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Title: Duke Energy Corporation: McGuire Nuclear Station Units 1&2; Catawba Nuclear Station, Units 1 and 2

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

Location: Rockville, Maryland

Date: Tuesday, March 18, 2003

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD
ORAL ARGUMENT

In the Matter of: DUKE ENERGY CORPORATION McGuire Nuclear Station, Units 1 and 2 Catawba Nuclear Station, Units 1 and 2	Docket Nos. 50-369, 370, 413, and 414

Tuesday,
March 18, 2003

ASLPB Hearing Room
Nuclear Regulatory Commission
T3-B45, Two White Flint North
11545 Rockville Pike
Rockville, Maryland

The above-entitled matter came on for hearing, pursuant to notice, at 9:00 a.m.

BEFORE:

ANN MARSHALL YOUNG	Chair
CHARLES N. KELBER	Administrative Judge
LESTER S. RUBENSTEIN	Administrative Judge

APPEARANCES:

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APPEARANCES: (cont'd)

ALSO PRESENT:

Michael J. Barrett, P.E.
H. Duncan Brewer
Edwin Lyman, Ph.D.
Robert L. Gill, Jr.
Gregory D. Robison, P.E.
Louis Zeller

I-N-D-E-X

EXHIBITS NO.	DESCRIPTION	PAGE
1	Letter from Ashok Thadani	1217
2	Revision 2 - McGuire	1246
3	Revision 2b - Catawba	1246
4	GIMC 01/29/03	1322
5	Technical Assessment Summary	1385

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

2 (9:08 a.m.)

3 CHAIR YOUNG: Let's go on the record.

4 We're here this morning to conduct oral
5 argument on the Intervenors' Amended Contention 2, in
6 the proceeding involving Duke Energy's license renewal
7 application with regard to McGuire -- the McGuire and
8 Catawba plants, McGuire Units 1 and 2, Catawba Units 1
9 and 2.

10 On July 10, 2002, we heard argument on the
11 first four parts of that contention. Therefore, this
12 morning we're going to start with 5 and go through 8.
13 However, we recognize that there are some issues that
14 will -- that have arisen as a result of occurrences
15 since July 10th, most specifically the Commission's
16 order in CLI 02-28. And so we will, then, after
17 completing the argument on subparts 5 through 8 of the
18 amended contention, go back and hear further argument
19 on subparts 1 through 4.

20 We're going to set aside -- try to hold to
21 15 minutes per party on each contention, with some
22 additional time for rebuttal for the Intervenors. We
23 may interject questions as we go. If we do, we will
24 not hold that against you, and try to move things
25 along, so that we cover everything that the parties

1 want to bring to our attention in their arguments.

2 At this time, before we go into the

3 argument, let's just have everyone introduce

4 themselves for the record. I'm Ann Marshall Young,

5 Chair of the Atomic Licensing and Safety Board for

6 this proceeding.

7 Judge Kelber?

8 JUDGE KELBER: Charles Kelber.

9 JUDGE RUBENSTEIN: Les Rubenstein.

10 CHAIR YOUNG: And then, let's start with

11 the Staff here.

12 MS. UTTAL: Susan Uttal, representing the

13 NRC Staff.

14 MR. FERNANDEZ: Antonio Fernandez for the

15 Staff.

16 CHAIR YOUNG: Anyone else? Go ahead.

17 MS. CURRAN: Diane Curran for Blue Ridge

18 Environmental Defense League and Nuclear Information

19 and Resource Service. And with me today are Louis

20 Zeller, Director of the Anti-Plutonium Campaign of

21 BREDL, and also Dr. Edwin Lyman, our expert witness.

22 CHAIR YOUNG: Mr. Repka?

23 MR. REPKA: I'm David Repka with the law

24 firm of Winston & Strawn, representing Duke Energy.

25 With me today on my left is Lisa Vaughn, Associate

1 General Counsel, Duke Energy. On my right is Duncan
2 Brewer, a senior manager of the Severe Accident
3 Analysis Group at Duke Energy.
4 Also with me today, behind me, are my
5 colleague at Winston & Strawn, Anne Cottingham; Mr.
6 Michael Barrett, a senior engineer in Severe Accident
7 Analysis at Duke Energy; Greg Robison, Project Manager
8 of the License Renewal Project; and Mr. Robert Gill,
9 the licensing consulting for the License Renewal
10 Project.
11 CHAIR YOUNG: Thank you. Before we go
12 into the argument on subpart 5 of the contention, are
13 there any preliminary matters?
14 MS. CURRAN: Yes, I do have one, Judge
15 Young. Dr. Lyman has an unavoidable conflict around
16 the lunch hour, and he needs to leave about 11:30, and
17 he will be back here at 2:00. And I'm hoping that in
18 the intervening time I can handle whatever comes up,
19 but there may be some questions that we need to get
20 back to after he comes back.
21 CHAIR YOUNG: Do you anticipate that any
22 -- I would assume you'd need him for all the parts of
23 your contention, so we'll just have to adjust for
24 that. Or do you have any suggestion on particular
25 ones that he would be more critical for?

1 MS. CURRAN: Dr. Lyman is suggesting
2 reversing 7 and 8.
3 CHAIR YOUNG: Trying to get 8 done this
4 morning before lunch?
5 MS. CURRAN: Right.
6 CHAIR YOUNG: And then we -- okay. We can
7 do that.
8 MR. REPKA: Judge Young, I have one other
9 matter.
10 CHAIR YOUNG: Yes?
11 MR. REPKA: Just procedural in terms of
12 how we proceed today. There are a number of issues
13 that have been raised in the filings to address Board
14 questions. And there really are overarching issues
15 that go to the viability and timeliness of all of the
16 issues.
17 And I don't know if it makes sense to
18 start with a discussion of those issues or just
19 address the overarching issues in the context of
20 contention 5. But it -- I think it's clear from our
21 papers that we believe that the Commission's decision
22 in CLI 02-28, coupled with the SEIS, have an effect on
23 the viability of all of the proposed amended
24 contentions. And we can address that item by item,
25 but we may want to address that first, if that makes

1 sense.

2 CHAIR YOUNG: You're right. There are

3 some issues that go across all contentions. We may

4 also have questions that are of that same nature.

5 With regard to the timeliness issues, why

6 don't you all address those in your arguments on

7 subpart 5. And if necessary, we'll give a little

8 extra time on that, so that we don't have to repeat

9 them each time through.

10 But we may as well go ahead and get

11 started on subpart 5. And after you've raised --

12 after you've argued the timeliness issues, the general

13 timeliness issues, if you want to raise specific ones

14 with regard to the separate subparts, then do that

15 after that, with regard to subpart 5. And then you

16 can just limit your argument to the specifics on all

17 of the others.

18 So when you're making your general

19 arguments, identify them as such, and we'll accept

20 them as such.

21 All right.

22 MR. FERNANDEZ: The Staff also has a

23 preliminary matter.

24 CHAIR YOUNG: Okay.

25 MR. FERNANDEZ: Your Honor, although the

1 Staff believes that it is not a matter within the
2 scope of the proceeding, we wanted to inform the Board
3 and the parties that Duke has submitted a license
4 amendment application to irradiate lead test assembles
5 of MOX fuel at Catawba and McGuire. And we wanted to
6 give you all the accession number for ADAMS. That's
7 ML030760734. It's 030760734.
8 That's it, Your Honor.
9 CHAIR YOUNG: Thank you.
10 All right. Then, I think the order of
11 argument would be starting with the Intervenors --
12 JUDGE RUBENSTEIN: Excuse me. Are those
13 subassembly -- lead subassemblies going to be in all
14 four units?
15 MR. FERNANDEZ: The current license
16 amendment application is for four lead test assemblies
17 at each of the units.
18 JUDGE RUBENSTEIN: Thank you.
19 CHAIR YOUNG: Anything else? Okay. Then
20 the order of argument on each subpart of the
21 contention would be starting with the Intervenors,
22 moving to Duke, then the Staff, and then any rebuttal
23 by the Intervenors.
24 Ms. Curran, on subpart 5.
25 MS. CURRAN: Okay. I think I will be

1 brief on my -- I think we have briefed many of these
2 issues exhaustively, and I would like to go over them
3 but save significant time to respond to the arguments
4 by Duke and the Staff, because I really -- I don't
5 think it's useful for everyone to go over what's
6 already been written.
7 CHAIR YOUNG: Okay. And also, if you want
8 to start with your general timeliness arguments.
9 MS. CURRAN: Okay. I do -- I agree with
10 Mr. Repka that these overarching issues really relate
11 to all of the individual subparts of the contention,
12 and it would be very difficult not to get into them on
13 a pretty broad level.
14 Part 5, Failure to Take Adequate Account
15 of Uncertainties, is one example. On the timeliness
16 issue, Duke is arguing that we could have raised this
17 earlier. We could have raised this when we got the
18 environmental report.
19 I think there's, for us, a significant
20 overarching issue here that NUREG-6427 had an
21 astounding revelation, which is that in the case of a
22 station blackout with failure of both diesel
23 generators and accumulation of hydrogen in the
24 containment, the probability of containment failure is
25 one. To us, that is a remarkable discovery that

1 deserves the most thorough analysis.

2 It is not something to be waived aside or

3 quickly put into an existing analysis. It is

4 something to be looked at quite carefully, because it

5 affects the overall consideration of, what is the risk

6 of operating this facility? And also, very

7 importantly, what could be done to mitigate the risk?

8 And the issue of uncertainty is one that

9 is -- has come up again and again in the Staff's

10 consideration of the implications of NUREG/CR-6427 in

11 looking at the Generic Safety Issue.

12 And I have copied a couple of documents

13 that I would like to share with the Licensing Board

14 that raised the very great importance of uncertainty

15 in this analysis.

16 CHAIR YOUNG: With regard to any documents

17 that any of the parties have brought, I assume we can

18 treat those as exhibits. We'll need one for each of

19 us. And if they are exhibits, we'll need three

20 official copies.

21 If there are any objections, I suppose

22 raise them at this point.

23 MR. FERNANDEZ: Your Honor, for what

24 purpose is this document being offered?

25 MS. CURRAN: To support the significance

1 of uncertainty in considering the information in
2 NUREG-6427. This is a memorandum dated December 17th
3 from Ashok Thadani, Director of the Office of Nuclear
4 Regulatory Research, to Samuel J. Collins, Director,
5 Office of Nuclear Reactor Regulation.
6 The subject is RES Proposed Recommendation
7 for Resolving Generic Safety Issue 189, Susceptibility
8 of Ice Condenser and Mark III Containment to Early
9 Failure from Hydrogen Combustion During a Severe
10 Accident. And I --
11 MR. FERNANDEZ: Your Honor, the Staff
12 would object to admitting this document at this point
13 in time. It seems to me that what the Intervenor is
14 trying to do is supplement their contention by this
15 late-filed document. We believe that now is not the
16 appropriate time to be supplementing their
17 contentions.
18 CHAIR YOUNG: The Board will consider this
19 exhibit not in any way to supplement the contention,
20 and we want to draw a very clear distinction there.
21 In the interest, however, of having a complete record,
22 we will consider the document with regard to the
23 arguments made by any party who wishes to -- in this
24 case, the Intervenor.
25 And if any other parties have similar

1 documents that they wish us to consider with regard to
2 their argument, we will be open to that in the
3 interest of having a complete record.
4 Before we get too specifically into
5 contention 5, though, we do want to hear your general
6 timeliness arguments.
7 MS. CURRAN: Okay.
8 CHAIR YOUNG: And I think you were using
9 this as an example, but --
10 MS. CURRAN: As an example -- and I would
11 refer you to page 2, in which Mr. Thadani --
12 CHAIR YOUNG: I'm sorry. Hold on one
13 second. So given that we are accepting this, we're
14 going to mark this as an Intervenors' exhibit, but
15 we're going to mark the exhibits serially. So this
16 will be official Exhibit 1 for this oral argument.
17 (Whereupon, the above-referred
18 to document was marked as
19 Exhibit No. 1 for
20 identification.)
21 MS. CURRAN: And I would just --
22 CHAIR YOUNG: Okay.
23 MS. CURRAN: -- refer you to the third
24 full paragraph on page 2, which discusses the fact
25 that there are large uncertainties in the cost-benefit

1 analysis. But to --

2 CHAIR YOUNG: Which paragraph?

3 MS. CURRAN: The third full paragraph,

4 which starts, "The results of the cost-benefit

5 analysis." I think there's an overarching issue here

6 as to -- well, Duke's perspective is that the way --

7 the only way that NUREG/CR-6427 needed to be

8 considered in Duke's SAMA analysis was to plug in the

9 Level 2 analysis.

10 But in our view, consideration of NUREG-

11 6427 means looking again at the SAMA in light of that

12 information, and doing a thorough risk analysis that

13 takes that very important information into account.

14 And if you look at the environmental impact statement

15 that the Staff did, this is how the Staff handled

16 NUREG-6427.

17 The Staff looked again at the Level 1

18 analysis and made some comments on that. They looked

19 at the Level 2 analysis, and the Staff also looked at

20 the significance of that analysis with respect to the

21 costs and benefits of various SAMAs. And after all,

22 that is the purpose of a SAMA analysis.

23 CHAIR YOUNG: Could you give us cites to

24 the portions of the EIS?

25 JUDGE RUBENSTEIN: While you look for that

1 paragraph, would you clearly state the relief you seek
2 from this? Is it more calculations, and what would be
3 the consequences of that? Would it change the fact
4 that the Staff has acknowledged that they have to make
5 an accommodation for hydrogen control?
6 MS. CURRAN: We seek two things. We seek
7 disclosure of the underlying information that -- and
8 our overall goal in this intervention is to verify or
9 evaluate the statements made by Duke in its SAMA
10 analysis, and in its RAI responses, and the statements
11 made in the EIS which rely upon that information for
12 their reasonableness and accuracy, and, if necessary,
13 to seek a reevaluation of some of these issues based
14 on a more rigorous analysis. And one of the aspects
15 in which we seek a more rigorous analysis is
16 uncertainty analysis by Duke.
17 JUDGE RUBENSTEIN: In that regard, do you
18 have any specific basis, any independent calculations
19 other than what is in this exhibit, to justify this as
20 your basis? Has Dr. Lyman performed an independent
21 analysis? Have you pointed out specifically anything
22 in the PRA which is defective?
23 MS. CURRAN: Well, a couple of points in
24 response to your question. As we state in our
25 contention, uncertainty analysis is a very standard

1 approach for this type of an analysis. And we think
2 it's sufficient to point out that this is a well-
3 accepted method for verifying the results of a
4 probabilistic risk assessment and should be employed
5 in this case.
6 But if you are looking for empirical
7 evidence that it matters, one only needs to compare
8 the very -- the broad divergence and the ultimate
9 result. If you look at Duke's analysis, the
10 environmental impact statement, and the GSI analysis,
11 and the ultimate benefit of the SAMA, there is a great
12 divergence there, which indicates a large degree of
13 uncertainty that has not been adequately dealt with in
14 our view.
15 JUDGE RUBENSTEIN: Okay. As I understand
16 it, this is sort of an interjection into the process,
17 wherein research and the nuclear reactor regulation
18 people are going to determine, through their
19 calculations, their working with the ACRS, their
20 working with the Staff and their management, what the
21 ultimate outcome is of this SAMA being recommended for
22 their further pursuit.
23 MS. CURRAN: So I think you're raising the
24 issue of, isn't the Staff going to resolve this in the
25 course of the Generic Safety Issue? And haven't you

1 got what you want by in the EIS the Staff is
2 advocating for the hydrogen igniters.
3 JUDGE RUBENSTEIN: Yes. Right on. I'd
4 love to hear --
5 MS. CURRAN: Okay.
6 JUDGE RUBENSTEIN: -- all three parties
7 talk about it.
8 CHAIR YOUNG: Did you get the paragraph,
9 by the way, of the --
10 MS. CURRAN: Oh. All right. The
11 divergence in results -- excuse me for a minute. I
12 wrote it down. I can't find the piece of paper. Oh,
13 here we go.
14 Okay. In RAI Response Number 4, Duke
15 gives an averted risk value using NUREG/CR-6427 as
16 $264,000.
17 CHAIR YOUNG: What about in the EIS?
18 MS. CURRAN: In the EIS, at page 5-28, and
19 Table 5-8, the EIS gives an averted risk value of
20 $678,000.
21 MR. FERNANDEZ: Your Honor, for the
22 record, can we clarify which EIS we're talking about?
23 MS. CURRAN: Oh, I'm sorry. That's the
24 McGuire EIS.
25 MR. FERNANDEZ: Thank you.

1 MS. CURRAN: Now, I also have another
2 document that I can pass out to the Board and the
3 parties, which is a memorandum from the Office of
4 Nuclear Reactor Research from May 13, 2002, which
5 lists a range of values ranging from $2,000 to more
6 than $3 million. So, to us, that illustrates the
7 significant range of uncertainty. And if you'd like,
8 I can provide a copy of that document.
9 JUDGE KELBER: In that regard, I'd like to
10 ask you a somewhat simpler question than my
11 colleagues. What we're discussing here are the
12 results of sensitivity studies. And what are the
13 possible benefits of an uncertainty analysis of a
14 Level 3 PRA as opposed to a sensitivity analysis?
15 MS. CURRAN: I'd like to ask Dr. Lyman if
16 he could answer that.
17 DR. LYMAN: Well, in my view, sensitivity
18 studies are useful for exploring various ranges and
19 parameters, but they don't provide you with the
20 statistical confidence that you would need in the
21 assurance of the final results.
22 So, for instance, you know, you can -- if
23 you understand that one parameter could roughly range
24 from one extreme to the other, you can evaluate the
25 sensitivity of the results of that. That doesn't tell

1 you, for instance, what the 95th percent confidence
2 level is in your final result. So --
3 JUDGE KELBER: And that would be used how
4 in the decision process? To mitigate any effects that
5 the hydrogen-controlled system was not effective?
6 DR. LYMAN: Well, just to back up -- and
7 I think in our view the uncertainty analysis is a
8 fundamental aspect of PRA. And I think from the point
9 of view of the public trying to understand any of
10 these widely-diverging results that we've talked
11 about, we need to understand that in the context of
12 the fundamental uncertainties in the calculations.
13 Otherwise, it simply doesn't make any sense to the
14 public, and I think that's the --
15 JUDGE KELBER: I understand your point.
16 Now, but let me ask, in a Level 3 PRA, any uncertainty
17 spread of less than an order of magnitude in each
18 direction is not believable. That is a statement of
19 fact about the PRAs that we're seeing. You will have
20 -- the uncertainty is in the exponent, in other words.
21 Now, what good would that do you as
22 opposed to the value of a sensitivity analysis? In
23 other words, how are you going to discern between
24 these levels? The ACRS, for example, in discussing
25 this wanted to take the lower bounds. Why? That's

1 their business. I can't answer for them. But you can
2 take lower bounds, you can take upper bounds.
3 But what good does it do you when they
4 differ by two orders of magnitude? How can you make
5 a decision based on that?
6 DR. LYMAN: Well, I think that's precisely
7 the point or the difference between the sensitivity
8 analysis, which doesn't allow you to make a
9 statistical judgment about the likelihood of a
10 particular outcome. So --
11 JUDGE KELBER: But I'm saying -- excuse me
12 for interrupting. But I'm saying that a statistical
13 judgment on something that spans two orders of
14 magnitude is not likely to come about in any
15 reasonable length of time. There's no confidence in
16 it.
17 DR. LYMAN: Well, I think I, a priori,
18 wouldn't be able to make a statement like that. I
19 think that's why we would want to see those who are
20 capable of doing these studies, to the extent -- to
21 the full technical extent possible, and then perhaps
22 validate your opinion or your intuition.
23 JUDGE KELBER: Well, it's more than
24 intuition, and it's more than an opinion.
25 DR. LYMAN: Okay. But in this

1 particular --

2 JUDGE KELBER: I've dealt with these for

3 many years, and I can assure you that I would not

4 believe an uncertainty which wasn't an order of

5 magnitude in each direction. You need only look at

6 NUREG-1150 to see the uncertainty.

7 DR. LYMAN: Right. But we would like to

8 demonstrate that in the particular site-specific case,

9 so that -- again, NUREG-1150 was a very comprehensive,

10 seminal document. But, again, there are disputes I

11 think within this room about the validity of some of

12 its conclusions after 13 years have elapsed, and its

13 application to site-specific issues and plan updates.

