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UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD

(ASLB)

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TELECONFERENCE

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In the Matter of: || Docket No.
 LOUISIANA ENERGY SERVICES, L.P. || 70-3103-ML
 || ASLBP No.
 (National Enrichment Facility) || 04-826-01-ML

Monday,
February 6, 2006

The above-entitled matter came on for hearing, pursuant to notice, at 11:00 a.m.

BEFORE:

- G. PAUL BOLLWERK, III, Chairman
- PAUL B. ABRAMSON, Administrative Judge
- CHARLES N. KELBER, Administrative Judge

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APPEARANCES:

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1 ALSO PRESENT:2 NRC STAFF:

3 TERRY ANNO

4 STAN ECHOLS

5 HARRY FELSER

6 MELANIE GALLOWAY

7 KEVIN MORRISSEY

8 JAMES PARK

9 BRIAN SMITH

10 BILL TROSKOSKI

11 JERRY VONANNO

12

13 LOUISIANA ENERGY SERVICES:

14 DAN GREEN

15 BARB HUBBARD

16 ROD KRICH

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

(11:05 a.m.)

1
2
3 CHAIRMAN BOLLWERK: All right. Why don't
4 we go on the record.

5 This is Judge Bollwerk, and with me here
6 in Rockville are Judge Abramson, our law clerk Bethany
7 Engle, and Judge Kelber is at -- is not in our office
8 today. He's at another location, but he has phoned
9 in. You're there, Judge Kelber?

10 JUDGE KELBER: Pardon?

11 CHAIRMAN BOLLWERK: I said, "You're
12 there?"

13 JUDGE KELBER: Yes.

14 CHAIRMAN BOLLWERK: All right. Let's go
15 ahead for the record and have the parties identify
16 themselves. Let's start with LES.

17 MR. CURTISS: Yes. This is Jim Curtiss,
18 counsel to LES. Rod Krich is on the line, as well as
19 Dan Green and Barb Hubbard.

20 CHAIRMAN BOLLWERK: All right. And then,
21 the NRC staff, please.

22 MS. CLARK: Yes. This is Lisa Clark.
23 Here with me today are Jerry Vonanno, Margaret Bupp,
24 Timothy Johnson, Harry Felsher, Kevin Morrissey, Brian
25 Smith, Bill Troskoski, Melanie Galloway, James Park,

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1 and Stan Echols.

2 CHAIRMAN BOLLWERK: All right. Did you
3 all fit in one room?

4 MS. CLARK: We've got a big conference
5 room.

6 CHAIRMAN BOLLWERK: All right.

7 (Laughter.)

8 Let me just check with the Court Reporter.
9 Did you get all of those names?

10 Hello? Is the Court Reporter there?

11 COURT REPORTER: I did get all those
12 names.

13 CHAIRMAN BOLLWERK: Okay. And you got all
14 of the spellings you need?

15 COURT REPORTER: Except for Echols.

16 CHAIRMAN BOLLWERK: Okay. If you could
17 spell that for him, please.

18 MR. ECHOLS: E-C-H-O-L-S.

19 CHAIRMAN BOLLWERK: Okay. E-C-H-O-L-S?

20 MR. ECHOLS: That's right.

21 CHAIRMAN BOLLWERK: Okay.

22 COURT REPORTER: Thank you.

23 CHAIRMAN BOLLWERK: All right. And,
24 again, being this is a conference call, to the degree
25 we can remember it would be good to identify ourselves

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1 as we speak. I would ask the Court Reporter, if at
2 any point he is uncertain about who is speaking, just
3 feel free to interrupt us, so that we can make sure
4 the record is clear.

5 All right. We have a couple of things on
6 the agenda this morning. We received an e-mail from
7 staff counsel on Friday about a possible conference
8 call to do some clarification with respect to the
9 mandatory hearing and some of the questions that the
10 Board had. We were able to set that up for this
11 morning.

12 Before we talk about the specific
13 questions that you had sent us, we received another
14 e-mail this morning indicating there was some question
15 about the MONK8 code and the way it was being dealt
16 with, and an indication that you would be providing
17 some clarification on that. Why don't we do that
18 first before we deal with the specific questions.

19 MS. CLARK: Okay. This is Lisa Clark of
20 the staff.

21 JUDGE KELBER: I'm having some terrible
22 interference on my phone line.

23 CHAIRMAN BOLLWERK: Judge Kelber, why
24 don't you hang up and call back.

25 JUDGE KELBER: I can't hear anybody. Hold

1 on for a second, please.

2 MR. CURTISS: I think he said, "Hold on
3 one second, please."

4 CHAIRMAN BOLLWERK: Yes. If you caught
5 the rest of that, let us know, Jim.

6 MR. CURTISS: I didn't. I caught every
7 other syllable I think.

8 CHAIRMAN BOLLWERK: It's a new form of
9 digitizing.

10 MR. CURTISS: I should have figured Judge
11 Kelber would do that.

12 (Laughter.)

13 CHAIRMAN BOLLWERK: It's the latest in
14 economizing on digital phone service. Maybe he's
15 using a Blackberry and his license has expired.

16 (Pause.)

17 Judge Kelber, have you tried to call in
18 again?

19 (No response.)

