Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title:

Luminant Generation Company Comanche Peak Nuclear Power Plant Units 3 and 4

Docket Number: ASLBP Number: 52-034/035-COL 09-886-09-COL-BD01

DOCKETED USNRC

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June 16, 2009 (2:30pm)

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 20 argument at 9:00 a.m. 21 22 BEFORE THE LICENSING BOARD: 23 ANN MARSHALL YOUNG, Chair 24 DR. GARY S. ARNOLD, Administrative Judge 25 DR. ALICE C. MIGNEREY, Administrative Judge 26 NEAL R. GROSS 27 NEAL R. GROSS 28 NODE ISLAND AVE., N.W. 		247
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5	3	ATOMIC SAFETY AND LICENSING BOARD PANEL
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12 Thursday, June 11, 2009 13 Jury Selection Room 14 Jury Selection Room 15 Hood Country Justice Center 16 1200 West Pearl Street 17 Granbury, Texas 18 Image: Selection Room 19 The above-entitled matter resumed for oral 20 argument at 9:00 a.m. 21 Image: Selection Room 22 BEFORE THE LICENSING BOARD: 23 ANN MARSHALL YOUNG, Chair 24 DR. GARY S. ARNOLD, Administrative Judge 25 DR. ALICE C. MIGNEREY, Administrative Judge 26 NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 19 NEAL R. NW.	10	Plant, Units 3 and 4) 09-886-09-COL-BD01
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1	APPEARANCES:	
2	On behalf of the NRC:	
3	SUSAN VRAHORETIS, ESQ.	
4	MARCIA J. SIMON, ESQ.	
. 5	JAMES P. BIGGINS, ESQ.	
6	U.S. NRC Office of the General Counsel	
· 7	Mail Stop 0-15 D21	
8	Washington, DC 20555-001	
9	-	
10	On behalf of the Applicant:	
11	TIMOTHY P. MATTHEWS, ESQ.	
12	STEVEN P. FRANTZ, ESQ.	
13	JONATHON M. RUND, ESQ.	
14	Morgan, Lewis & Bockius, LLP	
15	1111 Pennsylvania Ave., NW	
16	Washington, D.C. 20004	
17		
18	On behalf of the Petitioners:	
19	ROBERT V. EYE, ESQ.	
20	Kauffman & Eye	
21	112 SW Sixth Avenue, Suite 202	
22	Topeka, Kansas 66603	
23		
24		
25		
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1 .	PROCEEDINGS
2	JUDGE YOUNG: We'll begin with Contention 9
3	this morning. Let's go on the record.
4	And, Mr. Eye, you were to have some
5	information for us.
6	MR. EYE: Yes. Good morning, Your Honor. And
7	we have established that the study actually that
8	counsel for the Applicant referenced is the correct
9	study that Dr. Makhijani referenced regarding
10	Savannah River, so we've come to consensus on the
11	reference document. That may be the end of the
12	consensus, but we have arrived at that.
13	JUDGE YOUNG: All right. So let's just Mr.
14	Frantz?
15	MR. FRANTZ: Yes. I think there may be other
16	areas where we may have consensus, but given the
17	fact that we now know the source of this report, the
18	report itself states on its face that it was
19	developed for Savannah River. It was based upon
20	site-specific characteristics of Savannah River.
21	That's clear on the face of the report.
22	And as I go forward this morning, I'll explain
23	in more detail why some of the assumptions used for
24	the Savannah River study either are not applicable
25	to Comanche Peak or do not have any material effect
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on the results of the dose calculation for Comanche Peak.

I'd like to first, though, turn to the question posed by the Board, and that question pertains to the dose conversion factors, and there are two different types of dose conversion factors of interest that have been mentioned by the Petitioners.

9 The first pertains to conversion of dose from 10 consumption of commercial fish and saltwater 11 invertebrates, and the second pertains to conversion 12 of dose in different age groups, namely from adults 13 and children.

Turning to the first one, this is conversion 14 15 of dose due to consumption of commercial fish and 16 saltwater invertebrates. That issue simply is not 17 material to Comanche Peak. Dr. Makhijani and 18 Petitioners allege that using the LADTAP XL code for 19 Savannah River would result in an order or two 20 magnitude higher doses for consumption of commercial 21 fish and shellfish.

And even if that's assumed to be true and even if you applied LADTAP XL to Comanche Peak, it would have no effect, because as they did very clearly on page 5.4-4 of our environmental report, there is no

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commercial fishery, and there is no consumption of invertebrates in the area around Comanche Peak, so essentially there is no dose due to that particular pathway, and, therefore, their allegations just simply are not applicable to Comanche Peak and do not affect our dose calculations.

Second of all, I might add that even if you had assumed that there is commercial fishery around Comanche Peak and consumption of invertebrates, there still is no information in the record that would indicate any material impact on our dose calculation. In fact, the very report that they cite indicates to the contrary.

Again, all they have done is pick one pathway, 14 15 the pathway involving consumption of fish and 16 invertebrates, and there are a number of other different pathways, including drinking water, 17 boating, swimming, food arrogated with water and so 18 forth. And the particular pathway they have picked 19 20 doesn't really have a great contribution to the 21 total dose.

And looking at the report that they cite, the report itself states that if you compare the results of LADTAP II with the results of LADTAP XL, which is the Savannah River report, LADTAP XL results in "an

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-1	- insignificant increase in predictions of
2	JUDGE YOUNG: Where are you reading from?
3	MR. FRANTZ: Pardon?
4	JUDGE YOUNG: Oh, okay. Never mind.
5	MR. FRANTZ: "results in an insignificant
б	increase in predictions of total dose to the maximum
7	in an individual and a 10 percent in total
-8	population dose." So it's very clear given this
9	statement in the very report that they cite that
10	this pathway involving commercial fisheries and
11	saltwater invertebrates simply is not material to
12	the results in terms of the total doses.
13	Furthermore, as we mentioned yesterday,
14	Petitioners have not disputed that our effluents
15	will be within NRC regulatory limits. As a result,
16	by definition, the impacts, environmental impacts,
17	will be small. And so even if you change perhaps
18	the ultimate dose number by a slight amount, that
19	number won't have any effect on the ultimate
20	conclusion that the impacts are small.
21	And so for a number of reasons here, all their
22	issues simply are not material to our calculation
23	doses and to our conclusion that the environmental
24	impacts are small.
25	I'd also like to now turn to their allegations
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regarding dose conversion factors to adults and children, and again they have just simply mischaracterized our environmental report.

Contrary to their statements, we did not calculate doses to all individuals based upon the dose to an adult. Instead, as clearly indicated in FSAR 11.2-15R and environment table 5.4-8, we calculated doses for four different age groups, namely adults, teenagers, children and infants, so we did use different dose calculation factors and conversion factors for each of these groups, and there's nothing, of course, anywhere in the petition to indicate that we used the wrong conversion factors for any one of these particular groups. They just, again, have just simply mischaracterized our report.

17 I might further add LADTAP II which is the 18 code we have used for Comanche Peak has been 19 explicitly approved by the NRC for use in COL applications. I'll refer the Board to Regulatory 20 Guide 1.206. Now, I realize that's not dispositive. 21 It's not a regulation. But the Commission has held 22 that the NRC guidance is entitled to special weight, 23 24 and in light of that special weight, it really is incumbent upon the Petitioners to provide far more 25

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than they have in this case, and they just simply have not established a genuine dispute of material fact. As a result, we believe this contention should be dismissed. Thank you.

JUDGE YOUNG: Mr. Eye, what's your response? MR. EYE: Your Honor, the analysis done by Dr. Makhijani was intended to be illustrative of the discrepancies in terms of the projected dose rates between LADTAP II and LADTAP XL. It was not intended to necessarily cover every parameter, but rather to illustrate that there was an understated dose projection.

13 More specifically, the criticism that the 14 pathway, the shellfish -- or commercial fish and 15 invertebrates are not pertinent to the Comanche Peak 16 situation would lead -- really is missing the point. 17 The shellfish and invertebrate are simply there to 18 illustrate that there is an understatement, an 19 underestimation of the doses that would be 20 projected.

It is not necessarily intended to cover every single pathway or every single potential exposure, but rather as an illustration or representation of Dr. Makhijani's conclusions regarding the deficiencies in LADTAP II and, in his judgment, the

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1 - superior analytical benefits of the LADTAP XL code. 2 JUDGE YOUNG: Is there any part of this study 3 that indicates that there is such a systematic understatement of doses in LADTAP II? 4 5 MR. EYE: Your Honor, I believe that what -- I don't think that it calls it out explicitly. 6 Т 7 think it has to be inferred from a comparison of the data that are collected here, compared to data that 8 would be used out of LADTAP II. In other words, a 9 10 side-by-side comparison is not done in this Savannah 11 River study, if that's the import of your question. 12 Your Honor, if I may, just one --13 JUDGE YOUNG: Go ahead. 14 MR. EYE: -- additional comment about this. 15 In reflecting on this particular contention and Dr. 16 Makhijani's underlying report and recognizing that LADTAP II is, I guess you could almost call it, 17 something of an institution in terms of the NRC's 18 analytical methods to project doses, this may be 19 20 another one of those contentions that lends itself 21 perhaps to a petition for rulemaking in order to 22 fully explore what deficiencies there are in LADTAP 23 II compared to LADTAP XL. 24 And in that regard, I mean, I'm not suggesting

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that we will withdraw the contention, but I do want

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1 the panel to recognize that we understand that as in _ several other of our contentions, this really goes 2 to an institutional kind of assumption that's built 3 into NRC's analytical methods, that to the extent we 4 believe is deficient or needs to be updated, would 5 6 also lend itself to a potential petition for 7 rulemaking. JUDGE YOUNG: You referred to Dr. Makhijani's 8 9 underlying report. Which --10 MR. EYE: It's the report that he prepared in the reply to the --11 12 JUDGE YOUNG: May 8? 13 MR. EYE: -- Staff. Actually I -- I believe 14 it is the May 8. I forget the exact date, but it 15 was sometime first part of May. May 8. Okay. 16 Right. Thank you. 17 JUDGE YOUNG: Okay. 18 JUDGE ARNOLD: I have a question for the 19 Petitioner. The second paragraph of this 20 contention, in discussing the Savannah River study, 21 states, "Further, the dose conversion factors used 22 in even the more recent model are for adults." And 23 then later on in that paragraph, it says, "The FSAR needs to be completely redone using the most recent 24 25 validated approaches for estimating dose and **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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estimating" -- well --

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So the logic there seems to be that the Savannah River study used the wrong dose conversion factor so the FSAR needs to be redone.

MR. EYE: That may have been a clumsy wording. No. It is that the Savannah River study's use of the XL, LADTAP XL code produced a more reliable and precise projection of doses than the LADTAP II that was used to project doses in the Comanche Peak ER and FSAR.

JUDGE ARNOLD: So -- well, let me then ask: Do you have any specific problem with the dose conversion factors that were used in the FSAR?

> MR. EYE: For Comanche Peak, not --JUDGE ARNOLD: For Comanche Peak.

MR. EYE: Only to the extent that they are tied to LADTAP II.

JUDGE ARNOLD: Let me ask Applicant. Are the dose conversion factors actually tied to LADTAP, or are they done kind of a separate thing? Or how do the two tie together?

MR. EYE: LADTAP II is the code that's used to calculate doses or estimate the doses for various factors, and as we mentioned and Mr. Eye now seems to be withdrawing his contention regarding

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1 ·	differences between children and adults. I think
2	that's what he's now he's now limiting this to
3	the shellfish and invertebrates.
4	I might add, by the way, that there is no
5	indication in this Westinghouse Savannah River
6	report of a systematic underestimation of the doses.
7	To the contrary, that statement I quoted right at
8	the initial part of my presentation shows that for
9	the maximum-exposed individual, there is-no increase
10	in total dose, and for the population as a whole,
11	there's only a 10 percent increase.
12	So that sort of belies their argument that
13	there's a systematic underestimation. It just
14	simply does not appear in the total results.
15	JUDGE YOUNG: Did you ever reply to that? I
16	wanted to ask you about that, the statement in the
17	report itself that talks about the insignificant
18	increase in predictions of total dose to the maximum
19	individual and a 10 percent increase in a total dose
20	to the Savannah River user population.
21	MR. EYE: The Savannah River study is offered
22	up as only an illustration of the difference between
23	LADTAP II and LADTAP XL. In terms of the paragraph
24	in the I believe it's in the introduction part of
25	the summary or in the summary section of the SRS
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1	study, it says what counsel says, what he read.
2	But this study is offered as simply an
3	illustration that there is a difference between
4	LADTAP II and LADTAP XL, and in our contention, we
5	believe that the more advanced or more precise means
6	by which to project doses ought to be used as
7	opposed to one that is less precise or that would
8	systematically underestimate those projected doses.
9	JUDGE YOUNG: If you look at the figures in
10	the FSAR and you increase them by 10 percent, would
11	that lead you to challenge the actual dose figures
12	in the FSAR?
13	MR. EYE: To the extent that they're off by
14	whatever increment, then they're not as precise as
15	another model would yield.
16	JUDGE YOUNG: But specifically.
17	MR. EYE: I'm sorry. Your question was?
18	JUDGE YOUNG: Do you have a specific challenge
19	to the FSAR, to any sections of the dose figures in
20	the FSAR
21	MR. EYE: I see. I didn't understand your
22	question. Yes. Well, as we say in the contention,
23	when LADTAP II is used, it gives a lower projected
24	dose than LADTAP XL across the board.
25	JUDGE YOUNG: What I'm trying to get to is:
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260 What-would the impact of adding 10 percent to all -1 2 those doses be? 3 MR. EYE: From a public health perspective, it would --4 5 JUDGE YOUNG: Would it put them over the б regulatory limits? 7 MR. EYE: I see. I don't know the answer to 8 that question, Your Honor. 9 MR. FRANTZ: Your Honor, perhaps I can respond 10 to that. First of all, there are no dose limits for 11 the population as a whole, and that's what LADTAP XL 12 is predicting as an increase. 13 Even if you assume that there's a 10 percent 14 increase for the maximum-exposed individual, we're 15 still well below regulatory limits. As discussed on 16 page 49 of our answer, the doses calculated for 17 Comanche Peak in LADTAP II were approximately 1 18 millirem per year. The Appendix I limit for this 19 pathway, liquid pathway, is 3 millirem per year, 20 which is three times what we calculated. 21 And the dose limit in 10 CFR 20.1301 is 100 22 millirem per year, and we're obviously one one-23 hundredth of that. So we have plenty of margin between our calculated dose and the dose limits in 24 25 the NRC regulations. **NEAL R. GROSS**

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261 1 JUDGE YOUNG: Anything further, Mr. Eye? 2 MR. EYE: No, Your Honor. 3 JUDGE YOUNG: Staff? 4 MS. SIMON: Thank you, Judge Young. Marcia Simon for the Staff. Much of what I planned to 5 6 argue has been covered by the Applicant, so I'm 7 trying to be brief. 8 I would like to reiterate that the Savannah 9 River study provides information about differences 10 between LADTAP II and LADTAP XL for commercial fish 11 and saltwater invertebrates and explains on page 8 12 and 9 of that report why there is that difference. 13 So the Savannah River study does not provide 14 any indication of a systematic underestimation 15 because the only specific underestimation indicated in there is for the commercial fish and saltwater 16 17 invertebrates, and that is explained. Therefore, we 18 continue to hold the position that this aspect of 19 the contention is not adequately supported as we 20 discussed in our answer. 21 We also in our answered referred the Board to 22 Regulatory Guide 1.109 and the individual dose factors for four different age groups in that 23 24 Regulatory Guide. Those dose factors are the same

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ones that are provided in the LADTAP user's manual

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and-technical guide which is NUREG/CR-4013, and on :page 5.4-5 of the environmental report, the Applicant indicates that LADTAP II program as described in that NUREG is what was used in making the calculations for Comanche Peak.

And, therefore, it is clear that the assertion that only adult dose conversion factors were used is incorrect, and therefore, that aspect of the contention should be rejected.

10 JUDGE ARNOLD: I do have one last question 11 actually for Petitioners. If -- let's assume that 12 it were established that the codes are systematically different. Do you have anything to 13 indicate which ones of the codes is yielding the 14 15 more accurate solution? Just because it's different doesn't mean it's different in the correct 16 17 direction.

18 MR. EYE: Granted. I think that the reasoning 19 or the logic here is that we presume that each 20. refinement of LADTAP is intended to yield a more 21 precise dose projection, and to the extent that 22 LADTAP XL has come in the progressions after LADTAP 23 II, that it would be presumed to be a more precise 24 instrument by which to make these projections. 25 JUDGE ARNOLD: Do you know if it's undergone

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263 any validation, any comparison with data or anything _1_ 2 of that sort? 3 MR. EYE: Well, to the extent that it was relied upon, for example, in the Savannah River 4 study, I am going to assume that the Westinghouse 5 6 contractors that prepared that study would not have 7 relied on LADTAP XL if it would have yielded less precise results than another model, for example, 8 9 LADTAP II. JUDGE ARNOLD: Thank you very much. 10 11 MR. EYE: You're welcome. 12 MS. SIMON: Your Honor, I just had a couple 13 more points. I wanted to briefly address Dr. 14 Makhijani's reply. As discussed yesterday in the 15 argument concerning the motion to strike, the Staff 16 believes that this response is an improper 17 augmentation of the reply under the case law in 18 Louisiana Energy Services, CLI-0435, and the 19 Palisades study, CLI -- Palisades case, CLI-0617. 20 And so we would refer the Board to those cases. 21 But even if this reply is considered by the 22 Board, we just wanted to state our position that 23 there's nothing in here that supports the inference 24 that LADTAP II uses only adult dose conversion

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The fact that Part 50, Appendix I, is based on. ICRP Publication 2 has nothing to do with LADTAP. LADTAP is a computer program that was written to estimate doses from liquid effluents, and it's not tied in any way specifically to Part 50, Appendix I.

I'd also like to point the Board to the Staff requirements memo from the SECY-08-0197 that was provided with the reply, and that is found at Adams ML090920103. It was issued on April 2, 2009, and in that Staff requirements memo, the Commission stated 10 that it agrees with the ACRS that there is no evidence that -- agrees with the Staff and the ACRS -- that's the Advisory Committee on Reactor Safeguards -- that the current NRC regulatory framework continues to provide adequate protection of the health and safety of workers, the public and the environment.

18 So regardless of what Part 50 is based and 19 whether there's any difference between Part 50 and 20 Part 20 in terms of their basis, the entire 21 regulatory framework provides adequate protection of 22 public health and safety, and the environment, and 23 therefore, any differences are not material to this 24 contention.

And, finally, I'd just like to point out that

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1 _	the two quotations from the ICRP-2 that are on page
2	4 of Dr. Makhijani's reply refer only to
3	calculations in that publication, so, again, they
4	don't refer to calculations that are performed in
5	LADTAP II. So, in summary, this reply does not
6	support the conclusion that LADTAP II is obsolete or
7	is based only adult dose conversion factors.
8	JUDGE YOUNG: Judge Mignerey, do you have any
9	questions on this contention?
10	JUDGE MIGNEREY: I have no particular
11	questions. I think my concerns have been covered by
12	other questions. Thank you.
13	JUDGE YOUNG: Anything further on Contention
14	9?
15	MR. EYE: Not from Petitioners, Your Honor.
16	JUDGE YOUNG: All right. Then the next
17	contention we will be looking at would be Contention
18	13, having to do with impacts from severe
19	radiological accident scenarios on operation of
20	other units at the Comanche Peak site. I don't
21	believe that we had a reply on that contention, so
22	we'll go first to you, Mr. Eye.
23	MR. EYE: Thank you, Your Honor. Your Honor,
24	the Panel asked a specific question about this
25	contention, and it is essentially asking what those
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effects might be and what parts of the application _ 1... 2 that they were -- were or, I quess, maybe should 3 they have been addressed. There is a discussion in Chapter 7 of the 4 environment report about accident scenarios and so 5 forth, but I don't believe that there is a 6 7 discussion in that particular section about the 8 contingency that we were addressing in the 9 contention that would postulate a severe 10 radiological accident at one unit affecting the operations at one or the other three units, if these 11 12 were to be built and put into operation. To the extent that it is not covered in the 13 environmental report, that is, the interrelationship 14 15 of these units in the context of a severe 16 radiological accident, we would offer it up as a contention of omission and simply point out that 17 this is to us a logical kind of analysis that ought 18 19 to be done, given that the Applicant has chosen to collocate these four units in relatively close 20 proximity to each other, and that it seems to be a 21 22 reasonable kind of contingency to consider when it 23 cannot be ruled out that a radiological accident at one unit could have adverse impacts on the other 24 25 three.