14 I'm just saying I certainly accept that

15 fact, but we believe that, especially given the

16 overall direction of this agency toward well-

17 documented risk assessments in supporting all

18 regulatory actions, that it's perfectly consistent and

19 reasonable to request a full-blown uncertainty

20 analysis.

21 And I'd just like to add that in

22 NUREG/CR-6427, part of our contention that this

23 document should be taken into account, that it itself

24 states that we recognize -- this is page 113 of

25 NUREG/CR-6427, "We recognize that PRA studies ideally

1 should be accompanied by uncertainty quantification
2 for a more complete risk-informed assessment."
3 So we believe that that statement is
4 something -- again, part of our initial contention
5 that this document should be taken into account.
6 Therefore, we believe that that cautionary note should
7 also be.
8 JUDGE RUBENSTEIN: Excuse me. I want to
9 come back to Ms. Curran's answer to my question about
10 context. However, in examining paragraph 3 on page 2
11 of your exhibit, there is a sentence, "Thus, it is a
12 prudent course of action to pursue an enhancement to
13 the igniter system." This is certainly, in a sense,
14 relief within the context of this hearing. Now --
15 MS. CURRAN: Can I respond to that?
16 Because I have a --
17 JUDGE RUBENSTEIN: Let me continue.
18 MS. CURRAN: -- disagreement with that.
19 JUDGE RUBENSTEIN: Yes, you may. I'll be
20 quiet in a second.
21 This alludes to a process that NRR,
22 Nuclear Reactor Regulation, with the consulting of the
23 ACRS and the Office of Research, will be doing pretty
24 much what you want. In other words, they will, as a
25 result of this, undoubtedly go through a backfit

1 committee, publish a fix which is to be applied to all
2 these plants, and then make this adjustment to the
3 current licensing basis.
4 And this would be a public process,
5 subject to review, 2.206. Or if they go to the
6 rulemaking process for this generic issue, you'll have
7 that ventilation. Or am I wrong?
8 MS. CURRAN: Well, you've raised a very
9 important point, and I think that in some respects you
10 are wrong. First of all, the Office of Nuclear
11 Reactor Research has referred the Generic Safety Issue
12 to NRR. We have looked at NRR's scheduling document
13 for resolution of this issue.
14 It's completely open-ended. So there are
15 no target dates for resolving this issue in that
16 schedule, and we are concerned that it may not be
17 resolved, or at least not in the near future. That is
18 the concern.
19 Certainly, if NRR does impose this
20 requirement, it would address a significant portion of
21 our concern. But my next point is that it would not
22 address all of our concern, and this is the reason.
23 The environmental impact statement for this facility
24 is a decision document that is -- it has a number of
25 purposes.

1 One, it's being used to evaluate a SAMA in
2 this case. And if you look at the language in the
3 GEIS that addresses the SAMA, it's very equivocal. It
4 is not committal. It is much more equivocal than the
5 language you will see expressed by the Office of
6 Nuclear Reactor Research.
7 There is two separate strands of thought
8 that are going on, and the commitment to the
9 importance of the hydrogen igniters is not reflected
10 in the GEIS. And in our view, this may be because the
11 GEIS, relying on Duke, has come up with a risk
12 estimate that is lower than it should be.
13 That's one concern about the EIS. The
14 strength of the recommendation of the SAMA is weak.
15 But second, and also important -- and this
16 is based on my own experience in dealing with
17 environmental issues over a period of years of
18 operation of a nuclear facility, we can all be sure
19 that some day 10 years, 15 years, 20 years down the
20 line, some licensing decision is going to come up for
21 these two reactors. And it's going to involve
22 significant environmental impacts.
23 And an intervenor or public citizen group
24 that is interested in what are the risks of this
25 reactor, they're going to pick up this EIS, and

1 they're going to read it.

2 And they are going to rely on the

3 information that's in there to evaluate something

4 in the future. They may also be told when they try to

5 raise new issues, "That was addressed 15 years ago in

6 the license renewal case for Catawba and McGuire."

7 These EISs are living things. They go on. They have

8 other roles.

9 And they also -- over a period of time,

10 they are going to be what the public relies on to see,

11 what is the government's assessment of the risk of

12 this facility? And we would like an accurate,

13 reasonable evaluation that is supported by the kind of

14 analysis, uncertainty analysis, peer review, those

15 kinds of things that give us assurance that the

16 analysis was done reasonably well.

17 So I hope that answers your question.

18 JUDGE RUBENSTEIN: What I heard was -- and

19 I'm going to repeat it -- is that the process that the

20 NRC works with in transferring this responsibility is

21 correct. However, one, you don't like the timing of

22 it. Two, you don't particularly expect that they'll

23 eventually implement it. And, three, you find that

24 there perhaps won't be another public opportunity to

25 deal with this issue, as I've sort of suggested when

1 the implementation of Generic Safety Issue 189 occurs.
2 Did I mischaracterize you?
3 MS. CURRAN: Well, I -- we --
4 JUDGE RUBENSTEIN: I didn't --
5 CHAIR YOUNG: Let me add something, and
6 see if that -- that will encompass everything. You're
7 challenging the adequacy and thoroughness of it, as I
8 understand it, correct?
9 JUDGE RUBENSTEIN: Yes.
10 CHAIR YOUNG: One thing that I'd like to
11 just get, before we move on too far and run out of
12 time --
13 MS. CURRAN: Judge Marshall, can I just
14 respond to Judge Rubenstein?
15 CHAIR YOUNG: Oh, go ahead.
16 MS. CURRAN: Just one point. Whether or
17 not what the Staff is doing, its process is correct.
18 I think our view is the Staff has decided to do what
19 it's going to do, and our concern is that one way or
20 another the Staff has to make a decision about the
21 SAMA.
22 The Staff has decided to make it in the
23 GSI process, and it seems to us that at this point the
24 Staff is entitled to do that. But at some point, if
25 license renewal is imminent, and the issue has not

1 been addressed, then it becomes a concern that it fell
2 through the cracks.
3 I'm not sure that it's our place to tell
4 the Staff which way to do it, but it needs to get
5 done.
6 JUDGE RUBENSTEIN: Well --
7 CHAIR YOUNG: Go ahead.
8 JUDGE RUBENSTEIN: -- I mean, this
9 involves more plants than the four at issue. It
10 involves an issue which goes beyond license renewal,
11 and the Staff is -- has to take some sort of an action
12 on it. And when they do, this will result in either
13 an engineering change to the plans, or a tech spec
14 change if it's procedural, and all of these things are
15 subject to public ventilation. And if they go to the
16 rulemaking hearing, you could be a full participant in
17 the rulemaking.
18 MS. CURRAN: But I think, Judge
19 Rubenstein, your question presumes that the Staff will
20 do it. And it -- I hope that's right, but we have not
21 seen -- we haven't seen a schedule that sets a date
22 for doing it. And our position as members of the
23 public, if we want the staff or the NRC to do a
24 rulemaking, that is an incredibly difficult thing to
25 enforce, almost impossible.

1 JUDGE KELBER: Well, let me interject.
2 The Commission, in CLI 02-28, reserved for the Part 50
3 process, which is actually carried out by the Staff
4 but authorized by the Commission, the decisions under
5 GSI 189. There is nothing we can do, except perhaps
6 individually appeal to the Commissioners to change
7 their minds. But I'm not inclined to do that.
8 It's beyond our power as a Board to
9 consider it further. The real question that I'm
10 coming back to is still this question of uncertainty
11 analysis. I notice that Staff guidance says that
12 sensitivity analysis may be used in lieu of
13 uncertainty analyses, where full uncertainty analysis
14 would be impractical or exceedingly complicated and
15 costly. And I'd like to know whether you feel that
16 that guidance is wrong.
17 MS. CURRAN: I don't think there has been
18 a determination that uncertainty analysis would be so
19 difficult or costly that it can't be done. And it
20 seems to me that your question is whether the
21 contention is admissible. If there are merits issues
22 that relate to whether an uncertainty analysis is
23 appropriate in this case, or whether a sensitivity
24 analysis will do, I would think that summary judgment
25 would be appropriate for that type of issue.

1 CHAIR YOUNG: I'd like to get us back a
2 little bit to the timeliness issue, and, specifically,
3 the Commission's stated concern that the Intervenors
4 might have raised certain issues earlier had you
5 fulfilled your ironclad obligation to look at all the
6 public records.
7 And I'm asking this now with regard
8 specifically to the uncertainty analysis. Why was --
9 why could you not have raised this issue at the
10 outset, in your original contention, as a sort of
11 subissue of that? And I'm going to state several
12 issues, and if we need to go back over them we can.
13 But as a sort of subissue of that, you're talking
14 about the PRAs here. And that's another sort of
15 general issue that applies to several of these
16 subparts.
17 And there's been a lot of discussion about
18 what was and what was not available publicly early on.
19 And so if you could give us your take on why one -- or
20 actually whether, and the extent to which, you
21 searched the public records and were aware of the --
22 or found and used the original IPE, and then the
23 summary revision, the summary of the revision, and any
24 other public documents, which things were not public,
25 and why you needed those.

1 And then, on the general timeliness issue,
2 I do understand the Commission has sort of recognized
3 this, and you have certainly made the argument that
4 language in our original -- our order on contentions
5 may have created some perception that there was no
6 need to file an amended contention.
7 But I'd like to get also into any of those
8 general timeliness issues, as well as ones specific to
9 this. And you may be repeating yourself, but I'd
10 still like to address those concerns, because those
11 are fairly paramount in light of the Commission's
12 recent decision.
13 MS. CURRAN: Okay. I think the first part
14 of our answer is that, if you go back to the beginning
15 of the proceeding, the first thing that we pointed out
16 was that NUREG/CR-6427 had not been taken into
17 account. And we considered that to be adequate to
18 require -- we wanted to force Duke to take a look at
19 NUREG-6427 with all its implications.
20 And then, Duke filed the RAI response, and
21 we found that it was inadequate to really grapple with
22 the implications of NUREG-6427 for a variety of
23 reasons, which are stated in amended contention 2.
24 So, in our view, we've complied with the
25 process. We initially flagged this issue. This

1 report hasn't been addressed. And then, when Duke did
2 address it, we provided a listing of the ways that we
3 considered it should have been addressed.
4 And I guess -- I think there's an implicit
5 question that you're raising, which is we have
6 initially listed all of the ways that NUREG-6427
7 should be addressed. And to us that seems -- it would
8 be like writing the -- anticipating deficiencies that
9 you haven't seen yet, and that we were entitled to see
10 what Duke would do with this information, and then
11 critique it.
12 When you have a total vacuum -- Duke
13 hadn't done anything to address it -- it seemed to us
14 to be appropriate to wait and see what Duke did when
15 it did address the -- and it's kind of a common-
16 sensical approach that I would take in preparing a
17 contention, because I think it's very difficult to
18 anticipate deficiencies that aren't there because
19 you're working in a complete vacuum.
20 CHAIR YOUNG: What about the issue that
21 the other parties touch on, and I think the Commission
22 also does, about the availability of the PRA and other
23 public documents relating to that?
24 MS. CURRAN: Yes.
25 CHAIR YOUNG: And in this --

1 MS. CURRAN: Well, I would like to address
2 that.
3 CHAIR YOUNG: -- context, the possibility
4 of your having raised the uncertainty issue with
5 respect to the PRA information that was available.
6 MS. CURRAN: All right. First of all, in
7 terms of what was available, there is the IPE and the
8 IPEEE.
9 JUDGE RUBENSTEIN: Would you put dates?
10 Or maybe perhaps Duke could do it. I was trying to
11 establish a timeline on when the IPE was published and
12 when the PRA was published.
13 MS. CURRAN: I'm remembering 1990 and 1994
14 for the IPE and IPEEE, but that may be wrong.
15 JUDGE RUBENSTEIN: Okay. For the purposes
16 of the hearing, quite a while ago.
17 MS. CURRAN: Yes, a long time ago. And
18 those are publicly-available documents. But they have
19 been overtaken by Revision 2 to the PRA.
20 JUDGE RUBENSTEIN: Which was published?
21 MS. CURRAN: Well, we have a summary of
22 Revision 2, which went on the public docket in April
23 of 2001. And this has been an issue in some of our
24 telephone conferences, so we made a copy of this
25 summary, because we thought it might be helpful to the

1 Board to see what's in it, and --

2 JUDGE KELBER: Excuse me. Excuse me.

3 MS. CURRAN: Yes.

4 JUDGE KELBER: Before you go into that,

5 I'm looking at Table 4-2 in Appendix K, which was

6 available initially when Duke published their

7 environmental impact report. And I don't see any

8 uncertainty numbers on anything here, regardless of

9 what was in NUREG/CR-6427. I see no uncertainty

10 numbers. If uncertainty is that important, why wasn't

11 it raised then?

12 MS. CURRAN: We did not know how Duke was

13 going to take into consideration NUREG/CR-6427. If

14 you look at that document --

15 JUDGE KELBER: But that's irrelevant to my

16 question, because NUREG/CR-6427 is based on the IPE,

17 not on Revision 2, which you were referring to.

18 MS. CURRAN: Judge Kelber, if you look at

19 NUREG/CR-6427, throughout it discusses the

20 significance of uncertainty in its analysis. And it

21 seems to us to have been reasonable to presume that,

22 in taking into account information in NUREG/CR-6427,

23 Duke would follow that methodology and provide some

24 uncertainty analysis, which it did not. But we had no

25 way of knowing how Duke was going to take that

1 information into account.

2 JUDGE KELBER: But if you had looked at

3 Appendix K in the environmental impact statement, you

4 would have seen that there was no consideration there,

5 that they were following regulatory guidance.

6 Now, what would you -- why would you

7 expect them to do anything else?

8 MS. CURRAN: Because of the guidance in

9 NUREG-6427 that uncertainty is important.

10 JUDGE KELBER: NUREG-6427 is not a

11 guidance document.

12 MS. CURRAN: Well, it provides information

13 that certainly indicates uncertainty is important. It

14 doesn't seem to us that we were required to anticipate

15 in advance what Duke's analysis of that document would

16 or would not contain.

17 JUDGE KELBER: Let me return. You had an

18 example of their analysis at hand. You saw the way

19 they analyzed it. What reasonable person would expect

20 that they would utilize any other attack when using a

21 different set of conditional containment failure

22 probabilities?

23 MS. CURRAN: A reasonable person who saw

24 the extremely significant revelation in NUREG-6427,

25 which basically changed the entire ball game.

1 JUDGE KELBER: Excuse me. But I was in
2 charge of some of the initial research done on this
3 sort of thing, and it didn't change the ball game. We
4 anticipated that result long before. We anticipated
5 it during a TMI-2 accident.
6 MS. CURRAN: Well, certainly, from the
7 perspective of a member of the public, seeing this in
8 print for the first time it was a very significant
9 revelation. And we would have expected it to lead to
10 significant reexamination of analyses that had been
11 done, because it has a direct effect on the overall
12 risk of this plant and on the effectiveness or cost-
13 benefit of SAMA's.
14 So, yes, we would have expected Duke to
15 take a hard look at the significance of this
16 information, harder than it may have before.
17 JUDGE RUBENSTEIN: Let me broaden the view
18 for a second and back out of the uncertainty analysis.
19 The Commission, in CLI 02-28, at 13, also concluded
20 that the Intervenors' view that their contention
21 involves "not just the matter of Duke looking at the
22 data that's in the NUREG, but actually whether we
23 agree upon the way it was used," April 29th transcript
24 at 873 and 74.
25 And they go on to say this was incorrect,

1 and now we're going down this path again after the
2 Commission said, "We will not get into those aspects
3 of the NUREG." In amplification, they further said,
4 "Your Intervenors' original contention in this case
5 complained of the Sandia study's omission, not
6 specific deficiencies in the way this study was used."
7 Would you please address this?
8 MS. CURRAN: Well, it seems to me the
9 Commission was addressing the original contention,
10 which was a broadly --
11 JUDGE RUBENSTEIN: Which is the basis for
12 our amended contention 2 -- pardon me, our
13 consolidated contention 2, which was narrowed very
14 specifically, and which would have then applied, based
15 on the original bases from the original contention, to
16 your amendment.
17 MS. CURRAN: Well, I think --
18 JUDGE RUBENSTEIN: Correct me if I'm
19 wrong.
20 MS. CURRAN: Well, one reason that we're
21 here today is because, in admitting the original
22 contention, the Licensing Board said that it was
23 admitting -- and I'm paraphrasing -- the question of
24 whether, and to what extent, the values of NUREG-6427
25 were considered.

1 And we relied on that contention -- on
2 that interpretation of the contention, and we did not,
3 once we had the RAI responses, go back and say, "Okay.
4 Now they've done it. Here's all the ways we think
5 it's inadequate."
6 But that's where we are now that -- now
7 that the Commission has clarified that they did not
8 agree with the Board's interpretation of the
9 contention, that's where we are now. That's -- we are
10 in the position of having received Duke's response to
11 this NUREG. We have now presented our criticism of
12 the adequacy of that evaluation, and it seems to me
13 that we have followed the NRC's procedures to the tee.
14 This is how the process is supposed to work.
15 CHAIR YOUNG: Do you have anything more
16 you'd like to say about the general timeliness issues
17 and general issues relating to publicly-available
18 information? And also, there's another sort of
19 general issue, and that is the degree to which station
20 blackout frequency is a viable issue in light of
21 CLI 02-28, given the Commission's statements on
22 whether that was included within the scope of the
23 original contention.
24 MS. CURRAN: And you'd like me to get --
25 that is an overarching issue that I'd be glad to get

1 into, but --

2 CHAIR YOUNG: Well, since we're getting

3 into overarching issues, yes. And since also -- that

4 also relates to the timeliness issue, I think, and the

5 publicly-available

6 MS. CURRAN: Okay.

7 CHAIR YOUNG: -- information, and from

8 your obligation to have looked at that, and what you

9 could and could not have done earlier on.

10 Now, I think I understand your argument

11 with regard to the omission contention, and then

12 waiting to see how Duke and the EIS would address the

13 6427 issue. But separate and apart from that, the

14 issues of your ability to have obtained publicly-

15 available documents and raised issues earlier, and

16 then the scope with regard to the station blackout

17 frequency.

18 If that's oversummarizing --

19 MS. CURRAN: Okay.

20 CHAIR YOUNG: -- feel free to take it in

21 parts.

22 MS. CURRAN: Well, just getting back to

23 your question of what information was available on the

24 public record and what wasn't, I think we got into

25 that a little ways and then we stopped. And I was

1 going to talk a little bit about Revision 2, which the
2 entire PRA is not in the public record.
3 But there is a summary of the PRA that has
4 been in the public document room for sometime, which
5 essentially contains summary results and a qualitative
6 analysis or a discussion of what was done in the PRA.
7 And we have -- and there's also a Revision 2b, which
8 is very brief. I think it's four pages, which adds to
9 that.
10 Now, we have made copies of Revision 2 and
11 Revision 2b that we would like to distribute, because
12 I think it's been a question by the Licensing Board as
13 to what it is that has been available to us, and we'd
14 like to demonstrate to you that this is summary
15 information. This is not the kind of data that we are
16 looking for in the PRA.
17 And if the Board would consider that
18 helpful, I would be glad to distribute those.
19 CHAIR YOUNG: I'll look at a copy if you'd
20 like, while you're talking about it.
21 MR. REPKA: At this point, I need to
22 interject. I'm happy for Ms. Curran to pass out that
23 information. But with respect to the reference to
24 Revision 2b, what she's neglecting -- and I can point
25 this out now or later -- is that that document

1 references the summary report on Revision 2, which is
2 a much more substantial document that is also in the
3 public record. So what she's going to give you is
4 only part of the story.
5 CHAIR YOUNG: Well, I thought she was
6 going to give us Revision 2.
7 MS. CURRAN: I'm going to distribute both
8 documents.
9 MR. REPKA: Revision 2 is the McGuire
10 Revision 2 summary report. The Revision 2b, the four-
11 page letter you're referring to, relates to Catawba.
12 In addition to -- on Catawba, that letter references
13 the Revision 2 Catawba summary report, which is a
14 separate document in the public record --
15 MS. CURRAN: Okay.
16 MR. REPKA: -- that's equally -- that's
17 equal in volume to the McGuire.
18 MS. CURRAN: Right.
19 MR. REPKA: These are the two of them.
20 Each is about two inches thick.
21 MS. CURRAN: We made copies of Revision 2
22 -- of only one, because they're representative and we
23 were trying to conserve resources.
24 Now, the shorter document is Revision 2b.
25 CHAIR YOUNG: Do you have additional

1 copies? If you want to make this an exhibit -- I
2 don't know if it needs to be, because it is a public
3 record. But if you want to, we need to --
4 MS. CURRAN: All right.
5 CHAIR YOUNG: -- have copies for --
6 MS. CURRAN: Well, we would ask the Court
7 Reporter to mark the McGuire Revision 2 as Exhibit 2,
8 and the Catawba Revision 2b as Exhibit 3.
9 JUDGE RUBENSTEIN: I don't think we need
10 to mark them as exhibits, because they're public
11 documents.
12 MR. FERNANDEZ: Your Honor, we would once
13 again want to register our objection. To the extent
14 that these documents are being used to supplement the
15 contentions, we would object to that use of the
16 documents. So as long as it's clear for the record
17 that these documents are not in any way being used to
18 supplement the contention.
19 CHAIR YOUNG: And we'll sustain that
20 objection and not admit the exhibit for that purpose,
21 but only to elucidate the parties' arguments.
22 MR. FERNANDEZ: Thank you.
23 CHAIR YOUNG: So Revision 2 would be
24 official Exhibit 2 to this proceeding?
25 MS. CURRAN: Yes.

