well, the last point is that  
10 the IPE itself was flawed, especially with regard to  
11 the early containment failure frequency, and that's  
12 what NUREG-1560, which was the Staff's review of the  
13 IPE program pointed out for the ice condenser plants.  
14 And Duke's submittals under-estimated that, which is  
15 the direct legacy of NUREG/CR-6427, so I don't believe  
16 that there's much sense in updating or basing  
17 understanding on a report which already has been  
18 demonstrated to leave out significant initiators that  
19 could lead to early containment failure frequency.

20 MR. REPKA: I'll construe that as a new  
21 Contention, but meanwhile, Mr. Brewer would like to  
22 respond.

23 CHAIR YOUNG: Briefly, because we have  
24 three more subparts, and I'm going to suggest how we  
25 deal with them, so if you could just deal with that

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1 briefly.

2 MR. BREWER: The early containment failure  
3 probabilities that we calculated for station blackout  
4 from our IPE compare almost identically to what was  
5 done in NUREG-1150, and what was then used in 6595 by  
6 the NRC to develop a simplified Level 2 PRA, so I  
7 think there's a lot of basis for what we include in  
8 our Level 2 PRA. And I think we've pointed out many  
9 times that the 6427 analysis was a simplified  
10 analysis, because it only contained Level 2  
11 information, and didn't have the detailed Level 1  
12 information in it, made simplifying assumptions that  
13 can explain the reasons for why it comes up with a  
14 higher early containment failure probability. So I  
15 think the information that we've provided in response  
16 to the RAIs, in addition to the original SAMA analysis  
17 and in the summary reports explain the differences  
18 from our original calculation, as well.

19 CHAIR YOUNG: All right. We've got  
20 Subparts 3 and 4, and then if there was time left, to  
21 go back to Subpart 1. I'm going to suggest, and you  
22 can disagree, but I'm going to just briefly suggest  
23 that we start with the intervenors, give your  
24 arguments on 4 and 3, and to the extent you want to 1.  
25 And the reason I mentioned 4 first is because it's the

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1 one that makes specific reference to NUREG 6427, and  
2 then we'll move to Duke on those three, and the Staff,  
3 and then back for quick rebuttal because we only have  
4 about 40 minutes left.

5 MS. CURRAN: Okay. Contention 4 does  
6 relate, of all these Sub-Contentions most directly to  
7 NUREG 6427. And to our knowledge, this does not  
8 involve information that was previously in the SAMA  
9 analysis. And I'm sure Mr. Brewer will correct me if  
10 I'm wrong about that, but it's my understanding that  
11 new information that came out of Duke's implementation  
12 of, or addressing of NUREG/CR-6427, and what this  
13 Contention challenge is, Duke's failure to incorporate  
14 the same assumptions that were used in the NUREG, or  
15 to justify its departure from that. And we have more  
16 recent documents from the Office of Nuclear Regulatory  
17 Research would -- they confirm the higher values that  
18 were used in the -- or higher range of values, similar  
19 to what was used in NUREG/CR-6427. That's all I have  
20 to say at this point.

21 CHAIR YOUNG: About 4, or about --

22 MS. CURRAN: Oh, you want me to go to 3?

23 CHAIR YOUNG: I was suggesting that you go  
24 to 4, 3, and then 1. And then we move to Duke, just  
25 to save time.

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1 MS. CURRAN: Okay. Well, I'm not sure I  
2 have -- I don't see anything to point out about 3 that  
3 doesn't -- that is unique, that doesn't fall under the  
4 umbrella issue, so I think I'll leave that.