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It's more of, I think, a logical kind of commonsense sort of contention that simply is intended to point out that there is a gap in the environmental report in that regard. I mean, collocation makes sense in some respects. There are certain economies of scale. There are some shared facilities that can be utilized and some benefits that would inure as a result of collocation, and those, I think, are covered either generally or specifically in the environmental report, in the FSAR and so forth.

But the downside of collocation should also be 12 13 considered, and the primary downside would be the one that we postulate, and that would be a severe 14 15 radiological accident that would affect operations 16 at the other collocated units. So in that regard, 17 we think that it's -- in order to have a 18 comprehensive kind of analysis of the nature of 19 collocation of these units where the benefits are 20 covered, there ought to also be in fairness an analysis of any potential detrimental effects that 21 22 might occur as a result of these collocations or the 23 collocation.

> JUDGE YOUNG: The references in the Applicant's response to the sections of FSAR that

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evaluate the effects of explosive hazards at 1-Comanche Peak's Unit 1 and 2, and the impact of on-2 site fires, how do those play into your analysis? 3 MR. EYE: Well, they certainly -- I mean, 4 5 those are potential postulated events certainly 6 that, you know, are within the realm of possibility, 7 of course, but they don't go on and discuss how 8 those might implicate operations at other units. 9 JUDGE YOUNG: Well, the Applicant says that 10 they do analyze whether they pose threat to Units 3 and 4. Do we have those sections? 11 JUDGE ARNOLD: What sections are --12 JUDGE YOUNG: FSAR 2.2.3.1.1.2 and 1.4. 13 14 MR. FRANTZ: Yes. The pages references, Your 15 Honor, are also FSAR page 2.2-13, which is the first 16 full paragraph on that page, and then page 2.2-19 and 20. 17 JUDGE YOUNG: And there are further references 18 19 in the Applicant's response. 20 MR. EYE: Your Honor, I do -- thank you. I do 21 recall this, and I just had a lapse at that moment. 22 They do discuss obviously what they say here, but, again, it presumes that there would be no adverse 23 impact on the operations of other units. And all 24 25 we're suggesting is that they need to go the next

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step and presume that there is a detrimental effect on operation of Units 3 and 4.

For example -- and this would have probably been one that might have brought this to a little more clarity. If we take into account the scenario of the large commercial aircraft impacting a reactor with subsequent loss of plant and so forth, that's a scenario that conceivably could implicate Units 3 and 4, even though they're a quarter mile away.

If we think in terms of a loss of the spentfuel pool or the radioactive inventory in the spentfuel pool, we think about the loss of the reactor core itself, the loss of containment integrity. It seems that there would be certainly situations where that would be so disruptive or that there would be sufficient radiological impacts that it would be hazardous for personnel to continue to operate units even though they're a quarter mile away, that it would imprudent or hazardous for individuals to actually go and try to operate those other units.

And that assumes that there would be no collateral damage to Units 3 and 4 from an accident at either Unit 1 or 2 or both. So what we're suggesting is that there ought to -- there should be an assumption that that scenario could play out,

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that there could be an interference with the operation of Units 3 and 4 and have that be a part of the accident scenario analysis that is done in the environmental report.

JUDGE ARNOLD: Well, actually my questions are for Applicant. Let's hear from them first.

MR. FRANTZ: It's very clear that Petitioners are engaging in nothing but pure speculation. They have nothing -- they have no expert opinions; they have no technical support; they don't reference any documents. They have nothing that would indicate that an accident at Unit 1 or Unit 2 would impact Units 3 or 4.

And in contrast to the nothing that they have, we do have analysis in our FSAR that show that an explosion at Units 1 or 2 or a fire outside of Units 3 and 4 would not impact Units 3 and 4, so we do have that explicit evaluation in the FSAR.

Furthermore, we have looked at accidents, radiological accidents, at Units 1 and 2, and we have shown that the radiological impacts of those accidents are within the bounds of what we've calculated for an accident at 3 or 4.

For example, we're required by General Design Criteria 19 to assume that there is an accident at

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one-of. our Units 3 or 4 and to calculate the dose on the control room operators, and we did that. It's in the DCD for the U.S. APWR, and we've shown that that calculated dose is within the five-rem limits of GDC 19.

We have also done a similar calculation for accidents at 1 and 2 to see what their impact would be on 3 and 4 control room operators, and shown that, again, we're bounded by the doses in the DCD itself. Now, that currently is not in the FSAR that's this evaluation.

We have, though, submitted a letter to the NRC dated November 4 of 2008, which would add a discussion of this to the FSAR, and it would be placed in FSAR Section 4.4.4. And so in the next annual revision to our COL application as required by the regulations, we'll have this evaluation. It's already on the docket.

So it's very clear that there is no impact from an accident at 1 and 2 on the operation of 3 and 4, based upon our evaluations that are on the docket. His assumption that we need to go ahead and anyway assume that there is an impact is simply without any basis, and furthermore, it's just inconsistent with NEPA. NEPA does not require these

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hypothetical worst-case evaluations, and there's 1 2 just simply no legal reason to assume that there's an adverse impact on 3 and 4, especially after we've 3 shown that there is no impact. So his contention is 4 both legally and factually baseless and should be 5 dismissed. б 7 JUDGE ARNOLD: You've managed to answer probably 90 percent of my question. Let me just 8 ask. When you say you've evaluated a radiological 9 incident at Unit 1 or 2, is that the type that would 10 11 result from a severe accident, or are you talking a spill? 12 MR. FRANTZ: This would be from basically a 13 14 loss-of-coolant accident. JUDGE ARNOLD: Thank you. 15 16 JUDGE YOUNG: What would -- a couple questions. What would be the difference between the 17 18 accidents that you do describe in the FSAR and an 19 aircraft crash? MR. FRANTZ: I don't believe that there would 20 be any difference. I'm not sure that we've done any 21 22 evaluation, but, again, there's a quarter-mile separation between Units 1 and 2 and Units 3 and 4, 23 so all you're talking at this point is mostly the 24 25 fire hazard, and as explained in the FSAR, there is **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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a stand-off difference around each of the reactors 1-. 2 which is totally cleared of brush, so the fires would not be able to spread to the reactor itself --3 to another reactor itself. 4

JUDGE YOUNG: And you have now done the analysis for the aircraft crash for Units 3 and 4.

That rule is not yet effective, MR. FRANTZ: and we -- my understanding is that evaluation perhaps is in process. Maybe it's even been submitted on the docket for the DCD, but I don't think that's part of the COL application itself.

JUDGE YOUNG: And just another sort of basic question: You've put these in FSAR. Is there -what's the reason that similar analyses are not in the environmental report?

MR. FRANTZ: Yes. Very clearly, we've shown 16 in the FSAR that these events have no impact on the other units, and so if there's no impact, there's no reason to discuss them in the environmental report. Our existing evaluations of accidents in Chapter 7 20 21 in the environmental report are applicable and bounding.

JUDGE YOUNG: Judge Mignerey, did you have any 23 24 questions?

JUDGE MIGNEREY: No, I do not.

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1	JUDGE YOUNG: Does that conclude your
2	MR. FRANTZ: Yes, it does. Thank you.
3	JUDGE YOUNG: NRC Staff?
4	MR. BIGGINS: Thank you, Your Honor. James
5	Biggins for the Staff.
6	I have a difficult time understanding the
.7	Petitioners' position that this information needs to
8	be in the environmental report. To me it seems that
9	they are confusing an environmental matter and a
10	safety matter. As stated today, Mr. Eye said the
11	primary downside that we need to look is the effect
12	on operations.
13	When we're talking about the safe operation of
14	Units 3 and 4, that would be a matter for the FSAR
15	which does discuss control room habitability in case
16	of accidents in order to safely shut down those
17	units as necessary.
18	In addition, the Petitioners did not provide
19	any counter-argument in the reply or acknowledge the
20	letter cited in the Staff's answer as just
21	referenced by the Applicant, the November 4, 2008,
22	letter which was a resolution of a docketing issue
23	that did discuss the impacts of an accident on the
24	safe operation of Units 3 and 4 from an accident at
25	Units 1 and 2.
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So I think the bottom line that this Board must consider is that the question that the Petitioners have failed to answer here is why this information must be discussed in the environmental report versus final safety analysis report, and they don't provide any reason. They don't provide any legal authority for their claim that it needs to be in there, and they simply do not acknowledge the discussion that is on the docket in the November 4, 2008, letter.

And with that, the Staff would rely on its answer, and I have nothing further.

JUDGE YOUNG: Mr. Eye, what reason is there that the information that's in the FSAR should be in the environment report first, and then, second, what -- given the information that has been provided what, in addition, would you say should be provided? MR. EYE: Your Honor, I will do a mea culpa in terms of not being aware of the November submittal to the NRC from Luminant. That was an oversight on

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---my-part, and I will certainly do my best to correct that.

Why should it be in the environmental report, I believe was the first part of your question. Your Honor, it's implicit in the environmental report throughout that Units 3 and 4 would be a dependable and reliable source of baseload generation for Luminant and its customers.

9 · Implicit in that is that the kind of accidents 10 that we postulate or project that ought to be 11 considered at another collocated unit might cause that particular assumption about reliable service 12 13 and so forth to not be the case, and to the extent 14that that is one of the assumptions that underpins 15 the impetus to move forward with this proposed 16 expansion, we think that it ought to be at least 17 considered; that the scenario that interfered -- or 18 an accident that interferes with operations at 19 another unit ought to at least be considered.

JUDGE YOUNG: What would it -- what information are you saying would be provided if it were in the environmental report that has not already been provided otherwise?

MR. EYE: Well, in terms of the availability of these units in the scenario where there would be

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<u> </u>	-a major radiological release or radiological
2	accident at another unit, will all the units
3	still the remaining units that are not directly
4	involved in an accident, are they still going to be
5	available.
б	JUDGE YOUNG: Are you saying that the analysis
7	that they've done in the FSAR and in the November
8	filing does not provide that?
9	MR. EYE: Well, we have just heard counsel
10	suggest that the accident that was considered would
11	be a loss-of-cooling accident, but as I understand
12	it, there would probably be gradations of a LOCA in
13	terms of how severe it might be. I mean, not all
14	LOCAs are considered to be I think this had the
15	same kind of radiological impact, and to the extent
16	that there is an accident scenario under a LOCA, for
17	example, that would result in a total loss of
18	inventory of radiation in the containment, then
19	that's one scenario that is that would be
20	sufficiently extreme that although not beyond the
21	realm of possibility, that would be appropriate to
22	be considered in terms of whether or not collocating
23	these units is in the public's interest.
24	Moreover, there is given now the I think
25	the vernacular is the changed-threat environment and

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the recognition that—there could be an impact from a large commercial airliner into a nuclear plant and the loss of the spent-fuel pool, the loss of containment integrity, the loss of reactor coolant, it seems that in that kind of scenario that certainly is not beyond what the NRC is now recognizing as a possibility --

I mean, the whole premise of 50.54(hh) and so forth takes that into account, makes that a possibility, a scenario that is -- under our thinking is required to be considered, not only in terms of how we presented it in earlier contentions -- I think it's Contention 7 -- but in any other aspect of plant operations.

15 And there is -- I mean, it's not just an operational issue. There are radiological impacts 16 that ought to be considered, it seems to us. And 17 those impacts are, let's assume, limited to plan 18 19 personnel who would be exposed. Well, that's a 20 legitimate concern that the public would have an interest in seeing analyzed and resolved 21 22 sufficiently so that going forward with this could be consistent with what the Atomic Energy Act 23 demands. 24

JUDGE YOUNG: My questions are obviously from

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a nontechnical perspective, but I'm trying to sort of get a handle on a couple of things. One, let's assume that the information on an aircraft crash is provided with regard to Units 3 and 4, or all the units, and how those -- how that would affect each unit itself.

Is it possible that the effect that it would have -- that the effect of an aircraft crash on Unit 3, for example, would effectively bound the possible impact from the effect of an aircraft crash on Unit 1 and the impact that would have on Unit 3, for example? I mean, what would be -- if that's provided when the rule becomes effective, what would be the difference between the impact that that would have on a particular unit and the impact that a crash on another unit would have on the --

17 It's possible that that could bound MR. EYE: 18 I think that there are probably some it. Yes. 19 additional assumptions that would have to be rolled 20 into that to make it an effective scenario to 21 consider. For example -- and it's not set out 22 explicitly in the Federal Register notice and the 23 administrative materials related to 50.54(hh), 24 because there it says that the licensee should 25 consider the three main requirements; that is, loss

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of containment integrity, loss of reactor coolant, loss of spent-fuel pool.

What we're suggesting is: What if you considered all three that have happened, not just one out of the three or two out of the three, but you lose all three of those? In other words, it is -- given the magnitude of a particular crash scenario, that can't be ruled out.

If that particular kind of release, radiological hazard, is considered, I think that would be an adequate kind of analysis to determine whether there would be such adverse effects on collocated units that would either cause a radiological hazard to personnel working there that would be unacceptable, or whether it would effectively preclude operation of those units and thereby cause disruption of the public's best welfare as well.

So I think that what you suggest, at least conceptually, is correct and would possibly address our contention and concerns. But, again, I think it's all dependent on the underlying assumptions that go into that and just what the magnitude of a postulated radiation release would be.

In other words, if it's -- I think as Judge

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-Arnold asked earlier, you know, really what kind of an accident are you talking about? Are you talking about a spill inside the containment that it can be effectively contained pretty readily and so forth? Or are you talking about an accident that has a 747 loaded with jet fuel, crashing into a nuclear plant? They are substantially different,

And we're simply suggesting that in the changed-threat environment in which we now realize we are living in, the more extreme accident scenarios now are recognized by the Agency, by the Commission, as something that should be considered at least in some aspects of the licensee's application, and in that regard, we think it's a logical sort of extension to consider whether they would have an adverse effect on the operation of collocated units.

So it's really asking the Commission to take account of these large magnitude accidents and a full analysis of possible adverse effects. One of those would be on collocated units.

JUDGE YOUNG: When you talk about the new threat environment, I'm assuming you're talking about post-9/11 terrorist threats.

MR. EYE: Yes.

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JUDGE YOUNG: _And so to that extent, we're getting back into the same issue that -- I can't 2 3 remember which -- was it Contention --MR. EYE: It was probably Contention --4 JUDGE YOUNG: -- 3 or 4? 5 MR. EYE: I believe it was. б 7 JUDGE YOUNG: So the same arguments would 8 apply --Yes, Your Honor. 9 MR. EYE: JUDGE YOUNG: -- to the extent that you're 10 basing the contention on that. And the contention 11 12 is not that specific. You say now that you're asking the Commission to consider that more than is 13 going to be required should be required. That 1415 sounds like you're challenging the rule as written or the lack of a more stringent rule. Am I 16 understanding that correctly? 17 18 MR. EYE: That's one way it could be 19 interpreted, Your Honor, but, no. I think what 20 we're saying is that if you take a look at Chapter 7 of the environmental report, there is not a detailed 21 discussion in there about the contingencies that we 22 23 offer up in this contention. It's not there. And even if you look at the FSAR, at least as prepared 24 25 now, not taking into account what the November

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submittal said-necessarily, but it's not in the environmental report now in terms of the accident scenarios. There's scant discussion about the effects on collocated units.

JUDGE YOUNG: Well, I think Mr. Frantz's response earlier was that if in the FSAR, an analysis has been done and it shows that there would be no impact, then I think his argument was that there -- that would mean that there would be no need to discuss it in the environmental report. What's your response to that? Did I state that correctly? MR. FRANTZ: Yes.

MR. EYE: Our response to that would simply be, Your Honor, that we don't believe that that takes into account the severity, the potential severity of accidents that could reasonably be foreseen in the event that a large commercial airliner has an impact with one of the units.

JUDGE YOUNG: And then, I guess -- then we get back to the issue of if, under the new rule, the Applicant were to provide the analysis of an aircraft crash, then I think your argument was, well, it would require them to analyze either the -of the three things that you listed.

And so your argument would be that there would

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need to be an analysis of all three together, and .1 2 then in addition to that, the -- whether there would 3 be any different impact that should be analyzed of one collocated unit on another. Am I understanding 4 that that's sort of the --5 MR. EYE: That's the gist of it, Your Honor. 6 7 Yes. 8 JUDGE YOUNG: Okay. Anything further from 9 you? 10 MR. EYE: Not at this time, Your Honor. 11 JUDGE YOUNG: Since we've sort of narrowed 12 that down, does Applicant or the Staff have any 13 response to that? MR. FRANTZ: Yes, just very quickly. 14 One, 15 it's apparent he's engaging in nothing but pure 16 speculation, and for that reason alone, the 17 contention can be dismissed. But I think more 18 importantly, what he's asking the Commission to do 19 is just totally inconsistent with its own 20 regulations and the policies and the NEPA itself. 21 First of all, there is no requirement, not in 22 the proposed aircraft impact rule or anywhere else, to consider both loss of containment and loss of 23 core cooling. That's his allegation, and we should 24 25 consider that. **NEAL R. GROSS**

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And then he's asking us not only to consider loss of containment and loss of core cooling, but also then that that somehow impacts another unit, and we've just -- he says we just need to assume that the second unit's also adversely impacted. This type of hypothetical worst-case analysis is just totally inconsistent with NEPA and is not required.

JUDGE YOUNG: Based on the NEPA case law about worst-case --

MR. FRANTZ: Yes. That's correct. And I might add further to the extent he's postulating that this all arises because of the heightened threat security levels and due to a terrorist attack, that's solely inconsistent with the Commission policy on not considering under NEPA terrorist attacks, which has been upheld by the Third Circuit.

And so, just for numerous reasons, both legal and factual, this contention just should be dismissed.

JUDGE YOUNG: When you -- you said you weren't sure whether the additional information --

MR. FRANTZ: Yes. The design certification application -- once the new rule becomes

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1	effective it hasn't been published yet, I don't
2	believe, in the Federal Register. But once it
3	becomes effective, the design certification
4	application will need to provide information on
5	aircraft impacts and show compliance with the
6	aircraft impact rule.
7	JUDGE YOUNG: Anything further on Contention
8	13?
9	MR. BIGGINS: The Staff has nothing further.
10	MR. EYE: Your Honor, I would only state for
11	the record that the submittal of November, November
12	4, 2008, assumes that simultaneous this is a
13	quote from the proposed amendment to their FSAR at
14	Section 6.4.4. It says that, "Simultaneous post-
15	accident radiological releases from multiple units
16	at a single site are not considered to be credible."
17	Why not? Why isn't that credible?
18	MR. FRANTZ: Well, the answer to that is that
19	you're looking at core damage frequencies roughly on
20	the order of 10 to minus 5. To have simultaneous
21	accidents, you're talking about 10 to the minus 10.
22	That certainly is not a credible event under
23	anybody's definition of credible.
24	MR. EYE: Perhaps the quantification of that
25	does not seem credible, but again, is that I
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guess my question_would be: Does that take into_____ account -- and that's the quantitative assessment of the probabilities of something like this happening. Is that an adequate basis to reject the scenario that is suggested in this contention, that there is a severe enough radiological hazard or a severe enough radiological release that it would affect the operations at other units.