1 (Whereupon, the above-referred
2 to document was marked as
3 Exhibit No. 2 for
4 identification.)
5 CHAIR YOUNG: And the Revision 2b to
6 Catawba would be official Exhibit 3.
7 (Whereupon, the above-referred
8 to document was marked as
9 Exhibit No. 3 for
10 identification.)
11 MS. CURRAN: And as I said, Exhibit 2,
12 which is just the McGuire Revision 2, is being offered
13 as an example, because it's very similar to the
14 Catawba Revision 2.
15 And then, just to finish the story of
16 what's on the public record, there is another revision
17 to the PRA, more recent, and that is Revision 3. And
18 Revision 3 was only completed recently. That is just
19 for McGuire. That PRA was only completed recently,
20 and it is not in the public document room, nor is
21 there a summary in the PDR.
22 CHAIR YOUNG: Based on the original IPE
23 and IPEEE, and Revision 2 and Revision 2b, what could
24 you have done with regard to challenging the existence
25 or level of uncertainty analysis that was done at the

1 outset?

2 MS. CURRAN: Well, I think the only report

3 that's really relevant for our purposes is Revision 2,

4 because it was done so much more recently than the

5 original IPE or the IPEEE. And if you look at

6 page 6-21 of the summary of Revision 2, it has a one-

7 paragraph discussion of uncertainty, and there are two

8 figures that are mentioned.

9 They essentially give the results and one

10 paragraph of explanation, so it doesn't provide very

11 much information to go on.

12 CHAIR YOUNG: Could you have challenged

13 the inadequacy of this at the outset? And did you in

14 any way?

15 I think I understand you to be saying that

16 your approach was that you challenged the failure of

17 Duke to address or consider NUREG/CR-6427, and that

18 that encompassed issues like this rather than going

19 into the potential subissues that might arise should

20 Duke consider 6427. Am I understanding that right?

21 Is there any other statement that you want

22 to make in terms of whether -- and what you could have

23 done earlier on with regard to this information?

24 MS. CURRAN: Can you hold one moment?

25 Well, if you look at the summary that's in this -- the

1 summary of Revision 2 and the summary of the
2 uncertainty analysis in the summary, there just wasn't
3 enough information in there for us to evaluate what
4 Duke was likely to do in considering 6427.
5 They may have done an uncertainty
6 analysis, and they may have not. There just wasn't
7 enough information for us to evaluate what they had
8 done or would do.
9 CHAIR YOUNG: I guess my question was:
10 could you have, at the outset -- with your original
11 contentions, could you have raised a contention that
12 said the uncertainty analysis that Duke has done,
13 according to the summary Revision 2, is inadequate,
14 because it doesn't give enough detail, it doesn't give
15 the quantitative basis for the results that are given
16 in these two tables -- in these two figures?
17 And the reason I'm being specific about
18 this is because I think that the Commission has asked
19 us --
20 MS. CURRAN: Yes.
21 CHAIR YOUNG: -- to look at this. And so
22 your argument that you didn't raise these issues
23 because the primary concern that you had was the
24 absence of any consideration of NUREG/CR-6427, I
25 understand that argument, and I guess what I'm trying

1 to do is get you to also address the argument or the
2 issue of why you couldn't have challenged the adequacy
3 of this at the outset and how those two things relate
4 to each other.
5 MS. CURRAN: Well, I guess the answer is
6 we wouldn't have, because we were -- our concern was
7 with the information that was disclosed in NUREG-6427.
8 So BREDL and NIRS didn't see any particular utility in
9 coming -- supposing NUREG-6427 wasn't there.
10 And coming in and challenging various
11 elements of the SAMA analysis, what made it worthy of
12 our review was once we saw that Duke would grapple
13 with this NUREG, as insufficiently as we thought they
14 did attempt to do it, then it became important or
15 something that we felt that we could make a
16 contribution on, that it was worth looking at, because
17 just to come in and criticize the adequacy of the PRA
18 or the SAMA analysis -- well, we may have done it, but
19 it would not have served our purpose, which was to
20 focus on the significance of that NUREG and what it
21 meant.
22 JUDGE RUBENSTEIN: But if you step back a
23 little bit in time when the environmental report and
24 the draft SEIS was published, could you not have
25 concluded that, in general, for all sequences, they're

1 not treating uncertainties properly as opposed to just
2 the condition containment failure probability, given
3 station blackout? Wouldn't this be true of all
4 sequences they dealt with?
5 MS. CURRAN: Well, that again gets back to
6 one of our overarching arguments, which is that the
7 Level 2 result that is very significant in NUREG-6427
8 has heightened significance for every other level of
9 the PRA, because, of course, the conditional
10 containment probability rests on the core damage
11 frequency, which is Level 1.
12 And then, the question of what you do to
13 avoid the accident relates to what are the
14 consequences if it occurs, which is Level 3. So the
15 whole picture then becomes important.
16 JUDGE RUBENSTEIN: Yes. But in your
17 perusal of the original documents, your argument would
18 also call into question their entire SAMA calculation
19 methodology. In other words, if they don't treat the
20 uncertainties correct for this kind of a sequence,
21 then they probably couldn't have done the SAMA
22 properly for any sequence. And it would have been
23 much better at that time to say, "Hey, you're not
24 doing the calculation properly."
25 MS. CURRAN: Well, I mean, if the

1 Licensing Board -- I guess the choice is whether to
2 make a ruling that when an intervenor files a
3 contention, like our first contention that says, "You
4 should consider this NUREG," that in order to get the
5 contention admitted you have to give a recipe for all
6 the things that should have gone into that
7 consideration.
8 We have to give instructions to the
9 licensee. You must consider A, B, C, D. If we have
10 to do that at the beginning, then --
11 JUDGE RUBENSTEIN: You only needed to say
12 -- with some sort of a basis to say that this
13 methodology, in the way Duke calculates their SAMAs,
14 is unacceptable, because of these reasons.
15 Let me ask another question. I'm looking
16 for your response to something Duke wrote. They cite
17 two references in the Federal Register. The first
18 reference being -- alluding to the fact that, for the
19 purposes of a license renewal action, a Level 1 and 2
20 should be accepted. And in the second instance, they
21 cite a Federal Register notice that says Level 3 is
22 excluded from the license review action.
23 And I can give you the references. It's
24 in the text of Federal Register 28467, 28481, dated
25 June 5, 1996, and 61 Federal Register 66537, 65540,

1 December 18, 1996.

2 So as the way I read it is, from the

3 Federal Register, it may be clear. And I'm looking

4 for a viewpoint. I did not go back to the original

5 document yet -- that a) Level 1 and 2 calculations are

6 adequate to use in preparing SAMA analyses for license

7 renewal purposes, and b) a Level 3 analysis is not

8 required for a license renewal application.

9 In a sense, if these references are

10 correct, and the sense of them is such, then this

11 precludes this kind of a discussion.

12 MS. CURRAN: I wonder if, you know, at

13 some point when we have a break, I could take a

14 minute, because I think it's probably important to

15 read the -- I got the --

16 JUDGE RUBENSTEIN: Duke, do you have your

17 reference?

18 MS. CURRAN: Can you just give me the page

19 numbers again?

20 JUDGE RUBENSTEIN: Sure. 28467 -- and I'm

21 quoting from what Duke wrote -- 28481, June 5, 1996,

22 and 61 Fed Register 66537, 65540, December 18, 1996.

23 I'm not claiming this as correct, and I have not read

24 them in original. But perhaps they would care to

25 justify them.

1 MS. CURRAN: Okay. We'll come back to --

2 JUDGE RUBENSTEIN: At the appropriate

3 time.

4 MS. CURRAN: I will come back.

5 JUDGE KELBER: I would like to go back

6 myself to something earlier, a statement about

7 discussion of uncertainties in NUREG/CR-6427. On

8 page 113, under the general heading of Sensitivity

9 Studies -- note that it's sensitivity studies, not

10 uncertainty studies -- it is outside the scope of this

11 study to perform a fully integrated uncertainty study,

12 as was done for NUREG-1150.

13 They then go on and they conclude, "We

14 recognize that PRA studies ideally should be

15 accompanied by uncertainty quantification for a more

16 complete risk-informed assessment. However, the NRC

17 has traditionally regulated on mean values, and has

18 required uncertainty studies only when utilities

19 petitioned the NRC for regulatory relief on some

20 issue." And they then go on to discuss their

21 sensitivity study.

22 I think other than the discussion of

23 uncertainties in the contain code, which is not really

24 germane to this question, that sums up the

25 contribution of the authors of this NUREG-6427 to the

1 discussion of uncertainties. Namely, they're going to
2 do sensitivity analyses.
3 DR. LYMAN: Well, we'd also like to see a
4 full-blown sensitivity analysis, which we don't think
5 has been provided either. I mean, I think the --
6 whether or not -- I think the bottom line is: do we
7 understand why Duke's original submittal had one
8 conclusion and NRC Staff came to a different
9 conclusion, without understanding the origin of those
10 differences? We want better explanation of that,
11 whether to call it a full-blown uncertainty analysis
12 or a formal sensitivity study, which they refer to
13 here.
14 And I'm not sure what they truly mean by
15 "formal," but it's clearly more than what they
16 provided or what Duke has provided. I think that's
17 really semantics. What we want to understand is why
18 these two entities looked at the same data and the
19 same analysis, came to different conclusions.
20 The reason for that lies in the inherent
21 uncertainties in the assumptions. And whether you
22 characterize that as a sensitivity or uncertainty
23 analysis, I don't think we really care. We just want
24 to get to the heart of the matter.
25 JUDGE KELBER: Well, that's not an

1 unreasonable view. And part of the differences may be
2 in the reluctance of some parties to light a match in
3 a room filled with hydrogen. Some people will; some
4 people won't.
5 MS. CURRAN: I think Judge Young has a
6 question pending.
7 CHAIR YOUNG: If you had something that
8 you wanted to finish with regard to anything on the
9 table, go ahead. But I do have a couple things that
10 I'd like you to address before we move on from the
11 sort of general issues.
12 MS. CURRAN: All right. Well, you had
13 asked a question about the relevance of station
14 blackout.
15 CHAIR YOUNG: Actually, that was one of
16 the things I was going to get back to.
17 MS. CURRAN: Okay.
18 CHAIR YOUNG: Actually, why don't I just
19 tell you. First of all, what -- I'd like for you to
20 refresh my memory on what, if anything, you said about
21 the PRAs in supporting your original contention 2.
22 And then, second, to focus on what is left
23 that we can admit of this contention in light of CLI
24 02-28, specifically with regard to the station
25 blackout frequency part of the whole analysis, and

1 with regard to anything relating to the PRAs.

2 So if you could start by just refreshing

3 my memory on, did you have -- did you make reference

4 to the PRAs in the original contention?

5 MS. CURRAN: I'm sorry. I don't have it

6 in front of me to refresh my memory, but Mr. Zeller

7 thinks that, if it is not explicitly referred to, it

8 is alluded to in the original contention. But I'm

9 afraid I can't tell you.

10 CHAIR YOUNG: Okay.

11 MS. CURRAN: I think we were focused on

12 the SAMA analysis, which is part of the PRA or an off-

13 shoot of it. Whether we discussed other parts of the

14 PRA, I'm not sure.

15 CHAIR YOUNG: Well, one of the reasons I

16 ask that is because you get into a discussion in one

17 of your recent pleadings about the secrecy and lack of

18 detailed statements required by NEPA, NEPA being an

19 environmental full disclosure law, providing

20 environmental cost-benefit information that Congress

21 thought should be provided about each qualifying

22 federal action.

23 And you've made other references in the

24 past to having asked, from early on, for the PRAs --

25 a continuing effort to get them. And I was just

1 trying to remember for myself when that effort started
2 and whether it was mentioned in the original
3 contention.
4 But be that as it may, if you could --
5 whatever you can remember, you can provide. And then,
6 if you could focus on what's left with regard to
7 station blackout and the PRA issues generally after
8 CLI 02-28. What's left for -- what you would argue we
9 can admit in light of 02-28.
10 MS. CURRAN: Well, I think the first thing
11 that is important to point out, that it is not correct
12 that NUREG/CR-6427 is just a Level 2 analysis. And
13 I'd like to point to two places in that document in
14 which Level 1 issues -- significant Level 1 issues are
15 discussed.
16 CHAIR YOUNG: You can do that, but I
17 would, again, ask you to focus on CLI 02-28, because
18 the Commission does make some statements about station
19 blackout in that. And I think that we are bound by
20 that.
21 Now, I think there is some distinction
22 drawn between the original contention and amended
23 contentions. But I'm not sure that -- if you're
24 disagreeing with CLI 02-28, if that's the impact of
25 what you're doing, I'm not sure that we have the --

1 well, I don't think we do have the authority to take
2 that up.
3 MS. CURRAN: Judge Young, just to clarify
4 for me, what -- I see a number of statements by the
5 Commission here that our original contention didn't
6 address the issue of SBO frequency. But is there
7 something else more pointed that you're referring to?
8 Can you give me the page citation?
9 CHAIR YOUNG: Let's see. Well, in the
10 very end, the Commission said -- makes -- says that
11 CLI 02-17 did characterize the Sandia study
12 inaccurately -- a characterization we clarify above.
13 And then looking up at the beginning of CLI 02-28 --
14 MS. CURRAN: Are you referring to the
15 statement on page 3 that the Sandia study applied or
16 incorporated long-available published data on station
17 blackout frequencies, and that the Sandia study
18 didn't --
19 CHAIR YOUNG: All right. Lower in that
20 paragraph. "As the NRC Staff said" -- "Thus, as the
21 NRC Staff says, the Sandia study itself included no
22 new analyses and made no findings regarding core
23 damage frequency or station blackout. It simply
24 assumed that core damage would occur at the frequency
25 predicted in each ice condenser.

1 "Licensee's individual plan examination
2 focused on containment failure probabilities, which
3 were calculated through a simplified containment event
4 tree, similar to that used in a Level 2 PRA. We agree
5 with the staff's characterization."
6 Now, Judge Kelber also points us to
7 page 11, and there the Commission says that you
8 clearly could have raised a specific claim about
9 station blackout frequency in your original
10 contention.
11 Now, they do say next -- indeed, they now
12 do make various such claims. But these station
13 blackout frequency related arguments are not new.
14 They were not part of the original contention.
15 JUDGE KELBER: They are new, though.
16 CHAIR YOUNG: Are new.
17 MS. CURRAN: Right.
18 CHAIR YOUNG: They were not part of the
19 original contention.
20 I think I understand Duke at one point to
21 be saying that if something was not in the scope of
22 the original contention, then it cannot be part of the
23 scope of the amended contention. And so if I'm
24 misquoting or mischaracterizing Duke's argument,
25 correct me.

1 But, therefore, continuing -- paraphrasing
2 Duke's argument, if station blackout was not within
3 the scope of the original contention, it cannot be
4 within the scope of the amended contention, such that
5 it would relieve you of the requirement to have raised
6 the issue earlier, because what's in -- to the extent
7 that we find that -- for example, if we were to find
8 that you were justified in not believing you had to
9 file an amended contention, that that excuses any
10 lateness in your filing of amended contention 2.
11 That excusing would be relevant only to
12 those things that were arguably within the scope of
13 the original contention, because your assuming that
14 you didn't have to file an amended contention meant
15 that it would have been brought within the scope of
16 the original one.
17 So if it was not -- if station blackout
18 frequency was not within the scope of the original
19 contention, I think Duke is arguing then it can't be
20 part of the amended contention. And that's sort of
21 what I'd like for you to address, in light of the
22 statements on that in CLI 02-28.
23 Now, Duke is not saying anything, so I'm
24 assuming I'm not far off the mark in characterizing
25 that part of your argument, right?

1 MR. REPKA: That's certainly one of our
2 arguments.
3 CHAIR YOUNG: Right.
4 MS. CURRAN: Well, the scope of the
5 original contention -- it was general in nature, that
6 Duke had not considered information in NUREG-6427.
7 And I think what this question gets around to is,
8 then, what is the scope of NUREG/CR-6427, since the
9 contention itself was so general as admitted that that
10 was all it said. So --
11 CHAIR YOUNG: The problem here, though, is
12 any arguments you make about the scope of 6427 also
13 have to be in light of the Commission's decision in
14 CLI 02-28, because the Commission spoke on that. And
15 so in order to help us consider what we can do, I'd
16 like for you to focus on how we can do it in light of
17 how the Commission has read NUREG/CR-6427, and spoken
18 on the scope of the original contention as well.
19 JUDGE KELBER: While you look at it, let
20 me trace the historical -- and it's getting to be
21 historical -- precedence on this. We originally
22 consolidated a couple of contentions of BREDL and
23 NIRS. And then we wrote, "Fails to include
24 information from NUREG-6427." And the Commission
25 accepted the Board's formulation of the consolidated

1 contention, and they say so in CLI 02-17, and they say
2 it very clearly.
3 Then, they go on to say, in 28, that
4 basically -- and I won't rehash what I said earlier --
5 that this contention was one of omission, and not
6 specific deficiencies in the way the study was used.
7 And they are fairly clear on this, to the point of
8 giving the Board a little kick.
9 So I think with what Judge Young said, and
10 with that kind of a perspective, where do we go from
11 here?
12 CHAIR YOUNG: And I'm going to interject
13 right here. Judge Kelber pointed out, and I was
14 thinking this earlier myself, we obviously have taken
15 a long time on this one contention and Dr. Lyman has
16 to leave soon. Many of these issues that we've been
17 looking at are broad issues that apply to all of the
18 contentions, but I still think it might be good for us
19 to start wrapping up on contention 5 in the general
20 issues so that we can move on.
21 Would it be helpful to take a three minute
22 break at this point and then come back and sort of
23 wrap up on that and then move on, or would you rather
24 take full advantage of Dr. Lyman's presence when we're
25 all together?

1 MS. CURRAN: I'd rather take advantage of
2 Dr. Lyman's presence and respond to the question.
3 I think certainly it's clearly that
4 NUREG/CR-6427 is essentially a Level 2 analysis and I
5 think that's what the Commission is saying in CLI02-
6 28, but it's also important to recognize that it's not
7 that -- it's not quite that simple in the sense that
8 there are Level 1 elements that come into NUREG/CR-
9 6427 and that are important to consider. And I would
10 like to point those out on the record.
11 One is at page 52 in Table 4.9 where the
12 NUREG addresses the probability of depressurization.
13 Now that is --
14 CHAIR YOUNG: What page?
15 MS. CURRAN: Page 52, Table 4.9 and I
16 wonder if I could just have Dr. Lyman address this,
17 because he's familiar with the technical issue?
18 DR. LYMAN: This isn't the only current
19 information that's relevant to the outcome. This
20 NUREG/CR-6427 does not only address station blackout,
21 in fact, what it says about other initiators, other
22 than station blackout are relevant to the ultimate
23 cost benefit analysis associated with mitigating
24 station blackouts. So that's another reason why we
25 feel the holistic concept of this document is much

1 broader than the original specification.