5 CHAIR YOUNG: For rebuttal?

6 MS. CURRAN: Yeah.

7 CHAIR YOUNG: Okay. Oh, excuse me. You  
8 were going to, if you want to quickly touch on 1.

9 MS. CURRAN: Then on 1, well, we would  
10 just rest on the pleading, and we've addressed this in  
11 other briefs.

12 CHAIR YOUNG: Okay. Mr. Repka.

13 MR. REPKA: With respect to Contention 4,  
14 the Board is correct, that this is one that we didn't  
15 argue a timeliness basis for not admitting it, because  
16 it is focused on the RAI responses. However, we do  
17 argue that the Contention is no longer viable in light  
18 of the conclusions of the SEIS, because there's no  
19 basis to require justifying some differences between  
20 Duke's various SAMA evaluations and something based  
21 upon NUREG 6427 at this point, given the conclusion of  
22 the SEIS. That's an argument we've made before, and  
23 I won't belabor it, but I think it's very applicable  
24 to this one.

25 The second argument that we made with

1 respect to this Contention is, it really lacks any  
2 basis for any further analysis or justification, any  
3 legal or factual basis. I think I just heard right  
4 now that somehow this Contention is addressing how  
5 Duke didn't incorporate the 6427 information or  
6 values. Well, we've been over that in the context of  
7 the original consolidated Contention 2. We did  
8 explain that the supplemental SAMA analysis took the  
9 6427 Level 2 values and used them, and there was  
10 absolutely no opposition to the use of those values  
11 and that information.

12 Now did Duke use the NUREG 6427 Level 1  
13 assumptions? No, it did not, because it used the more  
14 recent PRA site-specific Level 1 values. That's  
15 explained in the RAI response, I don't think requires  
16 any further justification. There's been no challenge  
17 or no basis put forward specifically with respect to  
18 the station blackout frequencies, station blackout  
19 contributions to core damage, so there's simply no  
20 basis there.

21 With respect to the other point that I do  
22 believe has come up before with respect to 6427 is  
23 certain assumptions about hydrogen combustion that are  
24 inherent in 6427 a part of the Level 2 analysis, those  
25 assumption are inherent in Duke's use of the 6427

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1 Level 2 numbers. Duke doesn't agree with those. Duke  
2 has explained its position in the RAI responses to the  
3 NRC with respect to hydrogen assumptions, so there's  
4 no basis to challenge those justifications. But the  
5 fact remains, the Level 2 numbers have been used in  
6 the supplemental SAMA evaluations. They've been taken  
7 at face value with all their inherent assumptions, so  
8 there is no basis for a Contention. And particularly,  
9 in light of the fact that the SEIS concludes what it  
10 concludes.

11 CHAIR YOUNG: I'd like to ask you  
12 something that is not so much specifically related to  
13 this one. It's more one of those over-arching things.  
14 I was just quickly looking through my notes to see if  
15 I had any questions I wanted to ask before you left,  
16 and there is one. And that is, on page 19 of your  
17 response filed February 7th, you say, "There could be  
18 no reasonable belief that certain challenges to the  
19 PRAs and SAMA evaluations were within the scope of the  
20 original consolidated Contention 2. And if they were  
21 within the scope of the original one, they are now  
22 moot."

23 When I read that, I read it a couple of  
24 times, and I thought well, this sort of sounds a  
25 little bit like a Catch-22. You seem to be saying that

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1 if something was not within the scope of the original  
2 consolidated Contention 2, it's not admissible at this  
3 point. And if it was within the scope, it was moot  
4 because the original one was moot. And as I mentioned  
5 earlier, the Commission does draw a distinction  
6 between the original Contention and what's left for  
7 the amended Contention. And I don't have that right  
8 in front of me now, but I think it was on page 14  
9 maybe.

10 MR. REPKA: Well, let me address page 19  
11 first.

12 CHAIR YOUNG: Well, 14 of the Commission's  
13 order in 02- 28. And my question is, if you follow  
14 your argument to its logical conclusion, there is no  
15 way that anything in an amended Contention could be  
16 admissible at this point. Because if it was within  
17 the scope, you're saying, it's moot. And if it's not  
18 within the scope, it's untimely because the only  
19 things that could be timely, even arguably, would be  
20 things that were within the scope.