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The Applicant seems to suggest that that's just not something that we need to think about, and, again, it seems to us, if you take a look at the Federal Register notice that announced the 50.54(hh) amendments, the changed-threat environment explicitly calls out that applicants ought to take into account the impacts of commercial aircraft and reactors. It doesn't say, And all you have to do is assume that you're going to lose one unit. It doesn't say that.

19 JUDGE YOUNG: Are you talking about the new
20 rule?

MR. EYE: Yes.

JUDGE YOUNG: So presumably that would be complied with.

MR. EYE: Well, I'm not sure that compliance with the rule necessarily rules out taking into

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.1	- account a_magnitude of radiological release that is
2	greater than what is assumed in the FSAR. The FSAR
3	has a bound has bounding that assumes that
4	there's going to be a radiological release from only
5	a single unit, and we would take issue with that.
6	That seems sort of arbitrary to say that there's not
7.	a possibility, a reasonable possibility, of thinking
8	about a multiple-unit loss, or taking into
9	account counsel suggests that there's no need to
10	take account of the loss of all three of the
11	parameters suggested in the rule: loss of
12	containment integrity, core cooling, and spent-fuel
13	pool. Why not?
14	JUDGE YOUNG: How do you respond to the
15	argument that under NEPA a worst-case scenario is
16	not required to be considered?
17	MR. EYE: Well, that's the general rule
18	certainly, but I'm not even sure that the loss of
19 [.]	two units, if you've got four, is considered to be a
20	worst-case scenario. That wouldn't be a worst-case
21	scenario. If you've got four units collocated, the
22	worst-case scenario would be loss of all four.
23	JUDGE ARNOLD: Let me ask the Staff. In the
24	environmental report, Applicant should look at
25	external events and their effects on the plant if
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that external event is a credible event. Now, is there -- how do they determine credibility? Is it probability-based, or how do you decide what should be in there and what shouldn't?

MR. BIGGINS: In the environmental report or the final safety analysis report? See, when you're talking about external events, obviously the final safety analysis report has the discussion about the safe operation of the plant, taking into account external events. For example, as I discussed yesterday, GDC-2 talks about natural events, floods, droughts, tsunamis, et cetera. And those kinds of events are discussed in the FSAR.

When you're talking about the environmental report, the environmental report is focusing primarily on the environmental impacts from this action, from the construction and operation of the plant. And in looking at the environmental impacts, the primary focus is going to be on what impacts does the plant have on the environment.

And in that regard, severe accidents and other nearby hazards are analyzed in regard to their likelihood of having an impact on the plant and on the environment, and severe accidents are discussed in the environmental report in Chapter 7.

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And I would point out for the Board that as this contention is evolving through Mr. Eye's arguments here today, none of this is raised in the contention. Mr. Eye doesn't -- the Petitioners do not argue specifically in their petition or in their reply that the severe accident analysis in Chapter 7 of the ER is inadequate in any way. And so I think in getting back to the contention itself, you know, if the Board is looking at this contention itself, again, this -- I believe that the Petitioners are mixing two different things.

12 They're mixing what should be in the 13 environmental report regarding environmental impacts 14 with the safe operation of the plan, which is 15 contained in the final safety analysis report, and 16 they have neither discussed or challenged the 17 discussion of the safe operation of the plants, 18 either through the control room habitability section 19 or the information provided in the November 4 20 letter, nor have they taken any contrary position to 21 the discussion of severe accidents -- the environmental impacts from severe accidents in the 22 23 environmental report in Chapter 7.

So if you divide this contention into either facet, whether it be an environment contention or a

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____safety contention, there really is no substance in - 1-2 this contention that challenges either the analysis 3 in the FSAR or the analysis in the environmental 4 report. 5 MR. EYE: May I? JUDGE YOUNG: Let me ask -- oh, I'm sorry. 6 Do 7 you have --8 JUDGE ARNOLD: No. 9 JUDGE YOUNG: -Hold on just one second. 10 I think the question was: How is it 11 determined which types of severe accidents -- what 12 level of severe accidents are credible enough that 13 they need to be addressed in the environmental 14 report? And looking back to the original 15 contention, it's pretty simple and straightforward. 16 Chapter 7 has no discussion or analysis of the 17 impact of a severe radiological accident at any one 18 of the four units on the other units. 19 And just looking at it from that standpoint, I 20 don't think there's any dispute that Chapter 7 does 21 not contain that, and so the question is: Should 22 it? And is there a dispute on whether it should? 23 Obviously there's a dispute on whether it should. The responses point out that in the FSAR, certain 24 25 things are addressed that deal with the impact of **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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accidents on other -- accidents at other units on -- remaining units.

3 But what is it -- just looking at it very simply and straightforwardly, at the contention 4 5 itself, what is it that says that the environmental report does not need to address severe -- the impact 6 7 of severe accidents at other units on collocated units? Is it some measure of credibility? If so, 8 9 what's the measure of credibility? Is it 10 probability? Why shouldn't -- why should the 11 environmental report not be required to consider 12 this as a potential severe accident that might have 13 an impact?

14 MR. BIGGINS: Okay. I believe there are a few 15 questions there to answer, starting with first it's 16 the burden of the Petitioner to provide the 17 authority for why the environmental report must 18 contain information that they say is omitted from 19 it.

JUDGE YOUNG: Okay. Let's back up for a second. I'm not really asking for a litany of the case law on who has what burden. I'm looking at the contention itself, and it says, The environmental report deals with severe accidents. Chapter 7 deals with severe accidents, but there's no discussion of

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impacts from severe radiological accidents on other units -- the impact on collocated units. That's the contention itself.

And just looking at it from a practical perspective, one might think, if you've got four reactors in relatively close proximity, why wouldn't the environmental report consider the accident at one on another. Now, it may be because the severe accidents that are considered would bound any damage or any impact from an accident at another.

I'm asking you to address the simple practical question that the contention raises in one's mind about, well, why doesn't it contain that. Why shouldn't it contain the alleged omitted material?

MR. BIGGINS: Your Honor, again, the contention says that we need to consider the impacts of severe radiological accidents on the operation of the other units, and that is a matter to be addressed in the FSAR. The safe operation of the plants is a safety question, not an environmental question. The environmental report --

22 JUDGE YOUNG: Well, you added the word 23 "operation."

MR. BIGGINS: I don't believe I --JUDGE YOUNG: Okay. You're right.

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1	MR-BIGGINS: I-don't believe I
2	JUDGE YOUNG: You're right. The word
3	"operation" is in
4	MR. BIGGINS: So with that being the
5	contention, again it's the Staff's position that the
6	safe operation of the other units is addressed in
7	final safety analysis report, and
8	JUDGE YOUNG: And that's where
9	MR. BIGGINS: with that being the
10	contention, they're not talking about, what are the
11	environmental impacts of a severe accident. They
12	didn't ask us that. They asked: What are the
13	consequences on operation of the other units?
14	That's the contention.
15	And if the contention had been, What are the
16	environmental impacts of a severe accident, it
17	doesn't matter which reactor it occurs at. That's
18	addressed in the severe accidents analysis in
19	Chapter 7. That section, that chapter, contains an
20	analysis of the environmental impacts. So that is
21	in the ER.
22	But, again, what the contention actually says
23	is the effects on operation of the other units.
24	That's an FSAR question.
25	JUDGE YOUNG: Okay. Now I thank you for
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clarifying that for me. The matter of safe operation of other units is not an environmental issue; it's a safety issue, and it's addressed in the FSAR. So let's take this one step, though. Let's assume that the contention is looking at the impact more broadly, including environmental impacts.

Chapter 7, as I understand it, does not contain any analysis of an accident at one unit on the other units as an environmental matter. Does it contain -- is what you're arguing that what it does contain bounds the environmental impacts of an accident at one unit on the other units?

MR. BIGGINS: I believe the analysis in Chapter 7 contains the analysis of environmental impacts from a severe accident. So I believe the accidents discussed in the FSAR regarding an accident at one unit which could affect another unit are bounded by the analysis in the environmental report regarding severe accidents.

JUDGE YOUNG: So the severe accidents discussed in the environmental report, you're saying, are severe enough that they would bound an accident in another unit. Now, there was some discussion about how severe those were.

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And then Judge Arnold asked the question: If the environmental report has to contain analysis of accidents that are considered to be credible, how is that credibility determined? That was the initial question that started this, and I never heard an answer to that. I'm just trying to get sort of a basic clarification here of what is required to be in the environmental report and how that's determined.

MR. BIGGINS: Yes, Judge. And the analysis in the environmental report is controlled by the NEPA case law which only requires us -- requires the Applicant and likewise for the environmental impact statement, the Staff to look at the reasonably foreseeable impacts from this proposed action. We're not required to look at, as they discussed, the worst-case scenario.

So the severe accidents analysis, the impacts, environmental impacts from a severe accident in the environmental report, the Staff believes, does comply with the requirements of NEPA, and --

JUDGE YOUNG: Because you're saying that what it covers is everything that's reasonably foreseeable, and I guess the question was: How would you determine -- how is it determined -- how

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-do you argue it should be determined what is .1_ reasonably foreseeable, and if it doesn't contain a 2 3 discussion of an accident at one unit and the impacts of that accident on other units, how does --4 5 Just from a very simple perspective, how does the Staff look at what is reasonably foreseeable, б 7 credible? 8 MR. BIGGINS: Again, that severe accident 9 would bound an accident at one unit --10 JUDGE YOUNG: What severe accident? 11 MR. BIGGINS: The severe accident -- the environmental impacts of a severe accident. The 12 severe accident described in Chapter 7 of the 13 14environmental report would be bounding regarding the accidents described in the contention, an accident 15 at one reactor with its effects on another reactor. 16 17 JUDGE YOUNG: And you're saying that the 18 accident that's described in Chapter 7 would bound 19 it because the foreseeability of how severe that 20 would be is determined how? MR. BIGGINS: The level of severity of the 21 22 severe accident? JUDGE YOUNG: Right. 23 MR. BIGGINS: Let me confer with the Staff. 24 25 One moment. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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. 1	(Pause.).
2	MR. BIGGINS: Judge, the magnitude of the
3	severe accident considered in Chapter 7 and how that
4	is determined, I believe that's your question.
5	JUDGE YOUNG: Right.
6	MR. BIGGINS: That is a beyond-design-basis
7	accident, and it is not determined based on
8	probability but rather severity and risk, and the
9	environmental standard review plan sets out the
10	details for what must be and what does not need to
11	be considered for the severity level of that beyond-
12	design-basis accident.
13	And so where the FSAR would be focusing more
14	on a design-basis accident and how it might impact
15	other units, the environmental impacts analyzed in
16	Chapter 7 for an accident would be a beyond-design-
17	basis accident, and it would be again, the
18	severity is determined not based on probability.
19	JUDGE YOUNG: But based on?
20	MR. BIGGINS: Risk.
21	JUDGE YOUNG: Let's just assume for sake of
22	argument and this is I'm sure I'm not
23	articulating these and other questions very well,
24	but I'm sort of struggling with it, trying to come
25	up with some.
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Let's assume for argument's sake that the contention had extensive support for the argument that the environmental report should consider the impact of a severe accident at one unit on the other collocated units. What would your response be to that? Would you still be arguing that the environmental report does not need to consider that? And if so, what would you be basing that on?

MR. BIGGINS: My response, Judge, would be that the environmental impacts from a severe accident are already contained in Chapter 7 and that in this situation, the Petitioners did not raise any dispute with that analysis.

JUDGE YOUNG: All right. Let me see if I can articulate this better. Does the environmental report, does it somehow implicitly include an analysis of the impacts of an accident at one unit on other units?

MR. BIGGINS: I do not believe the environmental report specifically talks about an accident at one unit and its impacts on another unit. I believe that the analysis is bounding in the environmental report for that type of accident. JUDGE YOUNG: Okay. So that's the response. It doesn't implicitly include that, but it's

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-bounding because the accident is severe enough that 1 2 it would incorporate all -- at least equivalent, if 3 not more, damage to any given unit --MR. BIGGINS: That is the Staff's position. 4 5 JUDGE YOUNG: -- that could be caused by an accident at another unit. 6 7 MR. BIGGINS: I'm sorry. Yes. That is the 8 Staff's position. 9 - JUDGE YOUNG: Okay. And your argument is that 10 the petition has not disputed that approach. 11 MR. BIGGINS: My argument is that the petition 12 focuses on the operation of the units, and since the 13 contention focuses on the operation of the units, it 14 really doesn't even raise a dispute with the 15 environmental report. It's simply trying to 16 transfer analysis that belongs in the FSAR into the 17 environmental report. 18 JUDGE YOUNG: But assuming that the contention 19 weren't limited to operation, it was more broadly 20 stated as some of the discussion in the basis for 21 the contention is, it's more broadly stated and does 22 go to environmental impacts, your argument that, to 23 the extent that the environmental report does not 24 specifically include that, it -- such impacts are 25 implicitly included because the severe accident that

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is addressed is required to be addressed and you - 1 view Chapter 7 of this environmental report as 2 actually addressing bounds any such hypothetical 3 accident at another unit. 4 MR. BIGGINS: With that assumption, yes. Ι 5 agree with that. 6 JUDGE YOUNG: Okay. 7 JUDGE ARNOLD: Question for Applicant: I'm 8 looking at 7.1.1 of the environmental report, 9 Section of accidents for severe accidents. It says, 10 11 "The design-basis accidents considered in this section come from Chapter 15 of the Mitsubishi heavy 12 13 industries APWR design control document." Would that design control document assume the presence of 14two other operating nuclear reactors within a 15 quarter mile? 16 MR. FRANTZ: No. That is focused solely on 17 18 the reactor, the single reactor. JUDGE ARNOLD: Thank you. How can we be sure 19 20 then that analysis selected from that document would cover all conditions that may have to do with an 21 accident occurring at some other reactor in close 22 23 proximity? Because Luminant has done the 24 MR. FRANTZ: 25 analysis for an accident at 1 and 2, and showed that **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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the results are bounded by the results for the DCD, so we've done the very analysis that you suggested. JUDGE ARNOLD: Is that documented in that November --

MR. FRANTZ: Yes.

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JUDGE ARNOLD: -- report?

MR. FRANTZ: That's correct. And also, might I add in response to one of Judge Young's earlier questions regarding NEPA and what NEPA requires. NEPA does only have a rule of reason, and it only requires evaluation of credible events, and I think a recent Licensing Board decision helped define what credible events are.

I refer the Board to the Calvert Cliffs COL proceeding, and in that proceeding, the Board looked at external events, and for those external -- and that's basically what we have here. We have one event, one unit potentially affecting another unit, and in that decision, the Board ruled that if the external event is less than 10 to minus 6, that's not credible. It need not be evaluated under NEPA.

More importantly, I think, perhaps for our purposes is that the Board in Calvert Cliffs said it's up to the Petitioner to make the showing as part of its contention that the external event is

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- credible. And if the Petitioner does not make a showing that it's credible, it need not -- the contention should be dismissed.

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And, again, that's exactly what we're faced with here. Petitioners have not made the showing that this external event, namely one reactor affecting another reactor, is credible, and because they've not made the showing, the contention should be dismissed under Section 2.309(f)(1)(v).

JUDGE YOUNG: Getting back to the bounding question --

JUDGE ARNOLD: Hold on.

JUDGE YOUNG: Oh, I'm sorry.

JUDGE ARNOLD: Petitioner's been wanting to say something for a while.

MR. EYE: Just briefly, Your Honor, a couple of quick observations. One is that in the environmental report at 7.2.1, it seems to be that the assumption about the accident that would be in question here has two broad pieces. One, it involves substantial deterioration of the fuel in the reactor, including getting to the point of melting.

And, second, it involves deterioration of the containment system to the point where it would not

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perform its_intended function in limiting the -1. release of radioactive materials. So in that regard, it does cover potentially two of the three release points that we discussed earlier, but it omits any discussion of the loss of the spent-fuel pool. That's one point.

A second point is that -- and this is certainly an evolving discussion, because of how licensees and applicants are trying to deal with this duty that they now have to take into account the potential impacts or effects of an aircraft impact.

The South Texas, for example, plant did an exercise recently that assumed two airplanes, two 15. aircraft or commercial airliners crash into the site, not one but two. Now, that wasn't prompted by anything that the Petitioners asked them to do directly. They did that on their own.

Now, it seems that if that particular applicant is setting the bar at that level for their own internal analytical purposes, and presumably something that they would ultimately present to the Commission for purposes of approval, then that's no longer beyond the realm of possibility. They are integrating that into their own analysis.

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-- So-I think that in_that regard, there's kind 1-2 of an attempt here to artificially constrain what 3 the possibilities may be, based upon some quantitative analyses as to probability. And it's 4 the Petitioners' position that that should not limit 5 what is required to be done, given that we've got 6 7 this new requirement in 50.54(hh) and we've got other applicants and licensees, for that matter, 8 9 doing analyses that assume more than one aircraft crashing into a nuclear plant in one particular 10 11 accident scenario. MR. FRANTZ: Mr. Eye, excuse me. Could you 12 provide a citation for that? 13 MR. EYE: For the STP? 14 15 MR. FRANTZ: Yes. MR. EYE: I don't have it off the top of my 16 head. I know that that was the -- it was a recent 1.718 briefing, I believe, that was --19 MS. BROWN: It was a meeting between the NRC and STP, discussing their 2008 --20 21 MR. EYE: Safety report, I --MS. BROWN: -- safety assessment, in Bay City 22 23 last week. They --MS. HADDEN: We have a videotape we're happy 24 25 to share. NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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1	MS. BROWN: They discussed this drill in
2 .	detail.
3	MR. FRANTZ: You're saying it's a drill.
4	MS. BROWN: No. It was a like it was a
5	what do you
6	MR. EYE: An exercise.
7	MS. BROWN: An exercise, a scenario that
8	they
9	MR. FRANTZ: I'm also counsel for South Texàs.
10	That's why I was somewhat surprised to hear this,
11 .	because I'm not aware of any analysis that we've
12	ever submitted on the STP docket that would
13	encompass two airplane crashes.
14	MR. EYE: Your Honor, also there's one other
15	aspect of this that I think is perhaps getting a
16	little bit clouded here, and it is the case that if
17	you look strictly at the verbiage in the contention
18	in the boldface, it limited to operational
19	considerations. But as a practical matter,
20	operational if there are interruptions in
21	operations capabilities, it's because there has been
22	an environmental impact. It's because that there's
23	been interference with either workers being able to
24	get to the plant or remain there safely.
25	So to the extent that there's an attempted
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limitation on this contention because of the word "operational," operational really presumes that you've already gone past the environmental impacts, and you've moved into operational impacts, or so that would follow.

And there's one other aspect of this that I think is interesting. We've focused pretty much on terrorist attacks, airplanes crashing into plants and so forth. That doesn't take account into -- for more generalized scenarios for accidents that could be caused, for example, severe seismic events that would impact all four units or perhaps not necessarily the same, but there would be potential impacts for all four.

So I don't want to have the Panel go away with the idea that somehow this -- what we're arguing in this contention is such a limited scope. We really think that this contention opens up a very wide possibility of accident scenarios and is not limited to just necessarily operational impacts, because if it's operationally impacted, it's already been impacted environmentally.

JUDGE YOUNG: I want to get back to a question I wanted to ask the Applicant and maybe share with you a bit of how I'm looking at this at this point

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or_how it's possible to look_at this.

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2 If you don't consider the word "operation" to 3 be sort of a term of art and you look at the contention as being basically the environmental 4 5 report should consider the impacts of an accident, 6 of a severe accident on one -- at one unit on the other units, the question of the foreseeability of that seems to be -- I mean, it's sort of -- from at least one perspective, one could say that, well, it's as foreseeable that an accident could occur at another unit as it would be that it could occur at the unit you're looking at itself.