2 One example is is the probability of

3 contentional depressurization which is not relevant

4 for station blackout but for other initiators. The

5 document clearly states that Level 1 analysis is

6 relevant for determining whether this occurs for those

7 other initiators.

8 There are other examples. That's only one

9 of them where Level 1 is explicitly announced,

10 discussed.

11 Unintentional or depressurization that

12 occurs as a consequence of the accident is also an

13 important factor in evaluating the containment failure

14 probability and we believe that that involves Level 1

15 elements as well. So I've gone on the record before

16 as saying that it simply is not technically

17 appropriate to pull out the Level 2 conditional

18 containment failure probabilities from one analysis

19 and stick them into another without evaluating the

20 entire chain of events and --

21 JUDGE KELBER: Could you repeat that,

22 please?

23 DR. LYMAN: It's simply it's not

24 technically appropriate to pull out as Duke had done

25 the conditional containment failure probabilities,

1 stick them into their own analysis and say that they
2 fully addressed this NUREG, NUREG/CR-6427.
3 As it states on page 29, the best way --
4 this is at the very top of page 29, the best way to
5 address the integration needs and here integration
6 means integration of all the different aspects of this
7 phenomenon is through detailed and credible Level 1
8 and Level 2 probabilistic analyses specific to each
9 individual plant.
10 So again we feel that militates toward an
11 integrated approach and not simply to starting Level
12 1 analysis in the consideration of how you take into
13 account this document.
14 CHAIR YOUNG: Why don't you try to wrap up
15 your argument in the next five minutes or so?
16 We've taken an awful lot of your time, we
17 recognize that.
18 (Pause.)
19 MS. CURRAN: I think we've said
20 everything, probably several times.
21 JUDGE RUBENSTEIN: Just by way of better
22 source of those Federal Register references, Duke
23 references in the February 7th document in response to
24 the issue raised by the Board on page 20 they go on to
25 say at the bottom promulgating its part 51 and there

1 those references are and I'm not particularly taking
2 their face value so if you have an opportunity to look
3 at them, I'd be happy to later on, after the break or
4 whenever when it's convenient to respond to it.
5 MS. CURRAN: Okay. Sure.
6 JUDGE RUBENSTEIN: It's on the bottom of
7 page 20 in their February 7th document.
8 CHAIR YOUNG: Okay, we'll move on to Duke
9 now and I'd just like to raise one sort of general
10 question to ask you to focus on. A couple of things
11 in the Commission's order that paralleled the
12 discussion I just had with Ms. Curran and that is on
13 page 12, at the bottom of the page, the Commission
14 said the Intervenor's original contention in this case
15 simply cannot be understood as specifically
16 challenging Duke's SBO frequency figures. On page 14
17 at the end of the paragraph that begins on page 13,
18 the Commission says the appropriate vehicle for the
19 Intervenors new challenge was an amended contention.
20 And so the Commission does seem to be
21 drawing a distinction between things that were part of
22 the original contention and things that the
23 Intervenors could raise in an amended contention
24 regarding specific new challenges to the way in which
25 you and the staff and the EIS also addressed NUREG/CR-

1 6427.

2 MR. REPKA: Okay, I understand. What I
3 would like to do is come back to that issue. I would
4 like to start with the issue of the uncertainty
5 analysis and the proposed amended contention 5. And
6 then come back to the issue of station blackout
7 frequency because I think that's a little bit of an
8 overriding or a recurring issue and perhaps it's most
9 directly raised in proposed amended contention 3. But
10 I have a note of your question and hopefully I won't
11 forget it.

12 CHAIR YOUNG: Right.

13 MR. REPKA: With respect to amended
14 contention 5, we essentially have three reasons why
15 this proposed amended contention should not be
16 admitted. First, it really is seeking relief that is
17 beyond the scope of the proceeding, a license renewal
18 proceeding at this point.

19 Second, it's an untimely issue. It's an
20 issue that could have been raised in the original
21 proposed contentions based upon the publicly available
22 information as of November 2001.

23 And third, even at this late date, it
24 still lacks any regulatory or factual basis that would
25 support a proposed contention even if had been timely

1 filed.

2 So starting with the first of those

3 arguments --

4 CHAIR YOUNG: Just to interrupt, with

5 regard to the first of those arguments, I read what

6 the Intervenors are seeking as being -- let's see,

7 looking here, a fuller, more thorough analysis of the

8 issues in order to fulfill the purposes of NEPA in

9 their February 7, 2003 filing, specifically -- well,

10 in several places, but I'm looking at page 8 right

11 now.

12 So if you could focus there when you're

13 talking about relief on that because that is what I

14 read, at least, in large part if not all of their --

15 the relief they're seeking to be.

16 MR. REPKA: I agree with that

17 characterization. The relief they're seeking under

18 this contention is, I believe, Dr. Lyman referred to

19 it as a full-blown uncertainty analysis and I believe

20 Ms. Curran has stated numerous times that she believes

21 that's driven by NEPA.

22 Let me start by saying that the arguments

23 of the Intervenors on the proposed contention at this

24 point really seem to ignore the fundamental of the

25 SEIS. The SEIS has already given the maximum relief

1 that's available in the license renewal proceeding.
2 In the SEIS, the staff, based upon various analysis of
3 the scenarios of NUREG 6427 has concluded that there's
4 a range of possible cost benefit calculations for
5 SAMA, to address that scenario and have concluded that
6 there is at least a potential cost beneficial SAMA and
7 therefore have referred the matter to GSI-189 for
8 resolution.
9 CHAIR YOUNG: Let me stop you right there
10 because here's the disconnect that I'm seeing between
11 what you just acknowledged about what the Intervenors
12 were seeking and how you characterized what the staff
13 did in the SEIS.
14 Are you saying that the Intervenors cannot
15 seek a more thorough and complete analysis than the
16 staff has done in the SEIS? Because I see you looking
17 at what the staff has done as being sort of a bottom
18 line look, rather than a look at the thoroughness of
19 the analysis.
20 MR. REPKA: Yes. Given the result of the
21 staff's analysis, there is no need for any further,
22 more thorough analysis. The staff has already made
23 the --
24 CHAIR YOUNG: Forget whether there's a
25 need. Can -- are you arguing that the Intervenors

1 cannot challenge the thoroughness of the analysis,
2 whether or not you think there's a need or whether or
3 not you think that it's thorough enough, are you
4 saying that they cannot challenge the thoroughness of
5 the analysis of the EIS?
6 MR. REPKA: Given the conclusion of the
7 SEIS, they cannot challenge that conclusion any
8 further. It would be of no -- there would be no
9 further relief that could be granted in this
10 proceeding.
11 This is a license renewal proceeding. The
12 object of the license renewal SAMA review is to
13 fulfill and look at issues that are relevant to
14 license renewal.
15 The NRC in its part 51 license renewal
16 rule has already looked at the environmental
17 consequences of beyond design basis or severe
18 accidents. That conclusion is documented in Table B1
19 of part 51. The conclusion was that the environmental
20 consequences are small.
21 However, for a subset of plants, including
22 McGuire and Catawba where the issue of potential SAMAs
23 to further reduce those consequences had not been
24 looked at in an EIS, the Commission said that that
25 would be a Category 2 environmental issue and some

1 further look would be required. That, in fact, has
2 been done. The relevant inquiry for NEPA, the hard
3 look, has been accomplished through the General
4 Environmental Impact Statement, the conclusion in part
5 51, the Table B1 and in the SEIs that staff has
6 already prepared.
7 So there has been a thorough ventilation
8 of the issue that's relevant to license renewal.
9 CHAIR YOUNG: That's a conclusion. Can't
10 they challenge your conclusion that it's thorough
11 enough? Cannot they challenge that?
12 MR. REPKA: There is a requirement for the
13 admissability of the contention that says the
14 contention will not be admitted if it would be of no
15 consequence in a proceeding. And in this case that
16 further analysis would be of no further consequence in
17 this proceeding because the staff has done the very
18 thing that the Intervenors want and the most that they
19 can get in a license renewal proceeding. If you
20 determine that a potential SAMA to address the
21 scenario may be cost beneficial, therefore, it's being
22 addressed -- they've determined that it does not
23 involve any aging management issue, any equipment
24 aging issue within the scope of part 54, therefore
25 it's a part 50 current licensing basis issue.

1 Therefore, it's being addressed through the standard,
2 NRC part 50 regulatory processes.
3 CHAIR YOUNG: Now they've challenged your
4 take on whether the environmental part of the license
5 renewal proceeding is limited to aging questions in
6 their reply. So if you could address that also.
7 MR. REPKA: Let me address again and this
8 is cited in our various papers that we have filed.
9 The Statement of Considerations for the NRC's final
10 rule on license renewal part 54, published on May 8,
11 1995, Federal Register, Vol 60 at page 22463, the
12 Commission explains its regulatory philosophy for
13 license renewal.
14 I quote at this point, "given the
15 Commission's ongoing obligation to oversee the safety
16 and security of operating reactors, issues that are
17 relevant to current plant operations will be addressed
18 by the existing regulatory process within the present
19 license term, rather than defer it until the time of
20 license renewal. Consequently, the Commission
21 formulated two principles of license renewal. The
22 first principle of license renewal was that with the
23 exception of age related degradation unique to license
24 renewal and possibly a few other issues related to
25 safety only during the period of extended operation of

1 nuclear power plants, the regulatory process is
2 adequate to ensure that the licensing bases of all
3 currently operating plants provides and maintains an
4 acceptable level of safety so that operation will not
5 be inimical to public health and safety or common
6 defense and security."
7 That's the fundamental license renewal
8 principle. There can be no challenge to say that in
9 a license renewal proceeding you need to look at
10 issues beyond equipment aging or age-related
11 degradation that's unique to the period of extended
12 operation. This issue of whether or not there will be
13 a change to the current licensing basis to back up
14 power to the hydrogen igniters is clearly not unique
15 to the period of extended operation and there's been
16 no assertion by the Intervenors otherwise.
17 CHAIR YOUNG: Would any SAMA be -- what
18 kind of severe accident mitigation alternative
19 analysis would not be within the current licensing
20 basis? Because I think I understood the staff at one
21 point. I went back and read some things yesterday,
22 and I think I remember at one point the staff said
23 that the fact that something is part of current
24 licensing basis does not necessarily take it out of
25 the license renewal proceeding if it's relevant to a

1 severe accident mitigation alternative analysis.

2 And there seems to be some leeway there

3 that is not altogether clear among all the parties,

4 including the staff. And so what kind of SAMA would

5 not be part of CLB?

6 MR. REPKA: That's an issue we've

7 discussed internally and the example we came up with

8 was one of hypothetical aging of the expansion valves

9 for the condenser. If we had done a SAMA review and

10 found that there were some vulnerabilities to that

11 particular equipment due to aging, then the question

12 would be is that something that's an aging issue

13 related to part 54 and does it need to be resolved in

14 the context of license renewal?

15 That was just one example that we came up

16 with where equipment aging would affect the evaluation

17 of SAMA, that is, it is directly involved in the

18 scenarios being analyzed, a concern in the SAMA in the

19 environmental evaluation.

20 CHAIR YOUNG: So you're saying that that's

21 a limitation on the environmental part of the license

22 renewal inquiry that's not specifically stated in

23 Section 5195 or the appendix that lays out all the

24 environmental issues?

25 MR. REPKA: The relevant regulation is

1 part 54 in the scope of license renewal. With respect
2 to part 51 it defines a SAMA evaluation that needs to
3 be done for license renewal. That SAMA evaluation is
4 necessarily limited by the scope of the licensing
5 action at issue which is the part 54 licensing action.
6 One can't say through a SAMA evaluation
7 under part 51 for license renewal that I am now going
8 to look at all the issues related to the current
9 licensing basis of the plant. That would turn on its
10 head the Commission's first principle of license
11 renewal. So a SAMA evaluation is a focused inquiry,
12 a severe accident vulnerabilities. It's in addition
13 to the fact that the NRC in the table has already made
14 a generic determination based upon the GEIS for
15 license renewal, the generic environmental impact
16 statement, that the environmental consequences of
17 severe beyond design basis accidents are small.
18 So the determination, the relevant
19 licensing issue here is a narrow one and the scope of
20 the SAMA evaluation, the scope of the NEPA look is
21 necessarily limited.
22 JUDGE KELBER: Let me attempt to rephrase
23 what you've said and see if you agree with it. What
24 you're saying is that as a result of the SEIS, there's
25 been a thorough ventilation of the issues and if one

1 were presented with a further detailed uncertainty
2 analysis it wouldn't change things?
3 MR. REPKA: It would not change the SEIS,
4 that's correct.
5 Now the next question becomes is what is
6 the NRC going to do with respect to the part 50
7 current licensing basis. That's the issue that's
8 being analyzed in Generic Issue 189. In the --
9 JUDGE RUBENSTEIN: And excuse me. Any
10 action that would be forthcoming from the conclusion
11 of Generic Issue 189 it would also be open to a public
12 discussion based on the licensing action.
13 MR. REPKA: That's correct. That's
14 exactly what the Commission is referring to in the
15 quote I just read about its part 50 licensing
16 processes and they would be sufficient to address the
17 current licensing basis issues.
18 CHAIR YOUNG: What about the open ended
19 aspect of GSI 189?
20 MR. REPKA: The timeliness in the time
21 frame for GSI 189 is not an issue relevant to license
22 renewal. The complaint that there is no schedule is
23 a complaint that's not to be heard in this forum.
24 That should be registered with the NRC, with the
25 technical staff, with the EDO, through a petition for

1 rulemaking. Those are part 50 issues.

2 CHAIR YOUNG: Well, separate and apart

3 from your argument that their current licensing basis

4 and therefore not part of the aging management

5 analysis, the case law on looking at whether a

6 contemporaneous rulemaking or other staff procedure

7 will allow a licensing board to sort of defer to that

8 other parallel procedure, I think the case law on that

9 and we've discussed this before, talks about whether

10 there are any expected delays, whether it's expected

11 to go forward in a timely manner.

12 What I hear you saying is that that

13 doesn't really matter in this situation because you're

14 reading the aging management analysis to sort of be an

15 overlay over the part 51 environmental parts of the

16 license renewal.

17 MR. REPKA: That's correct. The line of

18 cases you refer to is the long standing line of cases

19 that the NRC won't address in a hearing an issue

20 that's addressed generically through a rule making.

21 CHAIR YOUNG: Right.

22 MR. REPKA: That would be a part 50 hearing and

23 a part 50 rulemaking issue and in fact, the

24 Commission, in general, won't look at those in the

25 licensing process, but as you say there perhaps may be

1 a qualifier on that.

2 CHAIR YOUNG: Right.

3 MR. REPKA: That doesn't apply here since
4 this is different. This is a part 54 proceeding on
5 license renewal issues which are necessarily limited
6 in scope and not a hearing on part 50 issues. So as
7 you characterize it as an overlay, I think is exactly
8 correct.

9 One can't look at the decisions here other
10 than through the lens of what the licensing action at
11 issue is and that includes the NEPA issues as well.

12 JUDGE RUBENSTEIN: In a positive sense,
13 one can give an accolade to the Intervenors for
14 raising this issue which has bearings on the current
15 licensing basis for the ice condenser plants bringing
16 it to the Commission's attention again in terms of
17 awareness of what's going on in Generic Issue 189 and
18 subsequently you're offering them an opportunity to
19 participate in the process when one comes around to
20 correcting or modifying, if there's no correction
21 needed.

22 MR. REPKA: And I would add to that, Mr.
23 Travers', the Executive Director for Operations,
24 letter to the ACRS on January 14, 2003 on GSI 189
25 includes a statement regarding the ACRS'

1 recommendation, but I think it's the same as Dr.
2 Lyman's. He responds, "as you are aware, the NRC
3 staff has long recognized the treatment of uncertainty
4 is an important element in regulatory decisions and as
5 such, it has long been an integral consideration in
6 NRC's policy and guidance documents overseeing
7 regulatory analyses." It goes on and the implication
8 of the letter is that uncertainty is something that
9 not only will, but necessarily must be raised in the
10 context of resolving GSI 189 issue and whether any
11 backups will be required.
12 CHAIR YOUNG: Just, I want to get further
13 -- nail down this little analytical circle that we're
14 in. what the Intervenors say about the issue we've
15 been discussing is that under NEPA there's an
16 obligation to consider new and significant information
17 and their argument, as I understand it, and Ms.
18 Curran, with regard to that, correct me if I'm wrong,
19 but their argument, as I understand it is that since
20 the EIS is required to consider new and significant
21 information, and since the process is directed to a
22 thorough consideration of all the issues sufficient to
23 and I think you even described it somewhere as
24 sufficient to make a reasoned decision.
25 MR. REPKA: On license renewal.

1 CHAIR YOUNG: Right. But hold on, let me
2 finish my thought, let me finish my thought here.
3 Their view is that these issues come in under new and
4 significant information that must be addressed in the
5 EIS, sufficiently and thoroughly enough to enable a
6 reasoned decision.
7 What you're saying is that to the degree
8 that GSI 189 takes the issue out of the license
9 renewal proceeding, the need for that thorough
10 analysis that would enable a reasoned decision is
11 taken out of the EIS NEPA part of the license renewal
12 analysis and put into the part 50 analysis. And I
13 think that their argument is well, but hold on, you're
14 still supposed to do the consideration of the new and
15 significant information in the EIS territory at a
16 level sufficient to enable a reasoned decision there.
17 And so from their point of view, they're saying well,
18 you're wanting to take it out and put it over here in
19 part 50 and let GSI 189 take care of it, but there's
20 no assurance just as the case law looks at whether
21 there's delay or whether there's an end point in
22 sight, they're asking us to look at whether there's
23 any assurance that it will be dealt with there and
24 that there's some responsibility to deal with it in
25 the EIS itself and therefore they can challenge the

1 thoroughness of the EIS.

2 And that's a point that I'm not clear

3 where you stand because you see what I'm saying about

4 --

5 MR. REPKA: First and foremost, the

6 analysis has been done. The environmental analysis of

7 new and significant information or of SAMA's, more

8 pointedly, has been accomplished.

9 CHAIR YOUNG: But then that gets us back

10 into the circle because there you're saying that's a

11 conclusion and that gets us back to the question well,

12 cannot they challenge the thoroughness and sufficiency

13 with which it's been done and then that's where you're

14 out is that's irrelevant because there's no relief.

15 There's no -- it's of no consequence because the

16 relief is going to be taken care of in part 50. But

17 you're defining it that way in a sense.

18 MR. REPKA: Well, as with any

19 environmental analysis, it's defined by the scope of

20 the licensing action at issue. The scope of the

21 project. And the scope of the licensing action at

22 issue here is license renewal. It's not continued

23 plant operation. It's not part 50 COB changes.

24 CHAIR YOUNG: What if there were no GSI

25 189? Would you say then that they could challenge

1 this in this proceeding?

2 MR. REPKA: If the determination had been

3 that this issue is -- there is no cost beneficial to

4 SAMA. That's a conclusion that could have been

5 challenged had there been some basis and specificity

6 to a challenge. There's a second answer to your

7 earlier question which is a new and significant

8 information. Even as late as today, there has been no

9 showing that there is a significant issue here. The

10 ranges of averted risk or the benefit, the averted

11 risk benefit is not anywhere in a range that would

12 suggest that this is a significant safety issue.

13 JUDGE RUBENSTEIN: What is the context of

14 what we've just been discussing on the original basis

15 for the original contention which was a contention of

16 omission? And have we not gone somewhat afield in

17 this?

18 MR. REPKA: The contention of omission has

19 been satisfied.