21 MR. REPKA: I think that's true.

22 CHAIR YOUNG: So in other words, there's  
23 no way that any amended Contention could be  
24 admissible? What I'm trying to get you to address is  
25 how could an amended Contention be admissible? The

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1 Commission seems to draw a distinction between the  
2 original Contention and the amended Contention. How  
3 could one ever be admissible?

4 MR. REPKA: It has to be based upon some  
5 new information, and it has to be not mooted or cured  
6 by the SEIS, to use the Commission's words.

7 CHAIR YOUNG: But you said if they were  
8 within the scope of the original one, they would be  
9 now moot.

10 MR. REPKA: If they were within the scope  
11 of the original Contention; that is, looking at the  
12 Level 2 analysis based upon NUREG 6427, that was the  
13 original scope of the Contention as determined  
14 definitively by the Commission, a Contention of  
15 omission. That Contention is now moot, so any issue  
16 that was related to whether or not Duke satisfactorily  
17 incorporated 6427 is moot, because Duke has used the  
18 6427 Level 2 conditional containment failure values  
19 precisely as set forth in NUREG 6427. Those are moot.

20 Now with respect to other issues, and what  
21 we're saying here on page 19 of the February 7th  
22 filing is, other issues that challenge Level 1 inputs,  
23 that challenge the PRA itself, that challenge Level 3  
24 models, all of those things were things that could  
25 have been raised earlier, as we've discussed ad

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1           nauseam here today. And those are not based upon any  
2           new information in the --

3                   CHAIR YOUNG: Maybe it would be better to  
4           say ad infinitum, something rather than ad nauseam.  
5           That has a tone that's not really very pleasing.

6                   MR. REPKA: Well, it wouldn't be  
7           technically correct, ad infinitum, I hope. We've  
8           discussed at length here today, let's try it that way.

9                   CHAIR YOUNG: That's better.

10                   MR. REPKA: So what we said, to read my  
11           sentence back, "Given the information available in the  
12           SAMA evaluations and the PRAs at the time of the  
13           license renewal application, and even before, any  
14           challenge to the PRAs, the Level 1 inputs, the Level  
15           3 models, or any other aspect of those analyses could  
16           have, and should have been articulated at the time  
17           proposed Contentions were originally due in 2001."  
18           That's true. We believe that, and we believe we  
19           discussed that about the Level 3 assumptions. We've  
20           discussed that about station blackout frequency, which  
21           is a Level 1 input, so that statement is true. We  
22           stand by it.

23                   Then we go on and say, "Moreover, there  
24           could be no reasonable belief that such broad-based  
25           challenges to the PRAs and the SAMA evaluations, i.e.,

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1 beyond the scope of the scenario raised in NUREG 6427,  
2 the mitigation alternative to address that scenario,  
3 were somehow already within the scope of the original  
4 consolidated Contention 2."

5 What we're getting at in that sentence was  
6 the fact that, as the Commission recognizes in CLI  
7 02-28, the proposed amended Contentions actually seem  
8 to raise matters far beyond NUREG 6427. They raise  
9 issues that really go to any SAMA evaluation at all,  
10 of any scenario, because they question the entire  
11 model. They question the Level 3 model. They  
12 question the Level 1 inputs. And what we're saying  
13 is, if that was what these Contentions were about, and  
14 I think the intervenors have said now that that's not  
15 what they were about, but if that's what they were  
16 about, then they couldn't possibly have had a  
17 reasonable belief that that was within the scope of  
18 the original Contention, so that's what we're getting  
19 at here.

20 Now your question is, could there have  
21 been a proposed amended Contention? And the answer  
22 is, only if it had raised a matter that was truly  
23 based upon new information in the RAI responses that  
24 could not have been raised by looking at the publicly  
25 available information with sufficient care in

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1 November, 2001. And it is not now cured by the  
2 issuance of the SEIS, so that's the test.