20 Judge Kelber?

21 JUDGE KELBER: Yes. Now we're okay. This
22 is better.

23 CHAIRMAN BOLLWERK: All right. That will
24 work better. All right.

25 Okay. We were then trying to get some

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1 clarification I guess relative to the e-mail we were
2 sent today about the MONK8 code, and let me turn to
3 Ms. Clark then.

4 MS. CLARK: Thank you. I have asked
5 Melanie Galloway of our staff to explain where we are
6 with the validation report.

7 MS. GALLOWAY: Okay. My name is Melanie
8 Galloway. I'm Chief of the Technical Support Group
9 here in the Division of Fuel Cycle Safety and
10 Safeguards. The group is responsible for criticality
11 safety reviews for fuel cycle facilities.

12 What we had planned when the licensee had
13 submitted a revised validation report was that they
14 needed to make a correction in the report for an error
15 that they had identified in terms of the distribution
16 of the data. Originally, they had assumed that the
17 data had a normal distribution. Upon looking at the
18 data again, LES determined that, in fact, the data had
19 a non-normal distribution.

20 And in correcting that error, that led to
21 an additional penalty in terms of the k-effective
22 needing to be taken in terms of the method they chose
23 and the incorporation of that method into the
24 validation report. In doing that, when we looked at
25 the validation report, we saw that the k-effective

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1 value which would be derived from the validation
2 report was not now directly aligned with the value of
3 the k-effective included in the license and supported
4 by our SER, such that it was less conservative than
5 what we had previously reviewed and approved.

6 We have been discussing this issue
7 diligently with LES. They are aware fully of the
8 issues and are taking a look at what alternate
9 critical benchmark experiments might be applicable in
10 a way that it would demonstrate to us that perhaps the
11 data could be a normal distribution, and that they
12 would not have to take the penalty in the last version
13 of the validation report we had seen. So this is an
14 ongoing discussion.

15 In addition to looking at the data and
16 other critical benchmark experiments which might be
17 available and applicable, we are also exploring with
18 LES the possibility of combining a quantitative
19 argument with a qualitative argument, which could
20 demonstrate the appropriate k-effective limit which
21 would ultimately be seen by LES in operation.

22 Right now, we are hopeful that through
23 these discussions and adequate technical bases we can
24 demonstrate a k-effective of .95, which is still in
25 the license. However, we are also exploring the

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1 possibility that other values may ultimately need to
2 be where we end up in light of the need to combine a
3 quantitative and perhaps a qualitative argument.

4 So that's the high-level view of where we
5 are and how the situation arose and the discussions
6 that are ongoing.

7 JUDGE KELBER: This is Judge Kelber.
8 Specifically, which data are you referring to?

9 MS. GALLOWAY: The LEU and the HEU data
10 that had originally been in the first validation
11 information we had seen at --

12 JUDGE KELBER: When you say LEU and HEU
13 data, a) there were no HEU data, and what -- but
14 specifically, what data? An enrichment?
15 A K-effective? What?

16 MS. GALLOWAY: The critical benchmarks
17 that LES has first relied upon were LEU and HEU data.

18 JUDGE KELBER: No, they were only -- well,
19 okay, they were all thermal. That's correct, yes.

20 MS. GALLOWAY: Yes. And so they had
21 recorrected and found that there was a non-normal
22 distribution. So now they've --

23 JUDGE KELBER: A non-normal distribution
24 of what? What was not normally distributed?

25 MR. FELSHER: This is Harry Felsher. I'm

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1 the criticality safety reviewer.

2 JUDGE KELBER: Yes.

3 MR. FELSHER: When LES took another look
4 at the benchmark experiments and determined that the
5 -- when they ran the -- those experiments they got
6 certain results, k-effective results, and when they
7 plotted those k-effective results, the results were
8 not normally distributed. Therefore --

9 JUDGE KELBER: The k-effective results
10 were not normally distributed about one, is that what
11 you mean? These are critical experiments. The k-
12 effective should be close to one.

13 MR. FELSHER: Yes, they should be.

14 JUDGE KELBER: Yes. And they were all
15 greater than one or less than one, is that what you're
16 saying?

17 MR. FELSHER: They were -- some were less
18 than one, some were greater than one.

19 JUDGE KELBER: Okay.

20 MR. FELSHER: This was not a normal
21 distribution.

22 MS. GALLOWAY: Right.

23 JUDGE KELBER: What was not normal, the
24 deviation from one? I'm trying to get straight what
25 was not normally distributed.

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1 MR. FELSHER: The results of k-effective
2 calculations ranged from values that were less than
3 one to values that were greater than one.

4 JUDGE KELBER: Yes.

5 MR. FELSHER: It is not necessary that a
6 validation report show that the distribution was
7 normal around 1.0, simply that it was a normal
8 distribution.

9 JUDGE KELBER: Oh, no. I think that's a
10 very, highly fallacious assumption on your part.
11 Highly fallacious. But that's not specific to the
12 questions I have raised. I think you're pursuing
13 something which has -- which is absolutely irrelevant
14 to almost anything I can think of. But it has no --
15 no connection at all with the questions I have raised.

