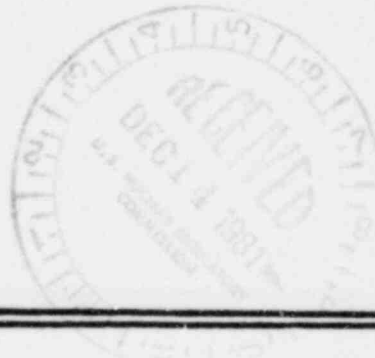


NUCLEAR REGULATORY COMMISSION

ORIGINAL



In the Matter of:

HOUSTON LIGHTING AND POWER COMPANY)

) DOCKET NO. 50-466 CP

Allens Creek Nuclear Generating)
Station, Unit 1)

)

DATE: December 9, 1981

PAGES: 21103 thru 21326

AT: Houston, Texas

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1 UNITED STATES OF AMERICA
2 BEFORE THE
3 NUCLEAR REGULATORY COMMISSION
4

5 In the Matter of:)
6 HOUSTON LIGHTING & POWER)
COMPANY) Docket No. 50-466 CP
7)
Allens Creek Nuclear)
8 Generating Station, Unit 1)

9 Advocacy Auditorium
10 South Texas College of Law
11 1303 San Jacinto Street
Houston, Texas

12 Wednesday
13 December 9, 1981

14 PURSUANT TO ADJOURNMENT, the above-
15 entitled matter came on for further hearing at 9:00 a.m.

16 APPEARANCES:

17 Board Members:

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I N D E X

	<u>WITNESSES</u>	<u>DIRECT</u>	<u>VOIR DIRE</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>	<u>BOARD EXAM.</u>
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28	By Judge Linenberger						21277

E X H I B I T S

	<u>NUMBER</u>	<u>IDENTIFIED</u>	<u>RECEIVED</u>
22	NRC Staff's 18, 19, 20 and 21	21218	21226
23	NRC Staff's 22	21231	21231
24	NRC Staff's 23	21246	21248

P R O C E E D I N G S

9:00 a.m.

JUDGE WOLFE: In attendance this morning are: Messrs. Copeland, representing Applicant; Mr. Doherty is here; and Mr. Scott representing TEX PIRG; and Mr. Black representing the NRC Staff.

All right. You may resume, Mr. Doherty. Whereupon,

WALTER L. BROOKS

the witness on the stand at the time of adjournment, resumed the witness stand and, having been previously duly sworn, was examined and testified further as follows:

CROSS-EXAMINATION (Cont'd.)

BY MR. DOHERTY:

Q Dr. Brooks, we were at the foot of page 3 of your written testimony yesterday.

Two lines from the bottom, you mention a one-dimensional model. Is there a name for that as well? Do you know?

A Not apart from just as part of the ODYN code.

Q Now, when you say, in part to verify the ODYN code, there was a comparison between the one-dimensional and three-dimensional in order to test the validity of collapsing the three, I guess, into the one, I guess is the way that comes out?

1 A Yes.

2 Q How do you collapse those? Maybe it is the
3 word that has gotten to me.

4 A All right. The core conditions vary. At the
5 onset of such a transient, one will have a certain power
6 distribution in the core. He will have a certain void
7 distribution in the core. He will have a certain control
8 rod distribution in the core. And it is necessary to
9 convert the three-dimensional distribution of parameters
10 to a one-dimensional distribution of parameters, and what
11 is done is to model in the one-dimensional calculation
12 the core as a series of axial nodes, some number -- I don't
13 know what it is, but it's on the order of ten to twelve
14 nodes -- so that what one does is divide the reactor
15 vertically into ten to twelve slices. And then in each of
16 those slices you average the parameters. That is to say,
17 you obtain an average void distribution for that which
18 you may weight with the flux, flux-weighted void
19 distribution; you obtain an average fuel temperature; you
20 obtain -- and that's a Doppler coefficient, an average
21 Doppler coefficient for that sort of thing.

22 I beg your pardon. In this code one does not
23 obtain an average void coefficient or an average Doppler
24 coefficient. What one obtains is the average two-group
25 cross sections for this. In doing a diffusion,

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1 time-dependent diffusion theory calculation, one has certain
2 cross-sections. There are absorption cross-sections,
3 fission cross-sections, and leakage cross-sections;
4 production, absorption and leakage, those three terms.
5 So, the thing is modeled in terms of cross-sections.

6 You obtain these average cross-sections for
7 the slices and then you characterize the reactor by a
8 series of vertical segments that have certain two-group
9 cross-sections, or one-group, depending on whether you're
10 running it for one or two groups. That's what you mean
11 by collapsing.

12 Q So, then, there's a three-dimensional data
13 sort of like -- less complete but representative so that
14 you can see how closely the one came out with the three,
15 the one compared to the three? Is that it?

16 In other words, you're not making two
17 pictures, one three-dimensional and one one-dimensional
18 here? You're sort of like trying to save some time and
19 energy?

20 A Yes. This particular comparison that is
21 talked about here is done -- that is, you are comparing
22 a transient analysis of the kinetics code to a static
23 code and what you can do is to run the kinetics code in
24 a static mode. You cannot run the static code in a
25 kinetics mode.

So, what is done here is to perform the ODYN calculation, then collapse the cross-sections as you would as if you were going to perform an ODYN kinetics calculation and then you calculate a scram curve. Or, what was actually done was to calculate different slices or different snapshots of the reactor, starting out with the rods. For the purposes of doing the scram comparisons, you start out with the rods out of the core and you calculate the static three-dimensional case and you calculate a static one-dimensional case with the ODYN code. Then, some time later, you know, ten seconds later, you determine where the rods would be in ten seconds by how fast they're going in, and you stop the rods in your calculation. In both calculations you stop the rods. In a three-dimensional calculation, you determine what the power in the reactor is with the rods in that configuration you do the same thing in the ODYN code. And you do this in steps down, so that you follow the power of the reactor as it falls in steps.

What you find here, if you make that comparison is that the three-dimensional calculation -- in the three-dimensional calculation, the power in each step is a little lower than it was in the one-dimensional calculation, which means that the scram effectiveness is greater in the three-dimensional calculations than in the

1 one-dimensional calculations so that the ODYN code is
2 conservative with respect to three-dimensional calculations.
3 That was the kind of comparison that was made and the
4 manner in which the conclusion was drawn.

5 Q Okay. So when you say snapshot, it is as
6 if someone took a lot of pictures very fast of the control
7 rods in different positions moving up, is that it?

8 A Yes. You know, this is a way of describing
9 what you do in theory. You're doing it in paper. It is
10 as if someone had done so.

11 Q Yes.

12 A You take a motion picture and you stop --
13 If you were taking a motion picture of the
14 rods as they go in, then you pick frame one, frame ten,
15 frame twenty, and so forth, and you see what the configura-
16 tion was at that time, and you calculate that.

17 These calculations were done for several
18 different initial control rod configurations, so that
19 you started out with different conditions in the core;
20 and, in each case, the ODYN code was conservative.
21 Not by, you know, not -- by ten to fifteen percent, that
22 sort of thing. Not greatly, but it was conservative
23 always.

24 Q Okay. You said always.

25 A For the tests that were done, and I don't

1 know, there were a number, of the order of ten -- not on
2 the order of a hundred. But, you know, for the tests that
3 were done, it was always conservative.

4 Q I see.

5 In the conservatism that you mentioned, do you use
6 the so-called fast scram or do you use the -- which scram
7 do you use there?

8 A Well, this the conservatism that is -- the
9 technique that is used here and is described in response
10 to that question would, for the Allen's Creek reactor,
11 use the technical specification values of the scram
12 insertion. These technical specification values are of
13 the form of the percent rod insertion as a function of
14 time. And it has values at ten percent, twenty percent,
15 forty percent, seventy-five percent, ninety percent. It
16 has -- if you look at a set of technical specifications
17 for a BWR, you have the insertion speed specified in that
18 form. That is the thing that will be used to calculate
19 the scram, and the reactivity reinsertion is the function
20 of time in the scram, and that is what would be multiplied
21 by 80 percent, or point eight.

22 Q Then, in kind of drawing this to a close,
23 in your last answer, you state The reactivity inserted
24 by voids is sensitive to the change in the void volume and the
25 void, coefficient. Neither of these quantities is directly

1 dependent on the core power density.

2 A. That's correct, that's what that says.

3 Q. Is that what we talked about yesterday?

4 A. That is indeed. We discussed this yesterday --

5 Q. About the initial versus the standard operating
6 density?

7 A. Yes.

8 Q. I know we covered that.

9 When you say void volume, I know there is
10 some sort of core or reactor-wide number for voids, but
11 in doing the calculations, do you -- in these slices that
12 you've mentioned, do you take a different number and
13 plug that in?

14 A. You would have a different initial void volume,
15 or void fraction, it would be, at each of the different
16 nodes, vertical nodes or slices that you take that would
17 be obtained from the three-dimensional calculation that
18 determined the initial conditions. You would have an
19 initial situation that would have been determined by a
20 three-dimensional static calculation and you would have
21 a void fraction at each height in the core, and then,
22 during the ODYN calculation, that void fraction would
23 vary axially and you would assume that whatever the
24 radial distribution was in each slice, it would not
25 have varied. The level would have varied but --

1 we discussed this yesterday.

2 Q Does it turn out that in these calculations that
3 in the event of a transient calculated by ODYN that there
4 is actually some points higher than others, the void volume
5 might be lower with a kind of squashing voids? Does that
6 happen sometimes in these?

7 A I do not know. I have not looked at the
8 details of these calculations. I would be a little
9 surprised if that was the case, because what you would
10 tend to do is, the pressure would be sort of transmitted.
11 You would not tend to get a pressure wave at that point in
12 the core. You do get pressure waves, I think, in, for
13 example, the steam line. But by the time these get back
14 to the core, the core volume, or, if you like, the density
15 of the gas/water mixture tends to vary sort of uniformly.

16 Q Do you have the testimony of Dr. Huang from
17 General Electric with you on this issue?

18 A Let's see.

19 Q It's H-u-a-n-g.

20 A I may have it.

21 Yes. I have something called the "Direct
22 Testimony of Robert L. Huang," and it is -- I don't see
23 a date on it except our date of receipt.

24 Q Did you read it over? I'm sort of assuming
25 you had.

1 A I did some time ago, yes.

2 Q Could you look at Page 5 at the top, for me.

3 A Yes.

4 Q He states at the top, starting at Line 2, that
5 the NRC decided to impose a 0.044 delta CPR or ICPR adder
6 or to all ODYN calculation results.

7 Without considering some built-in conservatism
8 that you mentioned earlier in the testimony, is that
9 correct to your knowledge?

10 MR. COPELAND: Asked and answered. He
11 explained that yesterday.

12 MR. DOHERTY: I think there was some mention
13 about a penalty.

14 BY MR. DOHERTY:

15 Q Was that your term?

16 MR. WOLFE: Wait, now.

17 MR. DOHERTY: I'm sorry. There is an
18 objection out --

19 MR. WOLFE: Yes.

20 MR. DOHERTY: I think he did mention something
21 about a penalty, but he didn't go into specifics as to
22 whether the 0.044 adder was that penalty, and that is what I'm
23 trying to get at.

24 MR. COPELAND: All right. No objection to that.

25 MR. WOLFE: All right.

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1 THE WITNESS: Yes. This is the penalty that
2 I was referring to yesterday. I did not, I believe,
3 mention the amount of it because I did not remember what
4 the amount was, but this is the adder that I was talking
5 about.

6 BY MR. DOHERTY:

7 Q Was there any of this testimony that you
8 disagreed with otherwise?

9 A I don't recall that there was anything I
10 disagreed with.

11 Q Nothing that you remember that you disagreed
12 with.

13 A I'm sorry. I thought I had answered. I do
14 not remember disagreeing with anything.

15 MR. DOHERTY: Thank you, very much, Dr. Brooks,
16 for your time yesterday and this morning.

17 No further questions, Your Honor.

18 JUDGE WOLFE: Mr. Scott?

19 MR. SCOTT: I have no questions of Dr. Brooks.

20 JUDGE WOLFE: Redirect, Mr. Black?

21 MR. BLACK: I have no questions, Your Honor.

22 JUDGE WOLFE: Board questions?

23 JUDGE CHEATUM: I have no questions.

24 JUDGE LINENBERGER: Yes.

25

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BOARD EXAMINATION

BY JUDGE LINENBERGER:

Q Dr. Brooks, you were just recently, a few moments ago, discussing with Mr. Doherty the subject of voids and the question of reactivity insertion by voids, and on Page 4 of your testimony -- pardon me. I should have said reactivity changes occasioned by void behavior.

On Page 4 of your testimony, in the middle of the last answer, you indicate that neither void volume and void coefficient is directly dependent on core power density. Does that statement involve any kind of assumption with respect to moderator temperature?

A I think that I discussed this a bit yesterday. The core power density that is referred to here is the operating value or the design core power density and the void coefficient, if you like, may depend indirectly on this quantity if you have redesigned the fuel in order to obtain a higher operating core power density or design core power density. That is not the case here. The fuel has not been redesigned, and what has been done to effect this, presumably, is to change the subcooling a little bit.

So, you may have a different initial void coefficient -- I'm sorry -- void volume fraction, but it will not be very different. The void BWR's are quite

1 stable with respect to the void volume, the operating void
2 volume. So that, this statement should have referred to
3 only, sort of, if you like, the initial conditions, the
4 operating conditions, the design conditions, if you like.
5 For instantaneous conditions, this is not a true statement.

6 Q Okay. That was really what I wanted to
7 clarify. Thank you.

8 Now, at the top of Page 4, first full sentence,
9 there is a parenthetical comment, "i.e. produced a smaller
10 scram insertion." Would the sense of that sentence or the
11 meaning of that sentence be unchanged if that parenthetical
12 comment read produced a smaller reactivity decrease?

13 A That is correct, yes, sir.

14 Q All right.

15 There was some discussion yesterday about the
16 term "MCPR." First off, would you say, again, what the
17 acronym stands for.

18 A The acronym stands for Minimum Critical Power
19 Ratio.

20 Q All right, sir. Now, when you use the word
21 "ratio," I think in terms of a numerator and a denominator.
22 What are the quantities in that numerator and denominator
23 referred to in that ratio?

24 A All right, sir. There is defined for BWR's a
25 quantity which is called the critical power, and it is

1 defined for an assembly. You have a fuel assembly and you
2 have for that fuel assembly with the flow conditions that
3 exist in that fuel assembly if the -- uh -- and with other
4 variations. But for the thermalhydraulic conditions in
5 which that fuel assembly exists, there will exist a power
6 which if the assembly is generating that power, somewhere
7 in the assembly there will occur a loss of nucleate boiling
8 and you will have a film boiling region. That's power;
9 it's called the critical power.

10 Now, the critical power ratio, then, is the
11 ratio of that power to the power at which the assembly is
12 currently operating. So, it is a bigger number than 1,
13 and, is defined in that way.

14 Now, minimum critical power ratio is defined
15 for the reactor. If one searches each assembly in the
16 reactor and looks at its critical power ratio, the minimum
17 value of that ratio is the minimum critical power ratio.
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BY JUDGE LINENBERGER:

Q In other words, MCPR refers, if you will, to the most vulnerable fuel bundle, or the fuel bundle closest to the transition from nucleate to film boiling?

A That is correct.

Q But that is a number that is assigned to the entire core?

A That's correct. It is a core-wide number.

Q Right. All right, sir.

Incidentally, and this, I apologize, jumps back to your testimony yesterday on another contention but relates to core power, or let's say fuel enthalpy.

Mr. Scott, I believe, asked you if you could relate the 280 calories per gram fuel enthalpy to something characterizing the fuel at normal steady-state operation, and you said you didn't have a quantitative number relationship to give him there.

I just wanted to inquire about the following: There is, I believe, a number established for -- a core-wide number established for BWR's that limits the linear heat generation rate of fuel elements, is that not true?

A That is correct. There is a so-called operating limit, which is -- I know that number; it's 13.4 kilowatts per foot for BWR-6's and for the 8-by-8 fuel.

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1 Q Right. Now let me get to my question.

2 Is it technically appropriate to take that
3 13.4 kilowatts per foot, plug in the average number of,
4 if you will, grams of fuel -- grams per foot of fuel, make
5 the transition from kilowatts to calories and come up with
6 a number that would compare with the 280?

7 Is that a practical way to proceed? I'm not
8 asking for a number here, just --

9 A There's a time factor missing in this.
10 Kilowatts is power and calories is energy.

11 Q All right.

12 A And I don't know how to -- it would be if I
13 knew how to do the time, but I don't know how to do the
14 time factor.

15 JUDGE LINENBERGER: All right; fair enough.

16 Thank you very much. I think that completes
17 my questions.

18 JUDGE WOLFE: Cross on Board questions,
19 Mr. Copeland?

20 MR. COPELAND: No, sir.

21 JUDGE WOLFE: Mr. Doherty.

22 RECROSS-EXAMINATION

23 BY MR. DOHERTY:

24 Q The term nucleate boiling, does that just
25 mean whatever boiling it is that goes on just keeps going

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1 on and we're satisfied with it?

2 I've never been able to get that -- you know,
3 when you say this I sort of get the idea it's kind of like
4 film boiling is bad, anything else is all right, and....

5 A Did you want me to give a --

6 Q Yes.

7 A -- discussion of nucleate boiling?

8 Q Well, just for a minute.

9 A Well, I am not the heat transfer expert;
10 however, the simple picture of nucleate boiling is a --
11 it can be given by saying that if you get boiling at a
12 surface there will be a bubble formed, you get a little
13 gas bubble, and that bubble will break off from the
14 surface and go out into the volume of the fluid, and then
15 more fluid will come in to take its place. That process
16 is nucleate boiling. That is, you have nuclei formed
17 and they then collapse and give up their energy to the
18 water, and you heat the water that way and you cool --
19 next the water comes along, makes another bubble and it
20 goes off.

21 It's like when you start boiling in a kettle,
22 that's what happens first, the bubbles come up.

23 Film boiling is the sort of thing that occurs
24 if you take a -- I'm sure you must have done this -- take
25 a hotplate and fling water on it and it will dance, it will

1 stay there for a very long time because there is no heat
2 being conducted from the hotplate to the bubble -- to the
3 droplet, because there's a film between it, and it's a
4 very well insulating film. That's film boiling.

5 MR. DOHERTY: Thank you very much.

6 JUDGE WOLFE: Mr. Scott.

7 RECROSS-EXAMINATION

8 BY MR. SCOTT:

9 Q Dr. Brooks, just one question. You mentioned
10 in response to one of the questions that some reactivity
11 change was smaller than some other.

12 When you used that term there and in other
13 cases, are you talking about actually smaller, or the
14 absolute magnitude is smaller?

15 A I'm not sure exactly what you -- which
16 statement you are referring to, but generally when one
17 says something like that he is -- means that the absolute
18 magnitude is smaller.

19 Q In other words, negative ten would be smaller
20 than negative one hundred?

21 A That's correct. That's what is meant in that
22 statement about the scram reactivity, indeed.

23 MR. SCOTT: That's all.

24 JUDGE WOLFE: Redirect, Mr. Black?

25 MR. BLACK: No, I have no questions, and

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request that this witness be excused.

JUDGE WOLFE: The witness is permanently excused.

(The witness was excused.)

MR. BLACK: Mr. Chairman, at this time I would request a slight deviation from the schedule.

We have with us this morning a witness from the Corps of Engineers, and I would like to put him on the stand at this time so he doesn't have to wait around until the end of the session.

MR. SCOTT: Mr. Chairman, I have an objection to that, in that Dr. Marrack is coming at 10:00 o'clock this morning and he wants to be here for this testimony.

Now, you know, if we make provisions that Dr. Marrack can do his thing, in either case I have no objection, but if that -- otherwise, I would expect us to go through the schedule as laid out.

MR. COPELAND: Your Honor, I think the witness from the Corps of Engineers is here as a convenience to the Board and to the NRC Staff, and it seems to me that if Dr. Marrack were truly concerned about cross-examining him, that he could inconvenience himself and be here at 9:00 o'clock this morning so that we can proceed in an expeditious manner. There was no reason for him to believe that there was any reason we wouldn't get to that

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1 witness this morning at 9:00 o'clock.

2 MR. DOHERTY: Well, there was a reason for him
3 to think we wouldn't get to the witness at 9:00 o'clock.
4 I talked to Dr. Marrack last night and told him that with
5 the current schedule exactly that we did expect the
6 witness to continue, namely Dr. Brooks, and I don't think
7 it expedites matters at all to put this particular witness
8 on, since we have another witness who can go on anyway,
9 isn't going to speed things up at all. It's just a matter
10 of whether two precedes one or one precedes two; in the
11 end you all get three. So I don't think it expedites
12 matters. I don't think it does --

13 JUDGE WOLFE: Have either you, Mr. Scott, or
14 you, Mr. Doherty, been authorized by Dr. Marrack to state
15 that he would be here at 10:00 o'clock this morning?

16 MR. DOHERTY: Yes. I was.

17 JUDGE WOLFE: All right.

18 MR. BLACK: We can wait until 10:00.

19 JUDGE WOLFE: All right. We'll proceed.

20 We regret that we have to hold Mr. Maurer in
21 the audience. We regret that we have to hold you over,
22 but this is one of the procedures that we have to follow
23 where someone has advised us that they would be here for
24 cross-examination. Promptly at 10:00 o'clock we'll call
25 Mr. Maurer. All right. That will be in 20 minutes from

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1 now. All right. Mr. Black.

2 MR. BLACK: The Staff would like to call
3 Mr. Calvin Moon to the stand, please.

4 Whereupon,

5 CALVIN W. MOON

6 was recalled as a witness and, having been previously
7 duly sworn, was examined and testified further on his
8 oath as follows:

9 DIRECT EXAMINATION

10 BY MR. BLACK:

11 Q Mr. Moon, do you have before you a document
12 entitled "NRC Staff Supplemental Testimony of Calvin
13 W. Moon in Response to Board Question 2 on the Use of
14 WASH-1400"?

15 A Yes.

16 Q Do you have any additions or corrections to
17 this testimony?

18 JUDGE WOLFE: Mr. Moon has been sworn?

19 MR. BLACK: Yes, he has.

20 JUDGE WOLFE: And you remain under oath.

21 A No.

22 BY MR. BLACK:

23 Q Is this testimony true and correct, to the
24 best of your knowledge and belief, and do you adopt it as
25 your testimony in this proceeding?

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1 A. Yes.

2 MR. BLACK: The Staff would like to request
3 the Board to move this piece of testimony into the record
4 as if read.

5 JUDGE WOLFE: Any objection?

6 MR. COPELAND: No objection.

7 MR. DOHERTY: No objections.

8 MR. SCOTT: (Shakes head.)

9 JUDGE WOLFE: Mr. Scott shook his head in the
10 negative. He has no objection.

11 All right. The supplemental testimony of
12 Calvin Moon in response to Board Question 2 on use of
13 WASH-1400 is incorporated into the record as if read.

14 (Staff's testimony of Calvin W. Moon in
15 response to Board Question 2 on use of WASH-1400 follows:)

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING & POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

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Docket No. 50-466

NRC STAFF SUPPLEMENTAL TESTIMONY OF CALVIN W. MOON
IN RESPONSE TO BOARD QUESTION 2 ON USE OF WASH-1400

Q. Will the witness please state his name, place of employment, and duties he performs.

A. My name is Calvin W. Moon. I am a senior licensing project manager, Licensing Branch No. 1, Division of Licensing, Office of Nuclear Reactor Regulation, Nuclear Regulatory Commission. Since July, 1975 I have been assigned to the Allens Creek construction permit stage of the health and safety review. Since April, 1980 my Allens Creek assignment has been broadened to include project management of environmental aspects of the review.

Q. Is a statement of educational and professional qualifications attached to this testimony?

A. Yes.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to respond to the following Board questions as it relates to Allens Creek:

Did the Staff use WASH-1400 in arriving at its conclusions regarding environmental risks, as stated in S.7 of the Supplement to the Final Environmental Statement? If so, do these conclusions need to be modified as to the result of recent criticisms (Lewis Report) of WASH-1400 and the NRC's recent policy statement regarding same?

Q. At the top of page S.7.2 the FSFES states that the Staff had reevaluated postulated accidents and their probability of occurrence in view of the proposed design changes and had considered advances in analytical methods employed for such calculations. Were these advances in analytical methods related to WASH-1400?

A. No. The advances were in the nature of minor changes to the computational model used for the FES.

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MR. BLACK: The Staff has no further direct examination.

JUDGE WOLFE: Cross, Mr. Copeland?

MR. COPELAND: No, sir.

JUDGE WOLFE: Mr. Doherty.

MR. DOHERTY: I have a few questions.

CROSS-EXAMINATION

BY MR. DOHERTY:

Q You spoke about a computational model for the FES on the last phrase of the testimony on Page 2.

What is that or....

A I didn't explore that. I included those words just to help explain the words in the FES.

Q When you say -- referring to that same part, you say the advances were in the nature of minor changes. Do you know what the minor changes were?

A I did not investigate that.

(Pause.)

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1 BY MR. DOHERTY:

2 Q Now, in that Section 7 of the FES -- you have
3 that with you, I guess -- on Page 7.2 there was a
4 discussion or a mention of advances in analytical methods
5 employed for the calculations. I guess that would be for
6 the Table S.2.

7 Do you have any idea what those were, or can
8 you tell us what those were?

9 MR. BLACK: I object to this line of
10 questioning. This is not within the scope of this
11 testimony at all.

12 This testimony is put in the record for one
13 piece of information only, and that is that WASH-1400 was
14 not used in the Staff computation of accidents in the FES.

15 Any line of questioning as to what was
16 actually done is certainly outside the scope of this
17 testimony. Mr. Moon is not put on here to defend the
18 Staff's use of accidental computational models, or what
19 have you. This is for the simple purpose of saying that
20 WASH-1400 was not used.

21 MR. DOHERTY: I guess I just go on the theory
22 that a witness who presents testimony can be asked about it.

23 JUDGE WOLFE: I'm sorry?

24 MR. DOHERTY: I say, a witness who presents
25 testimony should be able -- should be open to asking. It's

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1 automatically relevant if the witness....

2 MR. BLACK: That's not responsive. The
3 presentation of testimony is that WASH-1400 was not used.

4 JUDGE WOLFE: All right. Cutting through
5 this, this is a Board question and the cross-examination
6 on the single Board question exceeds the scope of the
7 Board's question, and we sustain the objection.

8 (Pause.)

9 BY MR. DOHERTY:

10 Q What did you think the question meant when
11 they asked you, in Page 2 of your testimony, "Were these
12 advances in analytical methods related to WASH-1400?"

13 A They were not.

14 Q Not what?

15 A Related to WASH-1400.

16 Q When the term "related" is used, do you -- what
17 do you think that means? What did you interpret it to
18 mean in that case?

19 A I'm sorry, I guess I missed the origin of the
20 word "related." That was just in your question?

21 Q No. I was reading the question out of the
22 testimony.

23 A I guess I don't find the word "related" in
24 the testimony.

25 Q Okay. In Page 2 --

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A. Yes.

Q. -- there's a single question --

JUDGE LINENBERGER: Excuse me, Mr. Doherty,
but let's be explicit here; rather than asking the witness
to interpret the Board's language, let me say for the
record that what the Board meant in asking about things
related to WASH-1400 was explicitly did they derive from,
directly from WASH-1400, were any WASH-1400 results used
here, and we have a specific answer to that: No.

So I just wanted to clarify what was the
meaning of the Board's intent in posing the question.

MR. DOHERTY: Okay. So the term used by the
Board is used -- so I guess I have no further questions.
I would defy any lawyer in good faith to ask a question
on that question.

That's all.

JUDGE WOLFE: Mr. Scott.

MR. DOHERTY: He'll try.

JUDGE WOLFE: You're being defied.

(Laughter.)

MR. SCOTT: Well, I want to question the
witness on the Board's question, not the Staff attorney's
questions.

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CROSS-EXAMINATION

BY MR. SCOTT:

Q Did the Staff use WASH-1400 in the Allens Creek proceeding?

A Yes.

Q Thank you.

Was that work later removed at some stage in the analysis, such that the final product now does not make use of WASH-1400?

A The final product being the proceeding?

Q The Staff, the total Staff environ -- the total Staff final environmental statement and its final supplement to the final environmental statement. In other words, the total is by supplementation.

Have you made note that you have removed your prior use of WASH-1400 in....

A That has not been removed.

(Pause.)

Q Okay. Perhaps this question was asked. I don't remember exactly how Mr. Doherty asked it, but on the place here where we're discussing analytical methods, and we're talking about there were advances in analytical methods, what analytical methods are we talking about?

MR. COPELAND: Objection, Your Honor. The Board's question has been answered. It seems to me that

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1 this is going right back into the objection that Mr. Black
2 made and it was sustained by the Board, about the other
3 analytical methods.

4 MR. SCOTT: I don't see any -- there is a
5 reference in -- the question directly makes references to
6 analytical methods, and I don't see why I can't inquire
7 what he meant by that. I'm not asking him to derive a
8 model or justify them, I just want some explanation of
9 what he's talking about.

10 MR. COPELAND: That's all you're doing, is
11 asking which analytical methods he's talking about?

12 MR. SCOTT: I don't even ask him to give me
13 a long list of names, just some general description of
14 what....

15 MR. COPELAND: I have no objection to that.
16 I do have an objection to going into the
17 adequacy of those methods, however.

18 MR. SCOTT: I'm not asking that.

19 JUDGE WOLFE: All right, Mr. Moon.

20 THE WITNESS: I believe at the top of
21 Page S.7.2 there are some words there that do relate to
22 some of the changes in the analysis.

23 I do not come here prepared to discuss those
24 in detail. I didn't do the analysis.

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1 BY MR. SCOTT:

2 Q I'm not asking for details. Do you -- can you
3 expound in any way upon the words that we have before us
4 as to what analytical methods you're talking about?