20 JUDGE RUBENSTEIN: And addressed by the

21 Committee.

22 MR. REPKA: Correct.

23 CHAIR YOUNG: But back to just wrap this

24 up, your answer to my question was if it was found

25 that there was no cost beneficial SAMA, and there was

1 no 189, maybe, but what if the conclusion was that
2 there might be a cost beneficial SAMA and there were
3 no GSI 189, could the Intervenors then challenge the
4 analysis that led to the conclusion that there might
5 be a cost beneficial SAMA?
6 MR. REPKA: Yes, that's what they did
7 initially.
8 JUDGE RUBENSTEIN: However, with the
9 history of the original contention, the consolidated
10 contention, would that be true?
11 CHAIR YOUNG: What I'm trying to get at is
12 more of a --
13 JUDGE KELBER: Excuse me. I think what he
14 said -- he said they did that initially. Is that
15 correct?
16 MR. REPKA: Correct.
17 CHAIR YOUNG: What I'm trying to just
18 understand for my own benefit is let's assume there's
19 no GSI 189. Let's assume that the staff said there
20 might be a cost beneficial SAMA that could be put in
21 place here with the hydrogen igniters. And you're
22 saying well, they could challenge that. The
23 Intervenors could challenge that, the thoroughness of
24 the analysis with which the staff reached that
25 conclusion. Were there no GSI 189 out there to

1 resolve the issue?

2 And so my question at this point, we know

3 it is out there. If it weren't out there I understand

4 you to be saying they could challenge the analysis.

5 MR. REPKA: They could challenge it --

6 CHAIR YOUNG: And -- hold on, Mr. Repka.

7 Doesn't that get us back to an analysis as is done in

8 the case law of how timely that GSI 189 process is

9 going to be in terms of resolving the issue? And if

10 it doesn't, are you saying that we should not even

11 consider the -- in light of all this case law, we

12 should not even consider the likelihood or timeliness

13 with which we can expect a GSI 189 will be resolved?

14 MR. REPKA: You should not consider the

15 timeliness of GSI 189.

16 CHAIR YOUNG: Why not?

17 MR. REPKA: That's not an issue relevant

18 here because that goes to the part 50 COB change

19 issue. That's not the license renewal issue before

20 us.

21 The license renewal issue before us is is

22 there any SAMA related to equipment aging? Is there

23 any cost beneficial SAMA and then if so, does it

24 relate to equipment aging that needs to be resolved in

25 part 54? That question has been answered that yes,

1 there's a cost beneficial SAMA. It's not related to
2 equipment aging, therefore it's addressed in part 50.
3 It's now outside the scope of the license renewal
4 review.
5 CHAIR YOUNG: But you said if the staff
6 had said there might be a cost beneficial SAMA and
7 there were no GSI 189, that the Intervenors could
8 challenge the adequacy of the staff's analysis.
9 So the question is -- right? Didn't you
10 say that?
11 MR. REPKA: What I want to say, I don't
12 know what I said, but I want to say is they could
13 challenge the analysis with respect to the conclusion
14 that relates to license renewal. Even in that context
15 you still can't in a part 54 context go into a full
16 part 50 COB analysis. The relevant issue that can be
17 challenged is had it occurred, what had been -- has
18 the staff made a correct determination on a SAMA and
19 if not, the ultimate relief can still only be to refer
20 that issue to part 50.
21 We don't, in this forum, ever get into a
22 rulemaking. This is not a forum for a potential
23 rulemaking.
24 CHAIR YOUNG: Right. But what I'm trying
25 to get you to address is if 189 were not there, could

1 not the Intervenors challenge the thoroughness and
2 adequacy of the staff's analysis? I thought you said
3 they could earlier.
4 MR. REPKA: They did. They did in the
5 initial Contention 2.
6 CHAIR YOUNG: And you're saying they
7 cannot do it now? Even if there were no 189 out
8 there?
9 MR. REPKA: Because the maximum relief
10 available in this forum has been given. So that --
11 CHAIR YOUNG: Even if there were no 189
12 out there because the maximum relief here depends on
13 there being no 189.
14 MR. REPKA: If there were no 189 because
15 it would still be a rulemaking part 50 issue and their
16 avenue to address that would be to petition for
17 rulemaking through the part 50 process.
18 JUDGE RUBENSTEIN: The finding of the SAMA
19 being cost beneficial would have to be acted upon by
20 the Commission.
21 MR. REPKA: In some way.
22 JUDGE RUBENSTEIN: Yes.
23 MR. REPKA: But ultimately it's a part 50
24 COB issue, not a license renewal issue.
25 CHAIR YOUNG: So you're saying the only

1 SAMAs that any Intervenor could challenge the
2 thoroughness of the analysis on would be ones that
3 were tied to aging management issues, particular parts
4 that were subject to aging? Correct?
5 MR. REPKA: With respect to the relief
6 that would be true. With respect to seeking further
7 relief. In part 54, license renewal space, it would
8 have to relate to equipment aging, something unique to
9 the period of extended operations.
10 CHAIR YOUNG: So there's no room for
11 challenging the adequacy of the analysis in the EIS
12 itself?
13 JUDGE KELBER: Provided that the relief is
14 given.
15 MR. REPKA: The question is what's the
16 outcome of the analysis.
17 JUDGE RUBENSTEIN: And the Committee has
18 characterized the nature of the original contention
19 from which the amended contention is derived from.
20 MR. REPKA: That's correct.
21 JUDGE RUBENSTEIN: They said it's not a
22 matter of defined issues within it, but only a matter
23 of omission.
24 MR. REPKA: But the fact remains the
25 fundamental principle of license renewal is that which

1 I read earlier and no amount of arguing can change the
2 fact that that's still the fundamental principle, that
3 there's an issue for part 54 and there are different
4 issues for part 50 and this issue of early containment
5 of failure and a station blackout event has moved
6 beyond part 54. There's no further relief that can be
7 given in this part 54 proceeding.
8 JUDGE RUBENSTEIN: Am I reading CLI 02-28
9 at 13 wrong when the Commission says the Intervenors'
10 original contention in this case complained that the
11 Sandia study's omission not specific deficiencies in
12 the way the study was used?
13 MR. REPKA: That's true both because in
14 the sense that that's exactly what the Commission said
15 and second because that's exactly what the contention
16 was. It was a contention of omission.
17 JUDGE KELBER: Getting back to Judge
18 Young's concern and I believe I understand the
19 concern, let me summarize.
20 If in a license renewal proceeding, it is
21 found that a particular severe accident mitigation
22 alternative may be cost beneficial, then -- and it
23 does not relate to aging management, then the
24 Petitioners, in this case, the Intervenors have, as
25 recourse, a petition for rulemaking to the Commission

1 based on the finding in the license renewal
2 proceeding. Is that not -- does that summarize?
3 MR. REPKA: That would be true if the
4 staff had not done it themselves.
5 JUDGE KELBER: I understand that. And so
6 if, in fact, time passes and nothing has happened,
7 they could still petition. Is that not correct?
8 MR. REPKA: That's true.
9 JUDGE KELBER: And with this EIS, this
10 petition would have a rather powerful backing, would
11 it not?
12 MR. REPKA: It would certainly raise an
13 issue that would have to be looked at is what the ACRS
14 and the staff have already concluded.
15 CHAIR YOUNG: Okay, and my final thing on
16 this, so you're saying that in that circumstance, the
17 fact that there's an EIS based on the major federal
18 action of the license renewal application, that
19 there's no independent requirement that the EIS be
20 thorough and provide a basis for informed decision
21 making on its own and the Intervenors cannot challenge
22 the adequacy or thoroughness of the analysis in the
23 EIS itself. That's your argument?
24 MR. REPKA: No, that's not what I'm
25 arguing.

1 CHAIR YOUNG: That's the impact.

2 MR. REPKA: No, that's not the impact.

3 There has been -- there is a required environmental

4 impact statement for license renewal. There's a

5 generic environmental impact statement for license

6 renewal and there's the supplemental environmental

7 impact statement.

8 CHAIR YOUNG: Right.

9 MR. REPKA: For license renewal. Those

10 two documents thoroughly look at all the relevant

11 issues related to license renewal.

12 CHAIR YOUNG: That's conclusion and again

13 we get back to can they not challenge that, that how

14 well that's done and that's the bottom line and I keep

15 hearing you say no, they can't, if it involves

16 something that is not identifiable as aging related.

17 And if you're not saying that, I'm not hearing the

18 distinction.

19 MR. REPKA: I'm not saying that.

20 Certainly, anything in a generic environmental impact

21 statement is not subject to challenge in this forum.

22 However, anything that led to the supplemental

23 environmental impact statement could be subject to

24 challenge and in fact, was subject to challenge here.

25 There has been a full evaluation of that issue. And

1 I know you believe that's a conclusion, but that
2 conclusion could be challenged. The problem here is
3 for the Intervenors is the maximum relief has been
4 granted. The conclusion has come out in their favor
5 and therefore, a part 50 issue is being looked at.
6 CHAIR YOUNG: But what if they say, which
7 I think I understand them to be saying that even
8 though it comes out in their favor, it doesn't come
9 out strongly enough in their favor and they would
10 prefer to have a more thorough, more detailed analysis
11 such that whatever happens after this point would have
12 a better analysis for purposes of having a reasoned
13 decision down the line.
14 MR. REPKA: That's an unnecessary academic
15 exercise that's not driven by NEPA and it's not
16 required to meet the NEPA hard look and simply isn't
17 available. If they would like to have that discussion
18 of uncertainties or any other issues related to the
19 SAMA addressed in Contention 2, the place to have that
20 discussion is in the context of GSI 189, not here.
21 JUDGE RUBENSTEIN: Let me expand. Given
22 the publication of the final SEIS, a new contention
23 which would not be derived from it would have to have
24 a basis for being late filed, meet all the appropriate
25 criteria of 2.714, be within the scope of a license

1 renewal hearing, and need not be related to the
2 original or Board consolidated contention, but it must
3 deal with soundly based defects in the new data or the
4 analysis and that new data should be found either in
5 the RAI responses or preferably in the final SEIS.
6 And when I look at 2 through 8, those are the kinds of
7 standards which I look at on the subparts.
8 MR. REPKA: And I would add one more. It
9 would have to meet 2.714(d) and with a demonstration
10 that it would be of some further consequence with
11 respect to license renewal.
12 JUDGE RUBENSTEIN: That's a given.
13 CHAIR YOUNG: Do you have any more on
14 subpart 5?
15 MR. REPKA: On uncertainty, that's all I
16 had, but I wanted to address the timeliness issue.
17 CHAIR YOUNG: Go ahead.
18 MR. REPKA: And then I wanted to turn to
19 station blackout frequency.
20 MS. CURRAN: Judge Young, I wonder if we
21 could have a two or three minute break at some point.
22 It's just been a while.
23 CHAIR YOUNG: Why don't we let Duke finish
24 their argument on subpart 5. Do you think it might
25 take too long?

1 JUDGE RUBENSTEIN: Give us an estimation
2 of how much you want to dwell on it if the Board is
3 quiet?
4 (Laughter.)
5 That was a joke.
6 CHAIR YOUNG: Say we've given them five so
7 far. That would give them 10 more. Do you think
8 you'll take up the whole 10?
9 MR. REPKA: I think with questions, we
10 probably will.
11 CHAIR YOUNG: Can you wait 10 minutes?
12 MS. CURRAN: Yes.
13 MR. REPKA: So that's a proceed? With
14 respect to the timeliness of the uncertainty issue,
15 amended Contention 5, as with all the amended
16 contentions, the appropriate benchmark for comparison
17 is what was available in November 2001 when the
18 initial contentions were submitted. The claim is
19 being made that there wasn't sufficient information
20 available to make an argument to frame a contention on
21 uncertainty and we simply disagree with that.
22 The fact of the matter is there was
23 substantial information available. Ms. Curran handed
24 out the PRA summary report for Rev. 5 of the McGuire
25 PRA this morning. That's a substantial document, two

1 inches thick, double sided.

2 In addition, she handed out the letter

3 documenting changes in Rev. 2(b) of the Catawba PRA.

4 That letter references the PRA summary report for

5 Catawba Revision 2. That document was also on the

6 docket long before November 2001 with substantial

7 information on the PRA.

8 The particular issue of uncertainty, as

9 with many of the issues could easily have been framed

10 based upon the PRA information that was available.

11 The uncertainty is addressed, for example,

12 in the McGuire PRA summary report. Ms. Curran

13 referred to it there herself. If there were some

14 concern that the uncertainty analysis was

15 insufficient, certainly that could have been

16 articulated at that time.

17 In addition, that concern and I think

18 Judge Rubenstein said it earlier, is one that really

19 relates to all of the SAMAs, all of the SAMA

20 methodology. It's not in any way limited to the SAMA

21 of concern related to NUREG/CR-6427. So clearly,

22 could have been raised at that time.

23 Uncertainty is addressed, the specific

24 cites were at 6-21 and I'm looking at I believe the

25 McGuire PRA summary report, as well as the tables

1 referenced there in that section, Figure 6.1-2 and
2 Figure 6.1-3.
3 In addition, this describes Duke's
4 analysis of uncertainty really focusing on the Level
5 1 uncertainty analysis. At that time, there was also
6 substantial information available on Level 2
7 uncertainties in NUREG-1150 which was published in
8 1990. So if there was some particular concern about
9 how uncertainties should have been addressed, that
10 certainly could have been framed at that time, based
11 on looking at publicly available documentation.
12 I think it's really important to come back to a
13 question the Licensing Board asked earlier in one of
14 our telephone calls that had been briefed and that's
15 the Commission's requirement, the ironclad obligation
16 that a petitioner examine the publicly available
17 information with sufficient care to frame an
18 admissible contention. That's not a reasonable care
19 standard. It's not a Duke care standard. It's not a
20 qualified standard. It's a performance standard.
21 It's an absolute standard that it is an ironclad
22 obligation to look at the public record with whatever
23 effort is necessary to find an admissible contention
24 and if you haven't succeeded in finding an admissible
25 contention, then the petitioner has failed in that

1 obligation.

2 There are no qualifiers. There is no

3 "it's too hard", "it's a big document", those things,

4 those considerations really don't affect that

5 standard. The duty, the burden, the obligation is on

6 the petitioner to support and admissible contention.

7 And if they fail to do that, it's nobody else's fault.

8 It's not the NRC's fault and it's certainly not the

9 Applicant's fault.

10 CHAIR YOUNG: What about their argument

11 that these issues did not take on significance until

12 they knew how you were going to address 6427?

13 MR. REPKA: That argument confuses the

14 narrow issue with really the broader issue. The

15 broader issue of uncertainty applies to all scenarios.

16 It could have been framed earlier. There's -- the

17 fact that -- the fact that they didn't know how

18 uncertainties would be addressed is simply not

19 applicable because the NUREG itself talks about the

20 importance of uncertainty analysis, the NUREG-6427.

21 In addition, if that was a particular

22 concern, it could have been raised at the time the

23 original contention of omission was drafted. The

24 contention could have said NUREG-6427, conditional

25 containment failure probabilities haven't been

1 incorporated and there's no analysis of uncertainty.
2 There is no doubt that the contention could have been
3 written that way in November of 2001.
4 The argument that we can't anticipate,
5 there was no anticipation necessary.
6 (Pause.)
7 That's all I had on the issue of
8 timeliness. If there are no other questions.
9 I want to address the issue of station
10 blackout frequency because that keeps recurring. The
11 first point to be made about station blackout
12 frequency is it's a Level 1 number. At this point, to
13 argue about station blackout frequency in the analysis
14 of the particular SAMA of concern is just like looking
15 at uncertainties no longer necessary. We could use
16 different station blackout frequencies. We could use
17 different station blackout contributions to core
18 damage in the Level 1 analysis.
19 However, it wouldn't lead to a better
20 result. It would lead to no further relief in this
21 proceeding. The fact of the matter is a Level 1 issue
22 on this particular SAMA is no longer viable in light
23 of the SEIS. At this point, if some different station
24 blackout frequencies would make a rulemaking more
25 likely, would make a need for CLB changes more

1 supportable, that's an issue that's got to be
2 addressed in GSI 189. Again, it's not an issue that
3 needs any further discussion in this proceeding.
4 Now beyond that, the second point with
5 respect to station blackout frequency is again a
6 timeliness argument. Any challenge to the station
7 blackout frequency either in the amended contentions
8 or now is simply too late. It certainly could have
9 been made based upon the publicly available
10 information in November of 2001. There is specific
11 information in the PRA summary reports that were on
12 the docket on loss of off-site power frequency, on
13 diesel generator failure rates, on diesel generator
14 reliability and it would have been very easy to look
15 at station blackout frequencies based upon the
16 information that was available in the PRA summary
17 reports.
18 So arguing that this is only a summary
19 document, without actually looking at the information
20 that was in the summary document is simply something
21 that should fall on deaf ears. That's not a
22 legitimate argument.
23 I think this morning we heard about the
24 fact that NUREG 6427 includes some information about
25 Level 1 numbers. So what? It's just NUREG-6427 was

1 a simplified Level 2 risk assessment. It had to make
2 certain assumptions about Level 1 numbers. It made
3 certain assumptions about station blackout frequency
4 based upon the Duke IPEs. It made certain other Level
5 1 assumptions. That doesn't change the fact that the
6 NUREG was specifically a Level 2 analysis. It doesn't
7 change the fact that the NUREG doesn't provide any
8 independent Level 1 numbers, any independent basis for
9 a contention on station blackout frequency.
10 The station blackout numbers in NUREG-6427
11 don't have any more or less legitimacy than any other
12 and that's, I think, one of the fundamental
13 determinations that the Commission made in CLI 02-28.
14 CHAIR YOUNG: One of the other things that
15 the Commission said was that on page 16, on
16 timeliness, that because of ambiguous Board statements
17 made in the course of the proceeding, including in our
18 order on contentions, and apparent widespread
19 confusion over the original contention scope, the
20 Intervenors may have had good cause to believe that
21 filing an amended contention was not -- was
22 unnecessary and that this goes to the timeliness of
23 their amended contention.
24 Hasn't there also been apparent widespread
25 confusion, well, isn't apparent widespread confusion

1 over the original contention scope, doesn't that
2 include apparent confusion over the -- whether station
3 blackout frequency was part of what was encompassed in
4 NUREG or CRS-6427?
5 I mean the Commission is saying when you
6 have this ambiguity and confusion that that may be a
7 reason for finding that something was not untimely
8 because of that earlier confusion. Doesn't that go to
9 the station blackout issue as well?
10 MR. REPKA: It might go to that issue, but
11 it doesn't here and the reason why is because the
12 NUREG-6427 doesn't make any independent findings on
13 station blackout frequency.
14 CHAIR YOUNG: But there was confusion
15 about that.
16 MR. REPKA: If there was confusion, it was
17 in the Intervenors' own minds.
18 CHAIR YOUNG: Well, hold on, hold on, hold
19 on. It wasn't just in the Intervenors' own mind. It
20 was in some of the Board's minds. I'll take credit
21 for my part in that. There was enough with regard to
22 our -- everyone's interpretation of CLI 02-17, was it,
23 that it prompted you to petition the Commission for
24 clarification and so there was obviously some
25 ambiguity in places other than the Intervenors' own

1 minds about how much station blackout frequency played
2 into the conclusions and the information in NUREG-
3 6427.
4 MR. REPKA: Again, under the circumstances
5 here, any confusion really doesn't justify the
6 lateness because (a) the NUREG didn't provide any
7 independent station blackout frequency, so therefore
8 couldn't have been a basis to believe that that which
9 was the sole basis for the contention put into play an
10 issue which it had no findings contained in the
11 document.
12 CHAIR YOUNG: Well, there was a statement
13 in there talking about how important station blackout
14 frequency was. That was one of the two major issues
15 with regard to the level of risk. I may not be
16 stating it totally correctly but I think you get my
17 drift.
18 And so if the Intervenors thought well,
19 the NUREG-6427 makes a statement like that, obviously
20 station blackout frequency is an important part of
21 that and we've included, by raising a contention about
22 that NUREG, that encompasses station blackout
23 frequency. Given the level of ambiguity and apparent
24 confusion, isn't it reasonable that they wouldn't be
25 held to a higher standard than that?