16 MS. GALLOWAY: And that's fine, but we
17 felt we had an obligation to inform the Board of this
18 current issue which --

19 JUDGE KELBER: Yes. But this issue is a
20 non-issue. Let's move on.

21 CHAIRMAN BOLLWERK: All right. They're
22 going to work it out, and you'll let us know when you
23 get it worked out, right? And you'll tell us what the
24 proposition is. I think we would like -- given that
25 it has been raised, and given we have the e-mail, I

1 think we would like to know what the resolution of it
2 is eventually.

3 MS. CLARK: Absolutely.

4 CHAIRMAN BOLLWERK: Whenever that --
5 whenever that point -- whenever it comes to that
6 point.

7 All right. Let's, then, go to the
8 questions. Let me start with the environmental
9 questions first, and then we'll work back into the
10 other ones. In terms of question 1, which is number 8
11 on the list of clarifications to the mandatory hearing
12 questions we were sent this morning dealing with the
13 market analysis, I think Judge Abramson wants to say
14 a couple of words about that.

15 JUDGE ABRAMSON: Well, our view is that
16 you have to do something -- staff has to do something
17 for its needs analysis. We're not going to tell you
18 what you've got to do. We simply told you that we
19 thought that the applicant did a pretty thorough job.
20 So you have to do a needs analysis that satisfies
21 NEPA. We don't think you did it, so do something.

22 And if your needs analysis is as simple
23 as, "This is needed for national security," and you're
24 comfortable making that case, make it. I mean, this
25 is a cost-benefit analysis. You've got to look at the

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1 lost of building the facility, and the benefits of --
2 the environmental costs of building it, and the
3 benefits of building it.

4 If the benefit satisfies a single need,
5 tell us. If it satisfies other needs, tell us.
6 That's all.

7 CHAIRMAN BOLLWERK: The only thing I would
8 add to that is there seemed to be -- the staff seemed
9 to be raising a legal concern or a concern about the
10 scope of NEPA. Again, if you have some argument that
11 you want to make about what you normally do, what you
12 -- you think the Board is asking you to do something
13 that's inappropriate based on how you read NEPA, that
14 can be part of your analysis as well.

15 And then, we'll have to sort through that,
16 but I think, as Judge Abramson indicated, we do need
17 some additional -- from our viewpoint, we need some
18 additional information at this point.

19 In terms of the second NEPA question,
20 which deals with the uranium hexafluoride cylinder
21 rupture, the focus of the question was actually, if
22 you look at page -- it's C-25 of the final
23 environmental impact statement, the focus of the
24 question was the second paragraph at the top of the
25 page, the second full paragraph at the top of the page

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1 that deals with the question of the emergency plan
2 that LES is committed to in mitigating accidents to
3 reduce the consequences of the event.

4 Having said that, we certainly don't have
5 any objection -- and, in fact, it would probably be
6 useful for the record to deal with the first paragraph
7 as well, where there is some description of what the
8 -- what LES has identified as the items relied on for
9 safety, the IROFFs.

10 Certainly, the record would be more
11 complete, and probably a good idea given that this
12 accident, while the staff is maintaining is low -- low
13 probability, does have some significant consequences.
14 So I -- I guess from my perspective it would certainly
15 be useful for the staff, if it wishes to, to develop
16 the record a little further in terms of not only how
17 they're going to mitigate the accident if it occurs,
18 but how they -- taking measures to prevent it from the
19 -- in the first instance.

20 All right. Does that -- let me just stop
21 there. Is there anything further on NEPA questions 1
22 or 2?

23 MS. CLARK: No, nothing further from
24 staff.

25 CHAIRMAN BOLLWERK: Okay. Anything from

1 LES?

2 MR. CURTISS: The only observation I'd
3 make on question number 1, Your Honor, is that in part
4 it overlaps with questions that were litigated last
5 February. And so there is a record that addresses
6 some of this, but I understand Judge Abramson's
7 question about additional material that you'd like to
8 see.

9 CHAIRMAN BOLLWERK: All right. And,
10 again, we're not excluding or prohibiting anybody from
11 raising any kind of legal arguments they want to make
12 in terms of they think that the following goes outside
13 the scope of NEPA. Having said that, the Board does
14 believe at this point there needs to be some
15 additional discussion.

16 In terms of the other questions, I don't
17 know if -- let me just go -- go through those briefly,
18 and I'll -- I'm going to turn to Judge Kelber to see
19 if he has anything to add, given the way these are
20 framed. In terms of ASLBP order question number 5, is
21 there anything you wanted to say on that, Judge
22 Kelber?

23 JUDGE KELBER: First of all, the
24 description of the process by which IROFFs were
25 developed is not relevant to the concern that I have,

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1 which is that Chapter 5 of the SER just cannot stand
2 on its own. But the second question that the staff
3 has raised, do the -- a separate bias should be
4 evaluated for a subset of questions, of calculations.
5 Yes. Absolutely.

6 No Monte Carlo code and cross-section
7 combination shows the same bias for all situations.
8 And the bias applied by just taking a whole range of
9 calculations, including some which are way
10 overmoderated, is meaningless. It is well known in
11 Monte Carlo technique that with a given cross-section
12 set you can have different types of biases for
13 different types of cores, different types of
14 configurations.

15 Let me move on. Question number 6, the
16 question is non-moderated containers. You have
17 containers of enriched material sitting out on the
18 dock. The applicant went to significant lengths to
19 calculate what would happen if there were an accident
20 in which the cylinders were dispersed on the concrete,
21 and the cylinders were reflected by -- perhaps by
22 water and certainly by concrete.