5 A No. I think the words on Page S.7.2, I
6 accept it as a sufficient characterization.

7 (Pause.)

8 Q Can you say that the analytical methods we're
9 talking about are a method of calculating the probability
10 of certain type of accidents happening and the probable
11 consequences? Is that fair to say?

12 A Well, certainly Table 7.2, I believe, has to
13 do with the probability of accidents and consequences.

14 MR. SCOTT: Okay. No further questions.

15 JUDGE WOLFE: Redirect?

16 MR. BLACK: I have no questions.

17 JUDGE WOLFE: Any additional Board questions?

18 (No response.)

19 JUDGE WOLFE: All right. We'll proceed to
20 the next Board question, Mr. Black.

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1 BY MR. BLACK:

2 Q Mr. Moon, do you have a document before you
3 entitled "NRC Supplemental Testimony of Calvin William Moon
4 in Response to Board Question 7 on On-Site Transportation
5 Accident"?

6 A Yes, I do.

7 Q Do you have any additions or corrections to
8 that testimony?

9 A No.

10 Q Do you adopt this testimony as your testimony
11 in this proceeding, and is it true and correct to the best
12 of your knowledge and belief?

13 A Yes.

14 MR. BLACK: At this time, Mr. Chairman, we
15 would move to incorporate this testimony into the record
16 as if read.

17 JUDGE WOLFE: Any objections?

18 MR. COPELAND: No objections.

19 MR. DOHERTY: Just a couple of questions,
20 Your Honor, for voir dire.

21 VOIR DIRE EXAMINATION

22 BY MR. DOHERTY:

23 Q Mr. Moon, are you acquainted with the criteria
24 for shipping containers, design criteria?

25 A Yes, sir.

1 MR. DOHERTY: That's the only question I have.

2 JUDGE WOLFE: Absent objection, the Supplemental
3 Testimony of Calvin Moon in Response to Board Question 7 is
4 incorporated into the record as if read.

5 (Supplemental Testimony of Calvin Moon
6 concerning Board Question 7 follows:)

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Docket No. 50-466

A. The purpose of this testimony is to respond to the following Board question as it relates to Allens Creek:

Is there an opportunity for the permissible site boundary radiation level to be exceeded by virtue of a gap in NRC and/or EPA regulations, whereby an on-site transportation accident gives rise to a radiation field which, when added to the ambient radiation level from normal plant operation (including radiation from stored spent fuel), might then result in a higher than permissible site boundary radiation level? If not, why not? If so, does this constitute an oversight in the Staff's FFS analysis?

Q. Has the staff postulated and analyzed transportation accidents on the proposed Allens Creek site?

A. No. The staff's review has not identified a concern that such an accident with significant radiological consequences is likely enough to warrant an accident analysis.

Q. Why is this so?

A. In part, this is because of the rigorous design criteria for shipping containers which are sufficient to permit transportation over public highways. Also, the staff has not perceived that potential initiating events are likely enough to be of concern.

Q. If such an accident were identified for some site and analyzed could the resulting radiation fields cause permissible site boundary radiation levels to be exceeded?

A. No. The staff would view such an event as facility or site accident and consider Part 100 guidelines, or lower guidelines depending on the probability of occurrence, as being applicable to the determination of the acceptability of the consequences.

CALVIN W. MOON

PROFESSIONAL QUALIFICATIONS

LICENSING BRANCH NO. 1

DIVISION OF LICENSING

I am a Senior Project Manager in Licensing Branch No. 1, Division of Licensing, U. S. Nuclear Regulatory Commission. In my present position, I have overall responsibility for conducting the safety and environmental reviews of power reactor license applications assigned to me. This includes the responsibility for planning and coordinating the efforts of other technical personnel involved in the review.

I hold a Bachelor of Science degree in Mechanical Engineering from Iowa State University and a Master of Science degree from Stanford University. I am a registered professional engineer in the State of Iowa.

I have a total of 29 years of professional experience. For three years I was employed by the University of California at the Los Alamos Scientific Laboratory with responsibilities for the design and development of mechanical systems. For fourteen years I was employed by private industry in various staff and supervisory engineering positions working on the design and development of gas cooled reactors for application to military propulsion, marine propulsion, space propulsion and space auxiliary power systems.

In 1968, I accepted a position as Reactor Engineer with the Regulatory Staff of the Atomic Energy Commission. In this capacity, I participated in the development of reactor safety criteria. In my present position I have participated in the safety reviews of several power reactors by the Atomic Energy Commission and the Nuclear Regulatory Commission.

1 JUDGE WOLFE: Do you have anything more,
2 Mr. Black?

3 MR. BLACK: I have no further direct, Your
4 Honor.

5 JUDGE WOLFE: Mr. Copeland, cross?

6 MR. COPELAND: No cross, Your Honor.

7 JUDGE WOLFE: Mr. Doherty?

8 MR. DOHERTY: Yes, Your Honor.

9 CROSS-EXAMINATION

10 BY MR. DOHERTY:

11 Q You state on Page 2, The Staff review did
12 not identify a concern with significant radiological
13 consequences for a transportation accident at the site --
14 or, literally, on the site. When you say, This is in part
15 because the rigorous design criteria for shipping containers
16 which are sufficient to permit transportation over public
17 highways.

18 Is that your concern -- excuse me -- is that
19 your conclusion, or is there someone else who has briefed
20 you on this area or perhaps some reports or something
21 that you're basing that on?

22 A I believe there have been public statements
23 by the Commission, or at least the Commission Staff, to
24 this effect.

25 Q And is there anything you can point to that

1 reinforces or gives a basis to the second statement,
2 "The Staff has not perceived that potential initiating
3 events are likely enough to be of concern?"

4 A. One of the principal concerns that we have
5 in reviewing an application for construction of a facility
6 has historically been the question of a cask dropping.
7 In some facilities this has been a potential problem and
8 may require changes in the facility design.

9 In this review, we did not identify any such
10 configuration problem, if you will, in this facility.
11 Beyond that, you're simply talking about a movement of
12 the cask from the facility to the edge of the site. This
13 should offer no more risk of an accident than transpor-
14 tation over a highway. Highway accidents that have occurred
15 have involved casks rolling down embankments and this type
16 thing and typically you don't see that type of terrain,
17 roadways, around sites. Nor in the transportation of the
18 casks from the facility to the edge of the site would you
19 expect to see major initiating events.

20 Q Is the site in this case that area legally
21 controlled by the Applicant?

22 A. Yes.

23 Q Is the loading of any vehicle done within the
24 confines of the structure, the Allen's Creek structure?

25 In other words -- do you know? -- the Allen's Creek building

1 structure, I should say.

2 A I don't recall the details, but our general
3 review guidelines that we follow is that if an accident
4 could occur that would cause conditions to be imposed beyond
5 the design conditions of the cask, for example, if they
6 drop more than thirty feet, I believe it is, then we
7 typically would require that that activity go on within
8 a confined area where any releases would be filtered and
9 so on.

10 Q Would it be correct to characterize, then,
11 that all we're really discussing here is the possibility
12 of a transportation accident on a restricted road and
13 that somehow is not considered in some way or another
14 since it's not out on the public road?

15 BY MR. COPELAND: That is exactly the
16 question that was posed by the Board, Your Honor. Why is
17 he asking the witness that?

18 MR. DOHERTY: I will try to rephrase that.

19 BY MR. DOHERTY:

20 Q Is there any difference in the transportation
21 on site -- well, let's put it this way:

22 Once the vehicle leaves the confines, is any
23 more -- to your knowledge -- is any more --

24 Is the loading complete, let me ask that?

25 A Is the loading complete?

1 Q Yes, of the vehicle with the casks.

2 MR. BLACK: I don't understand the relevance
3 of that question. In fact, I don't understand the question.

4 MR. DOHERTY: I think it's a simple question,
5 unless he couldn't hear, which could be. I think it is
6 a simple question.

7 JUDGE CHEATUM: We heard it, and we don't
8 quite understand it.

9 MR. DOHERTY: All right. Maybe I didn't say
10 what I thought I said.

11 BY MR. DOHERTY:

12 Q Once the vehicle leaves the confines of the
13 plant, is there any more loading procedure to be done?

14 MR. BLACK: I still don't understand. Are you
15 talking about once the vehicle leaves the confines of the
16 plant or goes off site?

17 MR. DOHERTY: No, just leaves the confines of
18 the plant.

19 MR. BLACK: In other words, will it go to some
20 area of the plant or the site proper and be loaded with a
21 barrel of low-level radiation or something?

22 MR. DOHERTY: Well, I didn't really have that
23 much in mind. That's just a possibility. What I'm trying
24 to get at is, is the loading operation completed inside
25 the confines so that all that is left to be done is to just

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1 drive the short distance out of the restricted area?

2 JUDGE WOLFE: Go ahead.

3 THE WITNESS: The loading obviously has to
4 occur where you have a large crane. This is normally
5 done in the spent fuel pool area or adjacent to it.
6 I am not familiar with all the exact details of how you
7 tie the casks down, all those types of facilities on the
8 transporter. However, the Staff, in reviewing an
9 application for construction permit is concerned about
10 accidents on site. Again, even if there were some minor
11 adjustments, a tie-down or something like this, after you
12 had moved the transporter a ways, we still have not
13 perceived of any accident, transportation accident, on site
14 that would cause the cask to be subjected to conditions
15 beyond its design.

16 (Pause.)

17 BY MR. DOHERTY:

18 Q The last question, when you say, "The Staff
19 would view such an event," there, and actually, that entire
20 answer, are you saying that criteria or guidelines or rules
21 will be established such that that will be impossible?
22 Is that what that means?

23 A I think basically what we're saying here is
24 that in reviewing an application for construction and
25 operation of a facility, we of course do not analyze all

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1 potential accidents. We look at, if you will, what we
2 call design basis accidents; we view the whole question of
3 fuel handling from the time the fuel comes out of the
4 reactor and is transported to the spent fuel pool into
5 the cask; movement of the cask; and so on. And we do have,
6 in Chapter 15 of the SER, we have identified certain fuel
7 handling accidents as that the design basis accident
8 which the Staff believes for this facility envelopes,
9 with regards to radiological consequences, all the other
10 potential accidents involved with fuel handling on the
11 site.

12 Q Just one or two more things.

13 Are there current design criteria for
14 shipping containers in the Code of Federal Regulations?

15 A Yes.

16 MR. DOHERTY: I have no further questions.

17 JUDGE WOLFE: Mr. Scott?

18 CROSS-EXAMINATION

19 BY MR. SCOTT:

20 Q Mr. Moon, about halfway down the second
21 page, you describe rigorous design criteria for shipping
22 containers. Could you just briefly describe some of the
23 protections that they're designed to protect against?

24 A Yes. The criteria we're referring to are
25 spelled out in the Regulation. I think it's Part 71.

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1 They have to do with the capability of the cask to
2 withstand free falls onto hard surfaces, I believe onto --

3 Q How far?

4 A I beg pardon?

5 Q How far is the drop?

6 A I believe it's 30 feet, onto a flat and
7 unyielding surface. I believe there's a criterion there
8 about falling on a pointed surface. There are criteria
9 about fire, immersion, et cetera.

10 Q What criteria is there concerning collisions?
11 Let's say a jumbo jet crashed into a container.

12 MR. COPELAND: I object to that question,
13 Your Honor. It's irrelevant to the question asked by
14 the Board.

15 MR. SCOTT: It's not irrelevant, unless
16 they're going to show me jumbo jets can't crash at that
17 site or....

18 JUDGE WOLFE: Well, doesn't Part 71 speak for
19 itself, and you can look to that to find out what are the
20 provisions for the protection against transportation
21 accidents.

22 MR. SCOTT: I could, but me looking at it for
23 myself wouldn't get it in the record, and I wanted it in
24 the record.

25 JUDGE WOLFE: It is part of any record,

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1 inasmuch as these are regulations of the Nuclear
2 Regulatory Commission, and the Board will take, and does
3 take official notice of those regulations.

4 MR. SCOTT: Okay. Then I want to emphasize
5 something for the Board.

6 JUDGE WOLFE: Is it necessary to emphasize
7 something to us now, rather than wait to briefing?

8 MR. SCOTT: Yes.

9 JUDGE WOLFE: All right. Let's see what you
10 have to ask. Oh, you did ask about....

11 (Bench conference.)

12 JUDGE WOLFE: The objection is sustained.
13 The regulation speaks for itself.

14 MR. SCOTT: Okay.

15 BY MR. SCOTT:

16 Q Is there a railroad track on this property,
17 this site?

18 A I believe there is.

19 Q Is there a railroad track near the boundary
20 line of this site?

21 A Yes.

22 Q How confident are you that a collision between
23 a high-speed freight train and a truck carrying radio-
24 active waste across that railroad track would not result
25 in the rupture of the containers that you're talking about

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1 that have this rigorous design criteria?

2 MR. BLACK: Objection. We're talking about
3 on-site transportation accidents. That would occur off-
4 site.

5 MR. SCOTT: It is not. Railroad tracks are
6 on the site.

7 MR. BLACK: Are you talking about a speeding
8 freight train?

9 MR. COPELAND: We don't own the railroad,
10 Mr. Scott.

11 MR. SCOTT: Yes, but it goes through your
12 property.

13 MR. COPELAND: No, sir.

14 MR. SCOTT: How far from your property line
15 is it, then?

16 MR. COPELAND: Why don't you establish that
17 through the witness, Mr. Scott?

18 MR. SCOTT: I believe it's already established
19 in the record.

20 MR. BLACK: I don't think it's -- not by that
21 line of questioning, you didn't establish that there is a
22 railroad going through the site property that would have
23 a speeding freight train on it. There may be a siding,
24 but not a main railroad line.

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1 BY MR. SCOTT:

2 Q Is there not a main railroad line that runs
3 just to the east of Highway 36 at the site of this plant?

4 A There is.

5 Q What confidence do you have, even assuming
6 that there was a -- that the railroad line was outside of
7 the plant property line, that the collision would not
8 result in the truck and the casks or the containers ending
9 up on the plant property line in a ruptured state?

10 MR. BLACK: I object. That is such a
11 speculative scenario.

12 MR. SCOTT: What is speculative about it?

13 MR. BLACK: Well, you haven't established any
14 underlying facts to even come close to putting that
15 scenario --

16 MR. SCOTT: I established --

17 MR. BLACK: -- in the form of a question.

18 MR. SCOTT: -- a freight line running next to
19 the plant property line.

20 MR. COPELAND: Well, Your Honor, I think the
21 Board knows what it wanted to know by inquiring into this
22 contention, and I think that the Staff's witness has
23 answered the contention, and I think Mr. Scott is just
24 playing a game here. I think we ought to cut off this
25 line of cross-examination.

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1 MR. SCOTT: I'm sure he does, but what I'm
2 asking is very realistic in all of the --

3 MR. COPELAND: Nobody is even arguing,
4 Your Honor, about whether it's a realistic scenario for
5 a train to possibly hit a truck.

6 The question here is whether the Staff -- the
7 question is as the Board put it, and it related to on-site
8 transportation accidents.

9 MR. SCOTT: And that's what I'm talking about.

10 JUDGE WOLFE: Our question was directed
11 specifically to an on-site transportation accident. What
12 you've posed is outside the scope of our questioning.
13 Objection sustained.

14 MR. SCOTT: Did it cease to be a transportation
15 accident just because the initial collision was off --

16 JUDGE WOLFE: You've heard our ruling.

17 MR. SCOTT: Okay.

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1 Q Now, considering the train tracks that are on
2 the company property, do you happen to know the maximum
3 velocity of trains on that track?

4 A I do not.

5 Q Do you happen to know whether or not if the
6 train going at its maximum allowed velocity on the plant's
7 property, upon colliding with the truck carrying these
8 containers with the radioactive spent fuel in them, whether
9 or not the containers could rupture or not?

10 MR. BLACK: Objection. That is the same
11 question in a kind of different form, but the same one
12 that the objection was sustained by the Board.

13 MR. SCOTT: No, we're on site now.

14 MR. COPELAND: Your Honor, if I understand
15 the question, he's talking about the railroad spur that
16 comes off the main line into the plant site and it seems
17 to me that before he can get to the question he just
18 asked, he's got to establish that there is in fact some
19 place where a railroad car would -- where that track would
20 cross the road on the site to establish that scenerio.

21 Secondly, it has not been established
22 as a matter of fact that these casks will be transported
23 on a truck. It may well be, and it is my understanding
24 they will probably transport it on the railcar themselves,
25 which would come in over the vary spur that Mr. Scott

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1 is talking about. So, I think he's got a lot of facts he
2 needs to get on the record here before we get into that
3 question.

4 JUDGE LINENBERGER: Mr. Scott, the Board has
5 even a more, I think, fundamental objection here to this
6 line of questioning and we see it as an attempt to
7 challenge the adequacy of the provisions of Part 71 with respect
8 to transporation, loading and handling operations.

9 Part 71 establishes criteria that must
10 be satisfied, and compliance is deemed to meet the needs
11 of any reasonable hazards that will occur in fuel handling.
12 So, to continue with this line of questioning really goes
13 to the adequacy of Part 71 and absent a showing of special
14 considerations, as you well know from 2.758, this 's just
15 not a permissible line of inquiry.

16 MR. SCOTT: Mr. Chairman --

17 JUDGE WOLFE: Yes?

18 MR. SCOTT: I can't understand Dr. Linenberger's
19 latest statement when read in conjunction with the Board
20 question. It seems the Board question presumes and is
21 interested in the possibility of an on-site transportation
22 accident, and that is what I'm talking about. I'm not
23 talking about unloading or loading, leastways not purposeful.
24 They may get unloaded as a consequence of a collision, but
25 not on purpose.

1 If you look at the things in the
2 record, you can see examples of roads crossing railroad
3 tracks in the environmental impact statements. If you've
4 been out there, you know that that is going to be a
5 necessity.

6 JUDGE WOLFE: There will be roads --

7 MR. SCOTT: Roads crossing highways.

8 JUDGE WOLFE: Roads crossing highways.

9 The question here is, I think, whether
10 there will be any road that bisects the spur line.

11 MR. SCOTT: That's right, the railroad.
12 That's what I am talking about, the railroad is a road.

13 JUDGE WOLFE: Well, then, why are you throwing
14 that into the hopper that something in the FES showing
15 roads will intersect roads?

16 MR. SCOTT: I'm talking about railroads. A
17 railroad is a road. I left off the rail.

18 JUDGE LINENBERGER: Well, Mr. Chairman, excuse
19 me. Really what Mr. Scott is getting at is, is there a
20 configuration of proposed roads, proposed rail lines,
21 within the Allen's Creek exclusion area that somehow results
22 in a situation that is inadequately dealt with at Part 71;
23 and I think that is an impermissible line of inquiry.

24 JUDGE WOLFE: All right. In light of
25 Judge Linenberger's explication the Board, on it's own,

1 will not allow the question.

2 MR. SCOTT: Judge Linenberger, could I --

3 JUDGE WOLFE: We have ruled. Now, there is
4 no point in proceeding on and questioning the Board. The
5 Board has ruled.

6 MR. SCOTT: I need a clarification for what
7 the Board was thinking about. If they are excluding all
8 inquiry into all on-site transportation accidents, claiming
9 that's -- to raise that's a challenge to Section 71, I
10 mean, it seems like the Board wouldn't even ask the question.
11 Maybe I'm missing something, but I don't know what kind of
12 accident is left if we can't consider things under 71.

13 MR. COPELAND: Your Honor, I didn't understand
14 the Board's ruling that way. I understood the Board's
15 ruling to be on the specific question he asked dealing with
16 the capability of the cask to withstand a certain speed
17 of a collision, which is not the Board's question and
18 which does fly specifically in the face of Part 71.

19 MR. SCOTT: Mr. Chairman, if that is a
20 clarification, if we take the position that Section 71
21 precludes any radiation from being emitted, then it
22 automatically follow there would be no possible way for
23 any additional radiation to be coming from any on-site
24 accidents. Once again, you know, there's a conflict there.
25 I have raised an issue that is an obvious oversight that

1 is not being considered in Section 71 or Environmental
2 Impact Statement or anything else.

3 Granted, this may be late in the
4 hearing, but the Board raised it, and I think it is
5 relevant. I also think that the Board should reconsider,
6 at least reconsider, the citing of transportation accidents
7 that doesn't occur on site just because initial contact
8 was off site.

9 MR. BLACK: Mr. Chairman, I think Judge
10 Linenberger's point is very well taken. I could hit
11 myself in the head for not thinking of that earlier, but
12 that's certainly part and parcel what's happened here.
13 Part 71, as Mr. Moon testified, has very rigorous design
14 criteria for shipping casks and in the criteria for shipping
15 casks, that whole scenerio of accidents were considered
16 that have to be enveloped in that criteria.

17 If Mr. Scott is going to go into all
18 kinds of little accidents and errors, Boeing 747's and
19 what have you, he, in effect is challenging the criteria
20 there in Part 71, and Judge Linenberger's statement is
21 really on point.

22 MR. SCOTT: Once again, I'm not challenging
23 anything in Part 71. I'm saying, considering what's in
24 Part 71, this accident I'm talking about could be of
25 grave enough consequence when added to the other

1 radiation to cause exceeding of the standard at the site
2 line. It's particularly appropriate since this accident would
3 be occurring at the site line. It wouldn't take much
4 addition.

5 (Bench conference.)

6 JUDGE WOLFE: The Board reaffirms its ruling.

7 Next question.

8 MR. SCOTT: No further questions.

9 JUDGE WOLFE: Mr. Black, redirect?

10 MR. BLACK: The Staff has no questions.

11 JUDGE WOLFE: Any Board questions?

12 JUDGE CHEATUM: I have no questions.

13 JUDGE LINENBERGER: I have just one.

14 BOARD EXAMINATION

15 BY JUDGE LINENBERGER:

16 Q At the bottom of Page 2, Mr. Moon, that final
17 answer refers to guidelines lower than Part 100. Can you
18 indicate what -- I'm not sure I know how to put this
19 properly.

20 What are the circumstances under which the
21 Staff might set more stringent guidelines than those in
22 Part 100, or is that the -- is that the meaning of the
23 term lower guideline, more stringent, more restrictive?

24 A There is a record of the Staff doing this
25 type of thing, and, in particular, with regard to

1 fuel-handling accidents. I would refer you to Standard
2 Review Plan, Section 15.7.5, in which I believe is
3 explicitly stated in Section II.1 that for the postulated
4 spent-fuel cask drop accident, well within means 25 percent
5 or less 10 CFR Part 100 guidelines. I think at one time
6 this number was actually 10 percent, rather than 25, and
7 this reflects Staff perceptions on, perhaps, these
8 accidents being somewhat more probable, we'll say, than
9 a LOCA or some other accident line.

10 JUDGE LINENBERGER: All right. Thank you,
11 very much.

12 JUDGE WOLFE: Any other cross?

13 MR. COPELAND: No, sir.

14 MR. DOHERTY: No, sir.

15 MR. SCOTT: No further.

16 MR. BLACK: No questions.

17 JUDGE WOLFE: The witness is to be excused
18 permanently?

19 MR. BLACK: Temporarily.

20 JUDGE WOLFE: Temporarily, all right.

21 It is now 10:26. Dr. Marrack has
22 been attendance since approximately 10:15. After recess,
23 we will proceed to hear the testimony of Mr. Maurer.

24 We will have a ten minute recess.

25 (Witness excused.)

1 (Short recess.)

2 JUDGE WOLFE: We will proceed now to take the
3 testimony of Mr. Maurer on Board questions.

4 MR. BLACK: Yes. The Staff would like to
5 call Mr. Herb Maurer of the U. S. Army Corps of Engineers
6 to the witness stand.

7 MR. SCOTT: Mr. Chairman, I have an initial
8 matter I would like to present to the Board. My under-
9 standing is, this is a Board witness and at the beginning
10 of the break, I noticed that the witness here was not to
11 be found. I located him inside the Staff and Applicant's
12 room over there. I tried to stay there and hear what was
13 going on, and Applicant's counsel shut and locked the
14 door in my face and proceeded to start woodshedding the
15 witness. I just think that's an inappropriate thing to
16 have done to a Board witness.

17 It's not Applicant's witness. I don't believe
18 it's even Staff's witness, even though I see he's called.
19 In any case, if that's going to be allowed, I ask the same
20 right to go woodshed this witness before he's cross-
21 examined or presented.

22 MR. COPELAND: Well, Your Honor, first of all,
23 Mr. Scott has told a lie, which is not the first time he
24 has done it on the record. I did not shut the door in his
25 face and I did not lock the door.

1 I don't know, Your Honor, of any prohibition on my meeting
2 with the Staff and talking with the Staff or the Staff's
3 witnesses. I have never heard of any such prohibition,
4 and I believe the case law before this Commission is quite
5 clear that the Staff and the Applicant can confer. I don't
6 see any problem with that.

7 MR. BLACK: Besides, I don't like the insinua-
8 tion that we were, whatever it's called, woodshedding the
9 witness. That certainly wasn't the case at all. We were
10 just telling Mr. Maurer what he could expect, what the
11 situation is, what the questions were going to be, and
12 acclimating him to the environment and there's certainly
13 nothing wrong with that. In fact, we should be reprimanded
14 if we don't do that.

15 So, I take exception to Mr. Scott's
16 insinuation we were somehow giving answers to the witness
17 or what have you.

18 MR. SCOTT: He has described exactly what
19 woodshedding witnesses are, as you know.

20 JUDGE WOLFE: Have you made any effort,
21 Mr. Scott, to contact the Corps of Engineers and, more
22 particularly, Mr. Maurer?

23 MR. SCOTT: I was just making the attempt when--

24 JUDGE WOLFE: Prior to today.

25 MR. SCOTT: I didn't know who it was going to

1 be prior to today. No.

2 JUDGE WOLFE: Mr. Black advised yesterday that
3 there would be a change in the witness appearing for the
4 Corps of Engineers, namely Mr. Maurer. Did you even
5 call him on the telephone prior to today.

6 MR. SCOTT: I would have had no chance to do
7 that.

8 JUDGE WOLFE: In other words, you did not call
9 him?

10 MR. SCOTT: No. I have not talked to him.
11 I wouldn't even attempt to. He's not my witness.

12 JUDGE WOLFE: Pardon me?

13 MR. SCOTT: I wouldn't even have attempted to.
14 He's not my witness. I'd have thought I would have been
15 in grave trouble.

16 JUDGE WOLFE: Well, you misunderstand the
17 practice of law. A witness is anybody's witness.

18 MR. SCOTT: I thought this was specifically
19 the Board's witness.

20 JUDGE WOLFE: The Board's witness is a witness
21 and a witness can be contacted by any party and, if a
22 party doesn't take advantage of going to a potential
23 witness and saying what about this, what about these
24 questions, then you have no complaint.

25 MR. SCOTT: Your Honor, I think you miss the

1 point. I attempted to do what Applicant and Staff were
2 doing at the same tir Applicant and Staff were doing
3 it and they attempted it no sooner than I did. I was
4 shut out of the ability to participate.

5 JUDGE WOLFE: You attempted to get to the
6 witness --

7 MR. SCOTT: What's that?

8 JUDGE WOLFE: You attempted to get to the
9 witness after the other two parties --

10 MR. SCOTT: At the same time.

11 MR. BLACK: That certainly wasn't made clear.
12 Mr. Scott just stuck his head in the door and accused us
13 of doing something. I didn't even hear what he said,
14 but he did not ask to talk to the witness at all.

15 MR. SCOTT: Why did you have to close the door
16 then?

17 JUDGE WOLFE: Was there any conversation at
18 all between Mr. Scott and Applicant and Staff counsel when
19 he apparently entered the room?

20 MR. COPELAND: No, sir. He opened the door
21 and accused us of woodshedding the Board's witness and
22 turned around and walked out.

23 JUDGE WOLFE: I see. So he did not ask to
24 speak to the witness at all?

25 MR. COPELAND: No.

1 JUDGE WOLFE: All right. The objection, on
2 its face, is frivolous.

3 MR. SCOTT: Mr. Chairman, I had no chance to
4 ask anything of the witness. Besides, I did not open the
5 door; the witness opened the door.

6 DR. MARRACK: Sir, if the Staff's attorney's
7 statements are correct, then why didn't they conduct these
8 conversations about what could be expected in a public
9 place instead of closing the door?

10 JUDGE WOLFE: You're not a lawyer, sir.

11 DR. MARRACK: I'm sufficiently familiar with
12 the law to understand the situation. Thank you, sir.

13 JUDGE WOLFE: It's the Board's ruling we
14 see nothing wrong with the conduct of Applicant's and
15 Staff's counsel. As I said before, a witness is anybody's
16 witness and may be contacted at any time.

17 As I understand the circumstances of
18 the case here, and I have not been told differently, that
19 there was no effort made by Mr. Scott, no explanation as
20 to why he was coming into the room, and I see no violations
21 of the cannon of ethics. Therefore, whatever objections --
22 is denied.

23 MR. SCOTT: It's on the record. I was
24 accusing them of woodshedding the witness.

25 JUDGE WOLFE: That makes no difference, because
they were not doing anything wrong. They were conducting

1 an examination, pre-trial examination of the witness, and
2 that is perfectly permissible.

3 MR. SCOTT: And I'm asking for the same right,
4 as I did by this motion.

5 JUDGE WOLFE: You are too late now, we're at
6 the hearing.

7 MR. SCOTT: I went to you before all this
8 happened and asked for an injunction, and you said bring
9 it up on the record.

10 JUDGE WOLFE: Because you wanted to enjoin
11 them from doing what they were perfectly entitled to do,
12 namely, speak to the witness before the hearing. You did
13 not take that advantage.