13 So let's get past the foreseeability aspect of 14 it. I'm trying to get back sort of to where I was 15 with the Staff, and this is what I'm -- where I'm 16 sort of struggling here. Because it would seem just 17 as easy to foresee an accident at any of the units, 18 unless the analysis that's done with regard to the 19 units in question effectively bounds any accident 20 that could occur at another unit, then I'm left 21 wondering, Well, why didn't the environmental report 22 consider an accident at another unit.

And so from the standpoint of a nontechnical person, just using common sense, it seems as though the impact of an accident, let's say, on Unit 3, the

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1 -	impact of an accident at Unit 3 would have a
2	greater would be greater on Unit 3 than the
3	impact of an accident at Unit 1 would be on Unit 3,
4	simply because it's right there rather than at
5	another place.
6	MR. FRANTZ: That's correct.
7	JUDGE YOUNG: So I guess what I'm trying to
8 .	get at is: How one, you look at the severity of
9	the accidents that has to be considered.
10	MR. FRANTZ: Maybe if I can just jump in here,
11	I don't think the question is whether or not an
12	accident at one unit is foreseeable. I think the
13	question is not only is it foreseeable, but is it
14	foreseeable that that could then impact the second
15	unit.
16	And when you start multiplying all these
17	probabilities and if you take into account our
18	evaluations that we have performed, which show that,
19	for example, Unit 3 and 4 can withstand explosions
20	and fires and radiological events at 1 and 2, there
21	just is it's not foreseeable that you're going to
22	impact 3 and 4 from an accident at 1 and 2.
23	JUDGE YOUNG: Well, why would it seems like
24	it would I mean, I guess I'm not following that.
25	It seems like it would be foreseeable that there
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could be some impact of an accident at one unit on --the other units, you know. And so then I look -- I mean, obviously if there's something happening at one unit and you've got another one a quarter of a mile away, there could be some impacts. I don't know what those would be, but there could be some impacts.

Then does the bounding analysis take care of it? Or is it a question of the type of impact would be different than the impact of an accident at the same unit? And, you know, I'm just trying to look at this from a very basic level.

MR. FRANTZ: At a very basic level, the probability of a severe accident at a reactor -- I don't know the exact core damage frequency for Comanche Peak 1 and 2, but for that vintage plant, basically the core damage frequency is around 10 to minus 5 approximately. The probability of a large release is about a factor of 10 lower, or 10 to the minus 6.

So you're talking about extremely lowprobability events just to begin with. And then when you start looking at what impact that event may have on another reactor, you're getting well extenuated, well beyond any rule of reason under

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2	There may, in fact, under some worst-case
3	scenarios be an effect. I don't know whether that's
4	even possible, but assuming that there might be, but
5	we're talking about events which are so low in
6	probability that they are not required to be
7	considered under NEPA. It's not under NEPA's rule
. 8	of reason. And environmental reports aren't
9	required to go through every postulated scenario and
10	say, Yes, that has no effect; that has no effect;
11	that has no effect; that has no effect.
12	JUDGE YOUNG: Could we just get back to the
13	basic level that my question's at? If the if
14	what is considered in the environmental report, the
15	severe accident section of that, if what is
16	considered incorporates all the damage that you
17	believe could be reasonably foreseen as a result of
18	an accident at a unit, can you just address the
19	simple bounding question?
20	Is it would that encompass any possible
21	damage, the same level of any possible damage that
22	could result from an accident at another unit? And
23	maybe I'm going off here. I'm just I'm thinking
24	that it seems like it logically would.
25	MR. FRANTZ: Yes. I can't say down to the

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.-third or fourth significant digit it would be, but I. . 1 2 think you're talking about under, again, for NEPA 3 purposes something that's so close that the differences would not be significant. 4 5 JUDGE YOUNG: Before we move on, do you want 6 to just address this bounding issue, just at the 7 end, because without carrying your contention 8 farther than it is already here, because how could 9 there be any additional impact of any significance 10 above and beyond the impact of a severe accident at 11 the unit itself? And you haven't challenged the 12 issue of the severity of the accident or accidents 13 that are analyzed in Chapter 7. 14 MR. EYE: I think that implicitly we have 15 challenged it inasmuch as we suggested they have not 16 taken an accident scenario that's severe enough, and 17 so I think that implicitly we have said that they 18 have not taken into account an accident that's so 19 severe that it would impact the operations at 20 collocated units. 21 And in the discussion we've had today, I think 22 we've established that, in fact, the level of

example, loss of all the three parameters considered under 50.54(hh).

severity of the accident does not include, for

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JUDGE YOUNG: But let's consider what it does include, what it does include. What it does include would be the impact on a unit itself of an accident at that unit.

MR. EYE: Correct. It does.

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JUDGE YOUNG: So how could an accident at another unit be more significant than an accident at the unit itself? Maybe this is totally simplistic, but --

MR. EYE: I'm not sure I know how to answer that question, Your Honor, to be completely candid, but what I do understand is this much. So now we understand that motivated people who want to do damage are not going to be constrained by probablistic analyses based upon statistical --

JUDGE YOUNG: I'm going to ask you to avoid the terrorism arguments. That just confuses the issue at this point. I understand that you're saying that that's part of it, but that's something that we've already discussed, and I don't see any need to discuss it further now, unless there's something that you left out that I'm not considering.

MR. EYE: No. And what I'm trying to get to is if you take the loss of coolant accident, a

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severe-loss of coolant_accident at one unit that disables it to the point where it's no longer operational, disables it to the point where it's a hazard to be near, all we're suggesting is a similar kind of radiological hazard could also pertain to a collocated unit, not necessarily that the flames get to the collocated unit, not necessarily that a missile emanating from one unit gets to another. We're talking about the radiological hazards.

If the contamination is of a nature and extent that it is so severe at the damaged unit that it has a similar kind of contamination effect at a collocated unit, then under your question, that is, well, why shouldn't the bounding of the damage at one unit limit the damage at another unit. Fine.

16 If the radiological hazard is so severe at the 17 hazard at the unit that's been damaged that it has a 18 similar kind of radiological impact on a collocated 19 unit, then that should be the bounding. It's not 20 necessarily limited to the direct effects of fires 21 and explosions. This goes to a radiological 22 contamination aspect, and I think that the 23 contention actually calls that particular part out 24 in terms of its -- it's a contamination -- a 25 radiation contamination issue rather than the flames

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- or the fire explosion aspect of it.

JUDGE YOUNG: So what you're basically challenging is you're saying because the severity level of the accident that's analyzed in Chapter 7 -- or I'm paraphrasing here. You're saying that the accident that is considered is not sufficient, because it does not extend to the impact of that accident on other units.

MR. EYE: Yes. At least not to the extent where there is an assumption that you have such a severe radiation hazard that it would effectively contaminate the environment to the point where operations could be implicated.

JUDGE YOUNG: But they've addressed the operational issues in the FSAR.

MR. EYE: Well, but that didn't assume that you had a radiological hazard that is as we suggested, where you've got a loss of the core, loss of spent-fuel pool, loss of reactor containment. I don't believe that those are built into their assumptions in the FSAR, and it's certainly not built into their assumptions in Chapter 7 of the ER. I mean, the description of the accidents in the environmental report just does not have that -- it doesn't go to that extent.

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JUDGE_YOUNG: Mr. Frantz, why doesn't the environmental report include a discussion of the impact of an accident that would affect the spentfuel pool, not only on that unit but on the other units?

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MR. FRANTZ: Well, with respect to your second question first, it's remote and speculative. All these accidents that he's talking about are remote and speculative. The effect that you're talking about, a severe accident in one unit impacting another unit, there's just no basis to believe that's credible.

13 Going to your first question, the reason that 14 it's -- a spent-fuel accident's not considered is because almost all studies nowadays show that a 15 16 reactor accident, severe accident, is bounding of 17 the impacts of a spent-fuel accident, and therefore, 18 there's no reason to also look at the spent-fuel 19 accident, given the bounding effects of the reactor 20 accident.

JUDGE YOUNG: And those bounding effects are the ones that are discussed in the FSAR?

MR. FRANTZ: In the environmental report. JUDGE YOUNG: In the -- I'm talking about the parts of the FSAR that talk about the effects on

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1	operations at other units. Would they coincide?
2	MR. FRANTZ: Yes, yes. That's correct. An
3	accident a design-basis accident in a spent-fuel
4	pool has lower impacts than a loss-of-coolant
5	accident.
б	JUDGE YOUNG: And the accidents that you
7	discuss in the FSAR are of the level of severity
8	that would bound an accident at the spent-fuel pool?
9	MR. FRANTZ: A design-basis accident. That's
10	correct.
11	JUDGE YOUNG: And what about the beyond
12	design-basis accident that would be discussed in the
13	environmental report?
14	MR. FRANTZ: Yes. The FSAR only looks at
15	design-basis events and design-basis conditions.
16	JUDGE YOUNG: Right, right.
17	MR. FRANTZ: And so it does not look at severe
18	accidents. The environmental report does look at
19	severe accidents, and in that regard, Section 2, 7.2
20	of the environmental report looks at a severe
21	reactor accident which bounds a severe spent-fuel
22	accident.
23	JUDGE YOUNG: This is hypothetical, but if
24	you I'm trying to understand these issues. If
25	you had included in your analysis in the FSAR not
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1	just the design-basis accident but the beyond-
2	design-basis accidents that would be considered in
. 3	the environmental report, would that change the
4	results of those? Do you know?
5	MR. FRANTZ: I don't know. I do not know.
6	JUDGE YOUNG: Because that's sort of what, I
7	guess, this contention goes to.
8	MR. FRANTZ: Well, it does not the
9	contention does not go to our FSAR. It goes to the
10	environmental
11	JUDGE YOUNG: No, no. But conceptually it
12	goes to what the impact would be in a beyond-design-
13	basis accident of the sort that you analyze at the
14	design-basis level
15	MR. FRANTZ: That's correct.
16	JUDGE YOUNG: in the FSAR. So just very
17	simply and concisely and in lay terms, why do you
18	think that the environmental report should not have
19	included that analysis of the nature that's provided
20	in the FSAR with regard to beyond-design-basis
21	accidents?
22	MR. FRANTZ: It simply is not credible, and
23	under NEPA's rule of reason, there's no reason to
24	evaluate that. And Petitioners have not provided
25	any factual support which would substantiate their
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- claims that this is at all a credible event. In fact, what they're postulating is well beyond what any notice regulation has ever required or what any environmental report or environmental impact statement has ever required. It just is not credible under NEPA's rule of reason.

JUDGE YOUNG: I guess this -- and maybe I'm beginning to beat a dead horse here, but I guess in some way, there's some level of commonsense issue that arises here when you're talking about building additional units at existing plants that the contention raises in one's mind.

13 It would seem that it would be a fairly 14 commonsensical conclusion to make that the more 15 units you have at a given site, that there could be 16 the possibility of greater impacts from any accident 17 that occurred at a given site, when there are more 18 units rather than fewer units.

19 And looking at it from that commonsensical perspective, your argument that it's just not 20 21 reasonably credible doesn't really address that commonsense approach. I mean, isn't it -- when you 22 add more units, isn't it sort of obvious that if 23 24 there were an accident, there could be more impacts? 25 In fact, I think we've MR. FRANTZ: No.

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already shown at a design-basis level that there is no impact. It doesn't not necessarily follow that if you had a severe accident, there'd be any impact either, and again, it's Petitioners' burden to show, come up with something that would indicate that this is credible, and they have not done so.

And so I don't buy into this argument we necessarily have to assume an impact. That's not the case. These units are located a quarter mile away. There's a fair amount of distance between them. There's just no reason to believe that there's going to be an impact on a second unit.

13 JUDGE YOUNG: Well, I guess -- okay. Let me give you an example, to sort of describe what I'm 1415 talking about. We hear all the time about these 16 forest fires, and there's discussion of how close 17 together houses are and how when they fight the fires, they may burn down a certain area so that the 18 19 fire can't go -- it will reach an area, and if that area has been burned, then that will stop the fire 20 21 from going further.

So proximity is obviously something that anybody who watches news reports of these forest fires and how they fight them -- it obviously plays into it. And if you have a neighborhood where there

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are a lot of houses close together, then it's more likely that more houses are going to -- I mean, it seems commonsensical to me that you're going to have more damage to more houses than you would have where houses are, you know, a quarter of a mile apart or a mile apart, that there might be some difference between that, and, one, based on just the proximity itself, and, two based on how you fight the fire.

So transferring that sort of commonsensical knowledge over, that's what I'm basing it on, so I am left a little bit with a sense that when you say, well, it's just not credible, that that's sort of a conclusory statement, and then you say, Well, they have the burden to show that it is credible. And when I look at the contention and I think, Okay, just looking at it from a logical perspective --

MR. FRANTZ: Judge Young, all I can say is we've been doing NEPA law now for 39 years. We've been doing NEPA analysis for nuclear power plants for 39 years. We've been collocating plants together for 39 years -- or actually more than that. And never has there ever been a case where we've ever had to evaluate the environmental impacts of an accident at one unit on a second unit. And I think it's very clear, because that is just not considered

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to be a credible event.

And it's under NEPA's rule of reason -- in fact, for the first ten to fifteen years of NEPA administration by the NRC, we didn't even consider severe accidents at one unit, let alone consider them impacting a second unit. We're talking about probabilities which are just too low to be reasonable to evaluate under NEPA.

JUDGE YOUNG: But I think the Staff says it's not looked at from a probability perspective. It's looked at from a risk perspective. You know, I --

MR. FRANTZ: The risk is probability times consequences.

JUDGE YOUNG: You're right. There may not be anything more that can be said. I may have carried this as far as it needs to go, so I guess I'll say gain, like I said quite a while ago, it seems now: Is there anything else that anyone wants to say about Contention 13 before we take a break and then come back and move on to the remaining contentions? MR. BIGGINS: No, Judge. Thank you.

JUDGE YOUNG: All right. Thank you. Let'stake ten minutes.

(Whereupon, a short recess was taken.) JUDGE YOUNG: All right. Contention 14. I

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1	think from let's see. From here on out,
2	basically, Mr. Eye, could you just you didn't
3	file a reply. To give you every benefit of the
4	doubt, I want you to respond to the arguments made
5	in the Applicant's and Staff's responses.
6	To the extent that you haven't done that and
7	don't do that, then I think we have to assume that
8	you don't have any response to it. And I know
9	you've said you stand on your original contentions,
10	but in some cases, the responses and I'm talking
11	here not just Contention 14 but the remaining
12	contentions. To some extent
13	I'm sorry. I don't know that Judge Mignerey
14	has called in yet. Judge Mignerey? We were just
15	talking to her, and she was going to call back in in
16	a couple minutes.
17	I think I can go ahead and finish saying this,
18	though. It's more introductory. On all of these,
19	there's some specific things that are said in the
20	responses that there she is. Judge Mignerey?
21	JUDGE MIGNEREY: This is Judge Mignerey.
22	JUDGE YOUNG: All right. There's some
23	specific I was just giving some introductory
24	remarks. There's some specific statements that are
25	made in the responses that we want to give you the

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opportunity to respond to.

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So on Contention 14, what do you have to say on that one?

MR. EYE: Thank you, Your Honor. In summary, what we were attempting to convey in Contention 14 is that there is an implication in the Applicant's environmental report that because domestic resources for uranium primarily, I guess, based upon economic conditions have more or less dried up, at least presently, that the foreign sources of uranium for fuel at Comanche Peak Units 3 and 4 would be primarily relied upon.

And it struck the Petitioners as raising at 13 least a couple of issues that are particularly, we 14 15 thought, germane to these proceedings. One was triggered by the assertion in the environmental 16 17 report at page 5.7-4 that uranium mining and milling 18 and enrichment are currently more "environmentally 19 friendly." And that statement stood alone and was not supported by any analysis that we could locate 20 21 in the environmental report.

And in considering the answers to that contention, it does not appear that there was any -that the Staff or the Applicant really differed with our assertion that there was not an analysis of the

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statement that these particular activities are now more environmentally friendly, and it essentially calls out for more analysis to determine whether that is the case.

Again, the backdrop of this is whether these activities related to the uranium fuel cycle are, one, as the Applicant suggests, more environmentally friendly, and, two, whether in that case compared to what, and is that still consistent with a license issuing under the Atomic Energy Act being in the public's interest. And it's a contention that's really -- it's an omission contention inasmuch as there's this statement that's not supported in the environmental report. And I don't know that that's been directly refused in -- by the Staff or the Applicant.

The other two parts of the contention go to 17 18 whether it is a -- whether there should be an analysis in the environmental report of being 19 20 dependent on foreign sources for uranium and whether 21 that dependence on foreign sources presents a 22 potentially harmful environmental or public health 23 consequence. Part of this is kind of a commonsense question that we raise, and that is, when there is a 24 25 dependence on a foreign source, the possibility

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certainly exists of it being interrupted or inflated in price because of that remote source.

To the extent that there is a direct economic impact that could be foreseen in that regard, it was our argument in the contention that that economic impact under NEPA could legitimately and should be legitimately considered in the environmental report or in the application generally.

Finally, we are back once again to this question about the changed-threat environment that is permeating much of this proceeding, the changedthreat environment post-9/11/2001, of course. And in the third part of our contention, we do raise the question about whether having attenuated -- I'm sorry -- having longer supply lines rather than shorter supply lines make access to foreign sources of uranium more vulnerable to attack by those who would have malicious intentions.

And in that regard, we believe that there are public health and environmental impacts that inure to that. And in response, primarily the Applicant and the Staff rely on the provisions of 2.309(f) and its various subparts to suggest that these issues that we've raised in the contention are either precluded because it's a challenge to Table S3, and

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we do not believe that it is an inherent challenge to Table S3. This is an apples and -- the Table S3, it's an apples-and-oranges comparison.

We don't see it in that respect, primarily because, among other things, Table S3 was developed long before the changed-threat environment that the Commission now recognizes, and Table S3 wasn't ever intended to address issues related to malicious intent necessarily or the accidents that could occur as a result thereof, and I recognize that Table S3 is a generic application, talking about doses and so forth, but in this instance, reading Table S3 and its footnotes, it just didn't seem that it addressed the kinds of consequences that could be foreseen from depending on foreign sources for uranium. And --

JUDGE YOUNG: It does address environmental effects of uranium mining and milling.

19 MR. EYE: It does, Your Honor, but it also, it 20 presumes that uranium mining and milling will be 21 done under standards as we understand them in the 22 United States, not necessarily what might be 23 happening in Congo or other places where uranium 24 might be mined. And in that regard, there is an 25 environmental effect, and the environmental report

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essentially concludes that this is too attenuated to really take into consideration.

In other words, because it's a foreign source, you know, many thousands of miles away, that that somehow does not necessarily have a direct effect on our environment or the public health consequences related thereto, and so there's no need to get into that aspect of it, and we take issue with that. We think that irrespective of the locus of the mining operations, there ought to be some consideration as to whether there will be environmental impacts that result therefrom.

JUDGE YOUNG: You say in your contention that -- you refer to economic impacts, but I don't see where you talk about environmental impacts here.

MR. EYE: In the first paragraph on page 36, Your Honor, we say that, "There's no analysis in the environmental report of environmental or public health impacts of mining and milling uranium in foreign countries."