3 JUDGE RUBENSTEIN: And as you said,  
4 consequential.

5 MR. REPKA: And that's inherent in has it  
6 been cured by the SEIS. And the last one would be,  
7 does it have a sufficient basis to meet 2.714. And  
8 that's exactly the test we've applied throughout our  
9 filings to address these proposed Contentions.

10 CHAIR YOUNG: Did you have anything else  
11 on 4, 3 and 1?

12 MR. REPKA: I had nothing on 4. On 3, I  
13 think we really addressed 3 earlier. It's the  
14 Contention that relates most directly to station  
15 blackout frequencies. It's perhaps a little more  
16 diffuse than that, but that's -- I think we've  
17 addressed it. We have argued that again, it's not a  
18 matter -- since it focuses on Level 1 inputs, it's not  
19 a matter that could be of consequence in the  
20 proceeding now, given the SEIS. We talked about the  
21 fact that, again at length, that this is information  
22 that could have been addressed based upon the public  
23 docket back in November of 2001. And we've addressed  
24 the fact that any challenge to the station blackout  
25 frequency actually used in the SAMA evaluations really

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1 lacks a valid basis. And that led us to our  
2 discussion this morning about the fact that nowhere  
3 has anybody said that the diesel generator failure  
4 rate assumed is wrong, and here's why. Nobody has eve  
5 said the loss of off-site power frequency that was  
6 used is wrong, and here's why. And nobody has ever  
7 addressed the fact that again, considering that Duke  
8 actually used both internal and external events, we  
9 did use the Level 2 station blackout contribution to  
10 core damage frequency that's higher than did NUREG  
11 6427, so the Contention, for all those reasons, lacks  
12 a valid basis.

13 CHAIR YOUNG: Well, what about the things  
14 they did say? Do you want to say anything about the  
15 things they did say in their basis?

16 MR. REPKA: I think everything that  
17 they've said in their basis, to the extent I haven't  
18 addressed it one of my over- arching arguments right  
19 now have been addressed in our filing last May, and in  
20 the two February briefs.

21 CHAIR YOUNG: Anything on --

22 MR. REPKA: Certainly, I would refer you  
23 to the May filing, because that was a fairly extensive  
24 filing.

25 CHAIR YOUNG: We have it. Anything

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1 further on -- I don't know if you even said anything  
2 about 1. I think you said you'd rest on your --

3 MR. REPKA: I think there's really nothing  
4 more to be said about Contention 1.

5 CHAIR YOUNG: Okay. Staff, on 4, 3 and 1.

6 MR. FERNANDEZ: I don't think we have  
7 anything to add to 4 and 3. I think as far as  
8 Contention 1, it demonstrates one of the good reasons  
9 of having an adequate and complete record, which I  
10 know Your Honor is a champion of. And I think if we  
11 refer to page 967 of the transcript, Ms. Curran in  
12 response to a question that Judge Young asked,  
13 admitted that part of the answer in response to Judge  
14 Young questioning her about late filing of Contention  
15 1, she said, "I guess part of the answer is yes, we  
16 could have raised Duke's failure to address that  
17 requirement of looking at the option of not seeking  
18 license renewal in response to filing it earlier", so  
19 I think we will rest with that particular observation.

20 CHAIR YOUNG: Any rebuttal? That's the  
21 July 10th one. That related to Subpart 1. Right?

22 MR. FERNANDEZ: It's 5, 6 and 7.

23 MS. CURRAN: Not having the transcript in  
24 front of me, I would just ask the Court to consider  
25 the context.

1 CHAIR YOUNG: Anything else that you or  
2 Dr. Lyman would like to say in response to mainly what  
3 Duke has argued?

4 MS. CURRAN: One moment. I think I heard  
5 an argument that the issue that is raised in Subpart  
6 4 dealt with at some time prior to the RAI response,  
7 and I didn't completely understand it. But I just  
8 want to point out that we have looked at summary of  
9 Revision 2, and we do not see this information about  
10 any assumptions about the amount of in-vessel  
11 oxidation that occurred, or the percent of clad  
12 reacted in that document, so to our knowledge, the  
13 response to the RAI was the first time this issue came  
14 up, and that's with respect to the timeliness issue.

