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

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-

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

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

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

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

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

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

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

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

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

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

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

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 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

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.

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 mild 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

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.

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

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

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

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

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

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 --

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 --

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.

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

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)(iii).
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

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,

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 sin 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)(iii)?
19 And then also I think you said RAI-5
20 responses. Did I write that down right or was that a
21 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

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 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

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

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 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

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 radium in Chapter 5 which we discussed

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.

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

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.

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

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

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 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?

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 an 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

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

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: Sine 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,

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 of
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.

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

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

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.

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

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

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 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

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

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,

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

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

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

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

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.

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

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

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

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

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

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

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

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

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.

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

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

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

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

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

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

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

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

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're 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?

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

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

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

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

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.

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

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

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

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

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.,

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

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

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

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

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

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

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

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

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

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.

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.

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

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.

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

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

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

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

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

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

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

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

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.)
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

Name of Proceeding: Duke Energy Corporation
McGuire Nuclear Station
Catawba Nuclear Station

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

Location: Rockville, MD

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and, thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Rebecca Davis

Rebecca Davis
Official Reporter
Neal R. Gross & Co., Inc.