JUDGE YOUNG: Right. But you said that the argument could be made that that's attenuated because we're talking about environmental effects in other countries, and you said, but we do allege environmental impacts here. Your next paragraph

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1	talks about economic impacts here, but I don't see
2	where you talk about environmental impacts here.
3	MR. EYE: Oh, environmental impacts as in the
4	United States.
5	JUDGE YOUNG: Right.
6	MR. EYE: Your Honor, I think that when we say
7	that there is no analysis in the environmental
8	report of environmental or public health impacts of
9	mining and milling operations in foreign countries,
10	it doesn't necessarily mean that the public health
11	impacts stop at the boundaries of Canada, for
12	instance, where some uranium is mined and so forth.
13	We are taking a not to be it may be a
14	poor word choice, but we're taking sort of a global
15	approach here, in looking at this not necessarily
16	from the perspective of national boundaries, but
17	rather from the increase in background radiation
18	that is created anytime that these activities,
19	particularly enrichment, mining, milling and so
20	forth go on, that there's a generalized increase in
21	the background radiation, and therefore that's an
22	environmental impact that has public health
23	consequences that notwithstanding the assertion by
24	the Applicant that these activities are now, quote,
25	more environmentally friendly, end quote. It still
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has the effect of raising background radiation levels when these activities occur.

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MR. EYE: That is one of the impacts, Your Honor, but again, when we say that there's no analysis of the public health impacts of mining and milling in foreign countries, that really presumes that that impact does not -- just because it's happening in a foreign country doesn't mean that there's no some impact here.

JUDGE YOUNG: Right. That's why I raise the question of significance, though.

MR. EYE: Oh, I see. Well, quantifying that impact, I think, is something that we didn't do. We did not put a quantification on it. I think that it's well understood that these activities raise background levels of radiation, and that raising background levels of radiation, according to the

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NRC's own finding that any exposure to radiation .: 1 carries with it the increased risk of disease or 2 genetic defects, in and of itself carries the 3 4 argument that there is an environmental or public 5 health impact. JUDGE YOUNG: So do you think that any impact б 7 of uranium milling and mining in a foreign country would be greater than that addressed in Table S3? 8 MR. EYE: It could. I don't know the answer 9 to that question in a categorical way, Your Honor. 10 Ours was more related to increased activities in 11 12 this regard, increased radiation levels, and 13 therefore, it has a public health and environmental 14 consequence. 15 JUDGE YOUNG: Anything further on this 16 contention? MR. EYE: Not at this time, Your Honor. 17 JUDGE YOUNG: Applicant? 18 MR. MATTHEWS: Thank you, Judge Young. 19 Tim 20 Matthews for the Applicant. Petitioners' contention on dependence on 21 foreign uranium is now the fifth iteration of a 22 contention that has been rejected by four separate 23 In order, North Anna, Bellefonte, Lee and 24 Boards. 25 Harris all rejected it and all for the same reasons, **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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that-it lacked adequate support and that it didn't raise any material issue of dispute.

Where this contention differs from the ones that have been rejected is those contentions provided some basis. This one provides nothing. It provides advocacy. There are no facts. 309(f)(1) provides a road map for Petitioners to present contentions to the Board, simple steps Petitioners need to touch, bases to touch. In this case, they haven't touched any of them. There's nothing here that would formulate a basis for a contention that this Board should hear.

13 Without reiterating all the arguments we had in our briefs, I'll respond to Petitioners' 14arguments today. First, I guess, most significant 15 is the collateral attack on Table S3. As I 16 17 understand Petitioners' argument, it's a concession 18 that it's an attack on Table S3, and characterizing 19 it as apples or oranges or anything else doesn't 20 change the nature of the attack. It's unauthorized. 21 It's generic, so no authority would be granted by the Commission. 22

The only argument given is that Table S3 is old, and it's not intended to address malicious intent. Neither of those are issues that are

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available for this_Board to consider. The Commission has made clear the environmental impacts, the impacts of the uranium fuel cycle are what they are in Table S3. There's an avenue for asking the Commission to change Table S3. I think Petitioners indicated yesterday they were interested in filing a petition to do that. That is the appropriate forum, not here.

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Petitioners assert that the Applicant's assertion in 5.7-4 or on 5.7-4, that impacts are more environmentally friendly, is not supported by additional analysis. There's no additional analysis required for exactly the reason you pointed out earlier, Judge Young, is that the significance of the impacts governs what has to be discussed. The uranium fuel cycle impacts are small to begin with. The impacts of improvements to the uranium fuel cycle wouldn't seem to trip the trigger of creating a greater significance that would need to be addressed in comments.

But that confuses the burden. The burden is on the Petitioner to show that there's some material issue. That brings us back to 1(f)(3), to show that there's an issue within the scope of this proceeding, and that was absent in the contention

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description_itself and in the reply argument today.

To the assertion that it's a contention of omission, that it doesn't address the issues that Petitioners would like to address, that's just flat wrong. It fails to -- it indicates either they didn't read the application, the environmental report or choose not to. 5.7.1 talks about the impacts of the uranium fuel cycle. 5.7.2 talks about transportation impacts. 10.2.2.4 addresses directly reliability of supply. Petitioners don't contend -- don't offer some different conclusion.

The assertion that the commonsense view that an international supply of uranium would create vulnerability on its face makes no sense. We're talking about international diversity of supply, so to the extent there's a Congolese uranium embargo on the United States, our friends in Canada and Australia will be able to address the market, and if anything, our analysis indicates that the market for uranium is resilient to demand, that supply meets demand and will meet demand for the foreseeable future.

The suggestion that this is an environmental contention that addresses increase in background radiation is nowhere in the contention. That

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appeared for the first time here today. There's no basis for it, and again, it's advocacy. There's no statement of fact. There's no even commonsense basis to suggest that this is somehow going to -well, certainly not meet the level of 3(f)(5) that requires some tangible fact. It's mere advocacy.

I'm going to see if there's anything else beyond what I've touched on in reply that was in our brief that I've highlighted. I think not. I'll respond to the Board questions.

JUDGE YOUNG: Staff?

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MS. VRAHORETIS: Your Honor, this is Susan Vrahoretis for the NRC Staff. Without restating the arguments that we made in our answer, I would just like to briefly respond to a couple of things that the Petitioner has raised for the first time today.

17 In addition to other collateral attacks that have been made in this proceeding on Table S3, with 18 19 respect to this contention, Petitioner is today 20 arguing that Table S3 is outdated and old and should 21 be updated. And I would just point out for the 22 record that an adjudication in an individual COLA 23 application proceeding would not be the appropriate 24 format to do that.

That might be the subject of a petition for

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If someone really believed that that was something that the NRC had not taken into consideration, that would be a generic issue that would apply far beyond this adjudication, and it wouldn't be appropriate to admit this contention and deal with that issue here, nor has there been adequate support to indicate that that's really an issue that we need to consider here.

15 In addition just briefly, on the issue of 16 foreign milling, mining, and enrichment, the 17 Petitioner has not provided any support for this aspect of the contention, either in the initial 18 19 petition, not in the reply, and not today. Foreign 20 mining and milling of uranium in other countries is 21 not something that the NRC or the United States has any jurisdiction over, and moreover, these are 22 things that are subject to economic factors that are 23 beyond the NRC's or the United States' control, and 24 25 they are the subject of regulatory bodies in these

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other foreign sovereign countries.

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Now, the NRC does have quite a bit of interaction and collaboration, cooperation with other foreign countries, and to the extent that we can be of service, they do work with other countries to help develop the programs that we use in our country for their use in their own countries, but we have no control over that. That's not the subject -- proper subject of a contention in a COLA proceeding.

And were the increase in demand to change economic factors so that it became economically advantageous in this country for mining and milling and enrichment to start up again, those types of activities would be the subject of different proceedings, not this one, that would be governed by other portions of the Code of Federal Regulations.

It wouldn't be something that an interested party could just spring up and do overnight. There would be regulations and applications and thorough evaluations and opportunities for public comment and involvement before licenses to conduct any such activities would be granted.

I have nothing further unless you have any questions.

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338 JUDGE YOUNG: _Thank you. _Anything further, ~ Mr. Eye? MR. EYE: No, Your Honor. JUDGE YOUNG: All right. You had a question? JUDGE ARNOLD: Yes. I have a two-part question for Petitioner. In the second paragraph where you're discussing economic impacts, you say, "The economic impacts from such dependence can be far-ranging and adverse. Accordingly, such impacts should be considered in the COLA." My first question is: Do you have anything to support that the impact would be adverse? And, secondly, given that the impact is adverse, what is the requirement, where is the requirement that that be evaluated in the COLA?

MR. EYE: Second question, Your Honor, first, if you would: The basis really is the Atomic Energy Act and determination whether or not licenses are issued in the public's interest. And I think that as a statutory matter, that's the backdrop for that particular -- or that would be the response to that question.

First -- the first question is: What is the adversity? The mantra since 1973 in this country is that we have to wean ourselves off of foreign

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>_sources of oil, but implicit in that is that foreign sources of any kind of energy source make us vulnerable as a nation state. And that's the potentially adverse consequence.

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It's the idea that we build a huge nuclear infrastructure that's dependent on foreign source of uranium, and all of a sudden, that's not available to us. Could that have adverse impacts? I think that it follows on as a matter of logical consequence that it could. Some of this in this room are old enough to remember the oil embargo of '73. Did that have adverse impacts? It certainly did. Regrettably, we didn't adapt very well as a result, but that's another matter.

But should we just disregard the lessons of that? Should we just disregard the experience of it? And it seems that we are going down this same path once again. The Applicant in its environmental report concedes that domestic sources for uranium have, because of various reasons, most of them economic-based, have limited domestic access. And so that's the underlying reasoning for that part of the contention, Your Honor.

JUDGE ARNOLD: Thank you.

MR. EYE: You're welcome.

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JUDGE YOUNG: Judge Mignerey, did you have any questions on this contention?

JUDGE MIGNEREY: I do not.

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JUDGE YOUNG: All right. Let's move on to Contention 15, and both 15 and 16 have to do with decommissioning. Is there any benefit to hearing argument on those together, or does it make more sense to hear the argument separately?

9 MR. FRANTZ: Judge Young, I would recommend that we hear those separately. They're very 10 11 fundamentally different issues. The one issue is the environmental issue. That's on Contention 15. 12 13 With respect to Contention 16, that's a 14 decommissioning funding issue, and they're entirely 15 separate regulations, entirely separate discussions 16 in our COL application.

> JUDGÉ YOUNG: You're right. Point taken. Mr. Eye, on Contention 15?

MR. EYE: Yes, Your Honor. Contention 15 asserts that the environmental report is deficiency because it does not have a detailed analysis of the anticipated environmental impacts that would be anticipated from decommissioning, and we take issue with the -- both the Applicant's decision not to get into those kinds of detailed discussions, and as a

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341 1 - basis for that, implicitly, we are taking issue with 2 the Commission's decision to allow applicants to 3 defer that decision to some future time. So we are back to part of the discussion that 4 5 we've had on other contentions, that this probably although raises a contention here, implicitly 6 7 triggers the rulemaking provisions of the NRC's 8 procedures. But nevertheless, there are statements 9 in the environmental report that are made that perhaps they are gratuitous, but that imply that the 10 11 environmental consequences of decommissioning are 12 expected to be negligible. 13 And the support for that generally goes back to NRC rulemaking proceedings and regulations that 14 15 seem to say the same thing, and we take issue with And, again, to the extent that that gets into 16 that. 17 the -- a rulemaking petition, we recognize that that 18 is a potential remedy that we have. However, this is not unlike some of the other contentions that 19 20 we've raised that were based upon statements made in 21 the environmental report that seem to us just to 22 call out for some kind of a response. 23 Judge Mignerey? JUDGE YOUNG: Excuse me. 24 (No response.) 25 (Pause to reconnect.)

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1 JUDGE MIGNEREY: This is Judge Mignerey. I'm 2 I bumped my receiver. I am back on line. sorry. 3 JUDGE YOUNG: Okay. Thank you. Go ahead. MR. EYE: Thank you, Your Honor. 4 The other 5 more specific aspect of this contention that raises 6 concerns for the Petitioners really relates to 7 assumptions that are made that although technology to deal with decommissioning has not yet been 8 9 developed, that it will be developed, and this is 10 not unlike the assumption that is made about 11 someplace to take high-level waste and spent fuel at some time in the future, even though that reality is 12 13 not present today. 14And, again, the Applicant is making a bet. 15 They're making a bet that at the time the 16 decommissioning has to occur, the kind of 17 technologies that are required to do it safely and 18 effectively will have been developed and field-19 tested and so forth to the point where they have 20 applications in their own decommissioning scenarios. 21 But it doesn't exist today. 22 JUDGE YOUNG: What is -- let me ask the Staff 23 something right quick. There has been no change in 24 the rules that permit members of the public to 25 petition to intervene in license termination **NEAL R. GROSS**

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MS. VRAHORETIS: No, Your Honor. There's no change. That still provides an opportunity to petition for a hearing. Right.

JUDGE YOUNG: Something fairly fundamental that's been argued, and I'd just like to hear your response on it at this time. Why do you -- how do you show that this is an issue that's within the scope of this proceeding?

MR. EYE: Because it has environmental effects.

JUDGE YOUNG: When it comes time for this -any plant to decommission and terminate the license, as counsel just pointed out, there is an opportunity for a hearing at which time the environmental effects are relevant issues. What is your argument that would place within the scope of this proceeding specifically?

19 MR. EYE: It's to avoid those future 20 environmental consequences and public health 21 impacts. It's to avoid it. Inasmuch as we 22 recognize that there are environmental and public 23 health consequences related to decommissioning, is 24 there a way to avoid those adverse impacts? And the 25 way to avoid the adverse impacts is not to engage in

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JUDGE YOUNG: That's rather self-evident, I guess. But in terms of what is required to be included in an application, do you have anything other than the general statement that the application, by addressing such impacts at this point, could somehow prevent impacts that -- or avoid -- prevent impacts that would do anything to cause the subsequent later impacts to be less serious than they would otherwise be?

11 MR. EYE: Yes, Your Honor. The point of this whole proceeding is to provide the decision-makers 12 with a good basis to determine whether or not this 13 14license should issue, and if the environmental 15 report had come out in a straightforward way and 16 said, We don't know how we're going to decommission 17 this plant; we don't know what we're going to do 18 with the waste streams; and we haven't analyzed the 19 public health impacts, the environmental consequences, if it had said that straight out, 20 because that's what -- that's essentially the import 21 22 of what they are doing in the environmental report -- then the decision-maker would have a basis 23 24 to do one of two things, either reject the proposal 25 or require that the Applicant back up and do the

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kinds of analyses that would answer those questions 1=-2 about the consequences related to decommissioning. 3 And in that regard, it's back to the whole fundamental purpose of NEPA, for example, that is, 4 to give decision-makers an adequate basis to make 5 informed decisions. And here decision-makers won't 6 have that information in either a site-specific way 7 8 or -- in a site-specific way related to Comanche 9 Peak. 10 JUDGE YOUNG: Go ahead. 11 MR. EYE: That concludes my statement. JUDGE YOUNG: Go ahead. 12 MR. RUND: This is Jon Rund for the Applicant. 13 I think it's important first to draw a distinction 1415 between the specific decommissioning plans that the 16 Applicant will eventually use, which sounds like is the fundamental problem that the Petitioners have. 17 18 They want the detailed plans now, but fundamentally 19 that's not the way NRC's regulations are set up. Specifically under 10 CFR 52.110(d), a post-shutdown 20 21 decommissioning activities report needs to be 22 submitted, a PSDAR that describes decommissioning 23 plans. 2.4 Now, importantly, though, this PSDAR doesn't

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need to be submitted at this stage.

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-submitted-two years after operations cease, and importantly this PSDAR will need to demonstrate that the environmental impacts of decommissioning activities are bounded by earlier NRC NEPA documents.

Now, essentially what Petitioners want the Board to do is rewrite that regulation to require the submission of that document describing which decommissioning activity -- what the decommissioning activities are going to be at this stage. Now, that's fundamentally inconsistent with NRC's decommissioning framework, and therefore the Board should reject this contention in accordance with 10 CFR 2.335(a).

Now, to the extent that this contention could be read or the Petitioners are alleging that the environmental impacts, regardless of what decommissioning plans are speculative or are not well understood or are based on technology that isn't yet available, that's just inconsistent. The impacts of decommissioning nuclear facilities are well understood.

The NRC, in fact, has issued a generic
environmental impact statement, NUREG 0586,
Supplement 1, which discusses those impacts. Now,

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consistent with traditional-NEPA principles, we have incorporated those analyses into the environmental report.

Now, the Petitioners could have -- the decommissioning GEIS is available on the NRC website, and they could have challenged any of the specific evaluations that are in that document, if they had a problem or thought that the environmental impacts were understated there. They could have challenged those impacts, but they didn't. Instead, they just essentially claimed that the analysis in the ER is inadequate.

But these type of conclusory statements are 13 14 insufficient to establish a genuine dispute of material fact. If I might just highlight a couple 15 sections from the GEIS which are referenced in our 16 17 brief, but they talk about radiological impacts, but radiological impacts are discussed in Section 4.3.8 18 19 of the GEIS. Transportation impacts are discussed 20 in 4.3.17 of the GEIS, and the potential impacts of 21 decommissioning on irreversible and irretrievable resources are discussed in Section 4.3.18 of the 22 23 GEIS.

And each of these sections concludes that the impacts of decommissioning are small. The

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1.	Petitioners_provide no indication why any of these_
2	GEIS determinations are incorrect or shouldn't also
3	apply to the Comanche Peak site.
4	JUDGE YOUNG: All those parts have been
5	incorporated by reference into your
6	MR. RUND: We include a table that lists which
7	impacts are generically determined. I don't think
8	the ER gets down to the level of detail of, you
9	• know, basically including a table of contents of the
10	GEIS, but for specific issues, we do indicate in, I
11	think it is, Table 5.9-1 which impacts are able to
12	be determined generically. And because they fail to
13	dispute any of those specific evaluations or even
14	really reference them, they fail to satisfy 10 CFR
15	2.309(f)(1)(vi) and fail to raise a genuine dispute
16	of material fact.
17	JUDGE YOUNG: Does that conclude your
18	argument?
19	MR. RUND: Yes. Thank you.
20	JUDGE YOUNG: All right. Staff?
21	MS. VRAHORETIS: Just briefly, Your Honor. I
22	will not restate the answer that we gave. I believe
23	it's comprehensive in addressing the issues that the
24	Petitioners raise. However, today I would just like
25	to address two points, that being Petitioners'
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-statement that there are assumptions being made that technology has not been developed for decommissioning but will be developed sometime in the future doesn't exist today and is not available for the decision-maker, and also that NEPA requires the decision-makers have this information before they make a decision as to whether or not to grant or deny this license application.

I would just point out that the NRC has successfully decommissioned numerous plants, and the technology for decommissioning is very well understood. The fact that there may be improvements or developments in technology that improve that process doesn't mean that it doesn't exist today, and I would just point out from Volume 53 of the Federal Register at 24028, the NRC discussed this, and described in NUREG CR-0672 -- and, again, this is from 1988.

At that point, some of the lessons learned from past decommissionings demonstrated aspects of practicality and acceptability of various different decommissioning approaches. And at that time in 1988, the Commission found that the necessary technology not only existed but had been safely and successfully applied numerous times to a wide

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variety of nuclear installations. So we have had -1 2 the technology since prior to 1988. And just to give Your Honor a reference, you 3 4 had asked whether the decommissioning rule still 5 provides for an opportunity for a hearing. I would just like to give you the site. The rule was 6 7 updated July 29, 1996. The site for that is 61 8 Federal Register 39278 at 39280, where it states that, "The approval process for the license 9 10 termination plan provides for a hearing opportunity 11 under 10 CFR Part 2." 12 And a very helpful case that describes that is 13 the Haddam Neck case at 58 NRC 262, page 293, which 14 cites the Commission's decision in Yankee Nuclear, 15 which is CLI-98-21 that emphasizes that that license termination plan proceeding is the Petitioners' one 16 17 opportunity to litigate the method of 18 decommissioning. It's beyond the scope of this 19 licensing action. 20 I have nothing further, unless you have any 21 questions. 22 JUDGE YOUNG: Thank you. 23 MS. VRAHORETIS: Thank you. 24 MR. EYE: Briefly, Your Honor, I have just a 25 couple of points to make. Number one, we cite in NEAL R. GROSS COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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our petition promotional materials that were generated by the reactor manufacturer, Mitsubishi. It says in their promotional materials that there's -- that they have not developed all the technology that's necessary for decommissioning, and we cite that in our petition.