1 MR. REPKA: The standard they need to be
2 held to is whether they looked at the publicly
3 available information with sufficient care to frame an
4 admissible contention and in November 2001, they could
5 have looked at available PRA information. They could
6 have looked at NUREG-6427 themselves and made a
7 determination as to the adequacy of the station
8 blackout frequencies used in the SAMA evaluations and
9 the Duke PRA.
10 Even today, we've seen no indication that
11 there's any disagreement with respect to station
12 blackout frequency. There's disagreement, but there's
13 no basis for what other station blackout frequency
14 might be used.
15 So the relevant time for looking at this
16 issue is what could have been raised in November 2001
17 and it certainly should have based upon the publicly
18 available information at that time.
19 Any confusion that ensued later was simply
20 the result of trying to backfit into the contention
21 something that wasn't properly raised earlier.
22 Not only was it not raised with
23 specificity in November 2001, it was not raised with
24 any basis.
25 And with respect to the basis on the

1 station blackout frequency number, we did point out in
2 our filings that because the SAMA evaluations that
3 Duke prepared, both the original and the supplemental,
4 considered both internal and external events unlike
5 NUREG 6427. Duke, in its SAMA evaluation, actually
6 used higher station blackout contributions to core
7 damage frequency than did the NUREG. So that just
8 simply highlights the fact that this is an issue
9 that's surrounded in confusion, but has no basis.
10 CHAIR YOUNG: You used a higher station
11 blackout frequency than the NUREG did? I thought it
12 was lowered --
13 MR. REPKA: No.
14 CHAIR YOUNG: From the IPE.
15 MR. REPKA: The Duke station blackout
16 contribution to core damage frequency in the Level 1
17 analysis is actually higher because it considers both
18 internal and external events.
19 JUDGE RUBENSTEIN: But you did take into
20 account modifications to the diesel generators?
21 MR. REPKA: That's true with respect to
22 the internal events which would be diesel generator
23 failure.
24 But when you put the two together, it's
25 higher than the Level 1 result in NUREG-6427.

1 JUDGE RUBENSTEIN: I would expect so.

2 MS. CURRAN: Can I interject, just to

3 clarify something on the record? If we could look at

4 Table 5-5 on page 511 of the EIS. I'm looking at the

5 McGuire EIS that addressed the SBO frequency numbers

6 at the bottom of that table because I think that might

7 clarify things.

8 CHAIR YOUNG: Table?

9 MS. CURRAN: Table 5-5 on page 511.

10 MR. REPKA: I would be happy to have Mr.

11 Brewer respond to that if that's the Board's desire.

12 CHAIR YOUNG: Go ahead.

13 MR. BREWER: In the table that's

14 presented, it does show a decrease between Rev. 1

15 which was the IPE submittal and Rev. 2, but the reason

16 that the number is actually, that we used in our SAMA

17 evaluation is actually higher than the NUREG is this

18 number for Rev. 1 includes both internal and external

19 events. So that's what we presented in this table,

20 but if you look at what the NUREG selected, it was

21 only looking at internal events, which was a lower

22 number. And the number is actually substantially

23 lower than what we used in the SAMA analysis for

24 Catawba in like two orders of magnitude.

25 I can give you the actual numbers that we

1 used and what they had calculated.

2 JUDGE RUBENSTEIN: Does this answer the

3 question or do you have a point?

4 DR. LYMAN: So what was the IPE SBO

5 frequency for internal events, two orders of magnitude

6 below that?

7 MR. BREWER: For the NUREG, the way the

8 NUREG calculated it, they had 9.6 times 10^{-6} for

9 McGuire and 5.8 times 10^{-7} for Catawba.

10 CHAIR YOUNG: So the difference was made

11 by taking credit for the diesel generators?

12 MR. BREWER: The difference between Rev.

13 1 of the PRA and Rev. 2 of the PRA is a decrease

14 caused primarily by diesel generator improvements, but

15 there are many other improvements incorporated into

16 Rev. 2 and then again we have incorporated more

17 improvements into Rev. 3. But if you look at the

18 actual station blackout core damage frequency that was

19 presented in the NUREG, it was a lower value than

20 we've included in our original SAMA analysis and the

21 updated information that we provided through the RAIs.

22 MR. REPKA: And that's because we've

23 considered more initiators of station blackout events

24 than did the NUREG.

25 So the point of all of that is if you used

1 a NUREG value to do a SAMA cost benefit determination,
2 if you used NUREG level 1 assumptions, level 2 failure
3 probabilities, you would actually come up with lower
4 averted risk benefits than you would if you used the
5 Duke level 1 numbers.
6 The point of raising all of this is to
7 demonstrate that with respect to station blackout
8 frequency, we have an issue that now is not only
9 untimely, it is also no longer viable because it can't
10 lead to any further relief. But it's also one that
11 since the very beginning has been lacking basics.
12 There has never been any effort in the proposed
13 contentions, the amended contentions to present any
14 different numbers that should be used and to show why
15 the numbers that were actually used are inadequate.
16 So all of the basic applicable contention
17 admissibility criteria are not met.
18 With respect to this, I want to make sure
19 I responded to the Board's questions about the
20 Commission's language in 02-28. Have I done that?
21 JUDGE KELBER: I think so. You better
22 have.
23 (Laughter.)
24 MR. REPKA: Well, the ones I highlighted
25 earlier was on page 12. The Commission said the

1 Intervenors' original contention in this case simply
2 cannot be understood as specifically challenging
3 Duke's SBO frequency figures. That's true. I agree
4 with that.
5 On page 14, I underlined the appropriate
6 vehicle for the Intervenors' new challenge was an
7 amended contention.
8 CHAIR YOUNG: Yes, that's what I was
9 directing you to look at and elucidate us on in terms
10 of what the Commission was telling us.
11 MR. REPKA: Again, that would be an
12 appropriate vehicle. The problem here with the
13 amended contention, I believe it's contention 3, on
14 station blackout frequency is that it's not admissible
15 for the three reasons I just articulated. One, it
16 can't lead to any further relief. It can't lead to a
17 better determination than the SEIS with respect to the
18 SAMA. Two, it's untimely. And three, it lacks a
19 basis.
20 CHAIR YOUNG: All right.
21 MS. CURRAN: Can we have a minute before
22 -- Dr. Lyman has to leave and he's just looking
23 through this to see if we can make some kind of
24 response to --
25 CHAIR YOUNG: Before he goes?

1 MS. CURRAN: Yes. We may have to postpone
2 until after, but having a look.
3 (Pause.)
4 CHAIR YOUNG: Okay, go ahead.
5 (Pause.)
6 (Parties are perusing documents.)
7 MS. CURRAN: Judge Young --
8 DR. LYMAN: Well, the bottom line here is
9 that NUREG/CR-6427 didn't do an external events
10 analysis because they considered it was outside of
11 their scope. But clearly if they had, then the -- as
12 the IPE results show, the combined internal and
13 external event frequency would have been greater than
14 the one that Duke used ultimately.
15 So what we're asking for is that the
16 reduction in station blackout frequency from both
17 internal and external events be adequately explained.
18 I think that is the heart of the issue that we are
19 concerned about. Since station blackout frequency is
20 so by the information provided in CR-6427,
21 demonstrates station blackout frequencies have been
22 elevated to an extremely risk-significant number. And
23 so what we are asking is that there be adequate
24 numerical quantitative documentation of how Duke's
25 improvements all the way through Rev. 3 of the McGuire

1 PRA, for example, have led to such a dramatic
2 reduction in their station blackout frequency for both
3 internal and external events.
4 It's not simply the numerical value for
5 internal events provided in the original NUREG, but
6 it's the logic and the understanding of how the total
7 station blackout frequency has been reduced since the
8 time those numbers were published.
9 JUDGE RUBENSTEIN: Having received relief
10 by getting consideration of hydrogen control couldn't
11 you participate in the discussions here in the sense
12 that the Board later on in 189, these are all public
13 meetings. And in looking at the Board's technical
14 limitations on hydrogen control are regards igniters,
15 it's not clear that the staff when considering 189
16 would not perhaps consider inerting of the
17 containment, hydrogen recombiners, combinations with
18 any one of those two or three avenues for better
19 hydrogen control. Perhaps parity rating.
20 We're very limited in the terms of license
21 renewal on our scope of how we can look at this. Is
22 it not a better forum to get those kinds of answers in
23 how they deliberate, how they defend before the ACRS
24 and how the ultimate solution is generated?
25 MS. CURRAN: I think that's really a

1 question for a lawyer to answer. I'm glad to do that.
2 I don't want to interrupt Mr. Repka, but it seems that
3 --
4 CHAIR YOUNG: I think he's finished,
5 right?
6 MR. REPKA: Actually, I had one point to
7 make to respond to Dr. Lyman's point.
8 CHAIR YOUNG: Okay.
9 MR. REPKA: I'll defer.
10 MS. CURRAN: I think a little while ago,
11 Judge Rubenstein, you said the Intervenors should be
12 congratulated for having --
13 JUDGE RUBENSTEIN: Surfaced the issue.
14 MS. CURRAN: Surfaced the issue and
15 invited to participate in the rulemaking and it really
16 gets to a fundamental characteristic of NEPA here over
17 which you have authority which is NEPA is what they
18 call an action-forcing statute and the thing that
19 forces the action is the public disclosures and you
20 see it happening all across federal agencies where
21 when difficult environmental issues are raised by --
22 JUDGE KELBER: Excuse me, Dr. Lyman is
23 leaving and there's one question I must ask him.
24 Did you look at pages 48 and 49 of
25 NUREG/CR-6427?

1 DR. LYMAN: In what context?

2 JUDGE KELBER: In context of explaining

3 the importance of the high-temperature O-rings?

4 DR. LYMAN: Yes.

5 JUDGE KELBER: Those tables, in

6 combination with the simplified event trees, I

7 performed the arithmetic myself at great mental cost.

8 (Laughter.)

9 And found that I could explain much of the

10 difference between Rev. 2 and Rev. 3.

11 DR. LYMAN: Yes.

12 JUDGE KELBER: Okay. We've got that. So

13 your only concern now is about the differences between

14 the IPE and Rev. 2?

15 DR. LYMAN: Well, we're also concerned

16 about the -- just to jump ahead. We're not familiar

17 or we haven't seen the documentation to quantitatively

18 explain the increased performance of these O-rings, at

19 least to the extent that they say here. So that's

20 another aspect of the information and we're still

21 interested in.

22 JUDGE KELBER: But you're challenging

23 NUREG/CR-6427.

24 DR. LYMAN: No, we're not challenging

25 that.

1 JUDGE KELBER: That's what I used. I
2 didn't use any proprietary data or anything else. I
3 just used what was in NUREG/CR-6427.
4 DR. LYMAN: Right, but that was drawn from
5 NUREG-1150.
6 There's no independent determination of
7 that. So that's something we would also like to see.
8 Thanks.
9 CHAIR YOUNG: So you'll be back at 2,
10 right? Thank you.
11 JUDGE KELBER: Sorry to have interrupted
12 you, but he was on the verge of leaving.
13 MS. CURRAN: Well, catch him while you
14 can. Well, anyway, the point here is the way that --
15 the reason why the Intervenors perhaps were able to
16 get the staff to focus on this is because it pushes
17 public disclosure of information. It gets it out in
18 the public and these are usually on difficult issues
19 or new issues that the Agency hasn't dealt with
20 before. And NEPA requires the Agency to keep
21 grappling with new issues and not just rely on what's
22 in the past.
23 And it comes up at decision making
24 junctures. NEPA doesn't operate all the time. When
25 you come to a big decision, you take a look at whether

1 there's new information and it doesn't have to relate
2 to aging. It relates to the operation. Is there
3 something new here that we really ought to think about
4 before we sign on for another 20 years? That's what
5 it does.
6 And that's the reason we're here, is to
7 get NEPA to work. Is to get the disclosure to which
8 we're entitled under NEPA. That will help the GSI
9 process and it will also have effects years down the
10 road that we don't even know because I can tell you
11 for certain that some day an issue about ice condenser
12 containments is going to come up and the Intervenor
13 group is going to be stuck with an EIS that may be
14 incomplete and not only that, but the Applicant, when
15 the Intervenor raises a contention saying there's new
16 information, you really should consider it, is going
17 to say, well that EIS was litigated in a hearing and
18 the basis for those statements was well ventilated and
19 you really have to go an awful long way to challenge
20 that. These things become part of the public decision
21 making record that goes on for a long time. That's
22 why we're here and that's why participating in a
23 rulemaking which may be fine is not anything near the
24 equivalent of the action forcing role of NEPA and you
25 can wait a very long time before we get a rulemaking

1 and I can tell you supposing we petition the NRC for
2 a rulemaking? Supposing nothing happens on Generic
3 Safety Issue 189 and we wait a year and -- we wait six
4 months and petition for rulemaking. Well, I would say
5 that before we can go to court and enforce that, we
6 probably have to wait a period of years because the
7 courts defer to the agencies on how quickly they
8 address safety issues in their rulemaking process.
9 In NEPA, the court can't force the NRC to
10 order a SAMA. I agree with that one hundred percent.
11 But the court can force the NRC to grapple with the
12 issue and that is what we're getting at here and can
13 require a thorough analysis that's really based in a
14 reasonable degree of inquiry. That's what we're
15 looking for.
16 JUDGE KELBER: Would you propose that we
17 impose a license condition of some sort? Is that what
18 you're actually proposing at this point?
19 MS. CURRAN: I will say to you that I
20 think the NRC fully has the authority to say in our
21 decision making process, we think a certain mitigation
22 measure is necessary and warranted. I think the
23 Agency has the authority to do that. It hasn't done
24 that here, but if the NEPA analysis had a different
25 result, based on a more rigorous analysis, we'd get

1 that kind of decision.

2 JUDGE KELBER: I want to point out two

3 things. One, a thorough result might, in fact, cause

4 the staff to change their mind. I, myself, have had

5 severe doubts about the technical adequacy of staff's

6 analysis of the likelihood of detonation. I know

7 other people, members of the ACRS, who share those

8 doubts. So a more thorough analysis might not work to

9 the advantage of the Intervenors in getting the relief

10 they seek.

11 Secondly, you've referred to something new

12 as one of the principal authors of NUREG-0900 which

13 was published an awful long time ago, the hydrogen

14 issue in ice condensers, among other things, was

15 thoroughly recognized as not new. The staff moved

16 rather promptly, if I recall, and I think Judge

17 Rubenstein was part of that.

18 JUDGE RUBENSTEIN: Actually, I made the

19 pitch to put the igniters in before the ACRS.

20 JUDGE KELBER: Do you remember when?

21 JUDGE RUBENSTEIN: I prefer not to.

22 (Laughter.)

23 JUDGE KELBER: So it's not new. What the

24 staff is looking at and what the Applicant has been

25 looking at has been incremental improvements of that

1 original step. It's not a new issue.

2 MS. CURRAN: But, Judge Kelber, can I just

3 --

4 JUDGE KELBER: It's been around for a long

5 time.

6 MS. CURRAN: And sort of a clarifying

7 point here? New is also in relation to the original

8 licensing action because the next -- at the next

9 decision making juncture which in this case is license

10 renewal, you look to see if things have happened in

11 the interim and the NUREG and maybe there were some

12 previous studies too that led up to it, but certainly

13 the NUREG puts a point on it. That's a new development

14 that has occurred since McGuire and Catawba were

15 originally licensed. And that's what's important

16 about it being new.

17 JUDGE RUBENSTEIN: but in a sense, I don't

18 want to say you're beating up on the Board, but you're

19 forcefully presenting a case which as an officer of

20 the NRC, I'm bound by what the Commission has set this

21 hearing for and I have to trust that the NRC will

22 continue in good faith to look through 189 at the

23 hydrogen issue.

24 And I also have to assume that in terms of

25 being special to McGuire and Catawba, that it really

1 applies to all the ice condensers and there's great
2 pressure on them to come to some conclusion regarding
3 "the ice condenser plants" regarding hydrogen control.
4 So in a sense, all I can do is sympathize and point
5 out ways in which you can get participation in the
6 process to follow it publicly and recognizing that
7 they may be right moving slowly, but they may be
8 moving slowly because the solution is not technically
9 easy. It may be that it has to be properly staffed,
10 worked with both the industry and even EPRI and people
11 like that to get a really good answer that won't cause
12 more trouble than just saying the Board should say
13 mandate, have the hydrogen control systems be
14 immediately implemented and we should put in another
15 diesel. This may not be a proper solution.
16 So we're limited in our design
17 capabilities in the hearing room. But I take your
18 point well. I think you really ought to follow the
19 process.
20 MS. CURRAN: Judge Rubenstein, if I could
21 just respond for a moment. We are engaged in a
22 process here that's been given to us under NEPA of
23 seeking more disclosure of the basis for the SAMA
24 decision making process and we think that the SAMA
25 recommendation could change if the analysis were

1 different, but supposing the staff remains uncertain
2 about what's an appropriate SAMA for various reasons?
3 That can still be said in an EIS. But the important
4 part of it is to be assured that the analysis has been
5 as rigorous as possible, leading up to that and that
6 the uncertainty is also disclosed. But what we have
7 here is a rather half-hearted recommendation for
8 hydrogen igniters and Dr. Lyman was reminding me the
9 ACRS, I think, their recommendation was that hydrogen
10 igniters be voluntary. So we have kind of lukewarm
11 endorsement and we'd like to see the NEPA process work
12 to clarify some of these issues.
13 JUDGE RUBENSTEIN: I have a penultimate
14 comment because I'll let you have the last word. The
15 half-heartedness, I think, is due to the technical
16 difficulty of the issue.
17 I would only add, I think, the Commission
18 has ruled many times that it's not worthwhile to
19 adjudicate an issue plant by plant. This is an issue
20 which embraces all the ice condenser plants and we
21 have given you what you wanted to a large degree by
22 saying this is a worthy issue. It is now taken,
23 transferred by research to the NRR staff. It is a
24 generic safety issue and it should continue and I
25 would encourage you to continue it and your

1 participation.

2 Your last word.

3 JUDGE KELBER: If and when the staff ever

4 gets to speak, they might want to see if they could

5 refer, I believe to a briefing on the issue to the

6 Commission in which some sort of tentative schedule

7 was laid down.

8 I recall this vaguely.

9 MS. UTTAL: I think it only went as far as

10 Research's schedule. I'll have to check to see if it

11 also talked about NRR.

12 JUDGE RUBENSTEIN: I thought you were

13 going to say 20/20.

14 MS. CURRAN: I do have a copy of a generic

15 issue management control system schedule from January

16 29th and I'd be glad to distribute it. It has a date

17 for transfer of the issue from the Research to NRR and

18 then for all the other deadlines, there are dashes,

19 blanks. And I'd be glad to share that with you.

20 JUDGE RUBENSTEIN: Did NRR, pardon me, did

21 Research meet the proposed date?

22 MS. CURRAN: I think they did. They

23 passed it on around the 17th or the 20th of December.