15 MR. REPKA: The point I made about that  
16 was that that's inherent in the NUREG 6427 values.  
17 That was the point I made.

18 MS. CURRAN: Could you clarify that?

19 MR. REPKA: 6427, the containment  
20 performance model that is based on the hydrogen  
21 combustion, and other hydrogen assumptions that Sandia  
22 used so, therefore they're inherent in the conditional  
23 containment failure probabilities in the Sandia  
24 report, which were then used in the supplemental SAMA  
25 evaluations. That's the point, is that the discussion

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1 of hydrogen assumptions is not a valid discussion, or  
2 no longer a necessary discussion given that Duke has  
3 used those values. There's been no issue with respect  
4 to the dismissal, the mootness of the earlier -- of  
5 the original consolidated Contention 2. The issue has  
6 been addressed, was the point I made.

7 CHAIR YOUNG: Through calculations using  
8 the NUREG 6427 numbers. Correct?

9 MR. REPKA: Correct. In the supplemental  
10 SAMA evaluation, it's now been incorporated in the  
11 SEIS.

12 DR. LYMAN: But just to clarify, the point  
13 we are making here is that it's simply not good  
14 enough, especially if Duke provides this calculation  
15 grudgingly. And we heard that even though Duke  
16 doesn't agree with the numbers from NUREG 6427,  
17 they'll do it anyway just to satisfy NRC and us, and  
18 they don't really believe them. They don't have any  
19 confidence in them. That doesn't give us confidence  
20 that this issue is going to be resolved the way it  
21 should be resolved ultimately. And so that is why we  
22 believe that, fully take into account NUREG/CR-6427,  
23 there has to be more of a technical basis provided for  
24 these assumptions, so that the public will have a  
25 chance to decide whether or not what -- if Duke says

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1 they're simply doing it to do it, and they don't  
2 really agree with those values, or NRC in a new  
3 contractor report looking at hydrogen generation and  
4 the uncertainties in hydrogen generation, confirms the  
5 higher range, a document that was only recently  
6 posted, confirms a higher range for hydrogen  
7 generation than certainly the mean greater than what  
8 Duke assumed, that raises again additional questions.  
9 And I think strengthens our request that more  
10 technical information be provided so that the public  
11 has a better understanding of what the reasonable  
12 hydrogen concentrations are, and that NUREG/CR- 6427  
13 must take into account in good faith with  
14 acknowledgement of the technical in the final result.

15 CHAIR YOUNG: Let me just ask you, Dr.  
16 Lyman. Do you dispute that the calculations that Duke  
17 did -- well, that they did take -- that they did use  
18 the NUREG 6427 numbers, with the exception of plugging  
19 in Level 1 SBO frequency?

20 DR. LYMAN: Well, no. They took the Level  
21 2 conditional containment failure probabilities. We  
22 have disputed that that in itself satisfies our  
23 concern that NUREG/CR-6427 was taken into account.

24 CHAIR YOUNG: I'm not getting to that yet.  
25 All I'm trying to understand is, do you dispute that

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1 they did the calculations they said they did? And  
2 then we'll move on to the other. I'm just trying to  
3 understand.

4 DR. LYMAN: They did a calculation by  
5 taking conditional containment failure probabilities  
6 from one context and putting into another.

7 CHAIR YOUNG: And the one context was?

8 DR. LYMAN: Was the NUREG/CR-6427. The  
9 other is their own PRA.

10 CHAIR YOUNG: And so am I understanding  
11 you correctly? You're saying that those were not the  
12 appropriate calculations to do, that they should have  
13 maybe modified them somehow?