Number two, while there have been decommissioned units, none have been the size of a 1,600-megawatt unit like that which is proposed for Comanche Peak Units 3 and 4, and the size, the magnitude of that decommissioning task presents additional problems of a magnitude that are greater than have ever been faced by any decommissioning activity in our country.

And, third, again, I appreciate that there are NRC rulemakings, NUREGS. There are NRC decisions that address this. But those have to be reconciled and measured against 42 U.S.C. 2133, subpart (d). That says licenses should not be issued if they are contrary to the common defense, security, health and safety of the country -- or the public, rather.

So, I mean, I appreciate that there are these approaches that have been taken within the Commission and so forth, but, again, we keep going back to the basic statutory provision in the Atomic

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1	Energy Act that there be a showing that there is not
2	going to be an adverse impact on the health and
3	safety of the public by issuing a license.
4	And at least in terms of this particular
5	contention related to decommissioning, we think that
6	it's difficult to reconcile the statutory
7	requirement with this idea that you can go forward
8	with what is in this case 3,200 megawatts worth of
9	nuclear plant without the idea that you've got some
10	way to demonstrably establish that decommissioning
11	can be done consistent with the public's health and
12	safety. And that would include, as we note in here,
13	dealing with the waste streams that are created
14	through decommissioning.
15	Thank you, Your Honor.
16	MR. RUND: If I may, just one comment about
17	the Mitsubishi document, the citation in the
18	petition that he's referring to, all it says is
19	Mitsubishi nuclear plants, page 27. This type of
20	unspecified, vague reference to a document that we
21	haven't had a chance to examine isn't sufficient to
22	support admissibility contention, and for that
23	proposition, I refer the Board to the Seabrook
24	decision at CLI-89-3, 29 NRC at page 240 to 241.
25	We think we may have actually figured out

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1 --what document-they're --- the extensive research 2 they're talking about, and it really -- all it 3 says -- and, you know, this may not be the document, 4 given the vagueness in the citation, but from what 5 we could tell, all this document actually says is, MHI, Mitsubishi Heavy Industries, is developing 6 7 reactor vessel dismantling equipment and other technologies for the decommissioning of nuclear 8 9 plants. 10 I mean, that's kind of the extent to which 11 technologies aren't available. It's just saying that this company is developing them. It doesn't 12 13 really support the proposition for which they're 14citing it for. 15 MR. EYE: Well, developing and developed are 16 two different things, so I would -- and I think that 17 probably is the document. I mean, it sounds --18 JUDGE YOUNG: What is the document, and why 19 did you not cite it? I actually had a question mark 20 beside that. 21 MR. EYE: Yes. We've got the document in 22 hand, Your Honor. Well, I should say, I know where 23 it is in my office at any rate. I just overlooked 24 attaching it to the petition. But it is, as counsel 25 has suggested, clear from that that the technologies

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have not yet been developed. They are in the _=1 process of being developed. 2 Now, is a technology that is being developed 3 the same as something that a decision-maker can be 4 5 assured will be adequate for the task? I think that there is a leap of faith there, and leaps of faith 6 7 when it comes to issuing licenses under the Atomic 8 Energy Act would not be permissible considering the 9 constraints that the Act imposes. JUDGE YOUNG: Anything further on this 10 contention? 11 12 MS. VRAHORETIS: Yes, Your Honor. Just 13 briefly. I would just point out at 10 CFR 52.110, 14 subsection (f)(2), licensees are not authorized to 15 perform any decommissioning activities that would 16 result in significant environmental impacts that had 17 not been previously been reviewed. So there is no 18 basis for the speculation that things would be 19 occurring sometime in the future that had not been 20 considered. Also I would just like to clarify that the 21 22 Petitioner is referring to technology not having 23 been developed in the Mitsubishi document, and I 24 believe that that document states that the equipment

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has not been developed, not the technology but the

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355 equipment. And there's a big difference there, and 1 2 an imprecise reading of the document does not create an issue for litigation. 3 MR. EYE: Well, I stand corrected if I 4 5 referred to technology and equipment as being -- as б having some equivalency. 7 JUDGE YOUNG: All right. We have four more 8 contentions. I had thought earlier we could maybe 9 get all of them done before lunch, but since we do 10 have four more, it might make sense to keep 11 everybody sharp to take a lunch break and come back 12 and finish after lunch, so let's be back at 1:15. 13 (Whereupon, at 12:15 p.m., the hearing in the above-entitled matter was recessed, to reconvene at 1415 1:15 p.m., this same day, Thursday, June 11, 2009.) 16 17 18 19 20 21 22 23 .24 25

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____AFTERNOON SESSION

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(1:20 p.m.)

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3 JUDGE YOUNG: We'll start with you, Mr. Eye. MR. EYE: Thank you, Your Honor. Contention 4 5 16 deals with the funding streams related to 6 decommissioning. Briefly, Your Honor, it's our 7 contention that the decommissioning plans -- the funding related to decommissioning plans have an 8 9 inadequate assurance that there will be sufficient 10 resources available at the time that Comanche Peak Units 3 and 4 are to be decommissioned. 11 12 We recognize that there is -- having now seen 13 the Applicant and the Staff's response, we recognize 14 that there -- that our contention may be, I guess 15 you could say, tenuous in terms of the mechanisms 16 that we argue would not necessarily be available 17 that are essentially tied to state statutory funding 18 mechanisms for decommissioning. 19 It was our concern and still is in some 20 measure that essentially that decommissioning 21 funding stream is just one majority vote away in the 22 Texas legislature and a signature by the governor 23 from being unavailable to the Applicant. 24 To the extent that the Applicant has an 25 equivalent funding stream to make up for an

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interrupted or a suspended or unavailable state law --1---2 funding stream and is equivalent both in terms of dependability and amounts that would be available, 3 based on that, we think that the decommissioning 4 5 funding assurance contention has been adequately 6 responded to by the Applicant and Staff. 7 So we -- I guess we would concede the point 8 that there is -- that they have answered the 9 questions that we raised in the original petition. 10 JUDGE YOUNG: So you're withdrawing Contention 11 16? MR. EYE: Yes, Your Honor. 12 13 JUDGE YOUNG: All right. Let's move to 17 then, and 17 -- on 17, the Applicant has filed its 14 15 letter of April 28 and the attached sensitivity analysis which addresses -- does it address what you 16 17 were concerned about in 17? 18 MR. EYE: To some extent it does. However, as 19 I understand what they submitted in response, there 20 is now an assumption that the original part of the 21 contention that we asserted regarding the fact that 22 evacuees would effectively, guote, disappear, end 23 quote, once they got more than 25 miles from 24 Comanche Peak, as I understand what's been 25 submitted, there is now a refinement of that, and

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that they would not -- that they're taken into account in a different kind of way.

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Nevertheless, as you will note in our Contention 17, we take the position that the results of the dose and dollar risk assessments in the original environmental report at Table 7.2-5 don't fully capture the costs that would -- that are at risk in the context of this evacuation plan.

And as I understand it, there's still an assumption that either 100 percent or essentially 100 percent of everybody would be evacuated, and I don't know that that in and of itself -- I mean, we've asserted in our contention that that's not a reasonable kind of assumption, and it would follow on, as I have thought about this, Then what is a reasonable assumption in terms of what percentage of people would actually be evacuated.

And, you know, again, I don't know that it's our position or it's our burden to necessarily quantify what percentage of people would be successfully evacuated in an accident situation, but to the extent that there's the assumption that everybody would be evacuated, we think that that's not a reasonable assumption.

The filing that has been made by the Applicant

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in regard to this contention I assume is going to be. made a part of the application, I mean, if that's what's intended, but nevertheless, there's still, I think -- it's not reasonable to assume that 100 percent of all affected individuals would be evacuated, and the Staff says that, you know, Why not; why shouldn't 100 percent be used.

And again it's a little bit like trying to prove a negative, but the assumption that there would be complete success on evacuating all individuals from the zone that would be affected is just an overreach, and is, in our judgment, a fartoo-optimistic assessment as to what might be able to be accomplished in an evacuation scenario.

JUDGE YOUNG: What figure are you thinking, because in the new analysis, they did an additional analysis, assuming an evacuation of 90 percent.

18 MR. EYE: Right. Well, and that leaves the 19 question: What about the other 10? And so I don't 20 know that there's a magic number, Your Honor, as far 21 as what is a sufficient percentage of people that 22 they will successfully -- that they can postulate 23 that they will successfully evacuate. They have 24 gone from 100 to 90, and I don't know that that's a 25 realistic figure either.

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But the fact that they have now moved their · · .1 2 target back to 90 percent really opens two other 3 questions. One is, as I mentioned earlier, what happens to the other 10 percent? How do we account 4 for that? 5 JUDGE YOUNG: Well, but let's talk about this 6 7 contention. This contention challenges the 100 8 percent and the 25-mile distance. And the new analysis addresses those, doesn't i't? 9 MR. EYE: It uses different --10 JUDGE YOUNG: It does what you're challenging 11 them for not doing before. 12 13 MR. EYE: Right. But, again, I'm not accepting that 90 percent is any more accurate a 14 15 figure than 100 percent was. JUDGE YOUNG: I think that under NRC practice 16 as it's evolved, when information is provided that 17 18 addresses an omission, then the next step would be for the -- well, not necessarily the next step, but 19 the Petitioner can file an amended contention. 20 You say the environmental report makes unrealistic 21 22 assumptions. The only two that I see that you mention are 23 the 100 percent figure and the 25-mile distance. 24 25 And if the new sensitivity analysis or analyses

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addresses both of those concerns, what's left of 1 2 this contention? 3 MR. EYE: Only the question of whether the sensitivity analysis itself is adequately supported 4 5 to arrive at the conclusions that it did. JUDGE YOUNG: Did you challenge that? 6 7 MR. EYE: We have not, Your Honor. 8 JUDGE YOUNG: Then there would not be anything 9 left to the contention, would there? 10 MR. EYE: It appears so. 11 JUDGE YOUNG: Okay. So you withdraw 17 then? 12 MR. EYE: As a formal matter, I will not -- I 13 don't think I want to withdraw it, Your Honor. Ι 14mean, I will concede the points that those two numbers are addressed, but I don't want to take the 15 16 step of withdrawing this contention. 17 JUDGE YOUNG: I know yesterday I think I was 18 talking about a rule of thumb that's often applied 19 in NRC adjudications that where the rules at 2.309, 20 subsection (f) talk about contentions that are filed 21 based on new information or late-filed contentions. 22 If you receive new information, a lot of Boards have 23 set a time limit of 30 days from the receipt of that 24 information to file a new contention based on the 25 new information, and if you don't meet that time NEAL R. GROSS

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-line -- well, then, I-guess, actually you probably 1 2 already have not met it. 3 MR. EYE: That's correct, Your Honor. Ι think -- I forget the exact date when that 4 information was provided, but it was, I think, in 5 April or --6 JUDGE YOUNG: It was dated April 28. 7 8 MR. EYE: Right. JUDGE YOUNG: So am I correct in assuming 9 10 we're not going -- you're not planning to file 11 anything. 12 MR. EYE: That's correct, Your Honor. 13 JUDGE YOUNG: Okay. Anything further on Contention 17? 14 15 MR. EYE: Not from the Petitioners, Your 16 Honor. JUDGE YOUNG: From the Applicant? 17 MR. RUND: This is Jon Rund for the Applicant. 18 19 Just a few points. That April 28 letter committed 20 to update the application. It didn't formally update it, but that letter was submitted on the 21 22 docket, and under oath and affirmation under penalty of perjury, and it does commit to update the 23 application. 24 25 In fact, it provides basically a TRAC change **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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version of the-application that showed what the updated application will look like. So we think that's sufficient for the purposes of contention admissibility, to essentially moot this contention.

I'd also like to point out that whether the Petitioners intended to challenge the 100 percent evacuation, the original 25-mile assumption, or the new ones. They haven't provided any factual support that explains why those assumptions are incorrect. I'd note that the 100 percent evacuation assumption wasn't -- we didn't make that up out of thin air. That came out of Part 5 of the application, the emergency plan, and it's based on evacuation time estimates which Petitioners haven't challenged.

15 And as far as the -- I thought I heard the 16 Petitioners mention concern about the 10 percent of 17 the population within ten miles that wouldn't be 18 evacuated. I just want to note that that's a 19 conservative assumption for purposes of the severe 20 accident analysis. It basically increases the total 21 dose to the population. A similar change was not 22 made to the emergency plan. We still have 23 demonstrated in Part 5 of the application that 100 24 percent of the population can be evacuated in Part 25 5, and Petitioners really haven't challenged that

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JUDGE YOUNG: Staff?

MR. BIGGINS: Rather than belabor this issue, I would just point out on the Staff's behalf that the Petitioners really haven't shown how different assumptions would materially affect the analysis, and to that extent, they don't meet the criteria in 2.309(f)(1) for this contention. Nothing further from the Staff.

> JUDGE YOUNG: Anything more on Contention 17? MR. EYE: Not from Petitioners, Your Honor.

JUDGE YOUNG: All right. Contention 18? Go ahead.

14 MR. EYE: Thank you, Your Honor. Your Honor, 15 this is perhaps one of the contentions that presents 16 the stark differences in how the parties view the 17 future of baseload generation in our country. The 18 Applicants have embraced the idea that large, 19 centralized generating stations, in this case a 20 nuclear-fueled generating station, is a superior 21 means by which to meet their baseload generating 22 requirements.

And in that regard, the Applicants and the Staff -- or the Applicant and the Staff ignore essentially the means by which base load can be met,

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baseload needs can be met by other than, in this case, a nuclear fuel plant. For example, we provided documentation in the petition that directly answers the question whether, for instance, wind can be used for base load, and effectively the documentation that we presented said that wind is a potential base load.

Now, there are some underlying assumptions about that, of course. One is that it's deployed on a broad enough scale that it can meet baseload requirements, or in the alternative or in addition to, perhaps, that some other means by which baseload needs could be met using wind would be a compressed air energy storage methodology, which is being used in various plants, certainly in Europe. There are some other prototypes elsewhere. But this is not a technology that is so experimental that it should not be in the mix of things that are considered as viable alternatives to base load fueled by, in this case, nuclear fuel.

So in the first instance, we think that there was an inadequate basis for comparison between nuclear and renewable alternatives to draw the conclusion that the Applicant did that anything other than, in this case, nuclear would not meet

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-their baseload demand needs. -

Second, we think that it's necessary to give the decision-makers in this case the best base of information to work from that there be a careful analysis of -- I think the term of art that is usually used is externalities, and in that regard, we do advocate that there be a side-by-side comparison of renewables and nuclear in terms of those externality costs, both in terms of environmental and public health.

And in order to do that, it would require the Applicant to draw -- or take a different approach that would actually quantify the long-term public health and environmental consequences of a nuclear fueled plant, including a mortality and morbidity analysis that would be related to that generating technology, compared to its renewable alternatives.

18 The methodology used by the Applicant is 19 really -- it's so dismissive of anything except 20 nuclear that it's -- the whole tone and tenor of the environmental report makes the assumption that only 21 22 nuclear will do, and that's contrary to what's 23 happening on the ground around us every day. It's 24 frequently said in the media -- and it may just be a 25 function of repetition, and once a reporter hears it

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and it gets in the print or on the electronic mediaone time, it tends to be repeated.

3 We frequently hear the statistic that 20 4 percent of the baseload generation of the United 5 States is supplied by nuclear. Well, that certainly at one time was the case, but every day that a new 6 7 wind generator goes up or every day that a new 8 photovoltaic panel is installed, the percentage of generating capacity that this country can draw on is 9 10 slightly altered. We haven't added nuclear generating capacity now for going on 30 years, all the while in small increments at first, now in larger increments as time goes along, we're adding renewable generating capacity.

15 And yet that reality of the growth of renewable capacity is essentially ignored by the 16 Applicant, and their point of departure in their 17 18 environmental report is that nuclear is such a 19 superior means by which to generate baseload 20 capacity that really nothing else can possibly 21 compare to it. And we definitely take issue with 22 that.

23 And, again, the facts on the ground are 24 tending to contradict much of what the Applicant is 25 asserting in terms of renewables not being able to

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And I must also add here a note that is particularly troubling to the Petitioners, and that is that Comanche Peak, because it has adopted the designation as a merchant power plant, is not required to do an analysis in terms of building baseload generating capacity, and instead of adding capacity, using efficiency to either avoid capacity additions or to delay capacity additions.

Energy efficiency is real. It accounts for major savings in terms of not only rates that are paid, but it represents potential savings in terms of environmental and public health consequences that result from the use of nuclear fuel.

JUDGE YOUNG: How do you address the argument that the Commission has said that alternatives that don't address the goal of the Applicant or the purpose of the Applicant is not necessary?

20 MR. EYE: In two ways, Your Honor. First, we 21 think that we have addressed the -- to the extent 22 that the stated need of the Applicant to have 23 baseload capacity, we've shown in our petition and 24 the supporting documentation that there are 25 alternatives that are both cost-effective in a

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megawatt-by-megawatt comparison, and in terms of

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JUDGE YOUNG: I was talking about your last argument about the demand side of efficiencies.

> On the demand side. MR. EYE:

JUDGE YOUNG: Right.

MR. EYE: Your Honor, in that regard -- and you might almost be able to predict what I'm going to say, I suppose, because 42 U.S.C. 2133(d) says these licenses should be issued only in the public's -- consistent in the public's interest, and 11 an artificial designation as a merchant power 12 plant -- because it is -- it's a legal designation. It really has nothing to do with the technology that's being used to generate electricity. It has 16 nothing to do with the costs that relate to the generation of that electricity, either in dollars or 18 public health and the environmental costs. It's a legal designation.

20 JUDGE YOUNG: I'm not talking about the designation. I'm talking about specifically what 21 22 the Staff argues on page 69 of their response, to 23 the extent that you're arguing that demand side management is an alternative to baseload generation. 24 25 MR. EYE: Your Honor, every authority that

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they cite for that proposition is an-NRC-based rule, either in -- it's either in a regulation or in an NRC memorandum opinion.

JUDGE YOUNG: Which bind us.

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MR. EYE: I agree. But we're here to make a record and say that this -- what we consider to be an artificial constraint making this designation that demand side management is not necessary to be analyzed by the Applicant is not consistent with what the Atomic Energy Act requires in terms of making sure that these licenses are in the public's interest.

And it would be one thing if demand-side management was pie in the sky, but utilities are investing heavily in demand-side management all over this country. It's happening as we speak. Major investments are going to demand-side management, and these are being done because it makes business sense to do so.

But on the other hand, the reason that the Applicant is excused from doing that is because they declared themselves a merchant power plant, and that excuses them from that whole analytical task, and we think that that's contrary to what the Atomic Energy Act contemplates when it requires that these

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JUDGE YOUNG: Do you have any further argument at this point?

MR. EYE: Your Honor, I think that that is what we needed to say in terms of the argument at this point, and we would, of course, probably want to take a chance -- or we will probably want to reply to that which we hear from the Applicant and the Staff. Thank you.

JUDGE YOUNG: Before the Applicant, let me just ask you. Taking away the demand side part of the contention, you seem to argue in response to the argument that alternative sources of energy could supply baseload generation that they're just not reasonable arguments. There is a dispute, but you're saying that they are --

17 MR. FRANTZ: I don't know that there's a 18 dispute. What we say with respect to combinations 19 of wind and solar power with, they mention, 20 batteries and compressed air is that they have not 21 shown that those are commercially viable 22 alternatives. We're not saying that they don't 23 exist. We're not saying that they couldn't exist. 24 We're saying that they're not commercially viable 25 alternatives, and therefore, they do not need to be

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considered in detail under NEPA.