14 MR. SCOTT: I couldn't.

15 JUDGE WOLFE: And you didn't ask them to come
16 into the room so you could interrogate the witness or to
17 say, well, all right, I want to take the witness aside.
18 You just poked your head in and people --

19 MR. SCOTT: I stepped in the door and they
20 shut it on --

21 REPORTER: Mr. Scott.

22 JUDGE WOLFE: Particularly, this Board can't put
23 into it what you think you have in mind, what you think
24 you have in mind. You have to articulate what you have
25 in mind, and, apparently you did not articulate anything

1 to Applicant's and Staff's counsel. You merely stuck
2 your head in the door and said, in substance, I object
3 to this woodshedding and retreated from the room, or
4 didn't even enter the room.

5 So, I see nothing wrong with that
6 practice, and this witness -- We've asked the Staff to
7 present, to secure Mr. Maurer as a witness to respond to
8 Board questions, and we will now proceed with that presen-
9 tation of the witness.

10 MR. BLACK: We would ask that he be sworn.

11 JUDGE WOLFE: Pardon me?

12 MR. BLACK: We ask that he be sworn.

13 JUDGE WOLFE: Yes. Mr. Maurer, would you
14 rise, please.

15 Whereupon,

16 HERB A. MAURER

17 was called as a witness and, having been first duly sworn,
18 was examined and testified as follows:

19 JUDGE WOLFE: Thank you, very much, for
20 appearing today.

21 DIRECT EXAMINATION

22 BY MR. BLACK:

23 Q For the record, Mr. Maurer, could you state
24 your name, address, and position with the U. S. Army
25 Corps of Engineers.

1 A Herb A. Maurer. I reside at 702 North Lane
2 Road, Texas City. I work with the Galveston Army Corps
3 of Engineers, Barracuda Street, on Galveston Island.
4 My position is Chief of the Operations and Maintenance
5 Branch. I am a civil engineer.

6 Q Does the Galveston District of the Corps of
7 Engineers have jurisdiction over the San Bernard Channel?

8 A Yes. We maintain a federally authorized
9 project.

10 Q All right. I would like to, at this time,
11 direct your attention to some questions that were
12 posed by this licensing board to be responded to by an
13 Army Corps of Engineers' witness, and these questions
14 did appear in the transcript of November 20, 1981, just for
15 the record.

16 The first question: Does the Corps have
17 authority over any necessary dredging of the San Bernard
18 River up to and including the area of the proposed site
19 of the ramp for the offloading of the Allen's Creek
20 reactor vessel, across from Phillips Petroleum Dock?

21 A We maintain the authorized project, which is
22 a 9 x 100 foot channel up to River Mile 26.

23 Q And what is your understanding of where the
24 Phillips Petroleum Dock is?

25 A The Phillips Petroleum Dock is located at

1 about Mile 25.2.

2 Q Going to the second question:

3 If the Corps dredges on a yearly basis
4 whatever parts of the channel of the San Bernard which
5 requires dredging, would the Corps perform any dredging
6 at the Applicant's request, namely Houston Lighting &
7 Power, if dredging was necessary, for example, some eight
8 months after yearly dredging has been conducted?

9 JUDGE WOLFE: Actually, Mr. Maurer, that
10 question should be taken in two parts, I think. The
11 first phrase really questions whether or not the Corps
12 does dredge on a yearly basis.

13 A The San Bernard --

14 MR. SCOTT: I must ask for a clarification.
15 Is this question related only to the authorized project up to
16 Mile 26, or does it include dredging outside of that? It needs
17 to be clarified; the question did not clarify that point.

18 MR. BLACK: Let's break it up in accordance
19 with what the Chairman has suggested and we can clear up
20 this matter later.

21 MR. SCOTT: I want to clear it up now.

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1 JUDGE WOLFE: All right. Clear it up.

2 BY MR. BLACK:

3 Q Does the Corps dredge on a yearly basis in
4 the San Bernard Channel?

5 A The San Bernard Channel requires minimal
6 dredging. In fact, some of its reaches have not been
7 dredged since its initial digging. The lower mile is the
8 most frequently dredged, and it's on an anticipated
9 shoaling dredging rate of about a four-year frequency.

10 Q So the dredging at the mouth of the channel
11 is on basically a four-year schedule?

12 A That's the lower portion, the first mile from
13 the Intracoastal Waterway upstream.

14 Q If a private entity such as Houston Lighting &
15 Power, or let's say the oil company, requested dredging
16 from the Corps outside of this four-year period, would
17 the Corps perform that necessary dredging?

18 A They -- in managing the channels, we would
19 take -- we'd take in any consideration of shoaling. If
20 it's brought to our attention we'd perform the surveys
21 that we feel are necessary. At that point -- and in fact
22 if it does need dredging and the funds are available, we
23 would consider dredging it.

24 Q How does shoaling come to your attention?

25 A We try to do condition surveys at certain

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1 intervals. Most of the time we do have complaints from
2 the towing industry themselves of the shoaling pattern
3 within a channel.

4 Q So if a towing company came to you and said
5 there's some shoaling problems at River Mouth 13, what
6 would be the normal course of business for the Corps at
7 that point?

8 MR. SCOTT: Mr. Chairman, I need a clarifi-
9 cation.

10 Is he limiting this to specifically River
11 Mile 13 on the San Bernard, or is he just trying to imply
12 that River Mile 13 could be anywhere?

13 MR. BLACK: I'm talking about specifically
14 on the San Bernard Channel.

15 BY MR. BLACK:

16 Q Any place along the San Bernard Channel with
17 shoaling that became known to you as a problem, what
18 would you do in the normal course of business?

19 MR. SCOTT: Mr. Chairman, I need another
20 clarification as to whether or not he's defining channel
21 as stream bed channel or the Corps authorized channel.

22 MR. BLACK: Let's break it up into two parts.

23 BY MR. BLACK:

24 Q First of all, for the Corps authorized channel,
25 if shoaling became known to you as a problem at any part

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1 along the channel, what would you do, in the normal course
2 of business?

3 A We would schedule a survey for that particular
4 area of complaint.

5 Q After the survey, if it became apparent that
6 shoaling was a problem, then what would the Corps do?

7 A At that point it would become a management
8 decision as to the amount of shoal and the -- and in fact
9 if it required dredging to maintain the project depth
10 and the funds were available, we would prepare a contract
11 and award a contract to maintenance dredge the reaches of
12 the channel.

13 Q If shoaling at that point impeded navigation,
14 and you had the funds available, is it your response that
15 you would let a contract and the necessary dredging would
16 be done?

17 A Yes. That's correct.

18 Q If funds were not available, what would be the
19 recourse of the towing companies or any private entity
20 that wanted to transport something up that channel?

21 A They could perform the dredging themselves
22 after obtaining the proper Department of Army permit to
23 do so.

24 Q So in other words, if the Applicant in this
25 particular proceeding, Houston Lighting & Power, wished to

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1 barge some equipment up the channel and the Corps did not
2 have necessary funding to do any dredging that were
3 necessary, they could get a permit from the Corps and do
4 the dredging themselves?

5 MR. SCOTT: Mr. Chairman, I need a clarifi-
6 cation. As worded, Staff counsel said "could get a
7 permit" as if it would happen.

8 I think he really meant could apply for a
9 permit. I would like him to clarify that.

10 BY MR. BLACK:

11 Q Could they apply for a permit?

12 A Yes, they could.

13 Q And what is required for a private company to
14 obtain such a permit?

15 A Well, it would -- there's a 30-day public
16 notice under such a permit, to where they could come out
17 to -- if there could be any opposition, or whatever, and
18 at that point it generally takes 60 days for processing
19 a permit if there's no adverse conditions or -- maybe not
20 say adverse conditions, but if there's no major objections
21 to that permit.

22 In the event there's something that cannot be
23 worked out environmentally, it could take a much longer
24 time frame than that.

25 Q If dredging were required outside the

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1 jurisdiction of the Corps maintained channel, beyond
2 River Mile 26, let's say, is a permit required for any
3 dredging beyond River Mile 26?

4 A Yes.

5 Q And the Applicant would go through the same
6 process to obtain that permit?

7 A That is correct.

8 Q Have any permits been requested on the
9 San Bernard Channel in, let's say, recent years, the last
10 five years?

11 A I didn't check the record, but yes, I'm sure
12 it is. We've had construction on it.

13 Q How often do people request such permits? Do
14 you have any idea?

15 A No, I don't.

16 DR. MARRACK: Your Honor, could I have a
17 clarification? The witness says construction. Does he
18 mean buildings on the side or is he talking about dredging?

19 JUDGE WOLFE: Well, why don't you ask that on
20 cross-examination?

21 MR. BLACK: Well, let me clear it up now.

22 BY MR. BLACK:

23 Q I was talking about dredging permits; is that
24 what you were referring to?

25 A We consider construct -- say, excavation of a

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1 channel, or dredging required in that excavation, the slip
2 around the bulkhead, as a structure.

3 Now, that -- the discharge of the dredged
4 material would be considered under another, a 404.

5 Q Well, certainly if Houston Lighting & Power
6 wanted to put in a barge slip, they would have to go
7 through this permit process?

8 A That's correct.

9 Q Another question; I want to confine this
10 strictly to dredging in the river channel itself, or
11 just beyond the River Mile 26 in the channel of the river
12 itself. Has any permits been requested within the last
13 five years to do any necessary dredging in that because of
14 shoaling problems?

15 A I did not research the record. Prior to this
16 job I was in the Area Office overseeing the San Bernard
17 area for four years, and that would be about five years
18 and I do not recall any.

19 Q So is it your testimony that shoaling in the
20 upper reaches of the San Bernard has not been such a
21 problem that a private entity would come in and request
22 a permit to do such shoaling, shoal dredging?

23 MR. SCOTT: Mr. Chairman, I need a clarifi-
24 cation once again.

25 When he says upper reaches of the San Bernard,

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1 you know, he could be talking about north of Interstate 10.
2 Does he mean in the upper reaches of the 26-mile authorized
3 channel?

4 MR. BLACK:

5 That's within the Corps authorized channel,
6 let's say, oh, keep it all the way up to where this
7 proposed offloading site would be.

8 MR. SCOTT: Mr. Chairman, that's inconsistent.
9 The proposed offloading site is upstream from the
10 authorized 26-mile channel.

11 MR. BLACK: Well, I'm certainly aware of that.

12 MR. SCOTT: Well, this --

13 MR. BLACK: Mr. Scott, I'll ask the questions.

14 THE WITNESS: I do not recall any for removal
15 of shoal up to a of the Mile 26 authorized channel.

16 BY MR. BLACK:

17 Q I think that we have responded to all these
18 questions except the last one pertaining to notices of
19 navigation interest.

20 Are you familiar with such a term, notices of
21 navigation interest?

22 A Yes, I am.

23 Q Are you aware of how often are they issued and
24 to whom?

25 A We have a mailing list, or how often they are

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1 issued is any time there is a condition in the channel
2 which we need to put a notice out to mariners, or shipping
3 interests. We get it out immediately, or the Coast Guard
4 gets it out immediately. And if we do not have time to --
5 for the mailing addresses, we also have the Coast Guard
6 to broadcast it on their marine network.

7 Q So is it your testimony that notices to
8 navigation are issued when needed, as opposed to on some
9 type of regular schedule?

10 A That's correct.

11 Q So how could a towing company, if they wanted
12 to tow a barge up the San Bernard Channel on a given date,
13 how would they know of the most current information with
14 respect to obstructions in the river that may impeded
15 their navigation?

16 A We do publish a hydrographic bulletin that
17 would have the restricted conditions published, and that's
18 published on a monthly basis. It would only reflect the
19 latest survey. That condition could very well change
20 afterwards. If I were to use the river on a -- and I just
21 assume you're talking about an infrequent basis because
22 you're looking for conditions, I would contact the
23 industry and the towing companies that use it on a
24 frequent basis.

25 Q How frequently do towing companies use the

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San Bernard Channel?

A. Daily.

Q And those towing companies would let the Corps know of any obstructions to navigation along that channel?

A. Yes, sir.

Q And so a towing company that wanted to -- would a towing company that wanted to transport a barge two days hence contact the Corps for the latest information, as well as other towing companies that plied the San Bernard?

A. I would suggest both.

MR. BLACK: I believe that completes the Staff's examination of the witness.

JUDGE WOLFE: Is there cross-examination, Mr. Copeland?

MR. COPELAND: I have one question, Your Honor, just to clear up something I think Mr. Black was pursuing.

CROSS-EXAMINATION

BY MR. COPELAND:

Q To your knowledge, Mr. Maurer, has there been a situation on the San Bernard River where a towing company was unable to operate and move barges up the river because the Corps did not have the funds to maintain the channel at any time?

A. I have no knowledge of that. In fact, it's so minimal dredging required.

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MR. COPELAND: All right, sir. Thank you.
No further questions, Your Honor.

JUDGE WOLFE: Mr. Scott.

Oh, I would advise for the record that
Mr. Schuessler has been in attendance since --

MR. SCHUESSLER: About a quarter till 11:00,
I think.

JUDGE WOLFE: -- quarter of 11:00. It's now
five minutes after 11:00.

All right. Back to you, Mr. Scott.

CROSS-EXAMINATION

BY MR. SCOTT:

Q In all your answers from the Staff counsel
regarding -- and Applicant's counsel asked one question --
when you were asked something about the San Bernard Channel
were you restricting your answers to that portion of the
channel that is the authorized Corps channel? You know,
were you considering what might be happening north of
Interstate 10 in the stream channel?

A I think they applied both ways, one above and
one -- some above and some below. The questions on the
Department of Army permit surely applied above. The
questions pertaining to our maintenance of the channel
only applies to the authorized portion of it.

Q Okay. Are you familiar with the location of --

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1 that the Applicant proposes to build an offloading dock?

2 A In the general vicinity.

3 Q What's the name of the highway that crosses
4 the St. Bernard a mile or two north of the Phillips dock?

5 MR. COPELAND: Objection. It's beyond the
6 scope of the witness' testimony, Your Honor.

7 MR. SCOTT: This is certainly something that's
8 relevant to determining river mile distances, and that
9 sort of thing, and there can be no harm to answering that
10 question.

11 MR. COPELAND: It's a matter of record where
12 that is, Your Honor.

13 JUDGE WOLFE: Where what is?

14 MR. COPELAND: Where that bridge is in
15 relation to the Phillips dock. It's shown in our exhibits
16 in this case.

17 MR. SCOTT: I asked him the name of the
18 highway. I didn't ask him where the bridge was at.

19 JUDGE WOLFE: But why? I don't understand
20 your purpose and wherein it has any relevancy to the
21 Board's question.

22 MR. SCOTT: I asked it so that I could use the
23 proper highway name when I ask the next question.

24 JUDGE WOLFE: And then what is your next
25 question?

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1 BY MR. SCOTT:

2 Q What river mile is that highway bridge on the
3 San Bernard?

4 JUDGE WOLFE: Well, just a moment.

5 MR. COPELAND: That's still beyond the scope
6 of this witness' direct testimony. The Board didn't
7 inquire into where that bridge was.

8 MR. SCOTT: Neither did they inquire as to
9 many other things related to what they inquired to.

10 (Bench conference.)

11 JUDGE WOLFE: Well, for this witness to
12 identify the bridge by name, and your next question, you
13 say, would be --

14 MR. SCOTT: What river mile on the San Bernard
15 is that bridge.

16 JUDGE WOLFE: Now, once again, why is that
17 relevant where that bridge is?

18 MR. SCOTT: Well, the record shows that the
19 Applicant's unloading dock is next to that bridge, and
20 then it would make the point the Applicant's unloading dock
21 is outside of the Corps maintained channel.

22 MR. BLACK: Yes. That has been established
23 previously in this record. Neither Staff nor Applicant
24 deny the fact that the proposed offloading facility is
25 above River Mile 26. That's been testified to.

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MR. SCOTT: Okay. If that's stipulated to,
I'll drop it then.

JUDGE WOLFE: Well, it is a matter of record.
I thought you wanted to do something through the witness
with it; apparently not, so I'll sustain the objection.

MR. SCOTT: I will; I just wanted to get that
stipulated first.

JUDGE WOLFE: I sustained the objection.

MR. SCOTT: Okay.

BY MR. SCOTT:

Q Has this Applicant yet made application to
the Corps for a permit to build its unloading dock?

A I have no knowledge. I didn't check with our
permit department before coming here.

Q Okay. Is it common for barges to go up the
San Bernard north, upstream of the Highway 521 bridge?

A Above 521? Yes.

Q Okay. How about north of Highway 522?

A I would have no knowledge of any going any
above 522.

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1 MR. SCOTT: Excuse me, Your Honor, I've got to
2 dig up myself that information I was trying to get out of
3 the witness a while ago.
4 BY MR. SCOTT:
5 Q Sir, are you familiar with the depths of -- in
6 the San Bernard River north of Highway 522?
7 MR. BLACK: Objection to relevance.
8 MR. COPELAND: Objection to relevance, and it's
9 beyond the -- the relevance being that it's beyond the
10 scope of his direct examination.
11 MR. SCOTT: Well, Your Honor, he was asked
12 questions about barging on the San Bernard upstream of
13 their authorized channel, so....
14 MR. BLACK: Up to the proposed offloading
15 facility.
16 MR. SCOTT: I don't remember that limitation
17 being put in in every question.
18 MR. COPELAND: He was never asked a question,
19 Your Honor, about the depth of the river at any point.
20 (Bench conference.)
21 MR. SCOTT: Well, Your Honor, many questions
22 were asked about barging and has ever anyone that wanted
23 to barge something been denied the chance, and the
24 implication would be left in the Board's mind that there's
25 a huge fleet of barges going up and down the San Bernard

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1 past the Applicant's unloading dock, and that's got to be --

2 JUDGE WOLFE: Well, we will only give
3 consideration to that which is a matter of record. If
4 that's why you're asking the question, forget it. If
5 there's something in the record on barge traffic, then
6 we will give attention to it; if not, then we won't. So
7 I'll sustain the objection.

8 MR. SCOTT: Okay.

9 BY MR. SCOTT:

10 Q Sir, are you familiar with the depths of water
11 in the San Bernard over the total distance between the
12 Phillips unloading dock and Highway 522 bridge?

13 MR. COPELAND: Objection, Your Honor; that
14 goes beyond the scope of this witness' testimony.

15 MR. SCOTT: Applicant just discussed how that
16 he had asked him many questions up to the Highway 522
17 bridge. I'm not going north of that point.

18 MR. COPELAND: Your Honor, this witness was
19 never asked any questions about channel depths at any
20 place along the river.

21 JUDGE WOLFE: He was only queried about the
22 Corps' participation in dredging. He did not address what
23 the depth of the channel was, or anything of that nature.

24 MR. SCOTT: He said a hundred foot wide by
25 nine foot deep.

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MR. BLACK: That was just a description of
channel.

MR. SCOTT: Well, I don't want the Board left
with the feeling that that's the depth of the channel all
the way to the bridge, and that's where they'd be left if
this is not pointed out to them.

JUDGE WOLFE: All the way to the bridge?

MR. SCOTT: Yes, all the way to the 522 bridge.

MR. COPELAND: Well, Your Honor, as I recall,
as a result of Mr. Scott's insistence, Mr. Black's
questions about the river channel were limited to the
Corps authorized channel, and the area he's talking about
now is beyond that area.

MR. SCOTT: We made him break it up into two
parts. He asked questions above, inside and outside the
Corps channel.

MR. COPELAND: And he never talked about the
channel depths above the Corps maintained channel.

MR. SCOTT: Well, Your Honor, the whole point
here is whether or not -- the whole basis of the Board's
question is what kind of environmental impact may be
incurred by barging up to the unloading dock.

JUDGE WOLFE: Well, we're getting into the
environmental impact now; is that correct?

MR. SCOTT: Yeah, that's what the Board's

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1 question is about.

2 JUDGE WOLFE: I'll sustain the objection.

3 The Board's question that this witness'
4 testimony is directed to does not involve the environment
5 at all. We're talking about their jurisdiction and what
6 they will do under certain circumstances.

7 MR. SCOTT: But that directly affects what
8 the environmental impact is.

9 JUDGE WOLFE: I would advise you, and any
10 other Intervenor that intends to cross-examine this
11 witness, we are not getting into environmental impacts.

12 The cross-examination will be limited
13 exclusively to the thrust of the Board's questions, which
14 does not deal with or even touch upon environmental impacts.
15 This is behind us.

16 MR. SCOTT: Yeah, but, Your Honor, let me
17 explain. I didn't mean to go into the details of the
18 environmental impact. I just wanted to get into the
19 detail of whether or not permits would be required or
20 not required.

21 JUDGE WOLFE: Ask that question; but we're not
22 getting into environmental impacts.

23 BY MR. SCOTT:

24 Q What are the availability of funds at the
25 present time for dredging on the San Bernard?

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1 A Presently it's not scheduled for dredging in
2 FY '82.

3 JUDGE WOLFE: I can't hear you, Mr. Maurer.
4 Would you put the microphone in front of you and please
5 speak directly into it. Thank you.

6 THE WITNESS: It's not scheduled for dredging
7 in FY '82.

8 BY MR. SCOTT:

9 Q Did you say "in"?

10 A During FY '82.

11 Q Oh, during.

12 A Fiscal year '82.

13 Q Are you implying that no one has any knowledge
14 available of the funds past 19 -- fiscal year '82, is
15 that what you're saying?

16 A Well, if you get into funding matters, we do
17 project -- we have turned in our anticipated '83, and we
18 do project ahead, and based on the schedule of frequency,
19 the lower portion, the one mile I was talking about, would
20 be due in '83 and '84, provided conditions arose.

21 Now, if you get into funding and we talk about
22 the San Bernard, that is a portion of the Gulf Intracoastal
23 Waterway, a tributary of the Intracoastal Waterway, and
24 that monies in the past, and I see no reason why it would
25 be in the future, is lumped to be expended as the

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1 Intracoastal Waterway, and that's a management decision
2 on our part as to where it should be spent.

3 Q Okay. In the recent past, and the projected
4 future, to the extent that you can realistically project
5 it, have you generally had available all the funds that
6 you would need for all of the requested projects, or do
7 you have to pick and choose, leave some out and do some?

8 A You're talking about our total district
9 maintenance program or --

10 Q Well, let's take the whole Galveston District
11 area, yes.

12 A Surely there's austere years, and the past
13 years we've managed to maintenance dredge what we felt
14 was necessary from the manager's viewpoint.

15 Q Yes, I appreciate that, but was there other
16 people outside the Corps that was asking that even
17 additional dredging be done that was not able to be done
18 during those years?

19 A Well, when you say other people, that broadens
20 it up quite a bit. We have complaints from the towing
21 industry on other channels and we have to weigh the
22 location, the frequency, the shoaling rates, and I guess
23 what you're asking is do we please everybody, and I'd have
24 to say no on that.

25 Q Okay. That's what I was asking you.

6-7 he 1 You mentioned that the Corps did occasional
2 periodic surveys of the -- of you all's authorized
3 channels, in particular in the -- I guess more frequent
4 surveys in the area of the mouth of the San Bernard, to
5 determine whether or not the authorized channel was still
6 maintained, or without shoaling had decreased water depths,
7 and whatever.

8 Very briefly, what's the process used to
9 determine that fact -- determine the water depth?

10 MR. COPELAND: Objection, Your Honor. I don't
11 see how that relates to the Board's questions.

12 MR. SCOTT: He's probably right.

13 JUDGE WOLFE: Sustained.

14 MR. SCOTT: No further questions.

15 JUDGE WOLFE: Mr. Schuessler, are you here to
16 cross-examine?

17 MR. SCHUESSLER: No, sir.

18 JUDGE WOLFE: All right. Who shall go next in
19 cross-examination, Dr. Marrack or Mr. Doherty? Have you
20 agreed?

21 DR. MARRACK: It's been alphabetical up to now.

22 MR. DOHERTY: Go ahead.

23 CROSS-EXAMINATION

24 BY DR. MARRACK:

25 Q Mr. Maurer, you indicated earlier that you had

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1 authorization up to Mile 26 on the San Bernard. When was
2 that given?

3 A Just a second and I'll....

4 It was authorized by the River and Harbor Act
5 of 20 June 1938, House Document 640, 75th Congress,
6 Third Session.

7 Q That's the 36th Congress, isn't it -- no, no,
8 86th Congress, is that right?

9 A I couldn't understand you.

10 Q Which Congress authorized that?

11 A The 75th.

12 Q 75th. All right.

13 JUDGE CHEATUM: Mr. Maurer, did you say 1938
14 was the first date of authorization?

15 THE WITNESS: On 20 June 1938

16 BY DR. MARRACK:

17 Q Mr. Maurer, what mile did that authorization
18 go to?

19 MR. COPELAND: Asked and answered, Your Honor.

20 DR. MARRACK: No, sir.

21 MR. COPELAND: You're talking about the
22 original authorization?

23 DR. MARRACK: Yes, sir.

24 MR. COPELAND: Irrelevant.

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1 BY DR. MARRACK:

2 Q Was that authorization changed at a later
3 date, Mr. Maurer?

4 MR. COPELAND: Irrelevant.

5 BY DR. MARRACK:

6 Q What authorization do you have now, sir?

7 MR. COPELAND: Asked and answered.

8 BY DR. MARRACK:

9 Q What date was the authorization you have now
10 given?

11 JUDGE WOLFE: I didn't hear this last
12 question.

13 DR. MARRACK: Sorry. I'm asking him what date
14 the current authorization of the Mile 26 was given.

15 JUDGE WOLFE: All right. There's been no
16 objection and no modification of questioning, so you can
17 answer that one, Mr. Maurer.

18 THE WITNESS: Well, I can just read off of
19 what I have off my fact sheet here.

20 The Public Law 93-251 deauthorized
21 approximately 3.5 miles of the upper reach of the
22 improved project, and what date that was I don't know.

23 BY DR. MARRACK:

24 Q Do you know which legislature did it?

25 A No, I don't. It's under Section 12 --

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1 Q I see. Does your --

2 I'm sorry.

3 A It's under Section 12 of Public Law 93-251.

4 That's all the information I have available.

5 Q Yes. Do you know why they deauthorized the
6 upper three point whatever it was miles?

7 MR. COPELAND: Objection to relevance,
8 Your Honor. It has no bearing on the Board questions.

9 DR. MARRACK: The Board might want to consider
10 this; does it involve in fact the nature of the channel
11 above 26.

12 JUDGE WOLFE: May I have that question back,
13 please, Ms. Bagby.

14 (Question read by reporter as follows:

15 "QUESTION: Yes. Do you know why they
16 authorized the upper three point whatever
17 it was miles?")

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1 JUDGE WOLFE: What is your question again?

2 DR. MARRACK: I asked whether he had the
3 reasons why they deauthorized the upper three point, I
4 think it's five, miles of the original authorization in
5 the legislature of '53 -- 93051.

6 JUDGE WOLFE: I don't see the relevancy.
7 Objection sustained.

8 DR. MARRACK: Sir, it is relevant, and there's
9 a -- maybe a reason that the Board would want to consider
10 why that channel was deauthorized, what's the problem with
11 the channel up there.

12 MR. BLACK: But it's not relevant to the present
13 Board inquiry.

14 DR. MARRACK: Sir, it is, because the
15 Applicant's proposed unloading site is above 26 in that
16 piece of channel, that 3.5, or whatever it was, miles --
17 3.5, 3.9, I can't remember.

18 BY DR. MARRACK:

19 Q. Mr. Maurer, was it 3.9 or 3.5?

20 JUDGE WOLFE: This is not relevant to the
21 Board inquiry. Perhaps you might have put this question --

22 DR. MARRACK: It seems --

23 JUDGE WOLFE: -- or presented it on whatever,
24 I guess it was TEX PIRG's case in chief, but it bears no --
25 it's not within the scope of any of our questions that

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we've orally put in the transcript, beginning at
Page 2441.

All right. Next question, Doctor.

DR. MARRACK: All right.

BY DR. MARRACK:

Q What's the deepest draft of the barges that
currently use the San Bernard River on a regular basis?

A What is the deepest draft? I wouldn't know --
well, let me check my statistic sheets.

I can't answer your question; only what I've
observed, and that was a nine-foot draft.

Q Nine foot. I see.

You indicated that you do surveys on the
authorized channel and that under some circumstances you
then go forward to re-dredge some areas.

What are the criteria which determine from --
determine from your surveys the sites whether you need to
go and re-dredge or not?

A I guess a basic one is if we do not have
project depth.

Q But do you have a project depth immediately
after you've done your dredging or six months later?

MR. COPELAND: I don't understand that
question, Your Honor. I'm going to object to it, the
form of it.

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1 BY DR. MARRACK:

2 Q Is the depth of the river -- channel after a
3 dredging static or does it change with time?4 MR. BLACK: I'm going to object to this line
5 of inquiry anyway. We're probably heading into a line
6 of inquiry on the mechanics of dredging, and what have you,
7 and I don't think that goes to the jurisdiction of the
8 Corps, which is the relevance of this inquiry.9 DR. MARRACK: Sir, I'm trying to determine
10 what are the criteria which determine when the Corps
11 decides to re-dredge after they've done the survey, and
12 he said -- and I'm given the answer, when the bottom
13 doesn't meet the specification, the bottom depth doesn't
14 meet the specifications, which you and I know perfectly
15 well that this river is a dynamic thing, it starts filling
16 up immediately, and how much above the -- shallower than
17 the authorized depth do you have to get before they start
18 acting again; "they" being the Corps of Engineers.19 MR. BLACK: Well, to me, this line of inquiry
20 is getting into the hydrological characteristics of a
21 river bottom and --22 DR. MARRACK: No. It's a managerial decision
23 problem, sir, and that's what they're talking about.24 MR. COPELAND: Well, what's the point anyway,
25 Your Honor? The witness has testified if they get a

6-14 he 1 complaint that there's a shoal, they go out and survey it
2 and if it's a problem and the channel is not maintained to
3 that depth, then they'll dredge it out, so what difference
4 does it make if it's a day later? I mean, it seems to me
5 that the witness has answered the question by giving that
6 explanation.