23 The calculation I have no problem with.
24 The question I have is validation that MONK8 with
25 JEF 2.2 has a -- at least a positive bias or a very

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1 small negative bias with respect to unmoderated cores.
2 It's as simple as that.

3 Also, I notice that in the -- in Chapter 5
4 there is a reference to reflected situations, and I'm
5 trying to find that right now. It's on page 5-19.
6 It's entitled "Reflection." Now, that's reflection of
7 unmoderated cores.

8 Now, how do you know? That's all I'm
9 asking. It's not in the validation report, but there
10 are other validation reports out there in the
11 literature. Take a look.

12 I don't know -- on question number 7, I
13 don't recall what that was. That was -- okay. Is
14 that -- was that the question on correlating the
15 IROFFs?

16 MR. CURTISS: Yes.

17 JUDGE KELBER: Yes, I would -- that would
18 help me anyhow, if you can do that.

19 Now, the validation in MONK8, their
20 validation report was indeed based on thermal -- not
21 thermal neutron interactions, but thermal criticals.
22 However, there are other validation reports out there
23 in the literature. They do include cases in which the
24 core was unmoderated. They do have cases with and
25 without reflections.

1 But, I'll be honest with you, I think the
2 unresolved RESNES question is of -- not of
3 significance here. I would appreciate it, if you have
4 the time, to look into it. But it's of less
5 importance than the other things.

6 Now, getting back to the question of the
7 normal distribution, if I have 25 different critical
8 configurations, and I use a given code and cross-
9 section set to calculate the k-effective of those
10 calculations, I have no reason whatsoever to expect
11 that my results will be normally distributed at about
12 one.

13 But if I take a simple -- a single case,
14 and I calculate the k-effective using different source
15 distributions, or different numbers of histories, or
16 any of a number of different factors, again, I have no
17 reason whatsoever to expect a normal distribution.
18 And, in fact, in many cases I can show that there will
19 not be a normal distribution. Ely Gelbard
20 demonstrated this many, many years ago.

21 CHAIRMAN BOLLWERK: These guys don't
22 remember Ely, Charlie.

23 JUDGE KELBER: Well, it's in the
24 literature. In fact, MCNP Version 5 goes to great
25 lengths to avoid the problems cited by Ely. I don't

1 know whether MONK8 goes to similar lengths.

2 MS. CLARK: Judge Kelber, when we look at
3 k-effective data distributed from various criticality
4 benchmark experiments, we do ask licensees to
5 determine whether the data is normally distributed or
6 non-normally distributed.

7 JUDGE KELBER: Why?

8 MS. CLARK: It's not a question about
9 whether or not it's about one. It's just whether the
10 overall distribution of the data is normal or not.

11 JUDGE KELBER: Why should it be?

12 MS. CLARK: But it's not --

13 JUDGE KELBER: Why should it be normal?

14 MS. CLARK: It doesn't have to be normal.
15 That's what I wanted to mention. It doesn't have to
16 be normal.

17 JUDGE KELBER: It doesn't have to be
18 anything. I mean, I expect that some calculations
19 will be over, some will be under. In the case of
20 MONK8 and JEF 2.2, there is a report in the open
21 literature in which it is uniformly, I believe for
22 quite a few cases, a large number of cases, it is
23 uniformly high -- over one, but nobody expects that
24 the -- in other words, it is conservative.

25 On the other hand, if you go to the

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1 plutonium cases, it is non-conservative. But nobody
2 expects that the difference between the predicted
3 k-effective and one should be normally distributed.
4 These are different cases. There are different
5 sources of error.

6 MS. CLARK: It's not the distribution
7 about one that we're interested in. Kevin Morrissey
8 can provide a little bit more explanation.

9 MR. MORRISSEY: Hello, Judge. In this
10 case, when we talk about a normal distribution, it's
11 only the statistics --

12 CHAIRMAN BOLLWERK: One second. He needs
13 to get a little closer to the telephone if he can.

14 MR. MORRISSEY: All right. In this case,
15 we are talking about a normal distribution. We're
16 only talking about the ways to find statistics. We
17 want the data to fall within a 95 percent confidence
18 level.

19 JUDGE KELBER: Now, that's for each result
20 you do that with a Monte Carlo code.

21 MR. MORRISSEY: That's actually for the
22 data itself. The data to -- if it falls in a normal
23 distribution, you have a 95 percent --

24 JUDGE KELBER: So you're talking about a
25 single calculation for -- a single critical

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1 experiment, and I'm calculating the k-effective as
2 best I can. And I can predict from the statistics for
3 that calculation whether or not it's a normal
4 distribution. Do you mean that for each calculation
5 they want a normal distribution?

6 MR. MORRISSEY: That's true. For each
7 calculation, you do want a normal distribution. But
8 when you look at the results of all of the
9 calculations -- say you run 100 critical experiments.
10 You want all of those k-effective data, the results of
11 that, to fit into a normal distribution, such that the
12 probability that you'll be -- 95 percent probability
13 of --

14 JUDGE KELBER: Okay. That's just for your
15 sigma bias.

16 MR. MORRISSEY: Right. So that that bias
17 that you calculate has this statistical --

18 JUDGE KELBER: You've made an enormous --
19 in doing that, you're making an enormous assumption
20 about the -- the distribution of results in Monte
21 Carlo calculations. There is absolutely no
22 theoretical foundation for that whatsoever.