24 They passed it to NRR and that's where it is.

25 JUDGE RUBENSTEIN: Okay.

1 MS. CURRAN: I think that would be fine if
2 you wanted to give that to us as an exhibit.
3 One thing that I would like to do before
4 we leave you and take a break, I'd just like to make
5 sure that I understand your argument.
6 Here's what I understand you to be saying.
7 With regard to NEPA, that it's triggered by new
8 information. The new information that you're arguing
9 is NUREG-6427.
10 You are arguing that neither Duke in its
11 application or RAI responses, nor the staff in the
12 SEIS, has provided the -- I'm reading from page 8 here
13 of your February 7th submittal, "provided the detailed
14 statement required by NEPA, compiled a reviewable
15 environmental record demonstrating a good faith effort
16 to consider the environmental values NEPA seeks to
17 safeguard, taking a hard look at the environmental
18 consequences of its actions, provided environmental
19 fully disclosure."
20 That, in essence, that you're saying that
21 the analysis provided by Duke and the staff, is not
22 sufficient to meet those requirements.
23 Am I understanding your argument to be --
24 am I understanding your argument correctly?
25 MS. CURRAN:. Yes, with just one small

1 addition which is that there's also -- there's the
2 issue of new information, but it dovetails with the
3 requirement for a severe accident mitigation analysis
4 where none has been done before. That regulation also
5 governs here, but yes, I think you have summed it up.
6 CHAIR YOUNG: Okay. Then let's take a
7 break --
8 MR. REPKA: May I respond?
9 CHAIR YOUNG: You can either now or after.
10 We've got to take a break at some point. WE've been
11 going for over three hours.
12 MR. REPKA: I'll take that as a hint.
13 (Laughter.)
14 CHAIR YOUNG: Just seeing how this can
15 always lead to more. Did you have a two second last
16 word?
17 MS. CURRAN: Just to respond to Judge
18 Rubenstein on generic versus plant specific, I just
19 want to make the point that I agree this is a generic
20 issue, but the thing about NEPA is that when a
21 decision comes up in an individual case, the Agency
22 has to either make an individual decision to a generic
23 decision, a resolution or something, but it can't drop
24 into the crack which is what I'm afraid may happen.
25 JUDGE RUBENSTEIN: I think you just showed

1 me a schedule that said it didn't fall into the crack,
2 it's been referred to NRR and they will have to make
3 a schedule.
4 CHAIR YOUNG: And we'll mark this as --
5 this generic issue management control system document,
6 dated -- or the run date is 1/29/2003, we'll make that
7 official exhibit 4.
8 (Whereupon, the above-referred
9 to document was marked as
10 Exhibit 4 for identification.)
11 And we will break. Now it's really lunch
12 time. We need to think about a couple of things
13 before we break.
14 We've spent a lot of time purportedly on
15 subpart 5. We've addressed a lot of broad issues that
16 relate to more than one subpart and I'm saying that
17 with a lot of hope in my heart that when we come back,
18 we're going to be able to move more quickly through
19 the other subparts.
20 When we come back, we'll hear what you
21 have to say, Mr. Repka and we'll hear what the staff
22 has to say on the general timeliness issues, the other
23 overarching issues and then subpart 5. And then after
24 that, I think what we need to do is start moving
25 fairly quickly through the other subparts. Now if

1 there's certain ones that you want to -- I'm looking
2 at you, Ms. Curran, that you want to take a minute in
3 a particular order, that would fit with Dr. Lyman's
4 availability, we can do that, but we do need to move
5 through them more quickly and we appreciate all your
6 answers to our questions on some of these more
7 overarching issues now and we'll try to remember them
8 as we go through the other parts.
9 Can we come back at 1? Have we got
10 enough? I guess we can go off the record. We'll come
11 back at one. Off the record.
12 (Whereupon, at 12:04 p.m., the meeting was
13 recessed, to reconvene at 1:00 p.m.)
14 CHAIR YOUNG: On the record. Mr. Repka,
15 I think you were going to go next and then we're going
16 to go to the Staff on general issues and Subpart 5.
17 Then we're going to go to Subpart 8 and work
18 backwards.
19 MR. REPKA: Yes, I was going to make a
20 brief point to respond to something Dr. Lyman said
21 earlier. At this point, I can't remember exactly what
22 it was he said. I wanted to take issue with first the
23 characterization with this issue related to station
24 blackout events and containment failures being new
25 information. I did just want to point out that in for

1 example the PRA Summary Report for Revision 2 for
2 McGuire which was dated December 1997 at page 6-15
3 there is a specific discussion of the early
4 containment failure scenario. That certainly runs
5 contrary to any suggestion that this was new
6 information in 2001.
7 The second point was some of the things
8 that he was stating about station blackout frequency
9 in looking at the information that he just learned of
10 this morning underscores really the lack of any
11 affirmative information that's been put forward as a
12 basis for the contention. I just wanted to highlight
13 as an example he raises questions about we need to
14 have a hearing to understand the basis for the numbers
15 used. One example if you go to that same McGuire PRA
16 Revision 2 Summary Report, Table 3.1.5-1, there's a
17 fairly specific data on diesel generator reliability
18 which of course is a key component of station blackout
19 frequency. It provides the number of starts for the
20 diesel generator, the number of start failure and
21 provides a specific failure rate.
22 CHAIR YOUNG: Which page is that on?
23 MR. REPKA: It doesn't have a page number
24 unfortunately.
25 CHAIR YOUNG: What page is it after or

1 before?

2 MR. REPKA: If you look at the pages that

3 are numbered section 3 and you go to 333, 335 then

4 there's a series of tables. It's Table 3.1.5-1. You

5 have to numerically follow the tables through. It

6 says page six of six.

7 CHAIR YOUNG: 3.1.5-1?

8 MR. REPKA: Yes. Rev. 2.

9 CHAIR YOUNG: It says page six of six on

10 the right-hand side.

11 MR. REPKA: That's correct. It's a series

12 of tables on plant specific information on failure

13 rates. This one happens to be diesel generator which

14 is the one relevant to station blackout. My point

15 being there's very specific information in the public

16 docket as to what inputs Duke used in its PRA and

17 never has there ever been any affirmative basis to

18 challenge any of this much less a recognition that it

19 even exists in the public domain. I just want to

20 point that out as one example and there are others.

21 CHAIR YOUNG: Actually, Dr. Lyman in

22 particular does tend to speak in the terms you

23 described. Looking at some of the actual contention

24 subparts, they talk about adequacy. That was one

25 thing that I was looking at and we discussed in terms

1 of the perspective on a particular contention.

2 A lot of the discussion is in terms of we

3 need to see X, Y or Z or we need to know X, Y, Z in

4 order for there to be enough to determine whether

5 something is appropriate. Whereas the contention

6 subpart may actually talk about the adequacy of the

7 application of RAI responses. The reason I'm saying

8 this to you is so that you'll know that there are

9 these two perspectives that the interveners have

10 offered and that we are trying to look at them from

11 both perspectives, not just the one that you

12 mentioned.

13 MR. REPKA: But I would submit that with

14 respect to the basis requirement for any admitted

15 contention, the burden is on the interveners to

16 provide a basis to challenge. When there is specific

17 information there to simply ask a question and say we

18 don't know and we need to understand X, that's not

19 sufficient basis in our estimation.

20 CHAIR YOUNG: The reason I said that to

21 you is so you could respond to the perspective that

22 states for example this one. Failure to take adequate

23 account of uncertainties. Failure to do something

24 adequately. Failure to justify conclusion. You may

25 want to include in your argument whether you see a

1 basis for making this statement that there is a
2 failure to do something adequately because we're going
3 to be looking at it from that perspective as well and
4 also the other ones that you argue. Just for your own
5 information.
6 MR. REPKA: I understand and I believe
7 we've done that in our papers. With respect to
8 uncertainty, there is information on uncertainty in
9 the original SAMA evaluation. Nowhere is it ever said
10 why that's inadequate.
11 CHAIR YOUNG: Can we move to the Staff
12 now? You were finished. Correct?
13 MS. CURRAN: I think I've probably said
14 enough.
15 CHAIR YOUNG: Go ahead.
16 MR. FERNANDEZ: Thank you, Your Honor. In
17 hopes to be brief and to not go over many of the
18 issues that both of the other parties have thoroughly
19 discussed, let me see if I can limit our discussion to
20 three basic issues. First of all with regards to
21 Contention 5, what is the genuine dispute of material
22 issue of flaw or fact that we are trying to adjudicate
23 here? The Staff's position in that as evidenced by
24 the intervener's filing was that the Applicant had not
25 addressed the SAMA of having hydrogen igniters within

1 the containment in their environmental report. At
2 this late date what we have in front of us is an SEIS
3 that actually concludes that that particular SAMA that
4 the intervener was complaining is cost beneficial
5 under the assumption that return fans are not
6 necessary.
7 Taking that into consideration, one must
8 go the step further of given that's the issue that we
9 are trying to address with regards to uncertainties,
10 with regards to PRAs, that the essential issue is such
11 that do we have to have hydrogen igniters or not in
12 the containment. At the end, what the interveners end
13 up with? The interveners would end up with exactly
14 what they ended up with as is reflected in the SEIS.
15 A conclusion by the Staff that we agree with the
16 interveners and with the Sandia study and all the on-
17 going studies and reports that have been generated
18 with the rest of this issue that yes under certain
19 assumptions hydrogen igniters may be a cost beneficial
20 sever accident mitigation alternative.
21 We agree with the Applicant that there is
22 no further relief that can be granted within this
23 proceeding. The Commission specifically stated it.
24 I would like to if the Board would not mind read from
25 footnote 77, page 22 of the Slip Opinion 02-28. I

1 don't think the Commission could have stated more
2 unequivocally when they said "Thus the ultimate agency
3 decision on whether to 'require facilities with..."
4 CHAIR YOUNG: Excuse me. You are reading
5 the footnote.
6 MR. FERNANDEZ: Footnote 77, Your Honor.
7 CHAIR YOUNG: How far down did you start?
8 MR. FERNANDEZ: It's the second sentence
9 from the bottom.
10 CHAIR YOUNG: Thank you.
11 MR. FERNANDEZ: "To require facilities
12 with ice condenser containments to implement any
13 particular SAMA will fall under a Part 50 current
14 licensing basis review. NEPA does not mandate the
15 particular decisions an agency must reach only the
16 process the agency must follow while reaching its
17 decision."
18 CHAIR YOUNG: What about the intervener's
19 argument that they are not talking about the decision?
20 They are talking about the thoroughness of the
21 analysis that would provide a basis for a decision.
22 MR. FERNANDEZ: I think that's a valid
23 argument but however you need to look at what 2.714
24 says, Your Honor, in looking at any arguments that
25 they make with regard to that we must be guided by

1 what the regulations governing this proceeding say.
2 The regulations governing this proceeding specifically
3 say in 2.714(d)(2) "The admissibility of a contention
4 refuse to admit a contention if the contention and
5 supporting material fail to satisfy the requirements
6 of paragraph (d)(2) of the section." The paragraph
7 (d)(2) specifically says "the contention if proven
8 would be of no consequence in the proceeding because
9 it would not entitle the petitioner to relief."
10 CHAIR YOUNG: Again if you could address
11 that to the intervener's argument that the relief they
12 are seeking is not the decision but the consequence,
13 the relief, would be a more thorough analysis. That's
14 what I understand them to be saying.
15 MR. FERNANDEZ: That argument is bit
16 disingenuous to make at this point in time because in
17 the contentions if one reads them carefully the
18 argument that they are making is not specifically that
19 but rather that the information contained in NUREG/CR-
20 6427 was not analyzed or was not used in the
21 environmental report by the Applicant.
22 That's not the state of events as we are
23 standing here today. The state of events really is
24 that the Staff unlike the Applicant initially at least
25 looked at NUREG/CR-6427 and unlike the Applicant

1 concluded that the hydrogen igniters were a severe
2 accident mitigation alternative and under certain
3 assumptions was cost beneficial.
4 It would force the Staff if this Board
5 were to find that the Applicant is correct to say we
6 agree with your conclusion but now go back and redo
7 all of your analysis and come back to us when the
8 actual conclusion, the actual fact that's at dispute
9 here is the ultimate resolution of that fact. It was
10 resolved in favor of the Applicant. It's just
11 generating work for the sake of generating work. That
12 was never the intent of NEPA. That's a misapplication
13 of the statute, Your Honor.
14 Let me move on to the second point that we
15 wanted to make. The interveners made a statement as
16 to what would have been their burden at the outset of
17 this proceeding with regards to NUREG/CR-6427. Ms.
18 Curran states would we have been expected to state how
19 NUREG/CR-6427 would have impacted all aspects of their
20 application.
21 Actually, Your Honor, the answer to that
22 question is yes. It's a heavy burden to intervene in
23 licensing hearings at the NRC. The Commission
24 recognized that when it amended Part 2. In making
25 those amendments, the recognition was that you as a

1 member of the public in taking on this responsibility,
2 the responsibility was heavy and what you were going
3 to do was you were going to go to the public record
4 and look at every document that was out there that was
5 relevant to this proceeding. Then you were going to
6 determine whether it affected anything in the
7 application.
8 It was your job as intervener to bring
9 that to light not to do a mediocre job and expect to
10 resolve what your general concerns may be through the
11 process of litigation. Specifically the Commission
12 rejected the notion of a notice pleading standard
13 where you identified some generic concerns with
14 certain issues at the initial parts of the proceeding
15 and then flushed those concerns out as the proceeding
16 went through.
17 That is the deck of cards that we are
18 dealing with. We're not dealing with anything
19 different. The burden is heavy. The Commission has
20 specifically identified it as such. If they failed to
21 meet that burden, it's not the Board's fault. It's
22 not the Staff's fault. It may not even be the
23 Applicant's fault but that's just what it is. The
24 contentions are as they are when they were filed.
25 Substantially they don't have more than

1 what originally was filed. I see a lot of arguments
2 being made today that are not even contained within
3 those contentions. I feel like sometimes we are
4 losing a little bit of focus. The focus should be on
5 the documents that were before the Board when they
6 were originally filed. Those documents don't
7 represent a lot of the nuisances that they are trying
8 to advance here today.
9 CHAIR YOUNG: Do you want to give any
10 specifics with regard to Subpart 5?
11 MR. FERNANDEZ: One specific example is
12 this whole issue that Dr. Lyman was talking about with
13 regards with Level 1 information in the NUREG/CR-6427
14 document. He went on to show you Table 4.9 regarding
15 SBO's and the discussion of that information on page
16 29.
17 CHAIR YOUNG: Are you on Subpart 5 now?
18 MR. FERNANDEZ: No, I'm referring to what
19 Dr. Lyman was talking about. I don't know if he was
20 talking specifically about Subpart 5. I know it was
21 in the context of the discussion previously.
22 CHAIR YOUNG: I just want to know if you
23 are arguing to us on Subpart 5 now or more on a
24 general issue.
25 MR. FERNANDEZ: Generically, the

1 interveners have today expanded a lot of information
2 that they had originally filed. I would ask the Board
3 to please look at their arguments today in light of
4 what they had stated in the contentions. Their burden
5 was to make the arguments in those documents not here
6 today.
7 CHAIR YOUNG: Do you want to give us any
8 argument specifically with regard to Subpart 5 on how
9 that subpart meets the contention requirements of the
10 rules?
11 MR. FERNANDEZ: I would love to tell you
12 how it doesn't meet the contention requirements of the
13 rule. Specifically, Your Honor, as we argued in our
14 pleading, the arguments advanced by the interveners
15 don't necessarily have a particular basis legal or
16 factual that would allow them in any remedy in this
17 proceeding for the reasons that I stated initially.
18 Also, Your Honor, with regards to the
19 contention, they failed to show how any additional
20 analysis by Duke would resolve any of these issues.
21 Nowhere in their pleading do you see any assertion
22 that any other analysis would be different, would be
23 better, would be more adequate.
24 CHAIR YOUNG: Let me see if I can focus
25 you on something. On the basis for Subpart 5 under

1 basis A, the third sentence, "Duke's failure to
2 perform a complete uncertainty analysis fatally
3 undermines the credibility of SAMA results." This is
4 what I'm taking as the basis for the statement that
5 Duke has failed to take adequate account of
6 uncertainty.
7 Then in the next paragraph, the
8 interveners say "The use of uncertainty analysis is
9 essential to a credible PRA for several reasons."
10 Then they give several reasons for their statement
11 that the lack of a complete uncertainty analysis
12 undermines the credibility of the SAMA results. I'm
13 not sure I follow how your previous statement applies
14 to that part of the basis that has been provided by
15 the intervener.
16 MR. FERNANDEZ: Without getting into the
17 merits of their argument though, Your Honor, that's
18 just factually incorrect. There was some uncertainty
19 analysis done and some sensitivity analysis. The
20 licensing merely followed the guidance given by the
21 Staff where when the state-of-the-art for uncertainty
22 analysis doesn't allow you to perform one, it's okay
23 for an NRC licensee to perform a sensitivity analysis.
24 CHAIR YOUNG: But you are getting into the
25 merits there in a way. Don't they say the failure to

1 perform a complete uncertainty analysis and then give
2 reasons for why that's not good enough to have a
3 credible SAMA or credible PRA? You are disagreeing
4 with what they are saying but they are making a fact
5 based argument. They are defining what it is that
6 they are alleging is inadequate, namely the failure to
7 perform a complete uncertainty analysis.
8 MR. FERNANDEZ: Your Honor, I'm saying we
9 have to look at the truth of the matter.
10 CHAIR YOUNG: The truth?
11 MR. FERNANDEZ: Your Honor, the facts as
12 alleged by the interveners are not accurate with
13 regards to that statement.
14 CHAIR YOUNG: And we look at accuracy at
15 this point?
16 MR. FERNANDEZ: Your Honor, to determine
17 if what they are saying is true, yes. They can't be
18 misrepresenting what's contained within the
19 application to the Board. It's true that there wasn't
20 an uncertainty analysis done for all three levels of
21 the PRA. That's correct. But merely what we are
22 stating right now is that the licensee did not fail to
23 meet any particular requirement as established in any
24 regulation.
25 There's no deviation here that the

1 licensee could be faulted for. There's really no
2 legal basis for that argument. Nowhere does it say in
3 any of the NRC's regulations that you must complete a
4 full uncertainty analysis when you do your per-
5 valistic (PH) risk assessment.
6 CHAIR YOUNG: Is that the standard for
7 contention?
8 MR. FERNANDEZ: Your Honor, they have to
9 have a legal basis for their argument.
10 CHAIR YOUNG: Where does it say that?
11 MR. FERNANDEZ: Your Honor, I would refer
12 you to .714 and if you would let me consult I'll come
13 back to it. Your Honor, can we come back to it?
14 Thank you. Would it be appropriate to address
15 timeliness now, Your Honor?
16 CHAIR YOUNG: Sure. Go ahead.
17 MR. FERNANDEZ: We've addressed timeliness
18 generically at the beginning of all the arguments. I
19 don't think we have much more to add than what the
20 Applicant has already said that these contentions
21 should and could have been raised at an earlier time
22 in the proceeding. They were not. All of the
23 information required to make these contentions were
24 available in the public record at the time that the
25 contentions were originally filed. It wasn't done so.

1 Therefore anything filed later on particularly these
2 amended contentions, they are untimely.
3 With regards to the argument by the
4 intervener that their untimeliness is somehow
5 justified by the Board's confusion with regards to the
6 interpretation of the Commission's order, that
7 confusion didn't arise until much later in the
8 proceeding. Documents were available before any
9 confusion would have arisen. I don't think that
10 confusion can be used for any reason to bootstrap
11 their argument that they somehow are justified in
12 their untimeliness because of the Board's confusion.
13 I have nothing else with regards to timeliness. I'm
14 going to check on the other one and get back to you,
15 Your Honor.
16 CHAIR YOUNG: Any other argument?
17 MR. FERNANDEZ: No, Your Honor.
18 CHAIR YOUNG: Ms. Curran.
19 MS. CURRAN: I think Counsel for the Staff
20 put in a nutshell what the Staff believes we were
21 required to do back in November 2001 which was to
22 identify and anticipate every aspect in which
23 prospective discussion by Duke of NUREG/CR-6427 was
24 going to be inadequate.
25 JUDGE KELBER: Excuse me. Suppose

1 NUREG/CR-6427 had never been published. They would
2 have gone through the same types of calculations with
3 a smaller set of numbers perhaps but they would have
4 gone through the same thing. So how does NUREG/CR-
5 6427 change the nature of the types of calculations
6 which you claim they should be doing?
7 MS. CURRAN: They would have done the same
8 calculations. Who do you mean?
9 JUDGE KELBER: Duke.
10 CHAIR YOUNG: In other words if there were
11 no NUREG/CR-6427, would you be raising any of these
12 issues?
13 MS. CURRAN: I would think so if there was
14 some statement by the Staff.
15 CHAIR YOUNG: Just from the outset.
16 MS. CURRAN: If there were no NUREG/CR-
17 6427, I can't say for sure but I would say I doubt it
18 because NUREG/CR-6427 really heightened the importance
19 of the SAM analysis in a way that nothing else has.
20 JUDGE KELBER: I'm sorry to contradict you
21 but as one of the authors of NUREG-0900 as I said
22 before that issue was highlighted many years before.
23 JUDGE RUBENSTEIN: Station blackout was
24 well known to be a dominant sequence in these areas.
25 MS. CURRAN: And was it known that the

1 conditional containment probability failure was one.

2 JUDGE RUBENSTEIN: Yes. It was the

3 dominant sequence that contributed conditional

4 containment failure probability. When we first

5 started the case, Judge Kelber and I addressed that

6 immediately in a private conversation. We said what

7 is the most dominant sequence. It was general

8 knowledge. We didn't even refer to anything. I have

9 to believe Dr. Lyman and perhaps Mr. Zeller would have

10 been aware of that.

11 MS. CURRAN: Well, it just seems to me

12 that it emphasizes that it's high time we were here

13 talking about these things. At any rate, I think I

14 made my point. At some point, I would like to address

15 a question that Judge Rubenstein raised earlier about

16 some Federal Register notices with respect to the

17 license renewal rule.