7 I might add he has also indicated that that's
8 never been necessary on the San Bernard River, that they've
9 had very minimal dredging out there.

10 DR. MARRACK: However, he already has stated
11 in the record that the dredging of the mouth has to be
12 done occasionally, and the reason for doing the surveys,
13 as I understand it, is to determine whether dredging is
14 needed and when.

15 JUDGE WOLFE: I think this is a matter of
16 record, and I think --

17 DR. MARRACK: He hasn't given the criteria,
18 sir, which determines his managerial decisions when he'll
19 send his staff out to go and dredge, is what I was asking.

20 MR. COPELAND: That's not true.

21 JUDGE WOLFE: I think the question is
22 irrelevant. Objection sustained.

23 Next question.

24 BY DR. MARRACK:

25 Q. How many complaints, Mr. Maurer, do you have

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1 to have from a towing company about a particular section
2 of the river before you go to dredge it?

3 A. How many? We can have one complaint and
4 we'll check it out when the manpower is available.

5 Q. And just because you survey it, does that mean
6 you're going to go and dredge it?

7 A. No, it doesn't.

8 Q. All right. How many complaints do you have to
9 have before you will go and dredge that area?

10 A. I don't think it's based on the number of
11 complaints. It's the frequency the channel is used and
12 the condition that we find the cross-sectional area of
13 the channel or river at that time.

14 Q. What is that condition, as you say, about the
15 cross-sectional area? What are its parameters?

16 A. It's the judgmental portion that I guess you
17 would say in a river, if we have sufficient waters for
18 the most common vessel or barge, tow, whatever you may
19 speak of, to use that water, well he -- I mean, that's
20 entered into our decision of whether to put out a contract
21 or not, and if we have a sufficient amount of material to
22 put out a maintenance dredge. Now, if we've got a
23 substantial shoaling, we'll put out an emergency contract
24 for a small portion.

25 Q. But you implied in that answer that you have

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1 knowledge of the common depths of the barges that use
2 this channel.

3 MR. COPELAND: Is there a question?

4 BY DR. MARRACK:

5 Q Is that not correct?

6 MR. COPELAND: He just answered the question,
7 Your Honor.

8 BY DR. MARRACK:

9 Q Isn't that what you're saying, that you --
10 wasn't your answer saying that you in fact have some idea
11 of the knowledge -- had a knowledge of the depths the
12 barges using that channel in?

13 A I said I observed them drawing nine-foot drafts,
14 if that's what you're insinuating.

15 Q No, sir. Your answer was that --

16 DR. MARRACK: Could we have the answer --
17 Mr. Maurer's answer read.

18 MR. COPELAND: Well, why is he asking him to
19 repeat his answer, Your Honor? The witness said what he
20 said.

21 DR. MARRACK: No, he didn't.

22 JUDGE WOLFE: You would like the witness'
23 answer read back to you?

24 DR. MARRACK: Yes.

25 MR. COPELAND: Two answers back?

17 1 DR. MARRACK: Two questions back, not with the
2 nine-foot one, the one before that.

3 (The answer was read by the reporter
4 as follows:

5 "ANSWER: It's the judgmental portion
6 that I guess you would say in a river,
7 if we have sufficient waters for the
8 most common vessel or barge, tow,
9 whatever you may speak of ...")

10 DR. MARRACK: That's enough.

11 BY DR. MARRACK:

12 Q So you have, --

13 THE REPORTER: Wait a minute, please,
14 Dr. Marrack.

15 All right. Thank you.

16 BY DR. MARRACK:

17 Q So you have, then, some knowledge of the most
18 common vessel that's towed up the San Bernard. What is
19 that?

20 MR. COPELAND: Your Honor, he has --

21 Dr. Marrack is mixing apples and oranges, Your Honor.
22 He first asked the witness what the criteria was for
23 determining when they would dredge an area, and the witness'
24 answer was, as the court reporter has gone back and read,
25 related to a general answer about knowledge with respect to

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1 what is the common type of barge being transported through
2 a particular area that they're concerned with.

3 Previously he had answered Dr. Marrack a
4 specific question about what the depth was -- of the
5 draft was of barges on the San Bernard, and the witness
6 answered that question.

7 So I think his questions have been answered.
8 I think they've been answered fully, and I don't think
9 there's any point in discussing this any further.

10 DR. MARRACK: Your Honor, apparently the
11 decision to re-dredge, if I understand the answer -- the
12 question where you've had the answer re-read back, is
13 that it's when the most common vessel on the San Bernard
14 gets stuck, or in trouble in towing, that the decision is
15 made to go and re-dredge, and that may be very different
16 from the authorized channel depth of nine feet, and I'm
17 now trying to find out again --

18 JUDGE LINENBERGER: Dr. Marrack, I'm sorry;
19 you are completely unintelligible here without the use of
20 your microphone.

21 DR. MARRACK: I apologize, sir. I'm so sorry.

22 The question to which the witness answered,
23 and the answer was read back a few moments ago, referred
24 to the most common vessel on the San Bernard, implying
25 that this vessel was the one which triggered the process,

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1 when it gets repeatedly stuck, apparently, the process of
 2 ordering -- the Corps ordering a re-dredging, or
 3 considering re-dredging of a section of the channel, and
 4 we recognize that most common vessel may not be getting
 5 stuck, may not be the same as a vessel which is drawing a
 6 nine-foot draft.

7 So the question arises what is the depth of
 8 the most common vessel that we're referring to.

9 MR. COPELAND: Well, that's my point,
 10 Your Honor. His question didn't inquire into that
 11 decision process solely with respect to the San Bernard.
 12 It was a broad question.

13 DR. MARRACK: I know, it's strictly for the
 14 San Bernard. We've been talking about no other river beds.

15 MR. COPELAND: Well, that's not what your
 16 question was, Doctor. And the witness has answered that
 17 barges of nine feet deep are using the river, so what's
 18 the point, why pursue that any further.

19 DR. MARRACK: Because the nine-foot barge may
 20 be the most common vessel, which is his -- the witness'
 21 phrase -- using the channel.

22 JUDGE WOLFE: If that is so --

23 DR. MARRACK: And that's what I'm trying to
 24 find out.

25 JUDGE WOLFE: Well, the witness has already

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he

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1 said that.

2 DR. MARRACK: No, sir, he hasn't said what the
3 depth of the most common vessel is.

4 JUDGE WOLFE: Well, is that your question?

5 DR. MARRACK: That's exactly what I last
6 asked, sir.

7 JUDGE WOLFE: Well, answer the question, then.
8 Objection overruled.

9 THE WITNESS: Let me extract the word "common."
10 We would consider barges, particularly going up in this,
11 tow barges in the San Bernard, and I guess the most common
12 users I could think of is Parker Brothers, Shell dock
13 in there, and Phillips 66 with their chemical petroleum
14 barges, and the two I observed the other day going up there,
15 which were fully loaded, one outbound and one inbound, one
16 of them was the Tug LACROIX. And it was out of Baton
17 Rouge. It was drawing nine foot with its tow, and the
18 barge was 50 foot wide, and he indicated 120 foot long
19 but I think he meant 220 because it was a fairly long
20 barge.

21 The loaded Shell barge was going up to Parker
22 Brothers dock was pushed by the Tug RUEBIN ROBIN. The tug
23 is 70 foot long. It was drawing eight foot of water.
24 The over-all length was 310 feet, and the barge itself
25 was 240 feet long and 45 feet wide. That's the type of

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he

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1 vessels I was referring to as common.

2 BY DR. MARRACK:

3 Q I see. And how far up is the upper of either
4 Phillips or Parker Shell sites, what was the mile?

5 A I didn't understand.

6 Q One or other, the Phillips site or the Parker
7 Shell site is further up the river than the other. What's
8 the maximum of those two in river miles?

9 A Parker Brothers is located, I believe, at
10 Highway 521, which is about Mile, roughly, 17, and
11 Phillips is about 25.2, somewhere in that vicinity.

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1 Q You indicated earlier you had knowledge of
2 what the Applicant's proposed unloading site is. What
3 mile is that?

4 MR. COPELAND: Your Honor, I object. This
5 is getting beyond the scope of the Board's questions.

6 DR. MARRACK: The witness has, I see, TEX PIRG
7 Exhibit No. 15 in front of him. He can indicate on that
8 map what he thinks is approximately the right place.

9 MR. COPELAND: I still object to it as going
10 beyond the scope of the Board's questions.

11 DR. MARRACK: He has already indicated he
12 has approximate knowledge of this. I don't know what
13 approximate means and I want something more specific.

14 MR. BLACK: We have already stipulated
15 on the record that it's about River Mile 26, and I think
16 the testimony will clearly indicate that; so what's the
17 point?

18 DR. MARRACK: What's at Mile 26?

19 MR. BLACK: I said beyond 26.

20 DR. MARRACK: I'm interested in whether the
21 witness really knows where this site is.

22 MR. COPELAND: He didn't come here to testify
23 about that, Your Honor.

24 DR. MARRACK: He said he knew the approximate
25 site.

1 MR. COPELAND: He came here to answer the
2 Board's questions. He's answered the Board's questions
3 and this cross-examination is going beyond that.

4 (Bench conference.)

5 JUDGE WOLFE: Objection overruled.

6 BY DR. MARRACK:

7 Q Would you care to indicate on -- I think you
8 have TEX PIRG Exhibit 15 in front of you, or a copy
9 thereof -- on that map --

10 JUDGE WOLFE: Of course, this is not going to
11 appear on the record unless you can make, I guess, more of
12 a definition, because --

13 DR. MARRACK: Could we get the official copy
14 of TEX PIRG 15 for the witness to use?

15 MR. COPELAND: You'll have to go to Washington
16 to get it.

17 DR. MARRACK: You don't have a copy there, sir,
18 that he can look at?

19 JUDGE WOLFE: Not with me.

20 BY DR. MARRACK:

21 Q Would you recognize these maps as copies of
22 similar copies you have of TEX PIRG 15?

23 MR. BLACK: He doesn't know what TEX PIRG 15 is,
24 Dr. Marrack.

25 DR. MARRACK: I am asking the Judge, sir.

Thank you.

1 JUDGE WOLFE: I have my copy of TEX PIRG 15
2 with me.

3 DR. MARRACK: Would this be the same, sir?
4 Would you recognize mine?

5 JUDGE WOLFE: What is the identification on
6 that paper?

7 DR. MARRACK: It's Sheet 1 of 3, San Bernard
8 River, maintenance bridge.

9 MR. COPELAND: Well, Your Honor, I don't
10 understand why we're having to mark this map with a
11 location of the site, because the Applicant put into
12 evidence a map showing the exact location of the site
13 on the river.

14 JUDGE WOLFE: And what was that, Applicant's
15 Exhibit No. 16, the Dames & Moore?

16 MR. COPELAND: Yes, sir, that is correct.

17 (Bench conference.)

18 JUDGE WOLFE: Maybe you can assist us,
19 Mr. Copeland, if you would. I will hand you a copy of
20 Applicant's Exhibit 15. Can you hand that to the witness
21 to the particular map, so that he can identify at --

22 MR. COPELAND: We would ask --

23 JUDGE WOLFE: -- what river mile the proposed
24 site is, or the offloading ramp.

25 MR. COPELAND: I have shown the witness

1 figure 1(a) of Applicant Exhibit No. 16. I don't know
2 if you can tell what river mile by that map.

3 THE WITNESS: Do you want me to answer the
4 question?

5 BY DR. MARRACK:

6 Q Have you seen that document before?

7 A This particular one?

8 Q The Dames & Moore Report you have in front
9 of you now.

10 A No, I have not.

11 Q Do you recognize anything on that sheet,
12 Figure 1(a)? Do you recognize any of that as being
13 anything you know about?

14 JUDGE WOLFE: I'm not going to allow that.
15 We're just asking him about the river mile.

16 Can you establish the river mile from
17 that particular map?

18 DR. MARRACK: Can't I ask the witness, though,
19 whether he even recognizes where this map is?

20 JUDGE WOLFE: Answer my question:

21 Can you determine from that what the
22 river mile is?

23 THE WITNESS: I can just roughly give you an
24 approximation, because I have our environmental map here
25 which shows our Mile 26 just a fraction below our project

1 map and the environmental map would indicate that Mile 26
2 is just short of the proposed site. My project map indicates
3 that the lower boundary of the proposed site would be at
4 about Mile 26.

5 JUDGE WOLFE: All right.

6 BY DR. MARRACK:

7 Q Before that goes back, how much of the --
8 Turn to Figure 2, the next one to it. The
9 unloading dock is shown. Would you care to look at that?

10 MR. COPELAND: Your Honor, I'm going to object
11 to the relevance of that question because this document
12 clearly shows that the whole line of questions is
13 irrelevant because it demonstrates, if you examine the
14 figure that Dr. Marrack has just turned to, there is a
15 cross-section shown here, Cross-Section A, shown on
16 Figure 2, and if you turn to Figure 3, immediately
17 behind there, it shows that the river cross-section there
18 is twelve feet deep. Therefore, this whole line of
19 questions is absolutely irrelevant.

20 DR. MARRACK: In the first place, it --

21 MR. COPELAND: Furthermore, I might add, this
22 witness is not here for the purpose of testifying about
23 river depths in that area which is obviously --

24 DR. MARRACK: I am not asking about river
25 depths. I was trying to ask how far the dock site is

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1 above the Mile 26.

2 JUDGE WOLFE: He has already answered that.

3 DR. MARRACK: No. He said the lower boundary
4 of the Applicant's --

5 MR. SCOTT: No.

6 JUDGE WOLFE: I'm sorry, Mr. Scott. I was
7 talking to Dr. Marrack. Now, no more injections like that.

8 Yes, Doctor? I'm sorry.

9 DR. MARRACK: I was trying to ask the witness,
10 in spite of Mr. Copeland, the distance of the dock site
11 from Mile 26, not the property line, which is the answer
12 we got, whether it's right or wrong.

13 JUDGE CHEATUM: Dr. Marrack, would you please
14 listen to me just a moment.

15 DR. MARRACK: Yes, sir.

16 JUDGE CHEATUM: The Board is interested in the
17 authority of the Corps with respect to any dredging which
18 may be required, not only at the off-site point, but in
19 the channel itself. We are not interested in getting into
20 any environmental impact of such dredging.

21 DR. MARRACK: I'm not --

22 JUDGE CHEATUM: I know you're not. I just
23 want to make sure that you understand that we're only
24 interested in the authority of the Corps and how that
25 authority might be exercised in relation to the project
of building an off-loading ramp and getting a reactor

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1 vessel to that off-loading ramp. That's all.

2 DR. MARRACK: I understand.

3 JUDGE CHEATUM: We've had a lot of evidence
4 before us already with respect to the hydrodynamics of the
5 channel and the dredging that is required in relation
6 to it.

7 DR. MARRACK: Fine.

8 So, you have also, I think, statements
9 recently which are not -- which are in conflict to the
10 previous statements, is what I'm trying to get into.

11 JUDGE WOLFE: What previous statements?

12 DR. MARRACK: Could I just go on, sir, and
13 let me go on with it?

14 JUDGE WOLFE: Hold on, now. There is an
15 objection and we have to rule on that.

16 Objection sustained. Any further
17 inquiry along these lines is beyond the scope of
18 the Board's questions.

19 DR. MARRACK: Sir, the witness didn't answer
20 my question. He told me about lower boundary.

21 JUDGE WOLFE: I know, but we've ruled now.

22 We are not going to get into this area.
23 It's beyond our questions. Now, just take the Board's
24 ruling as it is or we will terminate your
25 cross-examination entirely. It's as

1 simple as all that. I will hear no more argument, Doctor.

2 DR. MARRACK: Sir, I wish to present to the
3 Board that the lower boundary of the Applicant's site
4 does not correspond with Mile 26 on the Corps environmental
5 map, which I happen to have, which is TEX PIRG 13, and which
6 the witness has in front of him.

7 JUDGE CHEATUM: Mr. Marrack, we understand that.

8 DR. MARRACK: Wouldn't you care to have the
9 truth and find out which is right?

10 JUDGE CHEATUM: We're interested in the
11 authority of the Corps with respect to implementing any
12 dredging beyond 26 or adjacent to 26, at any point, in
13 order to expedite the project.

14 DR. MARRACK: Wouldn't you like to know
15 whether it is -- whether extension of dredging from the
16 application is required?

17 JUDGE WOLFE: Why don't you ask that question
18 of the witness.

19 JUDGE CHEATUM: Ask that question.

20 DR. MARRACK: That --

21 JUDGE WOLFE: We are not interested in the
22 mileage now, the river mile. We are interested in the
23 authority as Judge Cheatum has indicated. So, if you
24 have questions directed to that, get to them.

25 DR. MARRACK: Sir, there is a difference between--

1 JUDGE WOLFE: Are you now arguing with the Board
2 or are you asking the witness a question?

3 DR. MARRACK: Before you make your decision --

4 JUDGE WOLFE: I've made the decision, Doctor.
5 I've made the decision you will be quiet or I will
6 terminate your cross-examination.

7 DR. MARRACK: I wish to continue my objection.

8 JUDGE WOLFE: Your objection is understood.

9 MR. SCOTT: Mr. Chairman --

10 JUDGE WOLFE: You will continue your
11 cross-examination.

12 MR. SCOTT: Mr. Chairman, I need a clarification
13 here.

14 MR. COPELAND: Mr. Scott has already finished
15 his cross-examination. I don't understand why he needs
16 clarification at this point.

17 MR. SCOTT: Any party can ask for clarification
18 at any time. The Board very specifically asked this witness
19 to answer a question from Dr. Marrack as to what river mile
20 the unloading dock was. I mean, that's the Board's
21 question to this man, essentially.

22 Now, when Dr. Marrack asked that
23 question, he did not answer it. He answered where the
24 property line was, not the unloading dock. All of this
25 controversy is over that one little point.

1 MR. COPELAND: And all irrelevant.

2 JUDGE WOLFE: We've ruled.

3 Go ahead, Doctor, with your examination.

4 BY DR. MARRACK:

5 Q Mr. Maurer, you indicated you had
6 sometimes limitations of funding for dredging. Is each river
7 basin a separate item in your funding for maintenance
8 dredging?

9 MR. COPELAND: Asked and answered, Your Honor.
10 He's explained where the funding for the dredging that
11 they do on the San Bernard River is lumped in with their
12 project, total projects.

13 DR. MARRACK: He didn't say that, sir.
14 Can we have the record played back? That is not what
15 was said.

16 MR. COPELAND: Excuse me. You're right.

17 JUDGE WOLFE: You heard the question,
18 Mr. Maurer?

19 WITNESS MAURER: Yes.

20 JUDGE WOLFE: I would like to stop the
21 squabbling, particularly whether it's asked and answered.
22 I'll overrule the objection.

23 Answer the question.

24 A The funding for the San Bernard River -- the
25 San Bernard River is a tributary of the Gulf Intracoastal

1 Waterway, and the funding is in a lump sum to the Gulf
2 Intracoastal Waterways.

3 BY DR. MARRACK:

4 Q Do you have any formula to deciding which
5 project of the Intracoastal Waterway fund will get
6 activated and which ones will be put aside for the time
7 being when there insufficient funds to meet all the
8 requests that are before you?

9 A Not a formula, so to speak, but a record of
10 maintenance and shoaling of our channels and their reaches
11 within these certain funds, and that pretty well holds
12 true, and we advance it in trying to fund for FY 83 and 84.
13 We project these areas which needs shoaling or needs
14 dredging.

15 Q I see. And how much is included in this
16 Gavleston funding of the Intracoastal Canal, what amounts
17 to a block run? Or how much -- Intracoastal Canal, how
18 many waterway systems are included in that or involved
19 in that?

20 A I cannot answer you offhanded without checking
21 the records.

22 Q Does it go from the Texas border or the
23 eastern border of Louisiana down to Brownsville or what?

24 A From the Sabine River to Brownsville, Texas,
25 and its tributaries, which a few of them are the

1 San Bernard River, Colorado River, Channel Victoria,
2 Channel Palacias --

3 Q Galveston?

4 A Galveston Channel?

5 Q Yes, is that in it too?

6 A Not Galveston Channel. That is a separate
7 project. Now, it crosses Galveston Bay.

8 Q I see. The Galveston Ship Channel and
9 Buffalo Bayou is not part of it?

10 A That's correct.

11 Q Thank you.

12 DR. MARRACK: I don't have any more questions.
13 Pass the witness.

14 Thank you, sir.

15 JUDGE WOLFE: Mr. Doherty?

16 CROSS-EXAMINATION

17 BY MR. DOHERTY:

18 Q A while ago you answered a question with regard
19 to whether the Corps would dredge for Houston Lighting &
20 Power if it wasn't on the annual schedule to dredge.
21 I think you said no to that question and then gave some
22 more details.

23 Has there ever, to your knowledge, been a
24 request to dredge like that that you have, or that the
25 Corps has acceded to or the Corps has gone ahead and done?

1 A Now, you're talking about the San Bernard
2 River or in general?

3 Q San Bernard River, please.

4 A I have no knowledge.

5 Q Okay. How about in general, then? Do you have
6 any general knowledge on that?

7 A Well, just because someone asks for a
8 certain segment of the channel to be dredged, that's no
9 sign it will be dredged. We have the responsiblity of
10 managing these projects and managing the funds that go
11 with them, and there is a lot of consideration that has to
12 go into that as to an individual's wishes to be fulfilled.

13 Q How long have you been in your present position?

14 A Just about eight months.

15 Q Were you associated with the Galveston area
16 Corps of Engineers prior to that time?

17 A About eighteen years.

18 MR. DOHERTY: No further questions, Your Honor.

19 JUDGE WOLFE: Is there redirect, Mr. Black?

20 MR. BLACK: No questions.

21 JUDGE WOLFE: Are there additional Board
22 questions?

23 JUDGE CHEATUM: Yes.

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BOARD EXAMINATION

BY JUDGE CHEATUM:

Q In connection with the maintenance of the San Bernard Channel, the dredging which is required from time to time, is it done by contractor mostly or does the Corps have its own dredging equipment so that it can go out and do the job without letting contracts for the dredging?

A. The San Bernard Channel is done strictly by contract dredgers, by Pipeline Cutter.

Q It is dredged by contract?

A. That's correct.

Q All right.

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1 Q That is a standing contract, is that right,
2 from year to year?

3 A I don't know what you mean by standard.

4 Q Standing.

5 A Oh, a standing?

6 Q Yes.

7 A No. It would be on a job-per-job basis.

8 Q Is it for a term of years or is it just per
9 year or on a specific dredging job?

10 A It is a removal of a specific yardage measured
11 by surveys out of the river for that particular contract.

12 Q I see. As a general rule, how much time might
13 elapse between when you have indicated to you that a survey
14 is required in order to determine how much and, indeed,
15 if that dredging is required as a result of complaints,
16 how much time does it take between then to complete the
17 survey and then to get the dredging done? Is it a matter
18 of weeks or is it a matter of --

19 A Actually, it would be a matter of months.

20 Q Months.

21 A On a normal schedule, considering the other
22 work. If, indeed, it was a determined emergency, it could
23 be reduced to a matter of weeks to prepare the plans and
24 specifications and then advertise for a very short period
25 of time and then get the contractor in there. So, we would

1 talking about an emergency basis, maybe getting a contractor
2 in there within three weeks. That is just my estimation.

3 Q In cases where the dredging is a rather
4 large operation and may be extending beyond Mile 26, such
5 as in the case of the proposed construction of an off-
6 loading ramp where you have a thorough analysis of
7 environmental impact and proposed disposition of spoils
8 reached you, might this take quite a long time to
9 negotiate permit approval for whoever was going to do the
10 dredging?

11 A If you are talking about above Mile 26 or
12 above the federally authorized --

13 Q That's what I'm talking about.

14 A -- authorized program --

15 Q Yes.

16 A That gets into the application and issuance of
17 a Department of Army permit, and those run anywhere from a
18 simple one, maybe down to thirty days, normally about sixty
19 days to issue. If you do get into an environmental
20 consideration, then that could take considerable time to
21 resolve it.

22 Now, as far as our federal projects, we pretty
23 well clear the way for most of them and we just contact
24 appropriate agencies prior to the job and we minimize any
25 environmental overtones for the time frame because of those.

1 Q Well, the issuance of a permit is a federal
2 action?

3 A That is correct.

4 JUDGE CHEATUM: I have no more questions.
5 Thank you, very much.

6 JUDGE WOLFE: In light of the additional
7 Board questions, any cross, Mr. Copeland?

8 MR. COPELAND: No, sir.

9 JUDGE WOLFE: Mr. Scott?

10 RECROSS-EXAMINATION

11 BY MR. SCOTT:

12 Q Just one. Is it possible, even feasible, that
13 in a federal action of the type Judge Cheatum was just
14 talking about, where the dredging would take place outside
15 the federally authorized area and that there was a consider-
16 able local interest in the subject that it might even
17 involve well over a year before the Corps would make an
18 initial decision and then appeals might tie that up in
19 court for as much as seven or eight years?

20 MR. BLACK: Objection. That is highly
21 speculative?

22 MR. SCOTT: It is not speculative. I believe
23 it's happened a number of times.

24 (Bench conference.)

25 JUDGE WOLFE: I will allow the question, to the

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extent that the query is whether --

(Bench conference.)

JUDGE WOLFE: The question is whether this process might take longer than three weeks.

JUDGE CHEATUM: No. Let me explain.

JUDGE WOLFE: Yes, Mr. Maurer. Might this process that you spoke to that might take up to three weeks, might it take longer?

THE WITNESS: For the issuance of the permit?

JUDGE WOLFE: Yes, sir.

THE WITNESS: Yes, sir.

BY MR. SCOTT:

Q Could you give myself and the Board some length of time that it might, in fact, take, longer than three weeks? You might make reference to the Wallisville project.

MR. COPELAND: I would object to that. There's no comparison between the Wallisville project and the barge slip.

JUDGE WOLFE: I have allowed you leeway, Mr. Scott. It seems when I extend a hand you take the arm, and I am cutting off that questioning with my question. It may take longer. Otherwise, we're getting into the area of speculation on how much time it would take.

MR. SCOTT: Okay. No further questions.

JUDGE WOLFE: Dr. Marrack?

1 DR. MARRACK: No, sir, thank you.

2 JUDGE WOLFE: Mr. Doherty?

3 MR. DOHERTY: No, thank you, sir.

4 MR. BLACK: The Staff has no questions.

5 JUDGE WOLFE: The witness is to be excused
6 permanently?

7 MR. BLACK: Yes.

8 JUDGE WOLFE: Thank you very much, sir, for
9 appearing at the Board's request. You are excused
10 permanently.

11 (Witness excused.)

12
13 JUDGE WOLFE: We will recess until 1:30.

14
15 (Whereupon, at 12:15 p.m., the hearing
16 in the above-referenced matter was adjourned, to
17 reconvene at 1:30 p.m.)

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1 JUDGE WOLFE: All right. Mr. Black?

2 MR. BLACK: At this time, the Staff would like
3 to recall Mr. Moon to the stand for the identification of
4 the SER supplements.

5 Whereupon,

6 CALVIN W. MOON

7 was recalled as a witness and, having been previously
8 duly sworn, was examined and testified as follows:

9 JUDGE WOLFE: You remain under oath, Mr. Moon.

10 DIRECT EXAMINATION

11 BY MR. BLACK:

12 Q Mr. Moon, are you the Licensing Project Manager
13 with respect to the Allen's Creek nuclear generating
14 station application?

15 A Yes.

16 Q And as licensing project manager, what are
17 your responsibilities with respect to the publication
18 of the so-called safety evaluation reports?

19 A I have the overall responsibility for
20 integrating the efforts of the Staff. I participate in
21 meetings with the Applicant. I am the funnel, if you will,
22 through which all of the correspondence on the application
23 flows. I'm responsible for integrating the presentation
24 before an advisory committee on reactor safeguards, and,
25 finally, when the review is complete, I receive inputs

1 from the several disciplines, the various reviewers,
2 integrate that into the safety evaluation report and
3 supplements.

4 Q As such, do you have responsibility and
5 control for publication of these -- for the compilation
6 and publication of these supplements?

7 A I have the primary responsibility for
8 putting reports together. There are at least two levels
9 of management review above me before they are actually
10 published. Also, there is a legal review on them.

11 Q What are the SER's that have been published
12 with respect to the Allen's Creek Nuclear Generating
13 Station, Unit No. 1, which is the subject of this
14 application?

15 A The original safety evaluation report was
16 published in November 1974 for Unit 1 and Unit 2.

17 A supplement was then issued in June 1975
18 for Units 1 and 2.

19 Supplement No. 2 for Unit 1 only was
20 published in March 1979.

21 A Supplement No. 3, again applicable to
22 Unit 1 only, was published in July 1981.

23 And Supplement 4, applicable to Unit 1 only,
24 was published in October 1981

25 Q Now, the original SER and Supplement No. 1

1 thereto have been marked and admitted into this record
2 as Staff exhibits, is that correct?

3 A I believe only the original SER. I believe
4 Supplement No. 1 has not. It was issued, I think, in June. The
5 original hearing was in March.

6 MR. BLACK: At this time, I would like to
7 mark for identification Safety Evaluation Report,
8 Supplement No. 1, as Staff Exhibit 18.

9 (Staff Exhibit 18 marked
10 for identification.)

11 MR. BLACK: Supplement No. 2 as Staff
12 Exhibit 19; Supplement No. 3 as Staff Exhibit 20; and
13 Supplement No. 4 as Staff Exhibit 21.

14 (Staff Exhibits 19, 20, 21
15 marked for identification.)

16 MR. BLACK: As the Board is well aware, these
17 documents, the SER's, as well as the FES's are required
18 by Commission Regulations to be admitted into the record
19 of this proceeding.