If you'll look at what they cite, all they have -- they have no information at all other than at the very end of their contention, they cite their report by Dr. Makhijani, and you look at his statements. He says, for example, that companies are "experimenting" with batteries. He says that the Shell Company may store energy using compressed air. He states that the National Renewable Energy Lab has "a scheme" for using compressed air and wind power to produce baseload power.

But there's nowhere in Dr. Makhijani's report 12 13 that indicates that using, for example, compressed 14 air and wind power is currently a commercially 15 viable alternative for producing baseload power. In 16 that regard, Comanche Peak Units 3 and 4 are 17 designed to produce 3,200 megawatts of electricity 18 as a baseload power plant. There's just nothing 19 anywhere that would indicate that compressed air and wind has that capability, certainly nothing in 20 21 existence today that even comes close to that.

So in the absence of any support that compressed air and wind in combination is a commercially viable alternative, there's no reason to consider it any further under NEPA.

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- - I might also add that, I think as you pointed out, Judge Young, is that the Clinton early site permit proceeding clearly indicates that things like conservation and wind and solar power in isolation simply are not sufficient to constitute a reasonable alternative to a baseload power plant. I might add that it's not just the Commission who has ruled on this.

9 That case went up through the Seventh Circuit Court of Appeals, and I'm personally familiar with 10 11 that because I argued the case before the Seventh 12 Circuit, and the Seventh Circuit upheld the 13 Commission decision and confirmed that under NEPA, 14 there's no requirement to consider conservation as 15 an alternative to a baseload power plant. That 16 Court also upheld the deference given to the stated 17 goal of the Applicant. In this case Section 9.2 of 18 our environmental report clearly states that our 19 goal is to produce baseload power.

The Petitioners state that we should consider the facts on the ground and that there is increasing wind and solar power. Well, yes, there is increasing wind and solar power, but there's no indication at all that this increase or any of the existing wind and solar power is being used to

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generate-baseload power. So once again, they are stating these purported facts, but they don't seem to have any material impact on the adequacy of our environmental report.

JUDGE YOUNG: What about the references to advances including compressed air, energy storage, improved battery storage, casting doubt on your environmental report's assumptions about problems with intermittency?

MR. FRANTZ: Yes. That's all they can come up with. They cast doubt. They don't say that it's commercially viable, and their expert report that they attached to their contention does not state it's commercially viable. Instead, at most it indicates that people are starting to look at this as a possible means in the future, but it's not currently commercially viable. And they haven't provided any evidence to the contrary.

JUDGE YOUNG: And you're saying that the Clinton decision addresses the commercial viability, such that it would include this context?

MR. FRANTZ: No. The Clinton early site permit proceeding only dealt with demand-side management --

JUDGE YOUNG: Right.

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----- MR. FRANTZ: -- wind and solar power in isolation. It did not deal with commercial viability issues. Now, other decisions, I think, have shown very clearly that to be a reasonable alternative, it must be something that's viable, commercially viable.

Finally, the Petitioners allege that we need a comparison of the environmental impacts of renewable energy and nuclear power. In fact, we have a comparison. If you look at Section 9.2 of our environmental report, that section has subsections that deal with each type of alternative, including wind, solar, geothermal, biomass, and a variety of other alternatives. In each case, those subsections go through and discuss the environmental impacts of the alternative, and then they compare those environmental impacts versus the impacts of nuclear power, so, in fact, there is a comparison.

It may not be in the form that they would prefer, but we do have a comparison. They seem to say that we need a --

JUDGE YOUNG: Where is -- I'm sorry. Where is the comparison of impacts on the --

MR. FRANTZ: Let me just point out one example on wind. Okay. For example, on wind power, on page

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376 9.2-9, which is under criterion 4, if you would have-2 that page in front of you --3 JUDGE YOUNG: 9.2-9? (Perusing document.) The solar -- the comparison? 4 5 MR. FRANTZ: Yes. Under criterion 4, for example, the very first sentence says that because б 7 of the large land impacts wind power, wind is considered to have potential environmental impacts 8 9 greater than those expected for the proposed Comanche Peak Units 3 and 4, and there are very 10 11 similar statements in the other sections that deal 12 with other alternatives. Those are the kinds of 13 comparisons we have. Now, again, it's not in the form that 14 15 Petitioners would prefer, but, again, as long as any precedents hold, the Boards are not here to flyspeck 16 17 the environmental reports and to request a different 18 format, for example, that has no material effect on

the results.

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In this regard, for example, they point out that it has no material effect on the results. In this regard, for example, they point out that Mayday comparison, side-by-side comparison in the areas of mortality, accidents, and greenhouse gases would show that the alternatives involving renewable

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energy might be preferable. ____

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But, again, they have absolutely no technical support for that or legal support. One, there's no requirement for that kind of side-by-side comparison with respect to alternatives which are not shown to be preferable. Second of all -- or viable, as reasonable alternatives.

Second of all, with respect to accidents, for 8 9 example, Chapter 7 of our environmental report does 10 show that the impacts of accidents would be small, 11 and so even if we were to engage in this side-by-12 side comparison between nuclear and alternatives, you would not see any preference for the renewable 13 14 energy alternatives with respect to accidents, given 15 the fact that nuclear power has small impacts in 16 this area.

And so for these types of reasons, we believe that they have not raised a material issue. They have not adequately supported their contention, and in some respects, their contention is just simply inconsistent with governing legal precedent. And, therefore, we recommend that the Board dismiss this contention.

JUDGE YOUNG: Could you just point me to the place in your response where you give the case law

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and commercial viability?

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MR. FRANTZ: We don't have that in our -- I don't believe we have that exactly in our answer. I'd be happy to give you the citations if you'd like, Judge Young, after the prehearing conference.

JUDGE YOUNG: Okay. And on solar, where is the section on solar?

MR. FRANTZ: That would be in -- I believe it's in the section following wind. Let me check quickly. Yes. That discussion begins on page 9.2-10, and that discussion encompassed both solar/thermal and photovoltaic cells.

13 JUDGE YOUNG: Okay. Does Staff have any 14 argument?

MR. BIGGINS: Yes. Thank you, Your Honor. I won't reiterate everything we said in our answer. However, I do believe that comprehensively covers the arguments that the Petitioners made, especially in light of the fact that they didn't reply to that.

I would add just a couple comments based on the discussions here today, that it's difficult to discern whether or not the Petitioners concede that once an alternative is rejected as not meeting the purpose and need of the proposed action, additional detailed study of the alternative is unnecessary.

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In addition to that, the Petitioners particularly identify other -- what they, I guess, suggested alternative means of generating electric power. However, what their petition really lacks is an explanation of how those suggested alternatives would meet the purpose and need of the proposed action.

And, Judge Young, you have specifically asked 13 the Applicants to identify their authority for 14 15 saying that it needs to be commercially viable, whereas although the Staff doesn't use that 16 17 language, we would hold that in order to meet the 18 purpose and need of the proposed action, we are 19 talking about a viable alternative. If they were 20 not a viable alternative, it would not, by 21 definition, meet the purpose and need of the 22 proposed action.

And in looking at the suggested alternatives put forth by the Petitioners here, we have no idea based on the petition whether any of those would

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- actually-be able to meet the purpose and need of generating baseload power at this magnitude. In my own understanding, I believe that many of those suggested alternatives, the largest facilities in existence in the world even, are only a fraction of the size of this proposed plant.

And without additional information from the Petitioners to show that those would, in the words of the Applicant, be commercially viable or in the Staff position, meet the purpose and need of the proposed action, without showing that, the Petitioners don't meet their burden of making this contention admissible under 2.309.

And the last point I would make is that 14 15 although the Petitioners have repeatedly argued at .16 this hearing that whatever decision comes out of 17 this Board or out of this licensing action, it has 18 to be in the public interest. It is the Staff's 19 position that it is the Commission itself as the 20 appointees of the president that they determine 21 under the Atomic Energy Act what the public interest 22 in light of the regulations that they pass and the 23 quidance that they enact.

And so it is the Commission that determines the public interest, and so to the extent that the

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Petitioners would have us disregard Commission rules or Commission policies or Commission case law for that matter, that is contrary to what the Commission believes the public interest is under the Atomic Energy Act. And with that, I have no additional comments.

JUDGE YOUNG: You wouldn't dispute that where there's not a rule or any case law addressing some aspect of the public interest, that members of the public can challenge or can assert -- make assertions regarding the public interest that would not be contrary to existing rules and law, would you?

MR. BIGGINS: If it's not contrary to an existing rule or statement by the Commission, then I would agree with the Board that anyone can make an argument what that public interest is.

18 JUDGE YOUNG: I guess if you take out of the 19 contention that the challenge is based on demand-20 side management, what's left is -- based on the 21 Clinton decision, what's left is the alternative 22 sources and technological advances that overcome 23 intermittency problems that are described in the 24 environmental report, the advances of compressed air 25 energy storage and improved battery storage.

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To that-extent, I think you make the argument that the EIS must only briefly discuss the reasons why an alternative was rejected for more detailed study. Just summarize your argument in response to those two particulars. Those are what I find, if you subtract out the other part.

MR. BIGGINS: Yes, Judge. If you subtract out the demand-side management argument, the suggested alternatives proposed by the Petitioners -- again, the Petitioners, in order to form a valid contention here, would have to show that in order to warrant any detailed study in the EIS, that those suggested alternatives would be able to meet the purpose and need of the proposed action. And I don't --

15 JUDGE YOUNG: Well, let's back up for just a 16 I think what they're saying is that -- and second. 17 they may not be saying it very strongly or in a 18 great amount of detail, but I think what they're 19 saying is that these advances in compressed air 20 energy storage and improved battery storage supports 21 their argument that these alternatives could provide that level of power.

> MR. BIGGINS: They --

JUDGE YOUNG: It may -- go ahead.

MR. BIGGINS: May I respond? Thank you. They

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have made that basic assertion, but they provide absolutely no support other than Dr. Makhijani's report which I guess we would agree with the Applicant that it doesn't show that those are actually capable of meeting the purpose and need of this proposed action. So even though there may be advances, even though, you know, you can combine wind power generation with some method of storage, we're still not talking about an alternative on the scale of providing this level of baseload power.

JUDGE YOUNG: The one --

MR. BIGGINS: And Petitioners haven't provided any information about how it would or possibly could meet that scale.

JUDGE YOUNG: I guess my one concern on this is these assertions of fact, these fact-based arguments, are provided to support the contention. I know in other cases I've heard the argument made many times actually that there needs to be support for various statements that are part of the basis for the contention. In other words, there needs to be support for the support.

It sort of becomes a sort of bootstrap kind of argument, when, in fact, a Petitioner has made statements as support for the contention. Those

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statements may not ultimately prove the point. You 2 say they have not shown through the Makhijani report 3 or otherwise, they have not shown that these could provide a level of power that would meet baseload 4 power generation requirements. 5 But I guess I have a little bit of concern 6 7 that once you start talking like that, you're sort 8 of getting into the merits. It may be that you're 9 correct that they have not proven their case at this 10 point, but if the standard is a fact -- a minimal 11 level of fact-based argument sufficient to warrant 12 further inquiry --13 MR. BIGGINS: Perhaps, Judge, I can clarify my 14 point by being more specific. 15 JUDGE YOUNG: Okay. 16 MR. BIGGINS: If the Petitioners, in arguing 17 that you could combine wind with compressed gas 18 storage in order to form a baseload power generation 19 source, had provided --2.0 JUDGE MIGNEREY: This is Judge Mignerey. Ι'm 21 losing counsel again. 22 MR. BIGGINS: I will speak up. If the 23 Petitioners in their statement that you can combine 24 wind-generating power with a storage mechanism had 25 provided even a, you know, minimal background of how **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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-much power that would generate, then we might be able to compare it to this proposed action of generating an estimated 3,200 megawatts of electricity without identifying even the level of power that they're talking about for wind generation and a storage mechanism. They don't demonstrate that this could meet the purpose and need.

On the other side, in -- that would be additional facts. That would be facts that would support it. On the expert opinion side, even an assertion made by an expert that is not -- that does not identify how the expert made that assertion is insufficient when the Commission can't see how they reached that conclusion.

15 And, in particular, if the expert report had 16 provided an analysis of how many wind turbines we're talking about, an analysis or expert opinion of how 17 18 much -- what the gas storage mechanism would look 19 like, in order to show that it truly is a viable 20 alternative or an alternative that would meet the 21 purpose and need of this proposed action, if that 22 were in the expert report, perhaps this would be an admissible contention. 23

But where the Petitioners are simply providing, These are other suggested ways of

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generating power and combining them allows it to be a baseload-type power generation source, that's not sufficient. That doesn't provide enough information for us to say, Yes, that should be compared; that could meet the purpose and need here and should be compared in detailed analysis in EIS. And without doing that, they're really not raising any proper contention or any argument or dispute, material dispute, with the analysis that is provided in the environmental report.

JUDGE YOUNG: You may be ultimately right on the merits, but aren't you skipping one step? And I guess that step would be you seem to be going -- you said, If they had provided numbers that would warrant a more detailed study in the EIS, if I understood you correctly. But for contention -that would be the standard at a hearing, because otherwise the contention would have disappeared. And if the EIS already did that more detailed study, then that standard would have been met.

But if a contention says X alternative needs to be considered and gives some facts but doesn't give enough figures to warrant a more detailed study in the EIS but may warrant further inquiry, in other words, further inquiry in the nature of what would

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those-numbers be, are those numbers great enough to warrant a more detailed analysis than the EIS, the case law includes -- on contention admissibility, includes at least the idea that at least you need enough of a fact-based argument to warrant further inquiry.

7 Aren't you sort of skipping that step by saying that you need enough to get you to the point 8 9 of saying the EIS needs more detail, detailed 10 analysis? That's sort of the end point. The 11 contention admissibility stage, you don't just 12 automatically go to the end point. You need to see 13 whether there's enough there to warrant further 14 inquiry in a hearing where, for example, evidence 15 about those numbers would come out. I mean, there has to be some difference. 16

MR. BIGGINS: There has to be some difference. I agree with you, Judge. However, there has to also, under 2.309 -- I don't believe we're skipping a step. There has to also be support to show that that contention merits further discussion, that it merits a hearing. And simply suggesting additional alternatives does not meet that requirement. They have to be able to provide enough information to show that they have a material dispute with this

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And you're going to have to have some level of detail, looking at the application and, you know, proposing suggested alternatives, to show that -you're going to have to provide enough facts to show that there is a material dispute. So to some extent, the Board will have to delve into or be provided -- let me put it this way -- be provided by the Petitioner with enough facts to demonstrate a material dispute. And when we look back at this particular contention, we do not have enough to see that this is material.

JUDGE YOUNG: Okay. What -- let me go through this on a little bit more elementary level. Let's see.

(Pause.)

JUDGE YOUNG: I'm looking for the page that I had the four -- on the intermittency, the comparison of the alternatives. Let's see. Where was that? I had it up a minute ago. I just -- do you know?

MR. FRANTZ: On wind, for example, I think it was at page 9.2-9. I think --

JUDGE YOUNG: Not on the impacts, on the -let's see. I got it out of here. Where you discuss the problems with intermittency. I got it out of

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-1 -	your thing. I'm-going to have to go back and find.
2	where I got it from.
3	MR. FRANTZ: Yes. On, for example, page 9.2-
4	8, there are statements there to the effect that
5	wind power has a capacity factor typically in the
б	range of 25 percent, perhaps up to 45 percent.
7	JUDGE YOUNG: Is that where you use the word
8	"intermittency" or "intermittent"?
9	MR. FRANTZ: I don't know whether that page
10	uses the term "intermittent" or not, but obviously a
11	capacity factor of 25 to 45 percent would qualify as
12	intermittent.
13	JUDGE YOUNG: Where does 9.2 start?
14	MR. FRANTZ: It starts on okay. I do have
15	a statement here. On the bottom of page 9.2-7, the
16	last carryover paragraph, it says, "Wind power is an
17	intermittent form of energy that is not suitable for
18	baseload power, because wind power generation is
19	highly variable on an hourly, daily, weekly,
20	seasonal and annual basis."
21	JUDGE YOUNG: Okay. I'm looking at Section
22	it skips away from that page every time I try to
23	(Pause.)
24	JUDGE YOUNG: In any event, I can't find the
25	page again. I had it up a minute ago, but it's
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1 skipping-around up here, and I can't find it. There 2 was a discussion in the environmental report about 3 the problems with some of these alternatives, that they weren't reliable because of intermittent --4 5 problems with intermittent availability. Do you 6 know what I'm talking about? 7 MR. BIGGINS: I understand your point. Yes, 8 Judge. 9 JUDGE YOUNG: Okay. That's what was in the 10 environmental report. So what the Petitioners 11 assert as a matter of fact is that in response to 12 the concerns about intermittency, there are, they 13 say, "recent advances in technology, such as 14 compressed air energy storage and improved battery 15 storage capacity." 16 On somewhat the same kind of parallel level of 17 detail and specificity with what's in the 18 environmental report, saying the problem is 19 intermittency and the contention comes in and says, 20 Well, the way you deal with intermittency are these 21 things, and you're faulting the contention for not 22 providing more detailed facts, giving figures for 23 how long the storage devices would last and how well they would address intermittency. 2.4

But for contention admissibility purposes,

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you're asking us to sort of draw a line and say, - -Even though they have challenged that specific part of the application with specific factual assertions as to what types of measures would address the intermittency problems posed in the environmental report, you're saying that's not enough; the line should be drawn here, because they haven't shown numbers.

It becomes -- it's not -- what you're challenging is not the nature of what they've provided. What you're challenging is the amount of what they've provided, it seems to me. You're saying that even though they have provided some facts, they're not enough facts; they're not detailed enough facts to warrant more detailed consideration in the environmental report.

17 And it seems to me that that sort of is 18 getting into a merits argument and into an argument 19 that does not address the nature of what's been 20 provided. It addresses your view that it's not 21 enough, that it's not detailed enough. So what is 22 there to support that the line should be drawn where 23 you're saying it should be drawn with regard to this 24 specific part of the support for the contention? 25 MR. BIGGINS: Judge, first let me point out

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392 that I don't believe these are additional facts. 1---Т 2 believe these were expert assertions made by Dr. 3 Makhijani. JUDGE YOUNG: I'm talking about the 4 5 contention -- the basis for the contention provided 6 in the petition itself. 7 MR. BIGGINS: Which was based on Dr. 8 Makhijani's assertion. 9 JUDGE YOUNG: I'm talking about the basis for 10 the contention itself. I'm not talking about the 11 Makhijani report. I'm talking about the basis for 12 the contention on page 42 of the petition. 13 MR. BIGGINS: Right. But I believe the 14 language "advances in storage" come from Dr. 15 Makhijani's --16 JUDGE YOUNG: Does that really make --17 MR. BIGGINS: -- expert report. 18 JUDGE YOUNG: -- any difference? Is it not a 19 fact-based argument? 20 MR. BIGGINS: Yes, it does make a difference. 21 JUDGE YOUNG: Is it not a fact-based argument? 22 MR. BIGGINS: It is not, because it is 23 essentially an unsupported expert assertion which in 24 the USEC case, the ruling was that that's 25 insufficient. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 JUDGE YOUNG: Let me be more clear about what 2 I'm talking about. If you look at the petition on 3 pages 42 through 44, on page 42 the second paragraph -- well, first paragraph, they cite the 4 environmental report at pages 9.2-1, et seq. 5 Ιt says, "The COLA should evaluate alternative sources 6 7 of generating capacity based on current data 8 available regarding capacity factors, technological 9 advances that overcome intermittency objections. 10 regarding wind and solar power, " and so on. Then the next paragraph says, "The Comanche 11 12 Peak environmental report assumes that renewable 13 fuel, such as wind and solar, cannot provide 14 adequate baseload generating capacity. However, 15 recent advances in technology such as compressed air 16 energy storage and improved battery storage capacity 17 cast doubt on some of the environmental report's 18 assumptions concerning problems with intermittency." 19 Then if you look on page 44, the only mention 20 of Dr. Makhijani's report, it says, "As further 21 support for this contention, please see the attached 22 report." 23 MR. BIGGINS: Judge, again, I believe that's 24 merely an assertion and doesn't provide support for 25 the contention. That is the Staff position.