23 However, if the sigma -- if the bias is,
24 in fact, always positive, as it is for most of the --
25 most of the MONK8 cases with JEF 2.2 using uranium,

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1 then you have no problem. The problem comes in when
2 you're -- when you have negative results, which you
3 might have in some of these lower moderated cases.
4 But deal with that as best you can.

5 My point is that your assumption that the
6 -- that those -- those numbers have to be normal is --
7 is, a) wrong, but b) it's beside the point. As long
8 as the bias is positive, you set it to zero, that's
9 fine. I have no problem with that.

10 MS. CLARK: And, again, we have methods to
11 look at the data distribution, whether it's normal or
12 non-normal.

13 JUDGE KELBER: Okay, fine. Do what you
14 will.

15 MS. CLARK: Just to make sure that we're
16 being clear on our communication.

17 JUDGE KELBER: Okay.

18 MR. MORRISSEY: That is only a method. If
19 it's not normal, they have to assume the lowest value.

20 JUDGE KELBER: Fine. That's exactly the
21 way to do it.

22 CHAIRMAN BOLLWERK: All right. Is
23 everybody clear? I don't necessarily want to have the
24 mandatory hearing today, but --

25 (Laughter.)

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1 -- I do want to make it -- I want to make
2 sure that we're communicating clearly in terms of the
3 question. Is everybody on the same page now, or not?
4 Judge Abramson is shaking his head saying no, but
5 maybe this is something we can -- again, this is what
6 the mandatory hearing is for in part, to resolve these
7 sorts of questions.

8 So, but we do want to make sure the
9 questions, at least from -- from the staff
10 perspective, has been put out clearly. Now, there may
11 be some disagreement here about how to answer it, but
12 we can deal with that later.

13 Judge Kelber, what about the other items?

14 JUDGE KELBER: Do you mean the ones from
15 the October hearing?

16 CHAIRMAN BOLLWERK: Let's see. Well,
17 there was -- let's see, we've dealt with I think --
18 I've got at least through number 3 on the staff's
19 list. There was a fourth one about -- maybe we've
20 already dealt with this one -- a question about a
21 typographical error in the question --

22 JUDGE KELBER: No, we dealt with that.

23 CHAIRMAN BOLLWERK: Okay. Validation was
24 based on, for number 5, thermal neutron interaction.

25 JUDGE KELBER: That point is that -- that

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1 if they are -- staff is going to say that the -- the
2 reflection case mentioned on 5-19 is handled
3 correctly, then they have to somehow validate the
4 application. This requires them to look up another
5 validation report. It's in the open literature. I've
6 seen it.

7 CHAIRMAN BOLLWERK: Okay.

8 JUDGE KELBER: They can use Google, they
9 can use Yahoo, they can Ask Jeeves, they can go to
10 MSN, any number of search engines that they can find
11 the report. I would like to see it referenced. The
12 whole idea is that anyone -- that someone who is
13 technically astute reading this report should look at
14 -- be able to look at Chapter 5, as supplemented by
15 the record, and say, "Yes, this stands up."

16 MS. CLARK: Judge Kelber, on this
17 particular issue, I believe that the applicant was
18 going to provide this information, since it is their
19 validation report.

20 JUDGE KELBER: Fine. Fine. I don't care
21 who -- who supplies it. I just want it on the record.
22 But you mentioned it in the SER, and so I want to have
23 that -- have it clear.

24 MS. CLARK: Very well. Right.

25 CHAIRMAN BOLLWERK: Anything LES wants to

1 say on this point?

2 MR. CURTISS: Let me just -- this is Jim
3 Curtiss, Your Honor. Let me just turn to Rod Krich
4 and ask if he has any questions so far.

5 MR. KRICH: No, I think I understand the
6 Judge's point.

7 Dan, did you have anything?

8 MR. GREEN: No, we don't have anything
9 from this end.

10 MR. KRICH: All right.

11 MR. CURTISS: Thank you.

12 CHAIRMAN BOLLWERK: And, again, let me
13 just, in terms of -- I guess we've basically dealt
14 with 1 through 5 at this point. Does the staff have
15 anything else on any of these?

16 MS. CLARK: Yes. Could you give us a few
17 moments, please?

18 CHAIRMAN BOLLWERK: Certainly.

19 MS. CLARK: I'll put you on mute for a
20 minute.

21 (Pause.)

22 MS. CLARK: Hi. This is Lisa Clark again.
23 I think we still need some additional clarification,
24 and I think it might be best if we just did it
25 question by question, so we can ask our specific

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1 questions as we go along. And if we could, we'd like
2 to start with question number 5.

3 CHAIRMAN BOLLWERK: Okay.

4 MS. CLARK: Once again, I just want to be
5 clear as to what -- what you're requesting with regard
6 to the bias.

7 JUDGE KELBER: We want -- if I were going
8 to look at a number of cases based on HTU ratios
9 ranging from 10 to 14, then I would calculate the bias
10 based on the verification and validation report for
11 those cases. I wouldn't include cases with moderation
12 ratios of 1,300, for example, because I expect that
13 the bias will change with the moderation ratio.