20 MR. SCOTT: Mr. Chairman, I would like to know
21 which Commission Regulation requires this and here's the
22 Regulations.

23 MR. BLACK: Well, I don't have it offhand, but
24 it is in Part 51 for the FES and I believe that it's in
25 Part 54 for the SER's, but I do not have those Regulations

1 at my fingertips now.

2 MR. BLACK: Also, I might indicate that I did
3 have three copies of each of these up here at the table
4 and someone has managed to take one of those copies.

5 I wonder if anybody here has those copies, maybe Dr. Marrack
6 when he left.

7 MR. SCOTT: Which one's missing?

8 MR. BLACK: We're missing one copy of
9 Supplement No. 1 and one copy of Supplement No. 2. I might
10 have extra copies downstairs.

11 Well, we will make the record whole
12 in any event.

13 At this time, I would like to have
14 those SER's identified as Staff Exhibits 18 through 21
15 entered into the record.

16 JUDGE WOLFE: Any objections?

17 MR. SCOTT: Yes, Your Honor.

18 I still want it to be pointed out where
19 these are required to be put in the record. I've never
20 been able to find it, and I've been hearing a rumor that
21 this was required for nearly a year now.

22 MR. BLACK: I don't understand that as an
23 objection to the admission of these documents.

24 MR. SCOTT: I also am going to object, of
25 course, that these documents have not been authenticated

1 yet. There has been no testimony yet that this witness
2 is capable of authenticating these documents as to their
3 truthfulness as to his own personal knowledge.

4 MR. COPELAND: Those are two different questions.

5 MR. SCOTT: Right. I'm raising them both.

6 MR. COPELAND: Your Honor, he has identified
7 these documents.

8 JUDGE WOLFE: Yes.

9 MR. COPELAND: And that is all he is required
10 to do, pursuant to prior order by this Board.

11 MR. SCOTT: Identifying them doesn't mean
12 that they've been identified in the sense that they can
13 be submitted into the record. I mean, there is a big
14 burden to properly identify records. I could have
15 identified them, too, but you couldn't have used me as
16 a witness to get them into the record. We need the
17 person who prepared them.

18 Now, I'm going to drop this objection
19 if you can show me in the rules where the Commission
20 rules require them to be in. I'm well aware that there
21 are rules that say they have to be prepared and the
22 Applicant has to prepare certain documents and the
23 Staff has to prepare them. I have not yet found anything
24 that says that they have to be submitted into the record
25 as evidence.

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(Bench conference.)

MR. COPELAND: Your Honor, I believe it's required, at least by Section 51.26(d).

JUDGE WOLFE: What was the section?

MR. COPELAND: 51.2(d).

(Bench conference.)

MR. SCOTT: That seems to be true for the FES's.

Let me strike that last statement.

I think it's at least true that the Commission is allowed to consider what's in them. I don't think it necessarily follows that they have to be submitted into the record. I think it is like all the documents that the Commission has, that this Board is allowed to use that as their general knowledge to make decisions with. So, judicial notice --

MR. COPELAND: They can take judicial notice of it, so what's the point of your objection?

MR. SCOTT: We're not talking about the FES in this proceeding right now. He's trying to submit Safety Evaluations.

MR. COPELAND: So, you're withdrawing your objection as to the FES?

MR. SCOTT: No. That's not even before us now.

(Bench conference.)

MR. BLACK: Your Honor, I cannot find the applicable regulation now, but notwithstanding that, I don't believe that Mr. Scott's objection to the admission of these documents into the record is well taken. Mr. Moon has indicated that he has control and supervision of these records, they are maintained in the normal course of NRC practice, and he is the person responsible for the compilation and publication of these documents. As such, they have been authenticated, to remove one objection by Mr. Scott.

MR. SCOTT: Are you admitting them as a part of the Business Records Act, under the Business Records Act?

MR. BLACK: I don't even know what that is.

MR. WOLFE: Mr. Moon, are you aware of the Commission regulation pursuant to which the SER and supplements thereto are prepared?

WITNESS MOON: I have some notes I was looking at. I do have a note that refers to 10 CFR 2.102 as the regulation that states the Safety Evaluation Report should accompany the license. That is not quite the answer you are after here.

MR. BLACK: Excuse me. I have found it now. It is Section 2.743(g), "In a proceeding involving an

1 application there shall be offered into evidence by the
2 Staff any safety evaluation prepared by the Staff and any
3 detailed statement on environmental considerations prepared
4 by the Director of NRR," et cetera, et cetera.

5 JUDGE WOLFE: That was again, two point what,
6 please?

7 MR. BLACK: .743, paragraph (g).

8 MR. SCOTT: Mr. Chairman, that doesn't help
9 him any. I'm not objecting to him offering it, I'm
10 objecting to you-all accepting it.

11 JUDGE WOLFE: What is your objection? I don't
12 understand.

13 MR. SCOTT: This witness has not authenticated
14 that all the matters in here are true and correct. He's
15 not sworn --

16 JUDGE WOLFE: He doesn't have to. All he has
17 to do is to identify a document, which is the SER or the
18 FES, identify it as being prepared pursuant to Commission
19 Regulations, and that that document was submitted to the
20 Commission.

21 MR. SCOTT: Well, I disagree with, respectfully.

22 JUDGE WOLFE: Well, you may --

23 MR. SCOTT: I think he's got the burden, also,
24 to be able to say that he is familiar with all that's
25 contained therein and it's all true and correct as to his

1 knowledge.

2 JUDGE WOLFE: All right. The Board is ready
3 to rule, and --

4 MR. SCOTT: Just one other point, Your Honor,
5 and that is, there are so many parts of this whole
6 submittal that are not even relevant to any contention
7 that's been raised.

8 JUDGE WOLFE: So?

9 MR. SCOTT: Well, I don't want irrelevant
10 evidence being submitted into the record.

11 JUDGE WOLFE: The Board will determine what's
12 relevant. In accord with the Boston-Edison Company
13 Pilgrim Nuclear Power Station, ALAB-83, 5 AEC 354 (1972),
14 all that the NRC Staff has to do with regard to the
15 tendering into evidence and securing the admissibility of
16 a document such as the environmental report by the
17 Applicant or the Safety Evaluation Report by the Staff is
18 for there to be proper identification of this document in
19 that it was -- to the effect that it was prepared pursuant
20 to the Commission regulations and was submitted to the
21 Commission.

22 Further, as we had occasion to explain in our
23 Order of May 4, 1981, such documents meeting this identi-
24 fication test are admissible as exhibits.

25 Now, as to your second objection that -- I take

1 it earlier you had said you object because TEX PIRG and
2 other intervenors had contested certain matters contained
3 therein. Is that the basis for --

4 MR. SCOTT: If you mean my last objection,
5 I was objecting to the relevance.

6 JUDGE WOLFE: I didn't say your last
7 objection. I said sometime during the course of your
8 arguments, you said, I think as the second ground for
9 objection, that the Intervenor had contested certain
10 findings in the SER and you objected. It would be, that
11 it should not be admitted in light of the various contentions
12 of the Intervenor that contested the accuracy of the statements
13 in the SER itself.

14 MR. SCOTT: No, that was not my objection.

15 It was that much of the material
16 being submitted is irrelevant because this is a general
17 document that covers the whole construction of the plant
18 and not just the contentions it conveys.

19 JUDGE WOLFE: Everything that you deem to be
20 irrelevant is relevant to the Board because we must make
21 certain findings under our regulations and statutes.
22 So, even though there may be parts in there that have not
23 been contested by the Intervenor, nevertheless, those
24 matters, regardless, must be before the Board so it can
25 make the necessary findings in its initial decision.

1 So, if those are your only two
2 objections, Mr. Scott, the Board admits into evidence
3 Staff Exhibits 18, 19, 20, and 21.

4 (Staff Exhibits 18, 19, 20, and
5 21 received in evidence.)

6 MR. SCOTT: I have a further objection. That
7 is that some of these are copies of the SER's.

8 JUDGE WOLFE: Wait a minute, I've already
9 admitted them.

10 MR. SCOTT: I would ask you to reconsider your
11 admission of them, for the reason that some of these are
12 copies and there's been no showing yet that these are
13 true and correct copies.

14 JUDGE WOLFE: We deny that request and deny
15 the objection. You must make your objections to the
16 admissibility of documents in a timely fashion; if you
17 don't make them, it just wastes everyone's time going back.
18 Secondly, Mr. Black, the four supplements to the SER, are
19 the bound, printed copies?

20 MR. BLACK: Yes, they are.

21 JUDGE WOLFE: And bearing the seal of the
22 Nuclear Regulatory Commission?

23 MR. BLACK: Yes, they do.

24 JUDGE WOLFE: And indicating that they've been
25 published by the -- I guess by the Office of Nuclear

1 Regulatory Regulations, is that correct?

2 MR. BLACK: That's correct, yes.

3 JUDGE WOLFE: All right. It appears that --
4 it not only appears, it's very clear that these are
5 authentic documents, they are authentic copies.

6 MR. BLACK: Surely.

7 MR. SCOTT: Mr. Chairman, some of those are
8 not what you think. They are clearly just Xerox copies.

9 MR. BLACK: Show the Board.

10 MR. SCOTT: That's what I have in mind.

11 MR. BLACK: Mr. Chairman, this is a bound
12 copy taken from microfiche and, as such, it's not a
13 Xerox copy.

14 MR. SCOTT: It's a Xerox copy. It might have
15 had its original source as microfiche, but that raises
16 still a additional question, the authentication of the
17 microfiche.

18 JUDGE WOLFE: Mr. Black, all parties have been
19 served with these bound copies. In light of the untimely
20 objection, or despite the untimely --

21 MR. SCOTT: Mr. Chairman, I have not been
22 served. My copy is not a bound copy.

23 JUDGE WOLFE: You don't understand why I'm
24 upset, Mr. Scott.

25 MR. SCOTT: No, frankly I don't.

1 JUDGE WOLFE: I think it should be obvious to
2 everyone that I was talking. I try not to interrupt you,
3 and I wish you would show me the same courtesy that I try
4 to show you.

5 MR. SCOTT: I understand that, but a moment
6 ago --

7 JUDGE WOLFE: I said that I had not completed
8 with what I was saying.

9 MR. SCOTT: Please let me speak, when you
10 get through, before you make a ruling.

11 JUDGE WOLFE: Mr. Black, you are given leave
12 to substitute bound copies of the Supplements 1 through 4
13 by writing a letter forwarding these to -- when can you
14 secure these bound copies?

15 MR. BLACK: I think that's a problem with
16 Supplement No. 1, which I think is the subject of
17 Mr. Scott's objection. There are no bound copies left,
18 as he terms bound copies, left in publication.

19 JUDGE WOLFE: You do have bound copies of
20 Supplements 2 through 4?

21 MR. BLACK: Yes, but not on Supplement No. 1,
22 and, as is the practice of NRC Staff now, as well as the
23 National Technical Informational Services, they produce
24 copies on microfiche.

25 (Bench conference.)

1 MR. COPELAND: Your Honor, I really don't
2 understand what the problem here is. I understood
3 Mr. Scott's objection to be this is a copy of some
4 original document?

5 MR. BLACK: They're all copies.

6 MR. COPELAND: They're all copies. Everything
7 that is printed is a copy. This is not a question of
8 where you are Xeroxing somebody's last will and testament
9 and trying to put it into evidence.

10 As I understand what Mr. Black is saying
11 is that the particular copy that he has here that is being
12 copied has just been copied in a different manner than the
13 other documents were copied. So, I just think this is all
14 kind of a tempest in a teapot over an objection that doesn't
15 stand here.

16 MR. SCOTT: Mr. Chairman, I believe you under-
17 stood the objection is not that it's a copy. The Federal
18 Rules of Procedure allow copies. The problem is, it has not
19 been shown that this particular copy being submitted is a
20 true and accurate copy.

21 MR. BLACK: I thought that's what we did through
22 Mr. Moon. I don't understand the objection. And, anyway,
23 I think it can be cured. If Mr. Scott would like to take
24 the copy that he has that has been submitted to him and
25 compare it with this copy, he certainly is entitled to do

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1 that, and if there is any inconsistencies, he can bring it
2 to the attention of the Board. But, this is a frivolous
3 objection.

4 MR. SCOTT: I would like further to state that
5 I have not received one of the bound copies of Supplement
6 No. 4. An erroneous address was sent a copy.

7 MR. BLACK: Here is one right now.

8 MR. SCOTT: Thank you.

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JUDGE WOLFE: All right. The Board has already ruled these documents are admitted into evidence. However, Mr. Black, you will secure a document from the -- or an affidavit from the Director of Nuclear Reactor Regulations, or his designee, to review the Staff Exhibit 18, which is a microfish copy of SER Supplement No. 1.

He will attest in the affidavit that he has reviewed Staff Exhibit 18 and it's a true and accurate copy. This will be marked and received in evidence as Staff Exhibit 22, and you will send that affidavit -- let's see -- to Ms. Bagby, I guess --

THE REPORTER: To Alderson Reporting Company.

JUDGE WOLFE: -- to Alderson Reporting Company, wherein it will be marked as Staff Exhibit 22 and admitted into evidence, assuming that -- and I have no doubt that without more, that it is a true and accurate copy. If it isn't, why, then we'll have to take further action on it.

(Staff Exhibit No. 22 was marked for identification and received in evidence.)

JUDGE WOLFE: All right. Mr. Black.

BY MR. BLACK:

Q Mr. Moon, do you have before you a document

1 entitled "USNRC Staff Response to ASLB Questions Related
2 to Unresolved Safety Issues for the Allens Creek Nuclear
3 Plant"?

4 A. I do.

5 Q. Was this response prepared by you or under
6 your control or supervision?

7 A. It was prepared under my supervision.

8 Q. Do you have any additions or corrections to
9 this?

10 A. No.

11 Q. As such, do you adopt this testimony as your
12 testimony in this proceeding, and is it true and correct
13 to the best of your knowledge and belief?

14 A. I do.

15 MR. BLACK: Mr. Chairman, at this time I would
16 like to have this testimony, so identified by Mr. Moon,
17 incorporated into the record as if read.

18 And I might note, as the Board is well aware,
19 they directed questions to the Staff for Staff responses
20 pertaining to the unresolved safety issues, and the Board
21 so indicated that responses could be submitted orally,
22 and due to the length of the Staff response, I took the
23 liberty of having the response set forth in writing, and
24 handed it out to the Board and the parties on Monday
25 of this week, and I think it would save a little time and

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1 effort if we did have this incorporated into the record
2 as if read, rather than have this read orally by Mr. Moon,
3 which is another option, but I don't think it's the
4 preferable option.

5 So at this time, and with that preface, I
6 would like to have this incorporated into the record as
7 if read.

8 JUDGE WOLFE: All right. Since this is a
9 Staff response to questions posed by the Board, without
10 further ado -- obviously, all parties will have a right
11 to cross-examine -- the Board incorporates the Staff
12 response to ASLB questions related to unresolved safety
13 issues for the Allens Creek nuclear plant, incorporated
14 into the record as if read.

15 (USNRC Staff Response to ASLB Questions
16 Related to Unresolved Safety Issues for the Allens Creek
17 Nuclear Plant follows:)

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USNRC STAFF RESPONSE TO
ASLB QUESTIONS RELATED TO
UNRESOLVED SAFETY ISSUES
FOR THE ALLENS CREEK NUCLEAR PLANT

ITEM 1

Question:

Discuss the meaning of the term "technical resolution" as used in Appendix C, and whether the term includes an assessment of the engineering and fiscal feasibility of the implementation of any of these issues with respect to the Allens Creek proposed facility; or whether a determination of such feasibility depends upon the applicant's position and assessment of the proposed resolution.

Response:

The staff considers an issue to be "technically resolved" at the time NRC management approves the issuance of a NUREG report that describes the staff's conclusions of what requirements need to be implemented on operating plants and new plants to resolve the issue. These reports are developed by the staff on the basis of analyses performed by contractors or the staff or some combination thereof. Advice and comments are solicited from the Advisory Committee for Reactor Safeguards (ACRS) both with respect to planning the work for a USI and on the proposed resolution developed after completion of the work. For most Unresolved Safety Issues, the proposed technical resolution is first issued as a NUREG "For Comment" with the provision for a 60-day comment period following issuance of the report. The principal purpose of this procedure is to obtain comments from the public and industry with regard to acceptability and feasibility of the proposed resolution.

The comments received are considered and addressed in the final NUREG report, which the staff considers to be the technical resolution of the issue. For several issues, a NUREG was not issued for comment. For these issues, the staff review and work on the issue has included frequent open meetings with owners' groups and these owners' groups are therefore well informed on the deliberations regarding the resolution.

In general, the staff process for the resolution of a generic Unresolved Safety Issue leading to the issuance of a NUREG does not include plant-specific feasibility studies. However, the generic review process does include a staff review of design differences among operating plants when these are considered to be significant followed by a grouping of plants with similar relevant features. This grouping is then maintained for review and implementation. Thus significant design differences for plant groups are considered in the generic resolution.

The question of "fiscal feasibility" is usually considered implicitly in the development of a resolution for a USI rather than explicitly. That is, cost plays a secondary role in developing a resolution consistent with the objective of practicality. However for at least one USI, Steam Generator Tube Integrity, the development of a resolution has involved a direct cost benefit evaluation of inservice inspection. The results and influence of this work will be clearly stated in the NUREG report on this USI. It is expected that cost benefit considerations may also be used directly in developing resolution on other USIs.

Therefore, we expect that a technical resolution for a USI can be implemented at most plants in a relatively straightforward manner and the specific implementation does not depend on "the applicant's position and assessment of the proposed position." However, because of the wide variation in plant designs, it is sometimes difficult to achieve a generic fit for each and every plant even with modified resolutions designed to accommodate plant groupings. The staff is always ready to listen to sound technical arguments proposing alternatives which address the basic issue of the USI. Such a dialog, if necessary, would be part of the implementation process.

ITEM 2

Question:

Identify each unresolved generic safety issue for which incorporation of a technical resolution into the Allens Creek design will be required prior to the granting of an operating license or prior to the initiation of commercial operation.

Response:

As discussed in Supplement 4 to the Allens Creek Safety Evaluation Report in Appendix C, technical resolution for each of the following USIs applicable to Allens Creek is complete.

- | | |
|------|--|
| A-2 | Asymmetric Blowdown Loads on Reactor Primary
Coolant System |
| A-9 | Anticipated Transients Without Scram (ATWS) |
| A-10 | BWR Feedwater Nozzle Cracking |
| A-24 | Qualification of Class IE Safety Related Equipment |
| A-31 | Residual Heat Removal Requirements |
| A-36 | Control of Heavy Loads Near Spent Fuel |
| A-42 | Pipe Cracks in Boiling Water Reactors |

For USI A-9, Anticipated Transients Without Scram, three different proposed rules have been issued for comment (46 FR 57521) and the requirement for applicants and licensees for this issue depends on the outcome of this rulemaking.

For USI A-24, "Environmental Qualification of Safety-Related Electrical Equipment," a Commission Memorandum and Order (CLI-80-21) endorsed the positions in NUREG-0588 (developed as a part of the USI) as the interim positions that shall be satisfied until the final positions are established in rulemaking.

In addition to these issues, we anticipate that for a number of the current USIs we will have achieved technical resolution by the time Allens Creek is reviewed by the staff for its operating license. As a part of the implementation of a technical resolution of a USI, the staff provides for incorporation of the technical resolution into the NRC's Regulations, Standard Review Plans, Regulatory Guides, or other NRC Official Guidance on licensing requirements as appropriate.

During the Allens Creek OL review, the staff review will consider all applicable USIs that are resolved. As stated above, two of the resolved issues listed, A-9 and A-24, are the subject of rulemaking. When the final rules on A-9 and A-24 are adopted by the Commission, Allens Creek will be required to meet these new regulations and these new regulations will become a part of the normal review process.

The resolution of other USIs which do not require new rules, will be incorporated into the Standard Review Plan and/or Regulatory Guides. This licensing guidance will then be used in the normal manner when conducting licensing reviews.

In summary, as stated in the Foreword to the Aqua Book (NUREG-0606, "Unresolved Safety Issue Summary"), the implementation of the technical resolution for a USI involves both incorporation into the NRC's Regulations, Standard Review Plan and Regulatory Guides, as appropriate, and application of the technical resolution to individual operating plants. The Regulations, Standard Review Plan, and Regulatory Guides in effect at the time of the operating license review of Allens Creek will therefore include the requirements for USIs for which a technical resolution has been achieved at that time.

ITEM NO. 3

Question:

For each of the Unresolved Generic Safety Issues identified in Item 2, indicate the following:

- (a) Which have already been resolved and implemented in operating or near term operating plants?

Response:

With the exception of issues A-9 and A-24, which are the subject of rulemaking, all of the applicable issues listed as resolved are being implemented in both operating and near term operating plants. However, as described in the NUREG reports documenting the resolution of the issue, the nature of the resolution may differ for operating and near term operating plants. A general discussion of the implementation status for each issue is provided in the Aqua Book, issued by the staff on a quarterly basis. In addition, NUREG-0748, "Operating Reactor Licensing Actions Summary," (ORLAS) issued periodically by the staff, provides plant-specific information regarding the status of implementation of resolved USIs on each operating plant.

The implementation of resolved USIs on near term operating plants is discussed in the Safety Evaluation Report of each plant undergoing an OL review.

Question:

- (b) What is the staff's confidence in the success of proposed programs for a specific technical resolution?

Response:

The resolution of an Unresolved Safety Issue is achieved by implementation of a Task Action Plan addressing the specific USI which involves the application of considerable staff and contractor and/or industry resources and time. The resolution and the basis for the resolution is documented in a NUREG "For Comment" report. Comments on this report are considered and addressed in a final NUREG report. In addition, the staff conducts interim discussions periodically with the ACRS and also with industry at appropriate stages of development of the resolution. A listing of the applicable NUREG reports is provided in the Allens Creek Supplement 4 to the SER, on page C-10.

The procedures being used to resolve a USI emphasizes (1) formal detailed planning of the work, (2) application of considerable staff, contractor and/or industry resources, and (3) provision for significant ACRS, industry, and public feedback during the development of a final resolution. Our experience so far indicates that while these procedures may be somewhat slower and may be more costly, we believe they tend to produce a resolution with a better basis and a better consensus of support. We

are confident that continued effort using these procedures will provide specific technical resolutions for each of the remaining outstanding USIs.

Question:

- (c) What alternatives or fall-back resolutions have been identified for implementation if the technical resolution proves to be unsatisfactory?

Response:

As discussed in Item 2(b) above, the staff believes that the procedures followed to develop a resolution which involves the development of a comprehensive Task Action Plan for each USI and the implementation of that plan with considerable staff, contractor and/or industry resources and time and the interaction with ACRS, industry, and the public during the development of a final resolution to an issue will result in a feasible, satisfactory resolution. For a number of the USIs, the final NUREG describes more than one acceptable alternative resolution.

The staff considers deviation from the staff's resolution on a case-by-case basis for those issues that create significant hardship for a plant, provided that the basic issue of the USI is resolved and the applicable regulations are met.

ITEM 4

Question:

For each of the unresolved generic safety issues not requiring implementation or incorporation into Allens Creek before commercial operation begins, advise for the record, what is the staff's current position as to how long the plant can operate without such an implementation.

Response:

The future NRC staff review of Allens Creek to be conducted as a consideration for an operating license will include a review of how each of the resolved USIs at that time have been implemented on the plant. Any applicable USI which has not achieved a technical resolution at that time will also be identified and a decision and supporting justification regarding licensing and operation of Allens Creek with respect to each of the unresolved USIs will be made at that time.

The specific length of time that a plant can operate pending the technical resolution of a USI and the implementation of that resolution has not in general been defined. The generic basis for continued plant operation and licensing is addressed in the Task Action Plan for each issue. This generic basis, along with appropriate justification for the individual plant as provided by the applicant for its specific design, are addressed in Appendix C of the Safety Evaluation Report for the operating license.

For some USIs the staff has taken some interim action to provide the safety assurance believed to be necessary pending a longer term resolution.

An example is A-6, Mark I Short Term Program, which was completed and implemented several years before A-7, Mark I Long Term Program, was completed. In some cases, a partial resolution and implementation has been performed prior to a final resolution of the USI. Examples are A-1, Water Hammer, where changes were required to steam generators experiencing water hammer in the feedwater system; A-2, Asymmetric Loads, where implementation of methods developed was initiated well before the final NUREG was published; and A-39, Safety Relief Valve Pool Dynamic Loads, where the resolution for Mark I plants preceded that for Mark II and III plants.

The schedules for technical resolution of each USI are updated and published quarterly in the Aqua Book, NUREG-0606, "Unresolved Safety Issues Summary." These schedules do not include projections of the schedule for implementation since the nature and extent of the activities necessary to accomplish the implementation cannot normally be reasonably determined prior to the determination of a technical resolution. The general status of implementation for USIs for which technical resolution is complete is addressed in a separate table in the Aqua Book. Plant-specific information on implementation is presented in NUREG-0748, "Operating Reactor Licensing Actions Summary" (ORLAS).

Schedules for implementation of a USI for which a technical resolution has been achieved are usually included in the letter to the applicant or

licensee directing the implementation of the issue in accordance with the resolution in the final NUREG or final rule if rulemaking is required. In general, the staff has specified comparable and consistent schedules for both operating plants and near term operating plants.

The staff reaffirms our conclusions reached in both Supplements 2 and 4, Appendix C, of the Allens Creek SER for the reasons set forth in these reports, that this plant can be constructed and operated before the ultimate resolution of these issues, including implementation, without endangering the health and safety of the public.

ITEM 5

Question:

If the answers to any of the above are at variance with respect to the discussion in Appendix C of Supplement 4, please indicate whether those answers are to be considered as modifications to Appendix C, Supplement 4.

Response:

We believe our responses are consistent with the Supplement 4 Appendix C discussion.

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JUDGE WOLFE: Anything else, Mr. Black?

MR. BLACK: No. I have no further questions.

JUDGE WOLFE: Is there cross, Mr. Copeland?

MR. COPELAND: No, sir.

JUDGE WOLFE: Mr. Doherty.

MR. DOHERTY: Yes. I have a procedural question.

JUDGE WOLFE: Yes.

MR. DOHERTY: We did a Board question a month ago, about, on radon gas that emerged entirely from the Board, or from -- essentially it was Board generated, and as I recall, the procedure was Board questions, cross-examination on Board questions and --

MR. COPELAND: It's fine with me to proceed that way, Your Honor.

JUDGE WOLFE: I'm sorry, you said to proceed how?

MR. DOHERTY: As I recall -- this is my memory -- on the radon question, which was Board generated, the procedure was Board questions, that is immediately, the first step was Board questions, then cross-examine on Board questions.

Is my memory good? Maybe someone can --

MR. COPELAND: That is right, and I think we ought to proceed that way in this instance.

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1 MR. BLACK: Well, the Board questions are
2 here, and they have been responded to, and so I take it
3 we're now kind of in the cross-examination on the Board
4 questions.

5 JUDGE WOLFE: I don't think it makes any
6 difference. We could proceed to ask additional oral
7 questions, but we today certainly have proceeded to
8 permit cross-examination to proceed first; then we've had
9 additional Board questions.

10 MR. DOHERTY: Okay. Counsel Black brought up
11 a good point there, too. Counsel brought up a clarifying
12 point there just a minute ago that makes me feel that my
13 question has been really answered in terms of my own
14 curiosity.

15 JUDGE WOLFE: I don't think it makes any
16 difference, Mr. Doherty. If you think you're prejudiced
17 in any way, you let me know now; if not, why, it doesn't
18 make that much difference.

19 MR. DOHERTY: No, I don't think I'm prejudiced
20 in any way at this point, Your Honor. Thank you.

21 JUDGE WOLFE: All right.

22 CROSS-EXAMINATION

23 BY MR. DOHERTY:

24 Q Just a few questions, Mr. Moon. On the Item 1,
25 I guess I've never seen the phrase NRC management. Do you

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1 mean the Commission there, or who do you mean by that?
2 It's in the second line on Page 1.

3 A I do not mean the Commission. Basically, I'm
4 talking about the management of NRR, the Nuclear Reactor
5 Regulatory Office -- the Office of Nuclear Reactor
6 Regulation.

7 Q Okay. So the USI Program is entirely run
8 through that branch or division of the Commission?

9 A The mechanics of obtaining the resolutions
10 are. The question of designating those issues as USI's
11 does involve Commission action.

12 Q Has the program been running long enough that
13 people say it's successful, to your knowledge?

14 A Yes. I think we've tried to indicate that
15 in the answers to some of the other questions. We feel
16 that it is an organized effort, it's scheduled, it's a
17 disciplined operation.

18 Q And it has put several issues through, I
19 gather; is that correct?

20 A Yes.

21 JUDGE LINENBERGER: Mr. Doherty, I'd like a
22 clarification about whom you were speaking of with respect
23 to a verdict that this program was successful.

24 MR. DOHERTY: All right.

25 JUDGE LINENBERGER: Successful as viewed by

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1 whom, when you asked your question?

2 I'm asking you, Mr. Doherty, whom did you mean
3 had given their blessing of being successful to this
4 effort.

5 MR. DOHERTY: Frankly, I didn't have anyone
6 too much in mind. I guess I was collecting hearsay. I
7 didn't have any specific -- it was a very general question.

8 Perhaps I'll just ask the witness that, and
9 that will get to your desires.

10 BY MR. DOHERTY:

11 Q Who has been -- generally stated, this has
12 been a successful program. Was there anyone in particular
13 in your mind when you replied previously?

14 A Well, I'm speaking in terms of the Office of
15 Nuclear Reactor Regulation.

16 Q Okay. Now, I gather that you can tell me this,
17 as project manager, that the Allens Creek plant is
18 considered one group of plants; isn't that true?