18 JUDGE RUBENSTEIN: Fine. Please do.

19 MS. CURRAN: I think your question was do

20 these statements in rule-making documents show that a

21 Level 3 analysis is not required in severe accident

22 analysis.

23 JUDGE RUBENSTEIN: I was paraphrasing

24 Duke. What they said was in a licensing renewal

25 environment one has to accept Level 1 and 2. An

1 analysis involving Level 3 is not required.

2 MS. CURRAN: I read these pages of these

3 notices and that is not how I read it.

4 JUDGE RUBENSTEIN: I'll leave this to Duke

5 to respond to.

6 MS. CURRAN: Okay. Let me just go through

7 it.

8 CHAIR YOUNG: Point us to the pages as you

9 go through it if you will.

10 MS. CURRAN: I will.

11 CHAIR YOUNG: Thanks.

12 MS. CURRAN: The main discussion is at 61

13 Federal Register, page 28481 which is a final rule on

14 license renewal, Environmental Review for Renewal of

15 Nuclear Plant Operating Licenses. This is a specific

16 section that addresses accidents. What I gather from

17 this is first of all at the time this was written

18 which was in 1996 the Commission was considering

19 taking generic action on severe accident mitigation

20 alternatives or something related to that but hadn't

21 done it at that point.

22 The Commission also says in this document

23 on this page that the Commissioners think it's

24 unlikely that site-specific considerations of severe

25 accident mitigation alternatives will identify major

1 design severe accident mitigation measures. Then they
2 go through a discussion as to why that is. One of the
3 reasons they say that is because to some extent they
4 discussed various facts and issues in the generic EIS.
5 But this is important. The Commission
6 says we are not going to make a rule here as to how
7 severe accident mitigation alternatives ought to be
8 considered. We're going to do it case by case. They
9 do indicate that Level 3 considerations come into
10 play. They say we're going to look in each case to
11 determine whether the consideration of severe accident
12 mitigation alternatives was adequate. I do not see
13 that as excluding Level 3 issues.
14 They say maybe there's other ways besides
15 a Level 3 PRA that this can be done and they suggest
16 a couple. But then they say we're going to look at
17 every case separately because we honestly haven't done
18 the generic study that we would need to do in order to
19 tell you as a general matter what is going to be
20 sufficient and what isn't. That is why I think it's
21 appropriate for us to be here discussing what are
22 appropriate elements of the SAMA analysis in this case
23 with respect to the implications of NUREG/CR-6427.
24 MR. REPKA: Let me respond to that first
25 by saying that the Duke SAMA evaluations are based on

1 all three level, site-specific PRA. Level 1, Level 2,
2 Level 3 PRA is the basis for the SAMA. We are not
3 arguing that a Level 3 analysis is not required. We
4 don't have to argue that. Duke has a three level PRA.
5 What we have cited these quotes that you
6 are referring to, Judge Rubenstein, are in the
7 discussion of the Board's question of whether there is
8 any basis to depart from standard NRC regulations and
9 guidance documents. Specifically we discussed this at
10 page 20 of our February 7th brief. The point to be
11 made there was that with respect to the PRA and all
12 levels but particularly the third level PRA the
13 contention appeared to be asking for more than the
14 Commission was specifically requiring.
15 What the Commission said in promulgating
16 the rule on SAMAs was that they weren't even requiring
17 a plant-specific Level 1 and Level 2 PRA. There is no
18 regulation that requires a PRA much less holds it to
19 some of the standards that petitioners were seeking to
20 hold our PRAs to.
21 The point was the Duke SAMA evaluations
22 are based upon more than the Commission requires. Now
23 this leads to the question that the Board was asking
24 Mr. Fernandez which is when you look at this
25 contention, does there have to be some basis for it.

1 The answer is yes. Is there some requirement for an
2 uncertainty analysis? There has to be. You can't
3 have a contention that doesn't have a legal basis.
4 Without a legal basis for relief, there can be no
5 consequence in the proceeding. That's a fairly
6 inherent component of 2.714. There has to be a
7 regulatory basis for relief.
8 The point again we're making with respect
9 to what the NRC thought it was requiring in a SAMA
10 evaluation. It was not a plant specific, three level
11 PRA which is what Duke used.
12 CHAIR YOUNG: It's almost 1:40 p.m. We
13 have a lot of subparts to go through so I suggest we
14 move on to Subpart 8. I assume you are going to
15 address what the EIS says about that as well.
16 MS. CURRAN: We can be brief on this
17 because it gets back to what I said earlier which is
18 that we looked at the EIS to see if the EIS mooted
19 this contention. It seemed to us that because the EIS
20 was so equivocal and suggested that Duke could be
21 right that the EIS doesn't moot the contention. I
22 will respond to any other arguments that the parties
23 have on this contention but it seems to me that was
24 the main objection that was raised.
25 JUDGE KELBER: The contention states that

1 Duke incorrectly assumed the need for the air return
2 fans in order to boost the costs. In other words,
3 they weren't nice. Is there some independent factual
4 basis for the statement? By the way, I don't like
5 people to start sentences with however. Very bad.
6 However the assumption is not justified. Is there
7 some factual basis for that statement "the assumption
8 is not justified"?
9 MS. CURRAN: We rely on the contention on
10 the Staff's questioning of the assumption.
11 JUDGE KELBER: There is no independent
12 factual basis.
13 MS. CURRAN: That seemed to us to be
14 independent of Duke. That is another independent
15 source questioning that assumption. I believe it can
16 also be found in the Staff documents related to the
17 GSI. That seemed to us to be sufficient.
18 JUDGE KELBER: Thank you.
19 CHAIR YOUNG: This is not one of the ones
20 that you are resting a whole lot on this subpart. Is
21 that correct?
22 MS. CURRAN: I'm not sure I understand the
23 question.
24 CHAIR YOUNG: Let me put it this way. Do
25 you want to make more argument on this subpart?

1 MS. CURRAN: Not because I think it's
2 unimportant but because I think we've already been
3 over the issues. We do think it's important but I
4 don't really want to take your time by going over
5 arguments that have already been made.
6 CHAIR YOUNG: Right.
7 JUDGE RUBENSTEIN: In the Staff's reply,
8 they state that in their pleading the interveners
9 implicitly acknowledge that the defect that they had
10 complained of had been cured by the Staff's analysis
11 in a draft SEIS. Do you not agree with what the Staff
12 characterized?
13 MS. CURRAN: That's right because the
14 Staff was equivocal about their position on whether
15 the fans are necessary or not. If you look at the
16 precise language, that Staff basically hedges what it
17 says about the fans and the igniters. We considered
18 that not to cure our concern.
19 JUDGE KELBER: If the Staff's statement
20 doesn't cure your concern, is there an independent
21 factual basis for this assertion that the assumption
22 is not justified?
23 MS. CURRAN: The Staff wasn't very strong
24 about it but the Staff certainly raised a question and
25 that seems to us to be legitimate.

1 JUDGE KELBER: The question is not factual
2 basis.
3 MS. CURRAN: There's two different
4 questions here. First, is there independent support
5 for our concern. Yes, the Staff has provided it.
6 Second, is the Staff's statement presented in a way
7 that cures our concern? No, because the Staff is
8 equivocal. I don't think those two issues are
9 inconsistent.
10 JUDGE KELBER: They are because if I were
11 to put myself in the Staff position and many years in
12 the past I have done so, I too would be equivocal
13 because there are questions there that are very
14 difficult to answer. That's not a factual basis to
15 say that something may or may not be a good thing.
16 It's not a factual basis for saying that the
17 assumption is not justified.
18 MS. CURRAN: In the EIS, I believe the
19 Staff does go into a discussion of why it being that
20 the fans are less expensive than claimed by Duke.
21 JUDGE KELBER: That's fair but that's not
22 the nature of the contention. The contention is that
23 the assumption that the return fans are essential is
24 not justified.
25 CHAIR YOUNG: What relief are you asking

1 for here? I'm asking that with regard to the issue of
2 whether there is any consequence.
3 MS. CURRAN: I would say that the relief
4 is an analysis by Duke that addresses what the Staff
5 has said and a clearer analysis by the Staff of
6 whether or not the fans are cost effective or
7 necessary. It is the equivocal nature, first of all,
8 Duke saying that fans are required and the Staff
9 saying being somewhat equivocal about whether they are
10 or not. We'd like more clarity on that.
11 JUDGE RUBENSTEIN: Then the consequences
12 would be that the SAMA has to be considered. In our
13 context that would have be considered in the generic
14 issue of what are the consequences if they don't do
15 it.
16 MS. CURRAN: The first consequence is a
17 more accurate disclosure.
18 JUDGE RUBENSTEIN: No, that's a result.
19 What are the consequences?
20 MS. CURRAN: Okay, for us that's a
21 consequence but other consequences would be
22 potentially a stronger recommendation for the fans
23 that could affect the resolution of the generic safety
24 issue or a decision that the hydrogen igniters should
25 be used and that the issue of the fan shouldn't

1 undermine the use of the igniters.

2 JUDGE RUBENSTEIN: There's a thread that
3 goes through many of the briefs that a stronger
4 statement or better analysis would result in a
5 different outcome. I see this almost as bimodal.
6 This doesn't say to the Staff that you have to go back
7 and analyze igniters and air return fans. This says
8 to me that you have to go back and look at the
9 reliability of your hydrogen control system, the
10 extent of your hydrogen control system. You should
11 weigh against recombiners. You should weigh extra
12 power to the igniters.

13 Where we differ is I think it starts a
14 broad process which the Staff is obligated to pursue.
15 They have to look at all the alternatives and consider
16 them both in risk and deterministic space and in back-
17 fit costs and follow on with that. That's where I
18 come across. I see it almost as bimodal. They have
19 to go do this analysis. Whether I pound on the table
20 once or thrice, they still have to do it. We're in no
21 position to say recombiners are more beneficial than
22 augmented power to the hydrogen igniters. It's an
23 unreasonable expectation from this Board.

24 JUDGE KELBER: Let me just make one final
25 remark on this. It is not clear to me that more and

1 further analysis will do the job. I have considered
2 this problem for many years. As I think I mentioned
3 some time back in one of our telephone conferences, I
4 have had the opportunity to review a state-of-the-art
5 report issued by the European agency, an arm of OECD.
6 I fear that technically this problem is
7 not solvable at the present state of technology. The
8 Staff has not done a computational fluid dynamics
9 analysis which is at least the initial start nor has
10 Duke. But even if they had according to the state-of-
11 the-art report which is just two years old, it would
12 still be equivocal. Duke has taken a conservative
13 position that in the absence of a good answer to the
14 question they would have the air return fans operating
15 to insure circulation to that appropriate chambers and
16 deflagration without the dangers of transition to
17 detonation.
18 Now some of the Staff have made an
19 argument which on further examination may hold water.
20 There are certain experiments they have referred to
21 which may show that under the circumstances
22 contemplated, there will be no deflagration to
23 detonation.
24 As Judge Rubenstein has said, that's one
25 of the things that under the Part 50 analysis will

1 have to be looked whether that's known well enough to
2 give the necessary assurance. I don't think we can
3 require Duke or the Staff to embark on a large scale
4 hydrogen research program. I wish we could. There
5 was a time when I could to do and did but we can't do
6 that now. I don't know what you are asking us to do
7 that we can do. I don't think further analysis at the
8 present state of knowledge is going to be productive.
9 CHAIR YOUNG: Any more argument on Subpart
10 8?
11 MS. CURRAN: No.
12 CHAIR YOUNG: Mr. Repka.
13 MR. REPKA: Just briefly on this
14 contention, as we said in our papers, we do believe
15 this is one that the Commission specifically
16 highlighted in CLI02-28 at page 18 as being one that
17 seemingly has been cured by the SEIS. We believe
18 that's the case.
19 With respect to the relevant decision for
20 license renewal that we discussed this morning,
21 there's not equivocal about the Staff's decision. The
22 Staff's decision is based upon the cost benefit SAMA
23 analysis that have been submitted that there may be a
24 cost beneficial CLB change. It does not relate to
25 Part 54 license renewal equipment aging. Therefore it

needs to be addressed in the Part 50 license context. That's the decision that they need to make in this context. I would characterize it as a binary decision much as Judge Rubenstein would.

Apart from that, I really have nothing further to say. I do also agree with everything that Judge Kelber said. We do feel that Duke's position with respect to the air return fans is one that will be analyzed in the context of the Part 50 CLB issue. The position is the conservative one from a safety standpoint that powering the air return fans as well as the igniters is more conservative.

MR. FERNANDEZ: The Staff has nothing to add, Your Honor.

CHAIR YOUNG: Are you ready to go forward with Subpart 7?

MS. CURRAN: Yes, when Dr. Lyman gets back, we may have another comment about Subpart 8 but we can talk about that later.

CHAIR YOUNG: Okay. Go ahead.

MS. CURRAN: I would guess that the main issue here is one of timeliness. This subpart of the contention relates to lack of adequate peer review. The argument has been that this could have been raised initially. I have already stated the general argument

1 that but for the information in NUREG/CR-6427 this
2 would not have been a significant issue for us. Now
3 that it is and this information has come out, we would
4 like to see the information in NUREG/CR-6427
5 considered in a thorough way. One of them would
6 include a provision for peer review. I'll just wait
7 and respond to other parties.
8 CHAIR YOUNG: Mr. Repka.
9 MR. REPKA: I have five reasons that this
10 contention is not admissible. First, we've gotten to
11 the point where we agree that it does seem to be
12 focused on only one particular SAMA, the SAMA related
13 to the scenario of NUREG/CR-6427. If that's the case
14 like all of the other proposed amended contentions,
15 it's no longer viable because there can be no further
16 relief in the proceeding.
17 How would additional peer review of the
18 Duke PRA lead to a different result with respect to
19 the determination in the SEIS if there may be a cost
20 beneficial change and therefore it must be analyzed in
21 the Part 50 context? It can't. So this whole
22 contention can't lead to any further relief here.
23 Second, if this is intended as a broad
24 challenge to the PRA, then it's outside the scope of
25 this proceeding. There's really no basis in the

1 regulations or in the scope of a license renewal
2 proceeding to challenge the PRA generally. It has to
3 be linked in some way to analysis that's relevant to
4 Part 54. That would have to be through the impact on
5 the SAMA evaluations that are of issue. That leads us
6 back to the conclusion that there can be no further
7 relief. Just a broad challenge to the PRA for the
8 sake of challenging the PRA is outside the scope of
9 the license renewal proceedings.
10 CHAIR YOUNG: You are getting into Subpart
11 2, right?
12 MR. REPKA: I'm sorry. Subpart 2.
13 CHAIR YOUNG: It is failure to provide
14 adequate support for conclusory results in RAI
15 responses. Contention Duke is not supported its SAMA
16 analysis by publication of its PRA.
17 MR. REPKA: That argument would apply to
18 that proposed subpart as well because again there's no
19 requirement with respect to publishing the PRA just
20 like there's no requirement to do a peer review in the
21 PRA.
22 The third argument with respect to this
23 proposed contention is like the others which is it's
24 late without good cause. It really is a contention
25 that is not restricted in any sense to the scenario

1 raised in NUREG/CR-6427 or the particular SAMAs
2 related to that scenario. It could have been raised
3 based upon the PRA information that was available in
4 November 2001 and it could have been raised with any
5 appropriate basis at that time. That wasn't done.
6 There was no awareness at the time of the publicly
7 available information and therefore it's late to be
8 raised in May 2002. It would be late without good
9 cause.
10 The next point we make in our papers on
11 this particular contention is it cites as a basis
12 really only Reg guide 1.174 which was a draft Reg. In
13 particular it cited an appendix to the draft Reg guide
14 that has since been deleted. The Reg guide itself was
15 related to use of PRA to make licensing basis changes
16 which is not what the PRA was being used for in SAMA
17 evaluation. So really on the face of the documents
18 cited as a basis, there is no support. The Board is
19 not required to accept at face value a draft Reg guide
20 as a basis for a contention when in fact the draft Reg
21 guide has no current validity or applicability.
22 The last thing that we have said in
23 response to this proposed contention is in addition to
24 all the other infirmities it really lacks a factual
25 basis. There is a lot of confusion within the

1 contention as drafted. It misrepresents in many ways
2 what was said in the RAI responses about what has been
3 done.
4 The fact of the matter is both the McGuire
5 and Catawba PRAs have been peer reviewed. They were
6 peer reviewed by the EPRI Nuclear Safety Analysis
7 Center in connection with IPE and IPEEE submittals.
8 That information could have gleaned from the public
9 record. Rev. 2 of McGuire PRA as stated in the RAI
10 response was peer reviewed by the Westinghouse Owners
11 Group PRA Certification Program. The Catawba Rev.
12 2(b) was peer reviewed by the same program in the
13 spring of 2002.
14 Given that there is no recognition of the
15 peer reviews that were in fact done. There is no
16 statement with any specificity as to why those peer
17 reviews were inadequate or what further could or
18 should be done. Given that, there's no factual basis
19 for a contention. In the end, there is no basis and
20 this contention can lead to no relief in the
21 proceeding.
22 CHAIR YOUNG: Anything further?
23 MR. REPKA: Not right now.
24 CHAIR YOUNG: Staff counsel?
25 MR. FERNANDEZ: We have nothing to add,

1 Your Honor.

2 CHAIR YOUNG: Ms. Curran. Do you want to

3 add anything?

4 MS. CURRAN: Yes, I would like a chance to

5 reply. First we disagree with Mr. Repka that there is

6 no further relief available. The purpose of a peer

7 review is to provide some important analysis. It's

8 another set of eyes to look at it. It could change

9 the result. Again this is going over ground that

10 we've been over before. If the analysis changes that

11 is substantive relief under NEPA. A better analysis

12 is a good achievement, a result, a legally valid goal

13 under NEPA.

14 There was an argument about scope that

15 this is a challenge to the PRA, not within the scope

16 of the contention. That gets us back to another

17 global issue which is what is the allowable scope of

18 this contention. Are we allowed to raise anything but

19 what was said in the original contention? As I said

20 before, we feel that we have followed the Commission's

21 procedures for amending contentions for monitoring new

22 information that comes in from the applicant and

23 critiquing its inadequacies in the form of newly

24 amended contentions. Obviously the SAMA analysis

25 involves reliance on Duke's PRA. That goes without

1 saying.

2 Third, we could have raised this issue in
3 November 2001. Again we did not generally raise
4 issues in 2001 about the adequacy of the PRA because
5 we were interested in how Duke was going to address
6 6427. That was our focus. I believe we are entitled
7 to see what Duke would do before focusing on the
8 inadequacies in that analysis.

9 Mr. Repka points out that we are relying
10 on language that has been dropped from a regulatory
11 guide. I didn't know this. It seems to me that that
12 important point here is that peer review is a long
13 established means of assuring the adequacy and rigor
14 of a probabilistic risk assessment. It's a very
15 commonly used technique. The applicant refers to it
16 in its RAI responses so I don't think there's a
17 disagreement that it's an appropriate and useful tool
18 in this kind of a study.

19 With respect to whether these studies have
20 been peer reviewed, at the time that we wrote this
21 contention Duke was saying that the Catawba PRA by
22 which I think they meant Revision 2 will be reviewed
23 in the spring of 2002. That may have been done. More
24 importantly Revision 3 was peer reviewed while it was
25 in preparation which we do not consider to be a

1 legitimate peer review. We think that is an
2 inadmissible issue.
3 There is a chicken-and-egg situation here
4 that gets back to second part of the contention which
5 is we haven't seen the PRA. We haven't seen what was
6 reviewed. We haven't seen a peer review report for
7 the Revision 2 which really is of interest to us. We
8 would think that would be some of the information that
9 would be disclosed under Subpart 2 of the Contention.
10 CHAIR YOUNG: You say what's been done is
11 not adequate. What's the basis of that? Why is it
12 not adequate?
13 MS. CURRAN: As I mentioned at the time we
14 wrote this contention, there was no peer review for
15 Catawba for Revision 2. Duke had stated that Revision
16 3 had been peer reviewed while it was in process which
17 to us on its face appears to be an inadequate peer
18 review. One should have a peer review of a finished
19 document and then go back and revisit. It may have
20 been that the Catawba issue has been mooted by a
21 subsequent peer review but it would be helpful to see
22 the documents.
23 JUDGE KELBER: You made a conjectural
24 statement under discussing the relief. You say that
25 a peer review could lead to a better analysis.