14 MS. CLARK: Okay. Thank you. That -- I
15 think that clarifies that -- do you have any
16 additional questions, anyone?

17 Okay. The other aspect of this question
18 mentions IROFF. And also, that's -- the IROFFs are
19 also mentioned in questions 6 and 7 with regard to the
20 Table 7-3.

21 JUDGE KELBER: Yes.

22 MS. CLARK: It's my understanding -- and
23 staff can help me here -- that the Table 7-3 does not
24 represent any calculations specific to the enrichment
25 facility. These were simply runs on different

1 computers to see if the results were the same.

2 JUDGE KELBER: No. My understanding is
3 there is -- there is various calculations for piping
4 of one sort or another. Maybe I misunderstand 7-3.

5 I would like to know the association
6 between the various calculations and the IROFFs. If
7 it's not Table 7-3, then this other one. But that's
8 -- that is the question. In other words, how do the
9 criticality calculations in the validation report
10 relate to the IROFFs?

11 MS. CLARK: Okay. I'd like to have --
12 Harry Felsher can speak to this. He is our
13 criticality reviewer.

14 MR. FELSHER: Okay. Judge, the
15 calculations in the validation report have no
16 relationship to IROFFs.

17 JUDGE KELBER: I don't think that's
18 correct.

19 MR. FELSHER: Well, 7-3 --

20 JUDGE KELBER: I'm looking at -- at the
21 SER, and I see various cases. And, for example, you
22 have in the very start a table -- let's see if I can
23 locate it correctly. Yes, Table 5.3-1, Safety
24 Criteria. You have a critical value, a safe value, a
25 safety factor.

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1 Now, those critical values are derived
2 from something. Okay?

3 MR. FELSHER: Those are based on standards
4 that have been developed.

5 JUDGE KELBER: Fine. And those are
6 related to the IROFFs in one way or the other.

7 MR. FELSHER: There is no link between
8 IROFFs and what's in the validation report.

9 JUDGE KELBER: In that case, I don't think
10 the IROFFs mean a thing. I would like to have an
11 explanation of the IROFFs and their relationship to
12 criticality. The applicant did a great deal of work
13 in this area, and maybe the applicant can explain it,
14 because you obviously don't understand. I don't
15 understand how you can have a safe value and an IROFF
16 which are completely unrelated.

17 MR. FELSHER: We're talking about the
18 validation and verification report, which is what I
19 thought we were talking about.

20 JUDGE KELBER: No. What I'm talking about
21 is Chapter 5 of the SER.

22 MR. FELSHER: The applicant will do
23 criticality calculations, and those are -- they are in
24 criticality safety analyses or evaluations or some
25 document like that.

1 JUDGE KELBER: Yes, they are.

2 MR. FELSHER: That gets fed into the
3 integrated safety analysis, which then gets --

4 JUDGE KELBER: That doesn't get fed into
5 it. It's the basis of these -- of these various
6 safety criteria and IROFFs. And I would like to know
7 what the relationship is. For example, you have
8 IROFFs regarding the cylinders. There are
9 calculations done for the cylinders. What's the
10 connection? It's as simple as that.

11 MS. CLARK: We can talk about the
12 relationship between the safety criteria in
13 Table 5.3-1 and IROFF.

14 JUDGE KELBER: And I'd like to know the
15 technical basis for 5.3-1.

16 MS. CLARK: We can do that.

17 JUDGE KELBER: Okay. I hope you can.

18 CHAIRMAN BOLLWERK: All right? Now,
19 again, Judge Kelber is expressing I guess some
20 skepticism about certain things here, and obviously
21 the staff has to --

22 JUDGE KELBER: I think they have to do a
23 lot of homework and think about -- about this. I must
24 say, I am amazed at the contrast between the work done
25 here and the work done with the mixed oxide fuel

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1 fabrication facility, where there was highly detailed,
2 in some cases too detailed, examination of the
3 criticality questions. I don't understand how the
4 same organization can take two such different
5 approaches.

6 CHAIRMAN BOLLWERK: Okay. Let me just
7 jump over to -- well, actually, does the staff have
8 anything else? You were going to -- I guess to
9 different questions.

10 JUDGE KELBER: In the summary you
11 presented earlier, there are some questions about --
12 that came from the mandatory hearing.

13 CHAIRMAN BOLLWERK: Question 6?

14 JUDGE KELBER: And there was a question --
15 yes. And there was a part on the seals. I don't
16 think it's necessary for -- let's see. I mean, let me
17 find it here. It's --

18 CHAIRMAN BOLLWERK: Question B is the
19 seals question. And then, there was a question
20 down --

21 JUDGE KELBER: Yes.

22 CHAIRMAN BOLLWERK: -- about whether there
23 needed to be public information or --

24 JUDGE KELBER: Yes.

25 CHAIRMAN BOLLWERK: Yes.

1 JUDGE KELBER: I'm willing to take public
2 assurance that the seals are impervious to attack, and
3 let it go at that. I don't think we need to have a
4 detailed discussion.

5 On Part B, it may be that a quantitative
6 analysis isn't needed, but I sure don't believe that
7 having something that hasn't happened for 30 years be
8 a justification for a very low likelihood that
9 something will not happen.

10 This is question B, B as in boy. Provide
11 a quantitative analysis, preferably a fault tree
12 diagram, of the probability of significant water vapor
13 intrusion with respect to criticality safety. It is
14 claimed to have a very low likelihood of happening.
15 Something more than qualitative is needed.