19 A That is true.

20 Q So that would you say, since that is true,
21 that the plants on these issues that you've listed here
22 is likely to get a -- is liable to get the maximum
23 available scrutiny as far as solutions go? Would you say
24 at least that it maximizes its chances?

25 A I didn't understand your use of the word "list."

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Q There's a list on Page 4 of issues, which I think you say --

A Of the testimony?

Q Yes, of the testimony; I'm sorry.

A Okay. That list is a repetition of the list in Supplement 4 of the issues for which technical resolution has been achieved, and the Staff is now in the process of implementing those technical resolutions to all applicable plants.

Q Well, do standard plants get greater scrutiny than -- I don't want to say oddball plants -- but unique plants, let's say? Is that an aim of this program?

A I think that is not an aim. I think the aim is to treat all applications equally.

Q Okay. Now, I notice that the -- All right.

The list on Page 4 is a list of USI's applicable to the plants which are complete. Now, did you examine or have you -- you probably have looked over Section C of the SER Supplement No. 4. That includes four or five other issues which are not in that list, and by that, these are incomplete issues, is that right? Their numbers are all greater than 42.

A I think in Supplement 4 we attempted to explain the status at this time as to which unresolved safety issues applied to Allens Creek, and to further

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break that down into those that have been technically resolved and those that were previously identified but have not yet been technically resolved, and I believe four additional issues identified as unresolved safety issues since Supplement No. 2 was issued.

Q. Okay. But was it your understanding that the Board was only interested in those that had been resolved, or what was your understanding?

JUDGE LINENBERGER: With respect to which question, Mr. Doherty?

MR. DOHERTY: I wish to withdraw the question. It's a poor question.

(Pause.)

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1 BY MR. DOHERTY:

2 Q Well, in your testimony there doesn't appear
3 to be any coverage of Issue A-47, A-46, A-48, and A-45.

4 A Those issues are addressed in Appendix C. In
5 answering what we interpreted to be the sense of the
6 Board's questions, we saw no occasion to specifically
7 reference those tasks.

8 Q Is it correct there was just nothing in the
9 content of the questions that made you feel that they
10 should be addressed, or did you feel that the SER would
11 be enough?

12 A No. I think we interpreted the Board's
13 questions to be more of a generic nature than specific;
14 in other words, our interpretation was that the Board
15 wanted to understand more about some of our terminology,
16 some of our procedures, this type of thing.

17 (Pause.)

18 Q Well, is it the position of the Staff that
19 all of the currently identified unresolved safety issues,
20 that the repairs or fixes or changes can be implemented
21 in the Allens Creek plant because we have such a -- we
22 have a long period of time before we have an operation
23 there; is that the Staff's position now?

24 A I think, if I understand your question, you
25 say all identified unresolved safety issues; I think

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1 there's really no answer to that question because we don't
2 know what the course of action will be here, whether or
3 not there will be a technical resolution. The technical
4 resolution may simply be that the present Staff review
5 guidelines are acceptable.

6 It is certainly the intent that as technical
7 resolutions are identified, that those resolutions then be
8 implemented in all applicable classes of plants, whether
9 they're in a review stage, whether they're licensed for
10 construction or whether they're licensed for operation and
11 in operation.

12 Q Do you know -- well, can you tell me at the
13 moment what the longest schedule for implementation of a
14 USI is?

15 A I do not have that information with me.

16 Q Let me ask that another way. To your
17 knowledge, are there any greater than three years, at
18 this moment?

19 A I believe that there are -- there may be some
20 USI's for which there are technical resolutions, that
21 there are implementation programs in place; some of them
22 may be open-ended, there may not be a specific time.

23 The ATWS issue which was discussed yesterday,
24 I believe the proposed rule there has a provision that
25 three years after the rule is effective it should be

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1 implemented. I would not be surprised if there are others
2 that are -- have time periods of two or three years.

3 Q Do you know if there are any USI's for which
4 there are proposed implementations that apply to Allens
5 Creek that can't be met under current design?

6 A I know of none that cannot be met under the
7 current preliminary design and design criteria, yes.

8 Obviously, I should add here, of course,
9 that obviously some things require rule making, and this
10 would require a change of regulation which would be
11 applicable to Allens Creek as well as to other plants.

12 JUDGE LINENBERGER: Mr. Doherty, for me to
13 understand that question, when you said which can't be met
14 under the current design, do you mean those for which the
15 current design would preclude implementation? Because
16 the current design doesn't meet some of these, but the
17 question -- your question --

18 MR. DOHERTY: I think our long months of
19 questioning have taught us how to think on the same wave
20 length. This is exactly what I had in mind, and I didn't
21 say it.

22 JUDGE LINENBERGER: Would the current design
23 preclude any of the --

24 MR. DOHERTY: Yes. Exactly.

25 JUDGE LINENBERGER: All right. But that was

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1 not the question you asked Mr. Moon.

2 MR. DOHERTY: Yes. That's right.

3 (Pause.)

4 MR. DOHERTY: I apologize for the delay.

5 BY MR. DOHERTY:

6 Q In resolving generic safety issues, do you
7 know how, or is it -- yeah, how are differing professional
8 opinions in the Staff dealt with? Do you know how that's
9 done?

10 A How are different professional opinions?

11 Q Yes, differing professional opinions, they're
12 called.

13 A The Staff has general procedures for handling
14 so-called differing professional opinions.

15 I do not recall that there has been such a
16 differing opinion on any of the issues that have been
17 technically resolved to date.

18 However, it's my understanding that if there
19 were, the same procedures would apply as to any other
20 technical issue with regard to how such a differing
21 opinion would be handled.

22 JUDGE LINENBERGER: Mr. Moon, with respect to
23 A-24, wasn't there -- maybe my memory is incorrect here,
24 but wasn't there a differing opinion concerning the
25 resolution of that filed by a member of the NRC Staff?

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1 THE WITNESS: This is the environmental
2 qualification of equipment?

3 JUDGE LINENBERGER: Yes.

4 THE WITNESS: I'm not positive. I'm trying
5 to recall. The technical resolution of this is NUREG 0588,
6 and there is a fairly lengthy preface or introduction
7 there. I just can't recall for sure.

8 JUDGE LINENBERGER: So, so far as you know,
9 0588 has not been in any sense compromised or placed into
10 uncertainty because of a differing professional Staff
11 opinion, is that correct, so far as your knowledge is --

12 THE WITNESS: As far as my knowledge goes.

13 Now, I would have expected that had there been
14 such a differing opinion, it would have been handled in
15 that document that states the resolution, or if it's still
16 outstanding it still is an action to be taken by the Staff.

17 JUDGE LINENBERGER: Thank you, sir.

18 MR. BLACK: Judge Linenberger, here is it
19 possible to interject, maybe this is what you're getting
20 at, but in this proceeding earlier there was this
21 differing professional opinion by Mr. Basdekas, and I
22 don't know whether you were alluding to that professional
23 opinion, but that's not encompassed within Unresolved
24 Safety Issue A-24. I believe that's another unresolved
25 safety issue which lists Mr. Basdekas' differing

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professional opinion would be enveloped under.

JUDGE LINENBERGER: I was not referring
specifically to that issue. Leaving individuals aside,
I was referring specifically to A-24.

Thank you.

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JUDGE WOLFE: Before we go any farther,
Mr. Doherty -- I'm sorry to interrupt -- I've had
occasion to review our partial initial decision of 1975,
November 11, and I note that Staff exhibits are listed,
Exhibits 1 through 11, and those do not include the
Staff's SER.

MR. BLACK: The original SER.

JUDGE WOLFE: Yes.

MR. BLACK: No notes indicate that to be
true, too, so I think that we should make an offering of
the original SER, too.

I'm not certain I have the necessary copies
here, but I would like to mark that as Exhibit 23.

(NRC Staff's Exhibit No. 23
was marked for identification.)

MR. BLACK: I would like to have it admitted
into the record, as well.

(Bench Conference.)

JUDGE WOLFE: Do you have one copy of the
SER of 1974 available at this time?

MR. BLACK: Yes.

JUDGE WOLFE: All right. That should be
given to the reporter.

It will be admitted.

MR. BLACK: We will provide the full

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complement of copies at a later date.

JUDGE WOLFE: All right.

Did you have something to say, Mr. Scott?

MR. SCOTT: Is he only marking this as an exhibit number right now, or is he offering it?

JUDGE WOLFE: He is offering it now. Is that right, with two additional copies to be furnished by the Staff?

MR. BLACK: Pardon?

JUDGE WOLFE: You have two additional copies now to give to the reporter?

MR. BLACK: No. I think I only have one more extra copy.

I will provide the third copy at a later date.

MR. SCOTT: I would just like a chance to look at what they are presenting, before it is submitted.

MR. COPELAND: Your Honor, may I be excused a minute while Mr. Scott is doing that?

JUDGE WOLFE: Yes. Certainly.

(Pause.)

MR. SCOTT: On Pages 12-1, 12-2, and 12-3 and 12-4, there are some additional comments, underlines and words that's been added.

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I won't object, if the Board --

JUDGE WOLFE: That is in someone's handwriting?

MR. SCOTT: Yes.

JUDGE WOLFE: If you have no objection, that document will be admitted, exclusive of any handwriting or notations by someone on those pages.

All right. Staff Exhibit 23, being the Safety Evaluation Report of November 1974 is admitted into evidence, exclusive of any handwritten notes or comments on the copies furnished.

If you do not have three copies, Mr. Black, which you seem not to have, send the third copy to Alderson Reporting for marking as an exhibit.

(NRC Staff's Exhibit No. 23 was received in evidence.)

JUDGE WOLFE: I'm sorry, Mr. Doherty.

BY MR. DOHERTY:

Q Mr. Moon, to your knowledge, does the current Staff position with regard to Issue C-47 reflect the professional opinion of Demetrios Basdekas?

A I really don't know.

Q All right.

A C-47?

Q Yes, sir.

(Pause.)

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MR. BLACK: Is there a question pending?

MR. DOHERTY: There may not be. I thought you were looking through your papers there to see if you could supply more to that answer, but perhaps --

THE WITNESS: I might add something. I did check the supplement to the SER, and do not find a listing for C-47. Are you thinking of A-47?

BY MR. DOHERTY:

Q I'm sorry. Did I say that? I think I did. I must have airplanes on my mind or something. I meant to say A-47, yes.

A I believe that in general most of the concerns of Mr. Basdekas are included here. Whether they are all specifically included, I don't know, but I believe in general this Task is considered with the effects of control system failures on safety, and I believe that was at least part of Basdekas' concern.

MR. DOHERTY: Okay. I guess I have no further questions, Your Honor. I think that is it.

JUDGE WOLFE: Mr. Schuessler, are you here for cross-examination?

MR. SCHUESSLER: No.

JUDGE WOLFE: No. All right.

Mr. Scott?

CROSS-EXAMINATION

BY MR. SCOTT:

Q. Hopefully, this will be very brief, Mr. Moon.

What is the differentiation between Category A, and Category B, unresolved safety issue?

A. I thought that was all spelled out in Supplement 2.

Q. I was asking just for your memory.

A. Essentially, it represents a reflection of the assessment of the Staff as to the significance and urgency of the several issues suggested to it, those that are considered that need near-term Staff resources applied to them.

B are a little less necessary to have Staff resources applied.

Q. Okay. Doesn't your testimony just submitted put A-9 anticipated transients without scram into the classification of a resolved safety issue?

A. It was the intent that we place it in a technically resolved categorization.

Q. Well, what significance is a technically resolved, in terms of Staff being required to devote resources to it?

A. (No response.)

Q. I mean is there any significance to the fact

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that Staff thinks it is resolved, insofar as what the Commission is concerned with?

MR. COPELAND: Maybe I don't understand Mr. Moon's testimony, but I thought that was the whole point of the answer to the first questions, Your Honor, was to explain what "technically resolved" means, so I would object to the question as being asked and answered.

MR. SCOTT: No. The explanation he has given or partial explanation of what "technically resolved" means; namely, that the Staff thinks it's been resolved.

My question was: Of what significance is that so far as removing that issue from the list of Category A items? The point is, once the Staff thinks it's resolved, does that automatically remove it from the list --

MR. COPELAND: I have no objection to that.

MR. SCOTT: -- or do you have to submit a proposed resolution, and a final resolution after comments have been received?

What if the Commission doesn't accept the proposed resolutions, does that still take it off the list?

JUDGE WOLFE: All right. Now, Mr. Scott, in light of your first revised first question, Mr. Copeland withdrew his objection. Now, since that time

1 you've asked at least two more questions.

2 Let's back off and start again, one
3 question at a time.

4 MR. SCOTT: Okay.

5 I hadn't heard -- I thought I was
6 trying to justify the first one. I didn't know he had
7 withdrawn his objection.

8 BY MR. SCOTT:

9 Q Is A-9 still, at this point, today, an
10 unresolved safety issue?

11 A The Staff has classified A-9 as a technically
12 resolved issue.

13 Q That's not my question. Leave the word
14 "technically" off. If he wants to go through that to
15 explain it, but --

16 MR. BLACK: Well, it is listed as an unresolved
17 safety generic safety issue, so it's asked and answered.

18 That was your question, "Is it still
19 unresolved?" and it is listed as unresolved.

20 MR. SCOTT: Show me in the testimony where it
21 says that. I thought it was listed as resolved.

22 MR. COPELAND: Well, Your Honor, I think we
23 can cut right through all of this. It is obvious that
24 Mr. Scott is now trying to argue with Mr. Moon about a
25 legal matter.

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On Page 4 the witness has said, and he reaffirmed, that the technical resolution of A-9 is complete.

I think Mr. Scott is trying to argue with Mr. Moon about what the legal significance is of that for purposes of the Commission's regulations, and that is not a matter for Mr. Moon to answer.

MR. SCOTT: I think, based on the cursory look at the piece of paper I was reading last night, namely his testimony, that I had not noticed the word "technically," when he said "it's been technically resolved." I took that to mean it had been resolved, and I think Mr. Moon has made that distinction now.

BY MR. SCOTT:

Q Is there any connection between an unresolved safety issue and the question of certainty of protecting the health and safety of the public?

A Well, certainly the Staff's activities under the umbrella of generic issues, or unresolved safety issues, represents a continuing exploration as to whether or not its practices, review guidelines, the Commission's regulations, and so on, are -- continue to be sufficient to provide reasonable assurance that it protects the health and safety of the public.

Q Well, --

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1 A. That does not say that there is not sufficient
2 protection of the health and safety to the public simply
3 because we are exploring the adequacy of a review guide-
4 line.

5 It says there's a question.

6 Q. That's the basis of the problem I'm having with
7 this, you know, why have an unresolved safety issue we
8 you spend a lot of time and effort on, unless it's affecting
9 the health and safety of public unless resolved? I mean,
10 why waste your money if it's not got a purpose?

11 Do you know what that purpose would be?

12 A. The only reason that issues that are identified,
13 if you will, as questions about the way we are doing our
14 business, or the guidelines that we use, criteria we use,
15 is to doublecheck, if you will, make sure that what we are
16 doing is all right, and if there is an improvement that
17 should be made in the way we are doing our reviews, then
18 we should make it.

19 Now, obviously, there are questions of
20 resources, and that's the reason we add the A, B, C, D,
21 categories, and then beyond that the more important items
22 in the A Category have been designed as unresolved safety
23 issues, as those that in the opinion in this case the
24 Commission the questions are significant enough that
25 significant Staff effort should currently be applied.

Q Tell me if you disagree: Wouldn't it be a fair characterization to say that a Category A, unresolved safety issue, when initially designed as a Category A unresolved safety issue is given that characterization specifically because it was the feeling that we had a major problem affecting health and safety of the public that should be resolved as quickly as possible?

A When an issue is resolved that is identified, it may be as you indicate, identified on the basis of feeling, or concern.

This suggests that if this feeling is by a responsible person, and so on, one perhaps needs to look at it. But you can't immediately conclude that it in fact is a real problem, or that it would reflect on the health and safety of the public if immediate action weren't taken. And there is a necessity then to do a certain amount of study, investigation, bring all the facts together, and then make a determination.

Q Okay. Your last answer would lead me to believe that the way an item gets to be a Category A unresolved safety issue is any person -- maybe I should limit it to any person within the Staff of the NRC, and say, "Hey, I've got a concern." That goes in Category A until we take it out.

If that's correct, I misunderstand the

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1 way you get to have an issue that would be a Category A
2 unresolved safety issue.

3 Is it not in fact true that instead that
4 a lot of effort, discussion, and a large number of people
5 look at the issue before it becomes a Category A unresolved
6 safety issue?

7 A. Yes. I'm sorry. I am assuming that in my
8 answer.

9 Q. Okay. Now, given that, I want to ask you
10 once again now on unresolved safety issue A-9,
11 "Anticipated Transients Without Scram", you have testified
12 that the Staff did obtain its conclusion and satisfactory
13 solution to the generic task will be obtained before
14 Allens Creek Unit 1 is put into operation.

15 I would like to know what your basis is
16 for saying that a satisfactory solution to A-9 will be
17 put into -- will be obtained?

18 MR. BLACK: Objection. Where do you find
19 that Mr. Moon testified to that?

20 MR. SCOTT: Well, it's in Mr. Moon's testimony
21 he submitted to day, in Supplement to SER No. 4.

22 MR. BLACK: That's not Mr. Moon's testimony.

23 MR. SCOTT: Sure it is. It was submitted
24 through him.

25 MR. BLACK: Well, if we're going to get into

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1 this, I vehemently object to it. Mr. Moon was just
2 sponsoring these exhibits.

3 MR. SCOTT: He's testified he was in charge
4 of the preparation of them.

5 MR. COPELAND: These questions could have all
6 been posed to the Staff's witnesses who appeared here on
7 ATWS, Your Honor. This same information that's in the
8 supplement was available to Mr. Scott at that time, and
9 he could have --

10 MR. SCOTT: Mr. Chairman --

11 MR. COPELAND: --asked them that question.
12 And I agree with Mr. Black, that he is now pursuing matters
13 that are outside the scope of the Board's questions.

14 MR. SCOTT: Mr. Chairman, a two-part answer to
15 that.

16 One, is the point this is something in
17 the record, and anything that's in the record that has
18 been submitted by that person, or anyone else, could be
19 used as the basis of a question, and particularly when
20 it was submitted by that person.

21 JUDGE WOLFE: At the proper time, yes, but
22 we are here now to only address and have cross-examination
23 upon the Board's -- upon the testimony directed to the
24 Board's question.

25 MR. SCOTT: That's right, and that's relating

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1 to generic issues, and that's all I'm talking about.

2 JUDGE WOLFE: No.

3 MR. SCOTT: I'm wanting to know how --

4 JUDGE WOLFE: Mr. Scott, I really don't know
5 whether you just don't understand the proceedings, you
6 don't understand the Board's rulings, you don't understand
7 parties objections? Everything that's said to you seems
8 to go above your head, either because you simply don't
9 understand, or because you don't want to understand.

10 In either event, the question is
11 objectionable. The objection is sustained, and you will
12 not be permitted to cross-examine outside the scope of the
13 direct testimony addressed to the Board questions which
14 are contained in Mr. Moon's testimony, which was
15 incorporated a short time ago.

16 BY MR. SCOTT:

17 Q Mr. Moon, did your testimony relate to generic
18 issues that you have submitted that we are here cross-
19 examining on?

20 MR. COPELAND: It's a frivolous question,
21 Your Honor. It's apparent on the fact of his testimony
22 that that's what it relates to, in a broad sense.

23 MR. SCOTT: Uh-huh.

24 MR. COPELAND: But the questions that are
25 posed to the witness are very specific..

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JUDGE WOLFE: Very clearly said, Mr. Copeland.

MR. SCOTT: That's right, as long as it's
getting --

JUDGE WOLFE: Objection sustained.

MR. SCOTT: -- as long as it's relevant.

JUDGE WOLFE: You don't have to answer that
question, Mr. Moon.

MR. SCOTT: Mr. Chairman, I need some
clarifications. You're right. I don't understand how that
because a question is too specific it also becomes
irrelevant. I mean that's what loses me.

If you wish to explain that, I would
appreciate it.

JUDGE WOLFE: It's clear to everyone, I'm
sure, that's in attendance here. It will be even clearer
when you object to it for whatever reasons known to you
at the time perhaps you may take your objections to a
higher Board, but I'm not going to repeat it.

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BY MR. SCOTT:

1 Q Mr. Moon, if in your opinion as project
2 supervisor of Allen's Creek, there was a generic issue that
3 you did not think was going to be -- let's put it this way,
4 you were not reasonably confident that it was going to be
5 removed from the list of unresolved generic issues prior
6 to the operating license being granted that plant, would
7 you recommend that construction be allowed to go ahead and
8 proceed on that plant?

9 MR. COPELAND: Your Honor, I think that question
10 is asked and answered, beginning at Page 11 of Mr. Moon's
11 testimony.

12 MR. SCOTT: No, Mr. Chairman. This here is
13 talking about how long the plant can operate. It doesn't
14 say whether or not it would be given an operating license.
15 It may very well be it was granted an operating license
16 before that generic issue ever came up.

17 JUDGE WOLFE: Objection overruled.

18 WITNESS MOON: I think the question does not
19 have a yes or no answer, as I understood it. I think
20 the question had to do with if I knew that an unresolved
21 safety issue would not be resolved prior to operation, would
22 I recommend issuance of a construction permit.

23 BY MR. SCOTT:

24 Q That's close. I didn't require that you know
25 that it wouldn't, but put the limit on you that you weren't

1 reasonably confident that it would be resolved.

2 A. Providing certain other requirements of the
3 Staff were satisfied, yes, I would recommend the issuance
4 of a construction permit.

5 Q. What other requirements would it take?

6 A. Well, primarily we have to satisfy the
7 River Bend decision of the Appeal Board.

8 Q. And that is?

9 A. I believe it's stated in the SER Supplement 2 --

10 Q. Just give me your understanding off the top
11 your head.

12 A. The basic requirement is that there is a
13 basis for concluding that the plant can be constructed
14 and operated, even though the generic issue in question
15 is not resolved.

16 Q. That it can be constructed and operated?

17 A. Yes.

18 Q. Well, I hope you've got more than that, because
19 that doesn't even get to the issue of whether or not it
20 could be constructed and operated safely or not.

21 A. Well, implicitly, I meant safely.

22 Q. See, that's the horns of the dilemma I'm on.
23 I don't see how you can resolve, and I want you to please
24 explain it, how an issue that came into being because it
25 was affecting the health and safety of the public and then

1 you can decide to spend money, construct, and let --
2 continue to operate a plant that hasn't solved that problem
3 and still meet your obligation to protect the health and
4 safety of the public. How can you balance those two out
5 without being inconsistent?

6 JUDGE LINENBERGER: Mr. Scott, consistent with
7 the Chairman's prior comment, your question again reflects
8 that you've not taken the trouble either to read or to
9 understand or to reflect on what has been testified to
10 in several places with respect to unresolved safety issues.
11 It has been clearly determined elsewhere and is even
12 alluded to rather specifically in this testimony that not
13 all unresolved safety issues must be implemented prior to
14 construction and not all must be implemented prior to
15 operations. There are some that can carry on into operation,
16 even though they're designated as unresolved safety issues.

17 Now, why would you ask this witness
18 something that has been so plainly laid out in several
19 places up to this point? You're taking up his time and
20 our time. Furthermore, let me ask you, also, why do you
21 insist on making the witness recall from memory something
22 that is documented in the record, such as what River Bend
23 is about, because if his memory is faulty, the record on
24 River Bend is what's going to be used by the Board in
25 writing its decision. It's going to be used as guidance by the

1 parties, so taking up the witness' time and our time
2 insisting that he rely on his memory on something that's
3 well documented is wasting everybody's time and not
4 helping your case one bit. It's making your case look
5 very shaky on the record, Mr. Scott. So please, in your
6 own best interest, please sharpen up here.

7 MR. SCOTT: I must defend myself a moment.
8 And that is, I appreciate very much your saying what you
9 just said, because that is the problem that I am trying
10 to probe. I don't believe this Board can approve the
11 operation of a plant that does not protect the health and
12 safety of the public.

13 JUDGE LINENBERGER: All that means, Mr. Scott,
14 as I said before, you have not taken the trouble to read,
15 to understand, and to reflect on what is already in the
16 record with respect to various categories of safety issues.

17 MR. SCOTT: I'm not particularly worried about
18 what River Bend said. I think that can be overturned.
19 I'm making my case for that.

20 JUDGE LINENBERGER: Well, you take the law
21 as it is now.

22 MR. SCOTT: What's that?

23 JUDGE WOLFE: You take the law as it
24 is now.

25 MR. SCOTT: That's not the law. River Bend

1 is an NRC decision.

2 JUDGE WOLFE: All right. I won't argue.

3 JUDGE LINENBERGER: It's pointless.

4 MR. SCOTT: I guess he was answering a
5 question, right?

6 JUDGE LINENBERGER: I interrupted you because
7 you asked a question that has been answered so many ways
8 and so many places up to now that I felt you were using
9 up time needlessly. There was no objection. I interrupted
10 you. Now, the ball is back in your court.

11 MR. BLACK: I will make an objection. It's
12 been asked and asked and it has been asked and answered.
13 It is plainly in his testimony.

14 MR. SCOTT: Please point to it.

15 MR. BLACK: It is the entire testimony. You
16 have to have a fundamental understanding of what a
17 generic safety issue is, and I don't think you've read his
18 testimony. In fact, you don't even have it in front of
19 you, you had to borrow Mr. Doherty's testimony.

20 MR. SCOTT: That doesn't keep it from being
21 in front of me nor does it keep me from having read it.

22 JUDGE WOLFE: I will sustain the objection.
23 Next question.

24 BY MR. SCOTT:

25 Q Do you believe that the ATWS, Category A,

1 Unresolved Safety Issue, will be resolved before the
2 operation of Allen's Creek takes place?

3 MR. BLACK: Objection. That's speculation.
4 It's been testified to before through a prior witness.
5 Obviously Mr. Scott is trying to get into the ATWS
6 issue when he was absent from consideration of that issue
7 before.

8 MR. SCOTT: Mr. Chairman, that's wrong,
9 erroneous and a very unfair way to characterize this.
10 That testimony here, was just stated -- it was just stated
11 that there are some issues, unresolved safety issues, that
12 can be continued and an operating license can be granted
13 even though they are not resolved. I'm getting around to
14 asking if ATWS is one of those.

15 MR. COPELAND: Your Honor, if I may, first,
16 I think the Board has already told Mr. Scott to stop this
17 line of questioning; secondly, the proposed rule by the
18 Commission on ATWS that we examined this week in the
19 hearing goes very clearly, on its face, that plants in
20 operation may continue to operate because the Commission
21 itself deems the resolution of ATWS to be sufficiently
22 likely in the near future and within the time frame not to
23 pose a risk to the health and safety of the public to allow
24 those plants to continue to operate.

25 Now, this is just -- I don't know if

1 Mr. Scott just likes to waste his time or whose time
2 he thinks, you know, is invaluable, but my time is more
3 valuable than to sit here and educate him and I really
4 resent that that's about all that his participation in
5 this hearing has been, an education process for him.
6 And he doesn't look like he's learned very much.

7 JUDGE WOLFE: Well, regardless of that,
8 I have sustained Mr. Black's objection.

9 MR. SCOTT: Mr. Chairman, I must respond to
10 that long diatribe.

11 Allen's Creek is not an operating
12 nuclear plant.

13 (Bench conference.)

14 JUDGE WOLFE: All right. Proceed.

15 JUDGE LINENBERGER: For your further help,
16 Mr. Doherty -- I beg your pardon -- Mr. Scott, let me
17 respectfully request that you make a distinction between
18 whether the safety issue has been resolved and whether the
19 resolution has been implemented.

20 Now, you mischaracterized something
21 just recently that the Board said by replacing the word
22 "implement" with "resolve." I was talking to you about
23 whether they needed to be implemented before the plant
24 goes into operation. You switched over to the word
25 "resolved." Keep those two words separate. They mean

1 different things. And I think we will have less confusion
2 in the record if you will try to do that. Thank you, sir.
3 Proceed.

4 MR. SCOTT: I need to explain.

5 JUDGE LINENBERGER: Go ahead with your
6 questions. I'm just asking you to keep those two separate.

7 MR. SCOTT: I do need to explain what I meant
8 when I used this term up to this point.

9 JUDGE LINENBERGER: We'll take it from here
10 and watch it in the future.

11 MR. SCOTT: Can I explain what I have meant?

12 JUDGE WOLFE: Mr. Scott, please, you are
13 trying the patience of the Board repeatedly. Next question.
14 BY MR. SCOTT:

15 Q Mr. Moon, do you make a distinction in your
16 testimony between implementing an unresolved safety issue
17 and the final approval of the resolution of that safety
18 issue by the Commission as opposed to by the Staff?

19 MR. BLACK: I don't understand that question.
20 It is certainly confusing.

21 MR. SCOTT: Well, neither does Mr. Linenberger.
22 That's why I've got to ask it.

23 JUDGE LINENBERGER: I don't either.

24 JUDGE WOLFE: That's why you're going to ask it?

25 MR. SCOTT: That's why I had to ask it.

1 JUDGE LINENBERGER: Why didn't your question
2 relate to my statement? You used expressions -- your
3 question bore little relationship to my statement. Mr. Scott.

4 Now, if you want me to ask Mr. Moon
5 the question I think you are getting at, I will be happy
6 to do so.

7 MR. SCOTT: Go ahead.

8 MR. LINENBERGER: Mr. Moon, in the first place,
9 does the Staff make a distinction between the technical
10 resolution of an issue and the implementation of that
11 resolution with respect to a specific licensing proceeding?