14 DR. LYMAN: Right. That was part of the  
15 basis of the original Contention.

16 JUDGE KELBER: Are you saying the RAIs  
17 were incorrect?

18 DR. LYMAN: No. In the previous oral  
19 argument, we made the point that simply -- that Level  
20 1 and Level were not separable. And I'll give a  
21 simple example that I just thought of. It's not the  
22 only one, but it's an obvious one. Take the air  
23 return fan issue - okay. Duke has contended that the  
24 air return fans are necessary to avoid early  
25 containment failure, in addition to the hydrogen

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1 igniters, and NRC has expressed a different view. The  
2 air return fans are also necessary in some sequences  
3 for avoiding core damage. That means whether or not  
4 the air return fan operates has an impact both on  
5 whether a sequence leads to core damage, and whether  
6 or not it will also lead to containment failure. So,  
7 I mean -- and there are numerous systems. That's only  
8 one example. So in my view, as long as there are  
9 links between Level 1 and Level 2, simply you cannot  
10 -- Level 1 and Level 2 analyses are not entirely  
11 independent, and there's some technical issue whether  
12 simply taking these Level 2 conditional containment  
13 failure probabilities and transferring them is  
14 technically justified, and satisfied our original  
15 Contention.

16 CHAIR YOUNG: So let me see if I  
17 understand you. You're not disputing that they did the  
18 calculations they said they did. You're just saying  
19 that they're not -- they don't produce a reasonable  
20 result because they don't take into account the Level  
21 1 contributors.

22 DR. LYMAN: Yes. We've gone on record as  
23 saying to take into account NUREG/CR-6427 involves  
24 more than what Duke did in the RAI response.

25 JUDGE KELBER: In other words, you're

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1 saying that the answers to the RAIs are incorrect?

2 DR. LYMAN: I'm saying that they don't  
3 necessarily represent our desire to see the entire  
4 analysis NUREG/CR-6427 taken into account.

5 CHAIR YOUNG: Does that get us back to the  
6 station --

7 JUDGE KELBER: I don't understand.

8 CHAIR YOUNG: -- blackout issue, or you  
9 had said earlier that there were other Level 1 issues  
10 remaining after station blackout. Right? Or where  
11 are we with regard to that?

12 DR. LYMAN: Well, in so far as that, the  
13 -- you need to know what the other initiators are to  
14 fully evaluate the PRA, and eventually the cost  
15 benefit analysis associated with mitigating one part  
16 of it. So to that extent, I, in my mind, don't see  
17 that you can separate, that it's reasonable to  
18 separate one initiator to look at in isolation, or to  
19 look at Level 1, Level 2 results in isolation.

20 CHAIR YOUNG: What we have to do though,  
21 and I'm sorry to interrupt but we're pressed for time.  
22 What we have to do is we have to make a ruling within  
23 the confines that the Commission has defined for us  
24 in, among other things, CLI 02-28. And without going  
25 back over all the parts of that, at least with regard

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1 to the original Contention, the Commission said that  
2 station blackout frequency was not part of that. Now  
3 I'm not -- and this may get back to a legal argument,  
4 and this gets to what I was asking earlier about what,  
5 if any, distinction there is between the scope of the  
6 original Contention with regard to station blackout,  
7 and the scope of any amended Contentions. And then  
8 you also said that there were other Level 1  
9 contributors. Are you --

10 JUDGE RUBENSTEIN: Is this not, in effect,  
11 a challenge to the NUREG? You're not happy with the  
12 assumptions in the NUREG or the data?

13 DR. LYMAN: No, it's simply -- no, what we  
14 are challenging is the taking into account all the  
15 issues raised in the NUREG could simply be  
16 accomplished by taking the Level 2 conditional  
17 containment failure probabilities and simply  
18 substituting them for the ones in Duke's own PRA,  
19 without thinking through whether that's an appropriate  
20 binning of Level 1 initiators or not.

21 CHAIR YOUNG: Appropriate what?

22 DR. LYMAN: Binning.

23 JUDGE KELBER: You understand that that's  
24 what the original Contention was. You're just saying  
25 your original Contention wasn't technically elegant.