16 The only evidence that is out there to
17 support that is it hasn't happened for 30 years. That
18 means it has less than a three percent chance of
19 happening for a year. That's not low likelihood.

20 CHAIRMAN BOLLWERK: Do you have anything
21 else on question 6?

22 JUDGE KELBER: Me?

23 CHAIRMAN BOLLWERK: Yes.

24 JUDGE KELBER: No.

25 CHAIRMAN BOLLWERK: All right. Let me

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1 just go back to the staff and see if there's anything
2 on 1 through 5 that we were talking about that you
3 still might need to talk with the Board about.

4 MS. CLARK: I don't believe so.

5 CHAIRMAN BOLLWERK: Okay. And let me just
6 jump down -- I'm going to come back to question 6 in
7 a second. But in terms of question 7, which talks
8 about the adequacy of Chapter 5, I recognize that's
9 related to what we've talked about. Is there anything
10 there that we need to talk about any further?

11 MS. CLARK: I don't think so.

12 CHAIRMAN BOLLWERK: All right. Let me
13 then jump back to question 6, and there was a point
14 raised about -- is question A above, which was a
15 restatement from the October hearing, the same as
16 ASLB's question 1 on financial assurance, which we've
17 put out in the recent order. And I'll let Judge
18 Abramson say something about that.

19 JUDGE ABRAMSON: Well, I haven't -- what
20 you've culled out of the hearing record was a general
21 question, and what we tried to do in our order was to
22 give you a specific case. Obviously, we're interested
23 in the general issue, which is what we raised in the
24 hearing. But we thought by laying out a specific
25 instance that it might get your focus right.

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1 CHAIRMAN BOLLWERK: Okay. Any questions
2 about that?

3 MS. CLARK: No questions.

4 CHAIRMAN BOLLWERK: Okay. Let me -- let's
5 see. I think we've answered the next paragraph
6 question B. I think Judge Kelber just dealt with
7 that.

8 In question B, I think Judge Kelber has
9 indicated that he doesn't believe to answer his
10 question it's necessary to have any non-public
11 information. Having said that, if there is some
12 additional discussion once we see the answer and have
13 any questions about it, would the type of material
14 you're talking about be something that we could close
15 the room in Hobbs and discuss, or is it something we'd
16 need to do back here in Rockville?

17 MR. KRICH: Judge, this is Rod Krich. I
18 think that if we get into that level of detail, the
19 information would be what's called dual use
20 information.

21 CHAIRMAN BOLLWERK: All right.

22 MR. KRICH: And I guess -- and I'd have to
23 check with the staff, but I -- I think we could do it
24 in closed session, but I'd have to check with the
25 staff.

1 JUDGE KELBER: Well, if it's dual use, we
2 might want to do it here in -- do it in Rockville.
3 But I don't think it will be necessary. I think we
4 need some assurance that the hydrogen fluoride won't
5 degrade the seals.

6 CHAIRMAN BOLLWERK: All right.

7 JUDGE KELBER: I don't think we need to go
8 into great details, but we need some sort of
9 assurance. It's just a topic which was simply
10 overlooked or omitted or whatever.

11 CHAIRMAN BOLLWERK: This is for the SER,
12 you're thinking, Charlie, right?

13 JUDGE KELBER: Yes.

14 CHAIRMAN BOLLWERK: Yes. All right. Let
15 me just go through -- I think there's a couple other
16 -- in question E above, note that under dry conditions
17 criticality is not possible. The assay levels
18 applicable to the LES facility, anything we need to
19 say about that? No?

20 (No response.)

21 Question F. This appears to be the same
22 as question 5. Note that an overall positive bias is
23 not used by LES, nor is it allowed by the NRC.
24 Anything further we need to say on that?

25 JUDGE KELBER: I think we've covered that.

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1 CHAIRMAN BOLLWERK: We've covered that?
2 And then, let's see, is question G the same as
3 order 8? And I believe we've dealt with that as well.

4 JUDGE KELBER: Yes.

5 CHAIRMAN BOLLWERK: Okay. All right. Let
6 me just stop there, then, and see, is there anything,
7 in terms of these questions or anything else, that
8 either the staff or LES has for the Board relative to
9 the mandatory hearing?

10 MS. CLARK: No.

11 CHAIRMAN BOLLWERK: Okay. Again --

12 JUDGE KELBER: Just let me make sure staff
13 understands what we're looking for on the safety side
14 of the Reg Guide usage and the SRP usage. Was our
15 order quite clear about what we need from you?

16 MS. CLARK: I believe so.

17 JUDGE KELBER: Okay. The more detail you
18 give us there the better. I'm hoping we don't wind up
19 with something that's too superficial, and we wind up
20 then having to come back to you after the mandatory
21 hearing. So more is better than less on that.

22 CHAIRMAN BOLLWERK: Let me go back, given
23 the discussions we've had today, to a question we've
24 raised before. And recognizing that there's a -- in
25 part, it depends on what the Board's involvement --

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1 perhaps in large part it depends on what the Board's
2 questions are and the kind of dialogue we have out
3 there.

4 Does anyone anticipate at this point that
5 we're going to need more than two days to conduct the
6 mandatory hearing, in terms of the staff or LES?