12 WITNESS MOON: Yes. The -- I think we attempted
13 in the testimony to indicate that the technical resolution
14 is a, if you will, a prescription of how the problem can
15 be resolved in a generic sense. It surfaces as a
16 regulatory guide, a NUREG document of the Staff guidance
17 or in some instances in which the current regulations may
18 be judged to not quite cover the situation. It may then
19 surface as a proposed rulemaking.

20 The implementation, then, is treated
21 as a somewhat separate function. We have task managers
22 in charge of implementing the results of each one. The
23 implementation may occur several different ways.
24 It may be by orders in the review of individual plants and
25 so on.

1 JUDGE LINENBERGER: Now, in between the
2 identification of a technical resolution with respect
3 to a generic issue and the adoption of a position by the
4 Staff that that resolution shall be implemented in certain
5 types of facilities, is there some formal action that gives
6 blessing to this identified technical resolution?

7 In other words -- let me explain -- you may
8 get a research report out of Oakridge that says, here's
9 the way to handle that problem. And somebody on your
10 staff says, okay, that's an attractive, feasible resolution.
11 Now, Allen's Creek or Houston Lighting & Power doesn't
12 respond to an Oakridge report. Seems to me something
13 else has to happen between the identification of a technical
14 resolution and some position that obligates an Applicant
15 to do something. And what is that, is that the NUREG you
16 were talking about?

17 WITNESS MOON: In our testimony I think we
18 refer to the Aqua Book, which is NUREG-0606, titled
19 "Unresolved Safety Issues Summary." In that report,
20 we have a separate listing of, quote, those issues which
21 are technically resolved, with a notation as to what that
22 technical resolution is or how it's been presented.
23 A-24, for example, has a interim resolution in the form
24 of a NUREG report, NUREG-0588, and that resolution is now
25 being implemented. There is also a proposed rulemaking

1 for a longer-term implementation, if you will, of
2 additional requirements.

3 JUDGE LINENBERGER: Thank you, sir.

4 Back to you, Mr. Scott.

5 MR. SCOTT: I'm sorry to say, that wasn't
6 quite the point I was getting at. I'm wanting to know --

7 JUDGE LINENBERGER: What's your next question,
8 Mr. Scott?

9 MR. SCOTT: That's what I'm asking.

10 BY MR. SCOTT:

11 Q I want to know if he knows the distinction
12 between the Staff coming to a technical resolution of a
13 Category A Unresolved Safety Issue versus the full Commis-
14 sion, by virtue of a proposed rule, later a final rule,
15 "implementing" that technical resolution and thereby
16 removing that as an unresolved safety issue.

17 MR. BLACK: Your question is, what is the
18 distinction between --

19 MR. SCOTT: I'm asking if there is a
20 distinction.

21 MR. BLACK: Isn't it obvious? I object.
22 That's been asked and answered.

23 MR. SCOTT: No one yet has made that
24 distinction in any of their testimony.

25 JUDGE LINENBERGER: Mr. Scott, I have to

1 jump in again, and, please, I'm trying to help you. It
2 sounds like I'm picking on you, but you are not thinking
3 about what you are saying. You talk about the Commission
4 implementing --

5 MR. SCOTT: Absolutely.

6 JUDGE LINENBERGER: The Commission doesn't
7 implement. It's licensees or applicants such as this
8 utility that implements. The Commission may adopt
9 and require implementation. Now, are you talking about
10 their adopting it as an official position? That's not
11 an implementation.

12 MR. SCOTT: I'm talking implementation of
13 the rules. That's the sense I meant it in. Prior to that,
14 it's only a proposed rule, a Staff opinion. To me, there's
15 no force of law until the Commission has adopted it as a
16 final resolution.

17 MR. COPELAND: Your Honor, it's clear to me
18 that Mr. Scott is arguing with the witness at this point.

19 MR. SCOTT: I'm not arguing.

20 MR. COPELAND: Or trying to seek a legal
21 opinion from Mr. Moon regarding the legal implications
22 of a NUREG versus a Commission Regulation. That's all his
23 question is inquiring into. That's a legal issue. I don't
24 see where Mr. Moon has to answer that question. It's a
25 legal conclusion.

1 MR. SCOTT: I'm not phrasing it that way,
2 anyway. I'm asking if he, in his testimony has made that
3 distinction.

4 MR. BLACK: Mr. Chairman, I think it's obvious
5 the testimony has made a very clear distinction between
6 a technical resolution and adoption by the Commission and
7 final implementation. I just don't understand the questions.

8 MR. SCOTT: I read, "The Staff then stated its
9 conclusion, satisfactory solution to the generic tasks
10 will be obtained before Allen's Creek, Unit 1 is put
11 into operation." I have got to know if that means the
12 Commission will have adopted a rule or if that means that
13 NUREG will have been published. It is a very important
14 distinction. I mean, it's too easy to say, "resolution
15 will be obtained." Hell, I can -- hire me at the NRC and
16 I could solve all the generic resolutions in one day if
17 all I had to do was put a NUREG out.

18 MR. COPELAND: You know, I think it's appropriate
19 that this hearing is ending with this thing turning out the
20 way it is this afternoon with those kind of comments.

21 JUDGE WOLFE: I'm sorry. We can't help you,
22 Mr. Scott. We think that whatever is presenting a problem
23 to you is addressed in the witness' testimony, and I don't
24 know why we should allow this kind of question. It is
25 spread on the record. What you're doing, or for whatever

1 purpose you simply do not want to understand what the
2 witness is saying.

3 MR. SCOTT: The witness has not said these
4 things. I keep asking him and I keep getting objections.
5 And that's why this is all taking place. It's the kind
6 of thing that could have been done three hours ago if
7 you would have just let him answer it.

8 JUDGE WOLFE: We think the witness' testimony
9 has made the distinction between the technical resolution
10 and between that and implementation. Now, further, as
11 to what the Commission has to do, as far as I understand
12 the witness' testimony, the scope of it, it doesn't get into
13 that at all. Am I correct in that respect, Mr. Moon?

14 WITNESS MOON: As to what the Commission has
15 to do?

16 JUDGE WOLFE: Yes.

17 WITNESS MOON: I think, and perhaps I could
18 have answered a little more fully earlier Judge Linenberger's
19 question. The formality, if you will, of the technical
20 resolution, the NUREG report or the adoption of a change
21 to the standard review plan, that is, a decision by the
22 office of NRR, Nuclear Reactor Regulation. It is not a
23 person that does it; it is a decision of the office.
24 It does not involve the Commission. That is done by the
25 Staff within the scope of the present regulations.

1 If the technical resolution is judged to
2 perhaps not be fully allowed, if you will, or consistent
3 with the current regulations, then it becomes a question
4 of rulemaking and then would become a question of Commission
5 action before it could be implemented, if there is, in
6 the present regulations, a barrier to the full implementa-
7 tion or if it is simply not covered.

8 MR. SCOTT: I understand all that.

9 BY MR. SCOTT:

10 Q So, do you believe that the Commission will
11 have adopted a final rule that states that, first of all,
12 the ATWS, Unresolved Safety Issue, has now become a
13 resolved safety issue prior to the resolution of Allen's
14 Creek.

15 MR. BLACK: That's the same question he asked
16 before, and I objected to it.

17 MR. SCOTT: Why do you object to it? It wouldn't
18 take him three seconds to answer. You're talking about
19 wasting time, let him answer it.

20 MR. BLACK: Because the answer would be
21 meaningless in the record because it's speculative.

22 MR. SCOTT: Well, then, why did he state it
23 in his testimony?

24 MR. BLACK: You're not pointing to his testi-
25 mony there, Mr. Scott.

1 MR. SCOTT: It's the testimony that he was in
2 charge of.

3 MR. COPELAND: It was also clear from that question
4 that Mr. Scott doesn't understand that the Commission
5 adopting a rule is not what results in the technical
6 resolution of the issue.

7 MR. SCOTT: I'm not talking about technical.

8 MR. COPELAND: That's exactly what you asked
9 him, Mr. Scott.

10 MR. SCOTT: No. I am not interested in --

11 JUDGE WOLFE: I am sustaining Mr. Black's
12 objection. Next question.

13 BY MR. SCOTT:

14 Q Mr. Moon, do you believe there are any
15 unresolved safety issues now outstanding that would
16 prevent any future nuclear power plant from being licensed
17 to operate, assuming no improvements have been made in the
18 knowledge of those unresolved safety issues above and
19 beyond what is now known? Yes or no?

20 A I don't think I can give you a yes or not to
21 that question as I understand it.

22 Q Why?

23 A I believe you asked if there was no additional
24 knowledge in regard to an unresolved safety issue developed.

25 Q In other words, if a plant came up for

1 operation today --

2 A On the basis of the present knowledge for a
3 given unresolved safety issue?

4 Q All of them.

5 A Yes, a plant could be licensed, as far as the
6 North Anna decision, if the North Anna decision is
7 satisfied.

8 Q In other words, none of the unresolved
9 safety issues are of sufficient import to prevent the
10 licensing of a nuclear plant?

11 A Not of themselves, no.

12 MR. SCOTT: I was afraid of that. No further
13 questions.

14 JUDGE WOLFE: Redirect?

15 MR. BLACK: I have no questions.

16 JUDGE WOLFE: Any additional Board questions?

17 JUDGE CHEATUM: I have none.

18 THE REPORTER: Your Honor, may I respectfully
19 request a recess.

20 JUDGE WOLFE: You most certainly may.

21 We will recess until quarter of 4:00.

22 (Brief recess.)

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JUDGE WOLFE: All right.

BOARD EXAMINATION

BY JUDGE LINENBERGER:

Q At Page 4 of your testimony, at which begins the response to the Board question labeled Item 2, that Board question asked for an identification of what your testimony refers to as USI's, for which incorporation of the technical resolution of the Allens Creek design will be required prior to the granting of an operating license or prior to the initiation of commercial operation.

In the response to that question you list a series of USI's which you characterize as ones for which a technical resolution is complete.

That doesn't tell me whether that answers the Board's question. The Board's question had to do with ones that would be -- have to be implemented prior to granting them an operating license or initiation of commercial operations.

Now, the listing of items on Page 4, are they the ones that must be implemented before commercial operation can be initiated? Because that was the way the question was phrased.

A I think the basic answer to the Board's question is that there is not a specific requirement that these be implemented before operation.

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Q Are you saying there are no USI's that must be implemented before commercial operations can begin?

A There are none -- the beginning of commercial operation is not a trigger that says -- there's a requirement that it must be implemented before you start operating.

Q All right. What about the granting of an operating license, is that a trigger point?

A No.

Q So none of the items listed on Page A4 must be implemented prior to the granting of an operating license or prior to the initiation of commercial operation, is that correct?

A That's correct in the general sense. Now, each one of these will follow its own implementation path.

Q But are you in a position to answer the Board's questions, which ones must be implemented prior to the granting of an operating license or prior to the initiation of commercial operation?

A We cannot give you such a list at this time.

Q Okay. Now, your answer didn't say that.

A Okay.

Q So the answer to the Board's question is that it's not possible to answer the Board's question at this time, is that correct?

1 A That is correct. Yes.

2 Q Do you wish to so amend this testimony in
3 accordance with what you've just told us on the record,
4 or should we consider that to be an amendment to this,
5 or revision to this testimony?

6 A I guess, frankly, I thought we had attempted
7 to convey that thought; perhaps not too clearly. If we
8 didn't, certainly I'm agreeable to amending the testimony
9 to that extent.

10 Q There is no discussion, under Item 2, of
11 hydrogen control. It is discussed in the Supplement 4 of
12 the SER.

13 If I remember correctly, since the publication
14 of Supplement 4 there has been a finalization of a
15 Commission rule with respect to hydrogen control which,
16 again if my memory serves me correctly, which resolution
17 does not apply to Allens Creek.

18 Are you in a position to confirm or controvert
19 my -- or correct my memory on that matter?

20 A I guess I wasn't aware of any finalization of
21 a rule -- on hydrogen control?

22 Q Yes. There was a final rule published within
23 the past one or two weeks, and my recollection of it is
24 that its applicability specifications as to which types
25 of facilities it applied to excluded Allens Creek. I just

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he
1 was not sure about my memory and thought maybe you could
2 help me on that.

3 A. I appear to have missed it.

4 Q. All right. On Page 8, Part (b) of Item No. 3
5 asks, "What is the Staff's confidence in the success of
6 proposed programs for a specific technical resolution?"

7 The answer that's given there on Page 8, and
8 completed at the top of Page 9, reviews generalized
9 practices and procedures that the Staff has for approaching
10 and arriving at technical resolutions, and really only
11 expresses some confidence that this procedural approach
12 is going to be successful.

13 When the Board in that question referenced
14 specific technical resolution, it was looking for more
15 than just, here's the way we're going to do it and it's
16 going to work, kind of answer.

17 We were really interested to know just how
18 good is the technical basis on each of the USI's applicable
19 with Allens Creek is.

20 The answer you've given does not go into that.

21 Are you in a position to discuss this? And
22 I'm not just pushing you because of a technicality here,
23 but you see, the River Bend decision obligated, among
24 other things, Boards to satisfy themselves that there are
25 resonable alternatives available in the event that a

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1 referenced technical resolution turned out not to be
2 practical or not to work, or undesirable for whatever
3 reason, and if the basis of confidence in the referenced
4 technical resolution is only expressed in terms of a
5 programmatic description of how various parts of the
6 government go about these things, that leaves very much
7 hanging in the air what it is the Staff is confident about,
8 and when you say with respect to back-up positions, well,
9 we're just confident they're going to work, and so it
10 doesn't really answer, again, the question of what are
11 the alternatives in case some specific resolution does not
12 work.

13 With that long-winded introduction, I'd like
14 to know what your comments are here to the extent you're
15 prepared to offer them. If you're not, fine, say so, but
16 the Board was looking for something a little more specific
17 than we see in this testimony.

18 A. I think I can say a few things. One, we
19 appreciated, I think, to some extent what you've
20 reiterated as to what the Board is interested in. I
21 think we considered this a rather difficult question to
22 answer.

23 We felt we were answering perhaps as best we
24 could, although as general; we certainly in our answer
25 were placing considerable reliance on the fact that we do

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1 have, we believe, excellent resources available to apply
2 to this work.

3 We do get comments from anyone, industry,
4 interested citizens; so when we reach a technical
5 resolution there has been a large input, and in general,
6 I think as we tried to indicate, we are not trying to
7 necessarily do things in the least cost manner, but making
8 sure we cover things.

9 I think beyond that, as far as River Bend goes,
10 of course we've already attempted to answer that for each
11 applicable unresolved safety issue, both in Supplement 2
12 and in Supplement 4.

13 Now, I think the other thing I would add is
14 that elsewhere in the testimony -- I can't put my fingers
15 on it momentarily, but I think we had words in there to
16 the effect that if a technical resolution resulted in a
17 NUREG or a change in the standard review plan, and that if
18 a particular plant was unable to implement that for some
19 reason, we would always listen to alternative means of
20 satisfying the Commission's regulations.

21 Now, frankly, I think we didn't just -- I don't
22 think we merely ignored your question. We didn't quite
23 know how to answer it, and to start going down item by
24 item and listing alternatives, we simply decided not to
25 do that. Now, I think that's about all I can add.

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1 BY JUDGE LINENBERGER:

2 Q With respect to your response to the question
3 that appears at the top of Page 11, you say there's
4 really no categorical answer to the question of how long
5 a facility might be allowed to operate before implementing
6 the resolution of a USI. And I think I can appreciate
7 that, that that is the case.

8 However, I should appreciate your at
9 least explaining a little bit better the Staff's
10 philosophy here in the following respect:

11 If we talk about a plant having a use-
12 ful lifetime on the order of 30 or 35 years, does the
13 Staff generally have the intent of seeing these technical
14 resolutions implemented in a time short compared with a
15 useful lifetime of a facility after operation has begun,
16 or are some of them sufficiently unimportant or non-
17 urgent with respect to health and safety that implementation
18 could await maybe half the useful lifetime of a plant in
19 operation before it's implemented? Can you discuss how
20 the Staff looks at this post-operation implementation?

21 A I think -- Let me remind you again that the
22 technical resolution is a change basically in our review
23 guidance. In other words, the guidance by which we do
24 reviews.

25 Again, the criteria reviews or guidelines

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1 are constantly changing. There have been criteria for a
2 plant being reviewed for a license today would be different
3 than what it was five years ago, ten years ago.

4 The implementation -- again, I haven't
5 studied this in detail, but when you start talking about
6 implementation, you are talking about plants that perhaps
7 were licensed ten or twelve years ago. You are talking
8 about plants that are undergoing construction permit
9 reviews, operating license reviews, and plants already
10 operating.

11 The implementation may be different in
12 different plants.

13 Q I was talking explicitly about a plant being
14 licensed at any given time now or in the future for which
15 there are identified --

16 A Technical resolutions?

17 Q -- technical resolutions to generic safety
18 issues, the implementation for which has not been required
19 prior to the startup of that plant.

20 A Okay. I think the basic answer to that is
21 that -- and this emphasized, again, in the Aqua Book that
22 I mentioned -- we do have a very definite program going on
23 on the implementation of these. We do not have pulled
24 together in many nice, neat summary the schedules for
25 these various items.

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Some of these do exist. In particular for NUREG A-24. The implementation here I believe has been by Commission Order, and there has been difficulty in meeting it by the original date. And there has been a consideration for an extension of that date.

In this case, there was a fairly early date picked to do a very difficult job, and that's now, again, being considered. Can the safety requirements still be satisfied with an extension of that date?

I think, again, the basic answer is that we have a person assigned to each of these. They are looking at the implementation. There are schedules developed or being developed. There weren't in a form that we could present them to you in a summary fashion.

As far as, you know, half the useful life of the plant, I think -- we don't really think in those terms, but rather in doing it as promptly as is reasonable, feasible, and consistent with safety.

Q. So it's in that context more than it is, or rather than in the context of, well, what's the probability of something going wrong if the plant operates for three years without it?

A. Well, I think the answer to that is: When an issue is first identified as an unresolved safety issue, the Staff at that time undertakes to answer for itself that

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1 question: Can plants be allowed to continue to operate
2 while this issue is being resolved?

3 Having made the decision that it is,
4 it continues then to have that decision hanging over its
5 head, and the question of do you need to re-review that
6 decision, do you get to the point that you need to shut
7 some plant down until you can get things implemented?

8 I'm not sure I can point to a very
9 formalized procedure for doing this, but I think this is
10 obviously incumbent upon the Staff on a continuing basis
11 for each technically resolved issue.

12 JUDGE LINENBERGER: All right, sir. Thank you
13 very much.

14 JUDGE WOLFE: Any cross on additional Board
15 questions, Mr. Copeland?

16 MR. COPELAND: Yes, sir.

17 RECROSS-EXAMINATION

18 BY MR. COPELAND:

19 Q Mr. Moon, back on Page 8 and with respect to
20 the question that Judge Linenberger asked you about the
21 Staff's confidence of success, do you have any personal
22 knowledge of the track record with respect to how well
23 where there has been a NUREG issued and implemented to
24 resolve a generic technical issue, have you developed any
25 impression yourself as to what the Staff track record has

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been with respect to actually resolving those generic issues by publication of NUREGs and requiring the implementation of those NUREGs? Has that program been successful, or unsuccessful, in your opinion?

MR. SCOTT: Mr. Chairman, I must object to that question, unless we get a definition of what "successful" and "unsuccessful" means.

MR. COPELAND: I think those words are understood, Your Honor, in the normal sense of what they mean in --

MR. SCOTT: Counsel --

MR. COPELAND: -- or as they are defined in the dictionary.

MR. SCOTT: Applicant counsel and the witness might mean that to mean the plants were allowed to continue to operate and they didn't lose any money, and electricity was produced.

Someone else might take that to mean that health and safety was protected.

MR. COPELAND: I mean it in all those respects, Your Honor.

MR. SCOTT: Then the question is meaningless, and I object to it on that grounds.

JUDGE WOLFE: "Meaningless"?

MR. SCOTT: It's too vague. You know, if

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1 "successful" means just everything, every person's view
2 of what a successful thing, successful implementation
3 meant, then we don't know what he meant when he said that.

4 (Bench Conference.)

5 MR. COPELAND: I see no vagueness in that
6 question. I'm sorry. I can rephrase it, if you wish,
7 but I don't see any problem with it.

8 JUDGE WOLFE: Objection overruled. We'll hear
9 the witness' opinion.

10 THE WITNESS: I know of no instance that I can
11 recall offhand in which a USI has been technically
12 resolved, and the Staff has had them to go back and change
13 to a different resolution.

14 To go through the complete closings
15 through implementation, of course, I did indicate earlier
16 that there would have to have been a change in the
17 required date for implementing the resolution to A-24.

18 BY MR. COPELAND:

19 Q Well, would you conclude from that experience,
20 then, Mr. Moon, that your programatic approach to resolving
21 generic safety issues gives you confidence in the success
22 of your capability to do that?

23 A Well, I think, again, as we've tried to
24 indicate in the testimony, and I think I have here today,
25 we feel that we have a discipline program. We recognize

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1 the need to continually pursue the question of
2 implementation.

3 We recognize we perhaps could do things
4 faster, at less cost, but we are not going in that
5 direction.

6 So, I think basically while we are
7 continuing to examine our programs and try to improve them,
8 why, I think we feel that we are progressing in an
9 acceptable manner.

10 Q All right, sir.

11 With respect to the other question that
12 Judge Linenberger asked you about the particular time-
13 frame for implementing a generic resolution on a plant
14 that's in operation, have there been instances in which
15 a resolution of a generic issue were implemented
16 differently for different plants?

17 For example, have distinctions been made
18 between operating license plants, or plants that are in
19 operation and plants that are undergoing, say, the
20 construction application review process?

21 A My recollection is that there are differences.
22 I'm trying to recall the examples. Of course, the Staff's
23 position on ATWS as expressed in NUREG-0460, did have
24 varying resolutions proposed for different classes of
25 plants.

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1 Q All right, sir.

2 So, is it fair to say, then, that the
3 Staff, and perhaps the Commission, also, may not require
4 implementation of the same generic resolution for every
5 plant, and that they will make an independent assessment
6 for each type of plant as to what is required?

7 A Yes. That's true. And I thought in our
8 testimony we had attempted to characterize the difficulty
9 of treating the many different plants, and, if you will,
10 the cost and resources, and that to the extent possible
11 we do try to work with groups of plants that are alike.
12 We work with owner's groups. Try to do the implementation
13 as best we can for all these classes using the resources
14 that we have.

15 MR. COPELAND: I have no further questions,
16 Your Honor.

17 JUDGE WOLFE: Mr. Doherty?

18 MR. DOHERTY: No further questions, Your
19 Honor.

20 JUDGE WOLFE: Mr. Scott?

21 RECROSS-EXAMINATION

22 BY MR. SCOTT:

23 Q Judge Linenberger asked you a question about
24 how long a plant might operate and still fail to
25 implement the resolution to an unresolved safety issue

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that had by the Staff of the NRC been found to be available.

Do you know of any plants to date that have been shut down for failure to never get a resolution?

MR. BLACK: Do you mean never implement a resolution?

MR. SCOTT: Yes, never implement. Just refuse to implement to the point that the Commission finally says "Well, you can't operate any more. We take your license away."

THE WITNESS: I cannot recall offhand any such instance with regard to one of the listed USIs.

I believe there are, of course, many cases in past history in which plants have been shut down because there was perceived to be a safety problem, and we would certainly expect in the future if there was a safety problem because -- for a particular plant that certainly that option is available.

BY MR. SCOTT:

Q Well, by "shut down" I meant permanently shut down and never operated again. Do you know of any plants that for any reason have been shut down for safety reasons and just prohibited from operating any more?

A I do not.

Q Okay. Now, you mentioned one unresolved

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1 safety issue that apparently resolution had been obtained
2 to, and the Commission, itself, got involved and said,
3 now, you've got to implement this resolution within a
4 certain time frame and gave them a specific deadline.

5 I believe you indicated that that dead-
6 line had come and gone. Is that correct?

7 A I'm trying to recall the specifics. I'm
8 recalling that there were questions as to whether all of
9 the reactor operators would be able to meet the deadline,
10 and I believe there were requests for extensions.

11 As to the final outcome of that, I'm
12 just not conversant with all of the details.

13 Q What I wanted to know is has that deadline
14 yet been reached, assuming no extension?

15 A I think it has not. As I recall, say, June
16 of next year, or January, I'm not sure.

17 Q Would it be your understanding that if an
18 extension is not granted that the plants that hasn't met
19 those resolutions would be required to be shut down, or
20 is it within the NRC Staff's ability somehow to grant them
21 waivers or extension without the Commission taking full
22 action?

23 A I don't think I could answer that question.
24 I assume it would depend on the wording in the Commission's
25 Order, other legal questions.

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MR. SCOTT: No further questions.

JUDGE WOLFE: Any redirect, Mr. Black?

MR. BLACK: The Staff has no questions.

JUDGE WOLFE: The witness is permanently
excused?

MR. BLACK: Yes.

JUDGE WOLFE: The witness is permanently
excused.

(Witness excused.)

JUDGE WOLFE: Any other matters to take up?

MR. COPELAND: I would just like to make some
closing comments, Your Honor, if you care to hear them.

JUDGE WOLFE: All right. Yes. You may make
a closing statement or comments, yes.

MR. COPELAND: I'd like to say, initially, as
a lawyer, who is essentially new to this kind of
proceeding, except for two days Judge Cheatum and I spent
doing this back in 19 --

JUDGE CHEATUM: Seven years.

MR. COPELAND: Yes. That's true. Two days
a long time ago.

-- that I have been very impressed with
the capability and professionalism of the numerous experts
that have appeared here for both the Staff and the
Applicant and I'd just like to say that as a personal

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1 matter on the record for their purposes.

2 I have also been impressed with the
3 depth of the Board's knowledge about the matters that we
4 have litigated here, and about the attentiveness that the
5 Board has displayed. Particularly I have been impressed
6 with your efforts to fully develop the record here.

7 I think as a result of the capability
8 of our witnesses, and the thoroughness of the Board's
9 approach here, that I don't believe there's a single issue,
10 or single bit of evidence to support any of the contentions
11 that have been raised in this proceeding by the Intervenor.

12 I think that if this proceeding has
13 proven anything it is that the Commission needs to amend
14 its regulations, as it is proposing to do, to change very
15 drastically the grounds for admission of contentions. I
16 think anyone who reviews this record will come to the
17 overwhelming impression that much of this hearing was
18 spent litigating questions about which there was little,
19 if any, dispute within the responsible scientific
20 community.

21 Now, I'm not criticizing the Board here
22 for this. I'm being critical of the system which permits
23 the admission of contentions without a prima facie showing
24 by an expert that there is a legitimate basis for the
25 contention, and I sincerely and personally hope that the

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1 Commission expeditiously adopts the changing the rules
2 that would take care of that situation, which they are
3 proposing to do.

4 I must say, again, as I've said, I
5 think because that standard did not apply here, the
6 hearing has often turned to nothing more for cross-
7 examination purposes to a very expensive course in
8 nuclear engineering for Mr. Scott and Mr. Doherty.

9 I think anyone reading this record
10 would come to the same conclusion that I've had, that
11 something needs to be done to change that system.

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17 (Mr. Copeland's statement continued
18 on the next page.)
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1 MR. COPELAND: I don't need to remind you
2 how long this plant's been hung up in the regulatory
3 process, and I know you're probably as frustrated as I've
4 been with that fact.

5 Fortunately, we're now reaching the point
6 where the pace of matters is solely within your powers
7 and I cannot emphasize too strongly the desirability of
8 a prompt decision in this case.

9 I think you've heard the evidence in the case
10 and you know as well as I do how important this plant is
11 to the citizens and the consumers in the Houston area.

12 I might also note, since this is the only
13 plant that has been actively pursuing a construction
14 permit over the last year, and you can look in the
15 Supplement No. 3 to the SER of the near term CP's and see
16 how many of those are left, and you know that the eyes
17 of the whole country are focused on this case right now
18 to see if there is indeed any future for the nuclear
19 industry, and I hope this Board will come back very
20 quickly with a resounding yes.

21 Finally, as a personal matter, I would like
22 to say that I have enjoyed appearing before you. Your
23 professionalism and capability have made it a pleasure
24 for me and made my job much easier, and I certainly
25 appreciate that.

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I would say that I hope the next time we meet it's in much more pleasant surroundings and not in the context of this case.

JUDGE WOLFE: Any other closing statements?

MR. BLACK: Yes. I'd like to make a few statements.

On behalf of the NRC Staff, in the event that this represents a closing of the record, I want to thank the Board for their patience and persistence and their determination that this case be heard in an expedited yet orderly and fair manner.

It is my understanding that this hearing represents the longest hearing that's been held before the NRC Licensing Board. Certainly the duration of this hearing has tried us all, but I think the Board has held up remarkably well in light of all the adversities, and I'm very confident that an excellent record has been developed for decision making.

I believe the Board has been fair to all parties, and all due process and fundamental fairness requirements have been ensured.

The length of this hearing is certainly a dubious distinction, I think. I think it could have been much longer had all the Intervenors fulfilled their responsibilities with respect to their issues, and if the

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1 Hearing Board hadn't conducted this hearing in a fair and
2 firm manner and kept order.

3 The Staff hopes that this proceeding may
4 at least become a benchmark with which to measure the
5 integrity of the hearing process. I think that with that
6 benchmark in mind, it measures well. On the other hand,
7 I, like Mr. Copeland, believe that the proceeding may
8 become a benchmark with which to measure the problems of
9 this process. That is, we who have endured through this
10 lengthy process with all its trials and tribulations
11 must question whether this is the most suitable way to
12 try complex technical and environmental issues.

13 I personally feel that adjudicatory hearings
14 may not be the best way to resolve all the very strong
15 emotional, moral, whatever, issues that surround nuclear
16 power plant licensing, and it may not be the best way to
17 resolve all the problems that the citizens of the country
18 are confronted with.