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1 DR. LYMAN: The initial Contention, I'm  
2 not going to comment elegance. We believe that it was  
3 comprehensive, and not limiting. WE believe, you  
4 know, that the entire set of amended Contentions are  
5 consistent with the original intent of that  
6 Contention. But in particular, just to focus on this  
7 one issue, like I said before, we want to have better  
8 justification of these results, and I would simply  
9 point to the Commission's obligation to instill public  
10 confidence. And I don't think the public is going to  
11 be happy with road calculations, without any provision  
12 of understanding the basis for them. And speaking as  
13 an individual and member of the public, I would have  
14 to add that there needs to be attention to the fact  
15 that the public wants to understand what NRC is doing,  
16 what is behind its decision making, whether it's in  
17 the confines of this administrative hearing process or  
18 not. And I find it frustrating as an individual that  
19 issues with technical merit, that are very  
20 safety-significant, that have real implications for  
21 the safety and health of the public on one of these  
22 reactors can be given short shrift because of what I  
23 consider technicalities. And as a scientist, that's  
24 my personal view, and it probably has no role here,  
25 but I just wanted to say it.

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1 CHAIR YOUNG: Just to make sure I  
2 understand. The differences, and this might be clear  
3 to others, but the differences that are not justified,  
4 you --

5 DR. LYMAN: I'll clarify. This one  
6 particular example is the amount of hydrogen  
7 generated. Duke said that it used -- generally the  
8 results they got were within 14 to 53 percent  
9 equivalent clad reactive. NUREG/CR-6427 used a value  
10 of 58.5 percent in the clad reactive. This has to do  
11 with the fact that Duke used its own, I believe the  
12 MAAP code to look at the loss of coolant accident and  
13 studied the core oxidation. NRC and NUREG/CR-6427  
14 used a different code. There are some other  
15 assumptions which are not plain to see, that also go  
16 into that. And also, the latest information, which is  
17 a more comprehensive review of this issue, seems to  
18 indicate the higher range is more appropriate; in  
19 fact, with mean value of around 50 percent, and a  
20 deviation around 16, which would give a range which is  
21 generally higher than the one Duke considered. So I  
22 think the technical evidence is pointing in the  
23 direction of higher values. And that is something  
24 that the public needs to understand.

25 CHAIR YOUNG: Just to clarify for my own

1 mind, the calculations that Duke did, is your argument  
2 about the difference not being justified -- does that  
3 refer to the calculations that they did applying the  
4 NUREG/CR-6427, or prior to doing those calculations?  
5 I'm just not clear on that. Are they part of the  
6 calculations or are they --

7 DR. LYMAN: What I'm referring to  
8 specifically is how they explain why they originally  
9 got a lower -- one of the reasons why they got a lower  
10 containment failure.

11 CHAIR YOUNG: Okay. It refers to their  
12 originals ones.

13 DR. LYMAN: Right.

14 CHAIR YOUNG: But when they did the  
15 calculations using NUREG 6427, they incorporated the  
16 NUREG 6427 values, including those for in-vessel  
17 oxidation.

18 DR. LYMAN: Well, again that's implicit,  
19 like Mr. Repka said, but again we're not sure if that  
20 is -- was the correct application.

21 CHAIR YOUNG: A correct application of?

22 DR. LYMAN: Of -- that that was a  
23 technically correct thing to do, is simply to take the  
24 conditional containment failure probabilities and  
25 transfer them without taking a new look at sequences

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1 of the various --

2 CHAIR YOUNG: But taking them -- did take  
3 with them, or as a part of them, the NUREG 6427  
4 assumptions about in-vessel oxidation being equivalent  
5 to 58.5 percent of the clad reactive. Right or not?