7 MR. CURTISS: I'll defer to the staff
8 first. This is Jim Curtiss.

9 CHAIRMAN BOLLWERK: All right.

10 MS. CLARK: Difficult to say. I think two
11 days should be sufficient.

12 CHAIRMAN BOLLWERK: All right. Well,
13 again, I mean, we have three days. The particular
14 hearing room is reserved for three days, so we
15 certainly can go to a third day if we need to. But it
16 doesn't sound at this point as if you all believe
17 we're going to need that.

18 All right. I've heard what you have to
19 say, and we'll do whatever planning is necessary from
20 there. But we do have the opportunity for the third
21 day if we need it, so in terms of at least the
22 availability of the facility.

23 At this point, let me just -- Judge
24 Kelber, do you have anything further?

25 JUDGE KELBER: No.

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1 CHAIRMAN BOLLWERK: All right. We will
2 need to call you briefly after this --

3 JUDGE KELBER: Yes. I'll be awaiting your
4 call.

5 CHAIRMAN BOLLWERK: Appreciate it.

6 In terms of the transcript, I believe we
7 at least requested three-day. I don't know if LES
8 requested something else.

9 MR. CURTISS: We have not yet, but could
10 I request, Eric, to have overnight delivery of the
11 transcript, please. I assume he's on mute.

12 COURT REPORTER: I am on mute. Sorry
13 about that.

14 MR. CURTISS: That's all right. Could LES
15 have overnight delivery of the transcript, please?

16 COURT REPORTER: Are we still on the
17 record?

18 CHAIRMAN BOLLWERK: Let's go off for one
19 second.

20 (Whereupon, at 11:50 a.m., the
21 proceedings in the foregoing matter went
22 off the record briefly.)

23 CHAIRMAN BOLLWERK: Okay. If we could go
24 back on the record, then.

25 We're going to -- the Court Reporter is

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1 going to be looking into the question of overnight
2 delivery for LES.

3 At this point, then, let me -- anything
4 else from either of the parties with respect to the
5 mandatory hearing?

6 MS. CLARK: Not from the staff.

7 MR. CURTISS: Nothing from LES.

8 CHAIRMAN BOLLWERK: All right. And I --
9 you all should have received, and we've put out
10 actually a press release, relative to the limited
11 appearance sessions, and we'll see, you know, what
12 sort of responses we get. And we'll be looking at the
13 sessions, both on Sunday afternoon and Monday evening,
14 to see whether there's sufficient interest in the
15 Hobbs area.

16 Let me just ask, does LES anticipate that
17 we would see some of the individuals from the use area
18 again?

19 MR. CURTISS: Yes, it's entirely possible.
20 We -- I think we will be able to give you a better
21 sense based upon the folks in New Mexico how many
22 individuals might attend and on which days, to the
23 extent that we get a preliminary view about that. But
24 there may be some overlap with the individuals who
25 were at the previous limited appearance session.

1 CHAIRMAN BOLLWERK: Again, we have no
2 problem with that. I think the only -- as the order
3 indicated, the only thing we would generally do,
4 especially if there's a number of individuals, we
5 might move them back in the queue to let those folks
6 that haven't had a chance to say anything say
7 something first.

8 MR. CURTISS: Yes. And I've relayed that
9 to LES. We'll also, to the extent possible, try to
10 organize these so that they appear on one day or the
11 other, knowing the Board's desire to complete this as
12 efficiently as possible.

13 CHAIRMAN BOLLWERK: Again, we don't have
14 a problem with Sunday or Monday having them, assuming
15 there's someone there that wants to speak to us. So
16 we're just trying to make sure that we're going to be
17 there for a purpose.

18 MR. CURTISS: Okay.

19 CHAIRMAN BOLLWERK: All right. So, again,
20 we were trying to set them up so that -- to make it so
21 that individuals who had something on a weekday
22 evening could come on a weekend, or vice versa. That
23 was our intent.

24 MR. CURTISS: I think it's likely that
25 you'll have some individuals on both Sunday and

1 Monday, but I'll -- to the extent that I can get a
2 preliminary read on that, I'll call Beth Engle and let
3 her know.

4 CHAIRMAN BOLLWERK: All right. And,
5 again, we've also left it open, so that if we finish
6 with everyone that's there within, you know, a half an
7 hour, 45 minutes, or an hour, then we also can
8 terminate the session at that point.

9 So all right. We will see you all next
10 Monday. I believe we're set to start at 9:00, and we
11 will have the evidentiary hearing on the couple of
12 cost issues that we need to deal with.

13 If there's nothing else at this point,
14 appreciate you all making yourselves available. I'm
15 glad we could do this on short notice. And if
16 something else comes up, again, there is some -- some
17 and give and take going on here. That's part of the
18 process. And if you have anything further, let us
19 know and we'll be glad to talk with you again on the
20 mandatory hearing issue.

21 Thank you, everyone. Have a good day.

22 (Whereupon, at 11:53 a.m., the
23 proceedings in the foregoing matter were
24 concluded.)

25

CERTIFICATE

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

Name of Proceeding: Louisiana Energy Service, LP

Docket Number: 70-3103-ML

ASLBP No. 04-826-01-ML

Location: teleconference

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.



Eric Hendrixson
Official Reporter
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