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-- JUDGE YOUNG: Well, what is a fact-based argument? What is it? If only a fact-based argument that there is case law to support -- you don't need expert opinion, you don't need documents, you can have only a fact-based argument --

MR. BIGGINS: Let me illustrate through a question back.

JUDGE YOUNG: -- if it's sufficient to warrant further -- hold on. -- if it's sufficient to warrant further inquiry. So what I'm trying to get you focus in on here is specific assertions of fact have been made, a fact-based argument. A fact-based argument is merely assertions of fact in an argument form that has some logic to it. I would assume that that's what that means.

And the fact-based argument is in dispute with the environmental report. We say that the intermittency concerns that are mentioned there can be dealt with or that these advances, specific advances, compressed air energy storage and improved battery storage, cast some doubt. Now, that's a little fuzzy.

MR. BIGGINS: Right.

JUDGE YOUNG: But what I'm trying to get you to focus on is: Given the level of detail that is

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provided_in the_environmental report, is not this level of detail somewhat comparable to that, such that it might warrant further inquiry as to, for example, how well would compressed air energy storage address intermittency problems with wind power, and what --

MR. BIGGINS: So the answer is, no, because -let me point out. The environmental report states the capacity factor for the wind power generation. How much does the battery storage or compressed air storage increase that capacity factor? We have no idea, because the Petitioners haven't provided that basic level of detail in their contention. How do we know that it increases it enough to be able to meet the purpose and need of this proposed action?

JUDGE YOUNG: You start our your sentences, your questions with, How do we know. The term that the Commission has used is, Further inquiry is warranted. So you don't have to show enough to make you know anything. A petitioner has to show enough to warrant further inquiry, which itself would then lead possibly to some conclusions, and you may be absolutely right about the conclusions.

But I'm trying to get you to focus on the minimal level that is required to be in a

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-contention, and you seem to be wanting what would 1 2 obviously be a much better contention in the sense of more well-supported, extensively well-supported, 3 4 but for the basic requirements of contention 5 admissibility and the requirement that enough to 6 warrant further inquiry, which can be through expert 7 opinion, can be through documents, or could be 8 merely a fact-based argument. 9 MR. BIGGINS: But not assertions, Judge. 10 JUDGE YOUNG: What's the difference? What's 11 the difference between a fact-based argument and 12 assertions? MR. BIGGINS: An assertion would be that there 13 14 are advances in battery and compressed air storage. 15 JUDGE YOUNG: And they have made that --16 MR. BIGGINS: Assertion. 17 JUDGE YOUNG: -- assertion. What would be a 18 fact-based argument? 19 MR. BIGGINS: How do we know the accuracy of 20 that assertion? There is not enough for the Board 21 to make a reflective assessment of that assertion, 22 and that is contention admissibility criteria. That 23 is not --24 JUDGE YOUNG: I think we're sort of going 25 around in circles, because the contention itself is **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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-1	what must be supported by fact-based argument.
2	Any I mean, any contention is an assertion
3.	itself. Any allegation in any kind of complaint
4	anywhere is an assertion in the sense that it
5	alleges certain things.
6	MR. BIGGINS: Perhaps we are going around in
7	circles. Maybe
8	JUDGE YOUNG: Again, we get into this thing
9	where the argument is made that you need to have
10	support for the support for the support, when the
11	contention admissibility rules say you need to have
12	support for the contention, which can be on a level
13	of at least a fact-based argument.
14	JUDGE ARNOLD: Can I get in here for a moment?
15	JUDGE YOUNG: Go ahead.
16	JUDGE ARNOLD: 10 CFR 2.309(f)(v), the
17	contention admissibility standards. Let's see.
18	"The petition must provide a concise statement of
19	the alleged facts or expert opinions which support
20	the requestor's/petitioner's position on the issue
21	and on which the petitioner intends to rely at
22	hearing, together with references to the specific
23	sources and documents on which the
24	requestor/petitioner intends to rely to support its
25	position on the issue."
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- <u>1</u> .	I see alleged facts in here. I'm not seeing-
2	references to support. Okay?
. 3	MR. EYE: May I
4	JUDGE ARNOLD: Sure.
5	MR. EYE: address that? Thank you, Your
6	Honor. First, specifically and very narrowly, page
7	38 of Dr. Makhijani's report says I'm sorry. It
8	begins on page 38. The specific quote I'm looking
9	at is at the bottom of page 39, and this is a
10	section of the report that deals with other
11	nonintermittent energy options.
12	And it says, "Shell and Luminant have proposed
13	to develop a compressed air energy storage facility
14	in Texas near Comanche Peak." On Monday, July 30,
15	2007, there was an announcement by Shell and the
16	Applicant to build 3,000 megawatts of wind capacity
17	in Briscoe County, southeast of Amarillo. Part of
18	that and to this and I want to be very candid.
19	I don't know what the progress has been by the
. 20	Applicant in this regard, but part of that proposal,
21	Your Honor, was to include a CAES component.
22	JUDGE YOUNG: CAES?
23	MR. EYE: Compressed air energy storage. And
24	we referenced that specific project in Dr.
25	Makhijani's report as a consideration to deal with
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--- intermittency_problems. Now, that, I think, meets not only what you were talking about, Judge Arnold, but I think it meets Judge Young's considerations as well in that regard.

If, in fact, what we're looking at is the question, Is there enough in our petition, both in the assertion that we made in the petition itself and in Dr. Makhijani's supporting documentation, and as it turns out, even the Applicant's own project that is, I presume, underway, we have satisfied that criterion to provide support for the asserted fact. And if you want to just use that as a basis to fill the gap on the requirement that we provide sufficient support, that should do it.

JUDGE YOUNG: I think one of the problems we're having here is there's a lot of case law out there on these contention admissibility requirements. The requirement at number 5, I believe there's case law that says that you don't have to provide all the sources and documents on which you plan to rely at the hearing.

22 Obviously you have to provide enough to 23 warrant further inquiry, but you don't have to 24 provide everything that you're going to provide at 25 the hearing. Otherwise, you would be converting

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contention admissibility into proving your case at - the hearing stage.

MR. FRANTZ: Yes.

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JUDGE YOUNG: -- said anything about it. Would you like to say something?

MR. FRANTZ: Yes, please. I think Judge Arnold pointed to the correct phrased there, under 2.309(f)(1)(v). It's that last clause, together with references to the specific sources and documents. You're right, Judge Young. They don't have to provide everything, but they have to provide something. In this case, they haven't provided that something. They haven't provided enough to show that wind with compressed air is capable of generating baseload power equivalent to Comanche Peak. They reference --

JUDGE YOUNG: To show that, but is it to show that wind -- say what you just said again, that that would be sufficient. They would have to show that. What's the difference between that and proving that at a hearing?

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-MR. FRANTZ: I'm not asking them for truth. 1 2 I'm asking them if they have a technical report or a technical reference or an expert affidavit that at 3 4 least states that compressed air, in conjunction with wind, can provide baseload power. 5 JUDGE YOUNG: But there is no -- there is case б 7 law that says that you don't have to have an expert 8 opinion. I'm not saying --9 MR. FRANTZ: JUDGE YOUNG: Or a technical report or a 10 11 document. MR. FRANTZ: Judge Young, that's just one 12 13 alternative. JUDGE YOUNG: Right. 14 15 MR. FRANTZ: Either an expert affidavit or a 16 supporting report or a reference to a report. And 17 they don't have --18 JUDGE YOUNG: Or a fact-based argument. That's what --19 20 MR. FRANTZ: No, no, no. JUDGE YOUNG: -- the case law says. 21 22 I'm sorry. The fact-based MR. FRANTZ: argument alone is not sufficient. They need, 23 according to 2.309(f)(1)(v), "references to the 2425 specific sources and documents on which **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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requestor/petitioner intends to rely." That's a ____ requirement in the regulations, and they have not met that with respect to compressed air and wind and solar power.

They reference this statement on page 39 in Dr. Makhijani's report about this proposed project by Shell and Luminant, but reading that statement, there's no reference in that sentence to producing baseload power. They're saying, "Shell and Luminant have proposed to develop a compressed air storage facility in Texas near Comanche Peak." They don't say that that facility is capable of producing baseload power.

14 I also would like to just briefly respond to 15 some of the very earlier questions and comments 16 regarding the public interest standard in the Atomic 17 Energy Act. There is no general public interest 18 requirement for issuance of a license for a nuclear 19 power plant. The public interest is satisfied with 20 respect to Section 103 by showing added protection of safety, reasonable assurance of safety. 21 There is 22 no requirement that the NRC make an overall public 23 interest finding in order to issue a license under 24 the Atomic Energy Act.

JUDGE YOUNG: I don't know if anyone has the

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- 1.	capacity to look up Westlaw here, but you might want
2	to look up Oconee CLI-99-11, 49 NRC at 342. "A
3	petitioner must support its contentions with
4	documents, expert opinion, or at least a fact-based
5	argument. "A petitioner must present sufficient
б	information" this is from a different case "to
7	show a genuine dispute and reasonably indicating
8	that further inquiry is important. Some sort of
9	minimal basis indicating the potential validity of
10	the contention is required."
11	MR. FRANTZ: That is one of the requirements,
12	but it's not sufficient by itself. They also, as I
13	said, have to meet this requirement in
14	2.309(f)(1)(v). There are six requirements in
15	Section 2.309.
16	JUDGE YOUNG: That's right. That's right,
17	except (f)(1)(v) is not to be read as requiring
18	that is not to be read as requiring specific
19	documents. But how are you I mean, it's not to
20	be read as providing everything that they're going
21	to rely on at the hearing.
22	MR. FRANTZ: I agree, but they need something.
23	JUDGE YOUNG: They need something. They need
24	at least a fact-based argument, sufficient to
25	warrant further inquiry.
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2	Judge Young. It says in the regulations, "with
3	references to the specific sources and documents on
4	which they're relying." The language is very clear
5	on its face.
6	JUDGE YOUNG: Right. "On which they're
7	relying."
8	MR. FRANTZ: And they have not done that here.
9	- The documents on which they've cited do not provide
10	any support for their statement that compressed air
11	in conjunction with wind can produce baseload power.
12	JUDGE YOUNG: They refer to Dr. Makhijani's
13	report. It may not be a lot. It may not be a lot,
14	but the Commission has also said that they've
15	said that we are to bar contentions where
16	petitioners have only what amounts to generalized
17	suspicions, hoping to substantiate them later. And
18	it does obviously say that they need to provide
19	whatever references to whatever documents and
20	sources they're going to rely on later, but that
21	does not if they don't have any, a fact-based
22	argument is enough.
23	MR. FRANTZ: That just is not consistent with
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the language of the regulation or, I believe, with the relevant case law.

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JUDGE YOUNG: Well---

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MR. FRANTZ: Now, for example, that was true --

JUDGE YOUNG: -- one good thing about the law is that there's room for differences of opinion.

Well, Judge Young, I might 6 MR. FRANTZ: Yes. 7 say your position was true perhaps back in the 1970s 8 and 1980s, but the Commission changed the rules and 9 required now this type of very specific supporting 10 documentation. Notice pleading, that's essentially what his contention and most of the other 11 12 contentions consist of. Notice pleading is no 13 longer sufficient for admission of a contention 14under the Commission's rules.

JUDGE YOUNG: That is an argument. However, a lot of this case law is still valid, and a lot of it is based on similar language. The changes that took place -- and we're getting into an argument here that I'm not sure we need to get into. But the changes that took place did not change these particular provisions.

MR. FRANTZ: They did, I believe, in the late 1980s. These provisions were added to the rule.

JUDGE YOUNG: This was in 1999, the case that I cited to you.

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MR. FRANTZ: And, again, I understand that, and I would suggest that, again, language here in the rule is guite specific on the need for some support. I think the language you may have in mind pertains to more of contentions of omission where --

I see where you're going 6 JUDGE YOUNG: No. with this, but I think the problem here is that we've got a set of rules that are subject to widely 8 varying interpretations. Probably more time is spent on contention admissibility determinations 10 11 than most any other part of the adjudication process 12 in NRC practice, and probably the reason for that is because these rules are subject to interpretation, and they're constantly being argued over.

There's case law out there that's all over the map, as you know. We'll take your arguments under advisement. Does anyone have anything further you want to say?

> MR. EYE: I do not.

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MR. BIGGINS: No, Judge. I think we've pointed out what we MR. EYE: needed to, other than to say that we think that we've satisfied the criterion, whether it's based upon the case law interpretation or just the bare

language of the CFR itself, Your Honor, based upon

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1. the references that I made earlier to Dr. . 2 Makhijani's report and the Luminant decision to 3 pursue wind along with CAES. Thank you, Your Honor. 4 JUDGE YOUNG: Okay. All right. We're down to 5 the very last one, and I don't think we're going to take as long on this one, because this one involves 6 7 the terrorist issue that we've talked about before. Do you have anything you want to add at this point 8 9 about that? You've pretty much made your record, I 10 think, probably already. 11 MR. EYE: I have, except for one narrow legal 12 point, Your Honor, and I think that that -- one of 13 the reasons that we raised this contention is to 14 juxtapose the decision of the Ninth Circuit in San 15 Luis Obispo, a concerned mother's case that we cite 16 in our petition, with the NRC's very contrary policy 17 position that they've taken that they will not 18 require an analysis of the probability of terrorist 19 attacks in an environmental impact statement. 20 We have now in our country, as I mentioned, I 21 think, yesterday -- we're kind of on a collision 22 course, and it's -- we want to make sure that our 23 position is clear, that we believe as related to 24 Comanche Peak, there ought -- there should be a

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consideration of its proximity to Dallas-Fort Worth

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Airport and, for that matter, other airports in the region that would accommodate large commercial airliners, and the possibility of commercial airliners being used to attack the Comanche Peak reactors.

And although we recognize that the NRC has taken the policy position to reject the Ninth Circuit's opinion, we are asserting that the Ninth Circuit opinion should prevail, and if this appears that we are attempting to set the stage for a judicial challenge to the NRC's rule in the matter of Pacific Gas and Electric Company that we cite on page 44 of our petition, that would probably not be an unreasonable assumption on anybody's part.

15 We think this is an extremely important question, and it would be one thing if we were essentially alone in this position, but it -- I think we have to take it a bit more seriously when the Ninth Circuit is essentially saying the same thing. And I think significantly, that certiorari was denied by the Supreme Court in 2007, making -giving the Ninth Circuit's decision in the San Luis Obispo Mothers for Peace case at last in some respects a more viable, a more persuasive opinion. Separation of our powers in our country and in

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our constitutional-system is extremely important, and we recognize that the differences of opinion that exist between the Ninth Circuit in the third branch and the NRC in the first branch is permissible. It can happen in our system. It makes things very interesting and contentious and complex.

But when the decision has to be made ultimately about whether the issues regarding terrorist attacks by airplanes should be taken into account as a policy matter in issuing decisions, we have taken the position that the Ninth Circuit opinion should prevail, and that would mean that the NRC's position would have to yield.

So that is why we have raised this contention as a legal matter, but it is really raised because we are very concerned about the prospect of attacks by air on nuclear power plants, not only here but elsewhere. Thank you.

19 JUDGE YOUNG: Anything for -- you want to 20 respond?

21 If I may, just a few points. MR. RUND: Ι 22 mean, I think we addressed this pretty thoroughly yesterday, but I just want to note -- I don't have the citation in front of me, but I know there is Supreme Court case law out there that a denial of

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1	- cert should have no bearing on the merits of the
2	underlying Court of Appeals decision.
3	I'd also like to just note, unique to this
4	contention, the claims that the Petitioners have
5	just repeated about the location of the Dallas-Fort
б	Worth Airport are completely unsupported. They
7	essentially just say, it's a possibility, but they
8	provide no factual support as required by 10 CFR
9	2.309(f)(1)(v).
10	JUDGE YOUNG: Staff?
11 ·	MR. BIGGINS: Just very briefly, Judge. Thank
-12	you.
13	The Commission's position on the necessity of
14	examining the impacts of terrorism under NEPA, I
15	believe, is clear. Notwithstanding a recent
16	decision by the United States Court of Appeals for
17	the Ninth Circuit, holding that the NRC may not
18	exclude NEPA terrorism contentions categorically, we
19	reiterate our longstanding view that NEPA demands no
20	terrorism inquiry, and that was the Oyster Creek
21	case.
22	And so to that extent, the Staff believes that
23	the Third Circuit decision, which has upheld the
24	Commission's position, is what does apply in this
25	case. That's all I have. Thank you.
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- 1 -	JUDGE YOUNG: Anything further?
2	MR. EYE: I think not, Your Honor. Thank you.
3	JUDGE YOUNG: Well, we've enjoyed being with
4	you for two days here in Texas, and
5	MR. BIGGINS: Judge, sorry to interrupt. I do
б	have one general matter that I would like to
7	address, and that is the reference yesterday by
8	Judge Arnold to climate change studies which he said
9	he reviewed in response to this case, and I would
10	like to set forth that it's the Staff's position
11	that it's important that any matters that this Board
12	considers in order to reach its decision must be on
13	the record and that the Board must allow the Staff,
14	the Applicants, and the Petitioners an opportunity
15	to respond to any of those materials that may be
16	relied on by the Board.
17	I would point out: Judge Arnold didn't
18	indicate that he was relying on those studies, but I
19	just felt that it was necessary to raise that as an
20	issue.
21	JUDGE YOUNG: Do you know which can you
22	give them a reference to the specific study?
23	JUDGE ARNOLD: I really can't. I just
24	glanced I was just simply trying to establish
25	whether or not there was consensus that global
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- warming would lead to a reduction in rainfall, and all I really noted was they seemed to not be in agreement.

MR. BIGGINS: I don't think that contradicted my assumption that the Board would be relying on the record anyway. I just wanted to point that out. Thank you.

JUDGE YOUNG: All right. Before we leave, I think the only thing that we're still expecting is you were going to give us citations to the case law on commercial viability. You said you had some.

MR. FRANTZ: That's correct, and I will do that most likely after I get back to Washington, and I'll send a letter to the Board and copies to the parties.

JUDGE YOUNG: That's fine. Was there anything else? I don't think there was anything else left hanging, was there?

19 MR. BIGGINS: The Staff has nothing else. 20 Thank you.

21 MR. EYE: On behalf of Petitioner, I don't believe so, Your Honor. I think we were -- I think 23 we've gotten loose ends taken care of, or at least 2.4 as much as we can in this proceeding.

JUDGE YOUNG: All right. Well, again, we've

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1 -	enjoyed being with you here, and have a good trip
2	back for those of you who are leaving. And enjoy
. 3	the summer, for those of you who are staying.
4	MR. EYE: Thank you.
5	MR. BIGGINS: Thank you, Judge.
6	JUDGE YOUNG: That concludes this proceeding.
7	(Whereupon, at 2:55 p.m., the hearing in the
8	above-entitled matter was concluded.)
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CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of: - Luminant Generating Co., LLC

Name of Proceeding: Oral Arguments

Docket Number:

52-034-COL & 52-035-COL ASLBP No. 09-886-09-COL-BD01 Granbury, Texas

Location:

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

-Barbara Wall Official Reporter Neal R. Gross & Co., Inc.

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