6 DR. LYMAN: Well, it's implicit, but  
7 again, I don't think we know how that particular  
8 element -- we don't understand the contribution of  
9 that particular assumption, as opposed to the  
10 assumption for spontaneous ignition, which is another  
11 issue, or whether or not the air return fans are  
12 operating, which is still another issue. So that's  
13 one of the issues which go into that difference in the  
14 conditional containment failure probability.

15 MR. FERNANDEZ: Your Honor, before we keep  
16 raising any more new issues.

17 CHAIR YOUNG: New issue?

18 MR. FERNANDEZ: Dr. Lyman keeps talking  
19 about new issues, and I'm afraid we're going to be  
20 here until tomorrow.

21 CHAIR YOUNG: We're not.

22 MR. FERNANDEZ: I just -- first, the  
23 Sandia report, as the Commission stated in CLI 02- 28,  
24 the only new information that was found in that report  
25 were the CCFP numbers.

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1 CHAIR YOUNG: We understand.

2 MR. FERNANDEZ: The CCFP numbers were used  
3 by licensee. Dr. Lyman admitted to that, and nothing  
4 has been challenged as to the adequacy of doing that  
5 in the Contention. I don't know what Dr. Lyman is  
6 talking about. If we look back at what was submitted,  
7 we may have a different sense of what the Contention  
8 is.

9 CHAIR YOUNG: We understand your point of  
10 view on that, I think.

11 MR. FERNANDEZ: Okay.

12 CHAIR YOUNG: Any last word?

13 MR. REPKA: I have two.

14 CHAIR YOUNG: We're about to -- everything  
15 is going to turn into a pumpkin.

16 MR. REPKA: One, I just wanted to say with  
17 respect to the public participation and the issues  
18 that Dr. Lyman raises, certainly, and we've alluded to  
19 this before, the GSI 189 process provides an  
20 opportunity for full ventilation of those issues.

21 Second thing, I just wanted to say on the  
22 record, because I had not gotten a chance to fit it in  
23 anywhere else, Ms. Curran at least twice today has  
24 characterized NUREG 6427 as concluding that the  
25 containment failure probability is one. And that

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1 simply is not true, and I wanted the record to reflect  
2 that.

3 CHAIR YOUNG: Do you want to respond to  
4 that before we close?

5 DR. LYMAN: I'll respond to that. On the  
6 order of one, it would probably be more technically  
7 appropriate since it's -- on the order of one to a  
8 scientist is something which is, you know, on the  
9 order of between 10 or 25 percent and 100 percent,  
10 opposed to ones that are -- a scientist will typically  
11 think of one and one-half as very closely related, and  
12 I think that is true in the case. There are particular  
13 sequences where there is a near 100 percent conditional  
14 containment failure probability. The high pressure  
15 sequences, but not the integrated probability.

16 MR. REPKA: Well, the specific numbers are  
17 0.34 for Catawba, and 0.58 for McGuire.

18 DR. LYMAN: Right. And that's based on an  
19 assumption about depressurization in the primary  
20 system, which is also --

21 JUDGE KELBER: I don't think we can debate  
22 the fine points of these calculations without much  
23 more time.

24 MR. REPKA: I just think that is beyond  
25 the scope of the proceeding, a license renewal

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1 proceeding at this point. Second, it is an untimely  
2 issue. It's an issue that could have been raised in  
3 the original proposed Contentions based upon the  
4 publicly available information as of November, 2001.  
5 And third, even at this late date, it still lacks any  
6 regulatory --

7 CHAIR YOUNG: All right. Thank you.

8 MR. REPKA: Thank you, Your Honor.

9 CHAIR YOUNG: Off the record.

10 (Off the record 5:25:35 p.m.)  
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This is to certify that the attached proceedings  
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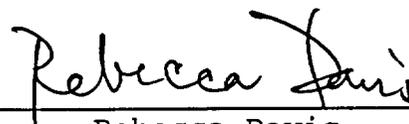
McGuire Nuclear Station

Catawba Nuclear Station

Docket Number: 50-369, 370, 413, and 414

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Rebecca Davis  
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