19 However, we should and must leave these
20 considerations to the Commission as well as to Congress.

21 In any event, given the present hearing
22 process and the regulations and procedures mandated by
23 Congress, this Licensing Board has steered a very fair
24 and judicial course amongst all the issues and obstacles
25 that have been placed in its path. For this, all of us

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1 who are members of the public thank you, and we will
2 anxiously await your decision.

3 Thank you.

4 JUDGE WOLFE: Any other closing statements?

5 MR. DOHERTY: Yes. I have one, Your Honor.

6 JUDGE WOLFE: Yes.

7 MR. DOHERTY: I think perhaps outside of the
8 three on the Board, I probably have been in the hearing
9 longer perhaps than any other individual, and I would like
10 to thank the Board for its grit in sticking with what was
11 at times a rather unexciting process, I'm sure.

12 I sometimes think the best measure of devotion
13 is not so much when someone arose to a great occasion but
14 when people stuck to what at times must have been just
15 plain monotonous, and I do think at times our hearings got
16 very monotonous.

17 I'm sensitive -- well, I do believe that we've
18 been privileged, all of us, with a very fair Board that
19 made every effort to interpret complex rules as ably as
20 they could.

21 I don't follow the two speakers who have
22 spoken previously in believe that the rules are very fair.
23 I do believe the rules were administered fairly, but that
24 they have some defects.

25 There was an allusion -- I don't want you to

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1 feel I'm trying to defend myself or Mr. Scott about trying
2 to get a nuclear education. I did my best to not do that.
3 I tried to learn as much as I could on my own time, and
4 I think it was visible that I knew something when I came
5 in here, and I certainly didn't know it before I heard of
6 the name Allens Creek.

7 I think that is a problem, a fundamental
8 problem in the hearings, which this may well illustrate,
9 that simply the public or members of the public are very
10 lucky to find anyone who knows much about nuclear power
11 that will come and give them a hand, and in that situation
12 a member of the public, such as myself, might very well
13 try to get as much knowledge as he can crammed into his
14 head and come in and do as I've done.

15 This is the outcome, perhaps, of the rules
16 and that's the way it was.

17 Anyway, I'd like to thank you for your efforts
18 very much. I have been deeply impressed, and thank you.

19 MR. SCOTT: Members of the Board, this is
20 Jim Scott, who has represented TEX PIRG in this proceeding,
21 and initially I'm not going to go into much of the things
22 that the other three gentlemen have gone into; some I've
23 agreed with and some I disagree with.

24 First what I want to say is that, number one,
25 the hearings are not at this point closed, and I'm not

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making this statement as a final statement but as some sort of a preliminary close of the hearings this week, pending you all's decision on whether or not there will be additional hearings.

JUDGE WOLFE: Pending what? I'm sorry.

MR. SCOTT: Pending you all's decision on whether or not there will be some additional hearings before the record is closed.

No doubt, this has been a long and trying experience for all of us, and I think we have to keep in mind that it could have been much longer and much more trying. There are ways to change the rules. There are ways this Board can use its discretion, too, of either speed it up or extend the length of the hearings.

The length of the hearings are not the point. The point is to put together a record and for this Board to thoroughly and carefully consider it, and using what's in the record, with all their knowledge and expertise, come to a proper decision.

I believe that once the -- when the Board does that, they will find several, although certainly not a majority, of the issues that have been raised that Intervenorors are going to have to prevail on.

I think most particularly, the most obvious issue in this regard is the alternative site issue of

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1 Allens Creek site versus South Texas site.

2 I believe that if Intervenors had never
3 submitted any evidence, the evidence that the Applicant
4 and Staff have presented alone would require the Board to
5 rule for TEX PIRG on that issue.

6 I will not go into a long detailed explanation
7 of that. The Board is aware of it, and in our findings of
8 fact and conclusions of law these things will be pointed
9 out.

10 There are some other issues that I think
11 Intervenors should prevail on, although I don't think
12 they are as clear-cut, and at this point I will not go
13 any further into those.

14 But lastly, I would like to say this, that
15 I guess very initially I got involved in this proceeding,
16 I had a -- I'm speaking personally -- a great hope and
17 great admiration for the federal government in general
18 as opposed to state and local government, regulatory
19 actions I've seen, and in particular for the NRC.

20 As the Board can tell from my actions and
21 motions and whatever, I fairly soon became quite
22 disillusioned with -- I guess I should bluntly say it --
23 the actions of the Board.

24 I was very hurt and very disappointed in
25 numerous actions, and almost got to the point of saying,

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1 hey, there's no point in continuing this, a decision has
2 been preordained.

3 As time has gone on, I must confess to
4 gradually becoming very impressed with the Board, not only
5 from its -- I think Mr. Doherty characterized it as guts
6 and staying with it; I mean you essentially had to do that.
7 I won't give you any credit for that.

8 But whether the Board changed or I changed,
9 you know, I have no way of knowing, but I have basically
10 become to the opinion, certainly in the later stages of
11 the hearing, the Board has been very fair in their rulings,
12 and I'm very thankful for that. I've got hopes now. I
13 mean I really believe there's a possibility, a strong
14 possibility that you're going to look at this thing
15 through clear glasses and give us a decision as the record
16 has laid it out and as the law has required you to follow
17 it, and, you know, I'll leave these hearings, leastwise
18 temporarily with a good feeling, not only that the process
19 has been gone through and for the good things that can be
20 for society in the sense of bringing up issues and having
21 them thoroughly discussed, but also just from the fact
22 that I've been through the process and have come to believe
23 that for this particular plant, this particular Board is
24 going to render a fair decision.

25 Thank you.

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1 JUDGE WOLFE: All right. A question.

2 Mr. Doherty has renewed the motion for
3 additional evidence on TEX PIRG Additional Contention 31
4 on December 7th.

5 Would someone refresh my recollection?
6 Staff and Applicant are to respond to that within five
7 days, is that --

8 MR. COPELAND: Seven days.

9 JUDGE WOLFE: Seven days. All right.

10 Now, Mr. Scott has more recently filed what
11 might be called a consolidated motion, three motions.
12 That was filed December 7th.

13 When do you anticipate that you will be able to
14 respond to that?

15 MR. COPELAND: Well, I had planned to respond
16 to that within the normal time, which would have been ten
17 days, Your Honor.

18 JUDGE WOLFE: Mr. Black?

19 MR. BLACK: Well --

20 JUDGE WOLFE: In other words, it's my
21 intention, and the reason I'm asking this, it's my
22 intention to close the record except with regard to the
23 issues that have been -- that Messrs. Doherty and Scott
24 seek to have additional testimony upon.

25 If I could get some idea of when you're going

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to respond, then we can have more of a sense of how to proceed here.

More precisely, I would request, Mr. Black, if at all possible, to get your response in within ten days to both Mr. Doherty's renewed motion and Mr. Scott's motion filed on December 7th.

MR. BLACK: I think we can do that, certainly with respect to the Doherty motion. We intend to file that within seven days.

JUDGE WOLFE: Yes. And let's see, then; then there are outstanding also the three oral Board questions posed to Applicant's staff relative to the financial qualifications.

So I would request both Applicant and Staff to respond to those three oral Board questions with a ten-day period of time.

MR. COPELAND: All right, sir.

JUDGE WOLFE: So as you know -- well, so with that as background, pursuant to Section 2.754, the record is closed; however, if hearings are required beyond December 9th, because the Board grants either of Mr. Doherty's pending motions and/or because it grants Mr. Scott's outstanding consolidated motion of December 7, and because of the Board's three oral questions of December 8th relative to financial qualifications, then

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1 the briefing schedule shall be extended by a total number
2 of days spent in hearings after December 9.

3 If, for example, we do not grant any of the
4 three outstanding motions, or for whatever reasons we do
5 not proceed to hearing, upon the Board three oral questions,
6 then by a separate order we will close the entire record,
7 certainly close the record on the outstanding matters.

8 I would suggest to the Intervenors that they
9 do read Section 2.754(c), and I would, in light of the
10 wording of 2.754(c), I would especially recommend and
11 suggest to the Intervenors who are going to file both
12 findings of fact and conclusions of law, that they only
13 file proposed findings and conclusions of law as to their
14 own contentions.

15 This is not intended to be restrictive and
16 it's not mandatory. I'm merely suggesting that knowing
17 your own contentions as well as you should, perhaps it's
18 the better part of discretion and time for you just to
19 concentrate on your own contentions; let other Intervenors
20 concentrate on their own.

21 I know what's happened during this proceeding.
22 It's basically evolved down to one and two people staying
23 with it and attending these proceedings.

24 However, that's up to you; whatever you decide
25 to do, that's what you will do. I'm just throwing this out

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1 as a suggestion.

2 If there are questions that you have, I think
3 you have found and will find that Mr. Black would be glad
4 to sit down with you after today's session and tell you
5 about the -- giving you the format for filing proposed
6 findings of fact and conclusions of law.

7 It's set down, as I've said, in 2.754(c), but
8 he might have further suggestions for you.

9 I have one other suggestion, that Applicant
10 and Staff will be filing first, or first and second. My
11 suggestion is that when you read Applicant's proposed
12 Finding, whatever, 19, and it said the Applicant's
13 proposed facts are 1, 2, 3, 4, whatever, and you really
14 have no reason to contest it, in your own proposed findings
15 try to follow Applicant's and Staff's format and make it
16 easy on yourself. If you read Applicant's 19, then you
17 can just say Intervenor so and so has no objection to
18 Applicant's Proposed 19, and just try to follow it that
19 way. This will reduce your writing up of a proposed
20 finding that's substantially similar to that which
21 Applicant and/or Staff may have previously written.

22 I can think of no other areas that I might
23 assist you in. I would bring to your attention that the
24 scheduling of submissions has been set forth in our oral
25 ruling of November 16, 1981, a copy of which ruling set

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1 forth in the transcript was served on all parties, and
2 our order of today setting in motion the -- today as
3 being the day that begins the date for the filing of these
4 submissions, that this ruling of today follows closely
5 that of our oral ruling of November 20th, appearing at
6 Transcript Page 20772, with the modifications, obviously,
7 that I've made today.

8 All right. Yes.

9 MR. SCOTT: We've experienced the same problem
10 that you've gotten onto me a few times before; I resisted
11 interrupting when I got the feeling you was about to make
12 some sort of a ruling on closing the record, and I had
13 some things I wanted to say about that before you made
14 that ruling. I'd like to say them now.

15 I see several problems with closing the record
16 formally. Number one, I can't find anything in the rules
17 that allow it to be closed until all the proposed issues
18 have been settled, but despite that, let's assume that's
19 in the Board's discretion, there is the problem that this
20 65 days that Intervenor's have, which is good, I could have
21 made all sorts of arguments if I'd been here the right days
22 as to whether or not that was long enough, considering
23 the size of this record, but assuming I've waived that,
24 there's still the problem of if -- it's still if -- some
25 of these motions are granted we may be spending a

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1 considerable part of our time during the 65 days working
2 on that, you know, time other -- above and beyond the time
3 sitting in the courtroom, and that may end up being a
4 burden. It may not be.

5 If it is, the Board has a solution. They
6 could extend the time, based on our motion.

7 JUDGE WOLFE: Well, we have already taken
8 care of that in our oral ruling of November 20th.

9 MR. SCOTT: Yes, Your Honor, I understand you
10 have agreed, as you said today, to extend it by the equal
11 number of days that were involved in hearing. I'm just
12 saying we may be prejudiced by more days than that. We
13 may spend three days preparing for one day's of hearing.

14 MR. COPELAND: Well, Your Honor, the Board
15 has already ruled on that, and they ruled on the basis of
16 a stipulation that was reached amongst the parties that
17 were in attendance that day at the hearing.

18 MR. SCOTT: I would submit that a gross
19 minority of the Intervenors were in attendance that day,
20 and I think something that important should have not been
21 settled in that sort of stipulation.

22 MR. COPELAND: That suggests to me that
23 Mr. Scott has a real problem under the canons of ethics
24 as to how well he's represented his client by not being
25 here.

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1 JUDGE WOLFE: Well, I don't want to get into
2 this on the very last day of our hearing.

3 Our ruling stands, at all times; if need be,
4 we will take into consideration any motions for extensions
5 of time. I'm not precluding it, nor am I saying that
6 just because you file one that we're going to grant one.

7 The whole idea of closing the record today is
8 so that you people can now get into the saddle and start
9 working on those issues as to which the record has been
10 closed.

11 So a word to the wise is sufficient, I would
12 think.

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1 MR. SCOTT: There is another issue that I would
2 like to raise. I'm not even sure it's an issue. A question.

3 The Board early on ruled
4 that a copy of the transcript would be left in the University
5 of Houston Law Library by the Staff. As I remember that
6 ruling, it was during the duration of the hearing. I wanted
7 to make sure that implied in that one, they were not going to
8 pick them up today and take them with them; but in fact
9 they will stay here until this Board has made certainly
10 an initial decision and hopefully the Commission has made
11 a final decision. And secondarily to that, we've got the
12 problem that although I believe most but not all of the
13 transcript is, in fact, at the University of Houston
14 Law Library, I don't think any of the exhibits are there.
15 Exhibits make up a huge portion of this record. We need
16 some way to have access, ready access, to all exhibits to
17 do our proposed findings of fact and conclusions of law.

18 JUDGE WOLFE: Well, let's take up the
19 exhibits first. I thought copies of all exhibits were
20 given to you by the other parties when they were marked
21 for identification.

22 MR. SCOTT: Oh, no. We did not get copies of
23 the PSAR and things like that.

24 JUDGE WOLFE: Well, now, you're talking about
25 the PSAR?

1 MR. SCOTT: Yes.

2 JUDGE WOLFE: What other exhibits have you not
3 been furnished copies of?

4 MR. SCOTT: I personally have an old copy --
5 I don't think it's the updated copy that's submitted to
6 the Board -- of the Applicant's environmental report.
7 I recall during discovery I went and picked it up, but
8 I do not think any of the other Intervenors even have that.
9 And an additional problem is, even where I've got the
10 exhibits, they're not all labelled. In fact, very few
11 of them are labelled as to whether or not it's Applicant's
12 16 or Applicant's 32. So, without that, I don't know how
13 I can -- as the Board, I'm sure, would like to have them
14 designated to pinpoint where the information exists.
15 For that reason, I would like the Board to ask Applicant
16 or the Staff, one or the other, to submit -- and the
17 Board can do it in an order, if they want to -- a list,
18 the designation and number of each of the exhibits that
19 has been filed in this case.

20 JUDGE WOLFE: Haven't you been keeping track
21 of the exhibits?

22 MR. SCOTT: No, none of them, not even my own.

23 JUDGE WOLFE: How about the PSAR and the
24 environmental report?

25 MR. COPELAND: Your Honor, you will recall,

1 we went through this a long time ago, and I made a personal
2 effort to go over and make sure there was a copy of the
3 PSAR in the library downtown and make sure it was brought
4 up to date. I presumed that Mr. Scott and Mr. Doherty
5 had been making themselves available of that document.
6 I can't imagine we've gone all the way through this
7 proceeding without Mr. Scott ever having access to and
8 examining the PSAR. So, I don't really understand the
9 point he's raising now.

10 JUDGE WOLFE: How about the ER?

11 MR. COPELAND: He came and got a copy of the
12 ER. We provided that to him.

13 JUDGE WOLFE: He's been given a copy?

14 MR. COPELAND: It's my understanding, yes, sir.

15 JUDGE WOLFE: And supplements thereto have been
16 sent to Mr. Scott?

17 MR. COPELAND: I don't believe there have been
18 any supplements to that since he obtained a copy. There
19 haven't been any supplements to the ER in a long time.

20 JUDGE WOLFE: And you received the ER, too,
21 Mr. Doherty?

22 MR. DOHERTY: Yes, I got a copy of the ER and
23 I do not want a copy of the PSAR, believe me. I haven't
24 got room for it in my house, so I will waive anything on
25 that.

1 JUDGE WOLFE: Where have you been doing your
2 research during the course of the hearing with regard to
3 the PSAR?

4 MR. SCOTT: Largely I haven't. Occasionally
5 I've gone to the downtown library, City of Houston Public
6 Library. That is no way to do research, I guarantee you.
7 I need a copy of it at my home, at my office, to work
8 with. It's over a fifty-mile round trip in slow traffic
9 for me to get access to that PSAR.

10 MR. COPELAND: Well, Your Honor, I don't know
11 why, you know, this question is coming up at this point.
12 The PSAR went into evidence without objection. It is now
13 in the record. Discovery has ended. I don't know why
14 at this point Mr. Scott is now raising this issue. It
15 seems to me it is way too late to be raising this issue
16 and if he has been able to work on the case for three years
17 now using the one at the library, I don't understand why
18 he can't continue to do so, but that's irrelevant to me.
19 He is clearly out of time, it seems to me, to be requesting
20 a document like that now.

21 MR. SCOTT: Out of time has nothing to do with
22 it. This was submitted as an exhibit. Did he give copies
23 to all the parties as required? No, he did not.

24 MR. COPELAND: Your Honor, he was not here
25 to object to the introduction of that document into

1 evidence. It is now into evidence, and any complaint he's
2 got is just out of time, and I don't think the rules even
3 say he has to be provided a copy in any event for it to
4 be admitted into evidence.

5 MR. SCOTT: Without waiving any of my
6 argument, assuming everything Applicant says is true,
7 I still ask the Board, in its discretion, to somehow make
8 sure somebody provides Intervenor, including myself,
9 and I'll ask specifically for myself, with a copy of the
10 PSAR.

11 MR. COPELAND: I would object to that, Your
12 Honor. I don't think we have an extra copy of the PSAR
13 to give to Mr. Scott. They are as scarce as hen's teeth
14 around our organization and around HL&P at this point.
15 To try to duplicate one would cost thousands and thousands
16 of dollars at this point.

17 We had to take -- in order to put the
18 three copies into evidence, we had to take people's personal
19 copies they were using to work with out of their offices
20 and supply them to the Commission and I just don't think
21 it is necessary. I think Mr. Scott has access to it, by
22 his own admission, and I think that is sufficient.
23 In fact, we have, indeed, gone out of our way to accomodate
24 him and Mr. Doherty by virtue of the fact that not only
25 did we have a copy in the public document room as we were

1 required to do by the Commission's regulations, but we did
2 make a special effort to set up a copy in the library
3 in Houston for his benefit as well as all the other
4 intervenors'.

5 MR. SCOTT: Mr. Chairman, even assuming
6 everything he says is true, which I don't agree with,
7 there is no doubt by his own admission the copy that
8 is now voluntarily placed over at the Houston Public
9 Library could be given to the intervenors until the
10 duration of this hearing. I mean, we would be very glad
11 to give it back to the City of Houston or Applicant once
12 the hearing is over. I need it for finding pages and
13 line numbers.

14 JUDGE WOLFE: What about the other intervenors,
15 whoever they might be? If that is given to you, or loaned ---

16 MR. SCOTT: I don't like making this argument,
17 but the only other intervenor that is here says he doesn't
18 want it. So, all the other intervenors have waived their ---

19 MR. DOHERTY: Mr. Scott --

20 MR. SCOTT: I was talking. Please let me
21 finish.

22 MR. DOHERTY: All right. You made a
23 misrepresentation, Mr. Scott.

24 MR. SCOTT: The other solution in that regard
25 is that I will share with any of the other intervenors

1 the copies I have. You know, I'll keep volumes 3, 2, 6, and
2 he can have the rest and any other Intervenors that wants
3 some, we will swap them back and forth.

4 MR. DOHERTY: I did make a statement that I
5 didn't want a copy for my own personal use. I do want a
6 copy very much available to me in the public library where
7 that group of librarians can update it and maintain it,
8 which is a very important service, and I strongly object
9 to the only copy being placed in the private residence of
10 any Intervenor.

11 (Bench conference.)

12 MR. SCOTT: Mr. Chairman --

13 (Bench conference.)

14 JUDGE WOLFE: Excuse me. Is there a copy of
15 the PSAR down at Wallis?

16 MR. COPELAND: Yes, there is.

17 JUDGE WOLFE: There is a copy there as well?

18 MR. COPELAND: Yes, there is.

19 JUDGE WOLFE: There is a copy of the PSAR in
20 the City of Houston Library?

21 MR. COPELAND: It is my understanding that there
22 is one at Wallis because that's the PDR and we're required
23 to maintain a copy there. The copy that's at the Houston
24 Library, I personally went over there to make sure it's
25 there and get it updated so they could use it instead of

1 having to go all the way to Wallis.

2 JUDGE WOLFE: How far are you from Wallis?

3 MR. SCOTT: From my home and office to Wallis?

4 JUDGE WOLFE: Yes.

5 MR. SCOTT: Approximately thirty miles.

6 I believe that's the way the crow flies. It would be
7 somewhat longer than that by the roads.

8 MR. COPELAND: Your Honor, I've had to drive
9 twenty-five miles everyday just to get to this hearing,
10 you know, it is not much of a burden, it seems to me, to
11 drive that distance.

12 MR. SCOTT: Everyday for sixty-five days?

13 MR. COPELAND: No, eighty-five.

14 MR. SCOTT: Mr. Chairman, before you make a
15 ruling --

16 JUDGE WOLFE: I'm not about to make a ruling,
17 but go ahead at this point.

18 MR. SCOTT: Mr. Doherty's point about the
19 public library and updating I can't follow because if
20 the record's closed, there can't be any updates to that
21 document. So, that wouldn't be a problem.

22 Secondly -- not secondarily -- in
23 addition, the transcript and record of this hearing,
24 a considerable part of it, is in Mr. Doherty's home right
25 now and therefore not available to me in the public

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1 library, so therefore that wouldn't be a problem. I mean,
2 Mr. Doherty and I know where each other live and we can
3 interchange with each other. That's much less of a
4 problem than having to come every day to a library which
5 Mr. Doherty happens to be fairly close to one, namely
6 the City of Houston Public Library. I'm not close to
7 either one of them.

8 (Bench conference.)

9 JUDGE WOLFE: All right. I attempted to do
10 this before, I will attempt to do it again. If I have to
11 rule on it, I will rule on it and somebody is going to
12 have problems when I rule on this. The PSAR, no one
13 knows how the Board is going to rule, so I would suggest
14 we have a five-minute recess.

15 Mr. Scott, you had better make some
16 motion toward accommodation, and Mr. Copeland, you had
17 better make some motion toward accommodation, because
18 one of the other or both of you, I haven't decided yet,
19 is going to have a problem with the ultimate Board ruling.

20 We will have a five-minute recess.

21 (Short recess.)

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1 JUDGE WOLFE: Yes, Mr. Copeland?

2 MR. COPELAND: Your Honor, as I understand
3 what we have resolved, we will request an action on the
4 part of the Board?

5 JUDGE WOLFE: Yes.

6 MR. COPELAND: We decided that the easiest
7 thing to do, if it works, would be to have the Board --
8 and I would also -- write a letter to the library at
9 Wallis advising them that if Mr. Scott wishes to check
10 out volumes of the PSAR that he should be permitted to
11 do so. I think a letter from the Board would be helpful
12 in accomplishing that objective and I would also do that
13 on behalf of Houston Lighting & Power Company.

14 If, for some reason, that is not
15 workable and the letters don't achieve the objective of
16 getting them checked out, I would make my own personal
17 copy of the PSAR available to Mr. Scott immediately upon
18 our filing our findings of fact thirty days from now, so
19 that for the next thirty days he would have to use the
20 copy at the Houston Library or at the one in Wallis.
21 After that, I would give him my copy for his use, expecting
22 its return, obviously.

23 JUDGE WOLFE: That is satisfactory, then?
24 It's satisfactory with the Board.

25 MR. SCOTT: Well, it's --

1 JUDGE WOLFE: Well, is it satisfactory or
2 not? You have been discussing this with Mr. Copeland,
3 and has this been the resolution of this? Has he stated
4 the resolution accurately?

5 MR. SCOTT: Like some of the witnesses, I
6 can't answer that in a yes or a no. It's accurate to the
7 extent that it's been stated. I've had some experience
8 indealing with the group of people that's in Washington
9 that's in charge of the Public Document Rooms, and in doing
10 so, I came on with the distinct impresssion that they felt
11 it was they who decided where these documents were going
12 to stay and that they wouldn't have to necessarily listen
13 to the Applicant or even this Board. And I'm willing to
14 give it a try, but I'm just not at all confident that I
15 will be able to check out any documents from that document
16 room, even if I have in my hand a letter from both
17 you people.

18 JUDGE WOLFE: I must admit ignorance on this,
19 but, Mr. Black, maybe you can clarify. When a local
20 library agrees to house and be a public document room for
21 the NRC, what rights or duties, obligations, does the
22 library have if the Nuclear Regulatory Commission and
23 it's Staff, for example, request that the library do
24 something such as loan out for a few days, or whatever,
25 of a document to a particular individual? Is or is not

1 the library bound to conform with that?

2 MR. BLACK: I think the library would only
3 follow the instructions of the LPDR - Branch of the NRC,
4 but I believe that the LPDR - Branch can be triggered by
5 Board order seeking the release of those volumes on a
6 checkout basis. I do know that the LPDR Branch
7 is quite jealous of it's little regulations it sets up for
8 the protection of these LPDR's to be sure that things
9 don't get checked in or checked out or what have you.
10 But, I think, as I mentioned, a Board order can trigger
11 the LPDR to have those documents released.

12 JUDGE WOLFE: Your suggestion, all of you,
13 is that the Board write a letter to the library or issue
14 it --

15 MR. BLACK: I think the letter should go to the
16 LPDR section of the NRC, who will then issue a letter to
17 the library.

18 JUDGE WOLFE: Oh, I see. All right.
19 That has been resolved, then.

20 If there are problems with, for example,
21 LPDR won't go for it, then I'll just have to make some
22 other resolution during this thirty-day period.

23 MR. COPELAND: I will, during that time period
24 be checking to see if we do indeed have an extra copy of
25 the PSAR that we can loan Mr. Scott. I just can't make

1 a representation now that I can provide him with one if
2 we were ordered to do it because I really don't know.

3 JUDGE WOLFE: I understand. Also, there is
4 no problem with Mr. Doherty and Mr. Scott having been
5 furnished a copy of the environmental report?

6 MR. SCOTT: There's no problem I'm going to
7 make a fuss about, but looking at the copy I have, there
8 are a considerable large number of updates. You can
9 look at a page that's updated at a certain date -- the
10 copy I've had I've had for two or three years and it's
11 hard for me to believe there have not been some updates
12 in that period of time, and I wouldn't have any of those.

13 MR. COPELAND: Your Honor, to my knowledge
14 there has not been any amendment to the environmental
15 supplement in that period of time.

16 MR. BLACK: I would also say that, too. The
17 only thing that has been issued and supplied to the NRC
18 have been entered as separate exhibits in this hearing.

19 JUDGE WOLFE: Well, there's no problem in any
20 event, sufficient problem, Mr. Scott has brought to our
21 attention, so we'll pass over that.

22 Now, I think there has been a request
23 that we direct Applicants and/or Staff to provide at
24 least Mr. Scott with a list of exhibits. Such a request is
25 denied. It's incumbent upon counsel and for representatives

1 of parties during the course of a hearing to keep their
2 own talley sheet of the list of exhibits that have been
3 marked for identification and are admitted.

4 In any event, we deny that motion. We can
5 only state that, we request that, as has always been done
6 as a part of Applicant's submission, as an attachment to
7 their proposed findings, ordinarily, and I think without
8 exception, they list exhibits. So, I don't know whether
9 they list exhibits marked for identification or not, but
10 they've listed exhibits that have been admitted in
11 evidence.

12 I think there's only one outstanding matter,
13 then. I think there was some request by Mr. Scott that
14 we reconsider our order closing the hearing, and that
15 request is denied. I don't know of anything outstanding
16 that the Board need rule on.

17 Yes, Mr. Black?

18 MR. BLACK: There was one further thing, and
19 that was a request that we have the transcripts kept in
20 the University of Houston Law School, and we will keep
21 those transcripts there. And, as far as I know, it is
22 a complete set, except for one date that Mr. Doherty
23 informed me of, and I'm going to try to provide that
24 transcript to Mr. Doherty.

25 JUDGE WOLFE: That's been resolved, and there's

1 no problem there?

2 MR. BLACK: There's no problem there.

3 JUDGE WOLFE: All right.

4 MR. SCOTT: Let me ask one more question of
5 clarification. Does the transcript of this hearing and
6 its exhibits also go to the public document room?

7 JUDGE WOLFE: In Wallis.

8 MR. SCOTT: Yes.

9 MR. BLACK: The exhibits go to the public
10 document room -- one group of exhibits goes to the
11 public document room and the other group follows the
12 record. The third one, the third group of exhibits,
13 I am not certain, but that may go to the LPDR, but I'm
14 just not positive about that.

15 MR. SCOTT: By the public document room, do
16 you mean the one in Washington or the one in Wallis?

17 MR. BLACK: I'm certain one goes to the
18 public document room in Washington. I am not sure one
19 follows the record into the LPDR in Wallis.

20 JUDGE WOLFE: All right. Thank you very much.

21 (Bench conference.)

22 JUDGE WOLFE: Thank you all very much, and
23 with special thanks to Ms. Bagby. Very efficient and
24 very pleasant throughout these long days, which indeed
25 has been difficult at times.

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All right. The hearing in the
record is formally closed.

(Whereupon, the hearing in the
above-referenced matter was closed at
5:20 p.m.)

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This is to certify that the attached proceedings before the
NUCLEAR REGULATORY COMMISSION

in the matter of: HOUSTON LIGHTING & POWER COMPANY

Date of proceedings: December 9, 1981

Docket Number: 50-466 CP

Place of proceedings: Houston, Texas

were held as herein appears, and that this is the original
transcript thereof for the file of the Commission.

Mary L. Bagby
Official Reporter (Typed)

Mary L. Bagby
Official Reporter (Signature)