

ORIGINAL

UNITED STATES
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

LONG ISLAND LIGHTING COMPANY

(Shoreham Nuclear Power Station)

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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the matter of: :

LONG ISLAND LIGHTING COMPANY : Docket No. 50-322-1 (OL)

(Shoreham Nuclear Power Station):

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State Office Building,
Veterans Memorial Highway,
Hauppauge, New York.

Friday, November 2, 1984.

The hearing in the above-entitled matter was reconvened, pursuant to adjournment, at 9:00 a.m.

BEFORE:

JUDGE LAWRENCE BRENNER, Chairman,
Atomic Safety and Licensing Board.

JUDGE PETER A. MORRIS, Member,
Atomic Safety and Licensing Board.

JUDGE GEORGE A. FERGUSON, Member,
Atomic Safety and Licensing Board.

(Not present.)

WRBeb 1 APPEARANCES:

2 On behalf of the Applicant:

3 E. MILTON FARLEY, III, Esq.

4 Hunton and Williams

5 700 East Main Street,

6 Richmond, Virginia 23219

7

8 On behalf of the Nuclear Regulatory Commission Staff:

9 RICHARD J. GODDARD, Esq.,

10 ROBERT G. PERLIS, Esq.

11 Office of the Executive Legal Director

12

13 On behalf of the Intervenor, Suffolk County:

14 ALAN ROY DYNNER, Esq.

15 JOSEPH A. BRIGATI, Esq.,

16 Kirkpatrick, Lockhart, Hill, Christopher

17 and Phillips,

18 1900 M Street, N. W.,

19 Washington, D. C. 20036

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C O N T E N T S

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WITNESSES

DIRECT CROSS REDIRECT RECROSS BOARD

3

4

Suffolk County Panel on Cylinder Blocks

5

Robert N. Anderson)

6

Stanley G. Christensen)

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G. Dennis Eley)

8

Dale G. Bridenbaugh)

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Richard B. Hubbard)

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11

By Mr. Farley (Cont'd)

25702

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(Exhibits none,

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P R O C E E D I N G S

2 JUDGE BRENNER: Good morning.

3 We have two preliminary matters. One involves
4 the fact that as I told the parties from time to time in
5 other contexts, but perhaps it was mostly off the record and
6 I want to put it on the record so the parties could act if
7 they wished to on their own, the NRC has purchased the
8 transcript and is having it loaded onto a computer and of
9 course, as an NRC purchase, that is available to the
10 Licensing Boards, Staff, and all other entities of the
11 Commission. And we will be using it and I imagine the Staff
12 will be using it. It is a word search capability on a
13 computer.

14 I mention it because I understand that if any
15 other party wishes to pursue that that it would be feasible
16 for that party to do so through individual contracts with
17 the reporting service and other appropriate entities. Just
18 so the parties are aware of that possibility and can act or
19 not act on their own, I wanted to put that on the record.

20 Turning to more substantive matters, we have
21 received, through the courtesy of Staff Counsel this week,
22 the Appeal Board's decision which is a review of our
23 September 1983 partial initial decision in this matter. The
24 Appeal Board's decision is ALAB 788, dated October 31.

25 The Appeal Board remands three what is describes

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1 as relatively minor matters. The three matters involve,
2 one, unresolved safety issue A-47, sometimes referred to by
3 the shorthand "control system interactions." two, matter
4 relating to the quality assurance implementation of
5 housekeeping requirements, and three, a matter related to
6 the identification of any electrical equipment requiring
7 environmental qualification under the subpart B-2 of the
8 environmental qualification of electrical equipment rule,
9 which is 10 CFR Section 50.49.

10 We would like to schedule receiving joint or
11 simultaneous reports from the parties on the remanded
12 matters, and we want the parties to discuss the status of
13 this matters, obviously prior to being in a position to give
14 us joint or simultaneous reports.

15 We would schedule the receipt of the joint or
16 simultaneous reports -- are scheduling the receipt of those
17 reports for November 14th. If the parties can accelerate
18 that date we would appreciate it but in any event, a receipt
19 date of November 14th. If we are at the hearing, we want it
20 received at the hearing, and if we are not, we want it
21 received in our offices.

22 The three matters might call for different types
23 of responses, and we will let the parties deal with that in
24 the first instance. To the fullest extent feasible, we want
25 whatever we receive to include the reports from the Staff

1 WRBeb 1 which are being required by that Appeal Board decision,
2 reports to us which the Appeal Board requires from the
3 Staff. And of course that would include a status report if
4 it is not feasible to give us the full report.

5 We also want included the joint and coordinated
6 views on the effect on issuance of a low power license of
7 those issues in the particular context of the status of the
8 issues as the parties see it at the time they give us the
9 report.

10 As we see it, the participating parties in those
11 three remanded issues are the Staff, LILCO, and Suffolk
12 County, but if any party believes — if any of those three
13 parties believes any other party is involved in those
14 issues, given the participation in the appeal, we ask that
15 they alert that other party. The only possible other party,
16 which is not present here, would be the Shoreham Opponents
17 Coalition. But I have given our views on who we think the
18 participating parties are.

19 If I could, I guess I would ask the County for
20 the courtesy of informing Counsel for Shoreham Opponents
21 Coalition. I don't even know what their status is, frankly,
22 whether or not they are still an existing group or whether
23 or not they still have Counsel, but there was a Counsel of
24 record, a Mr. Daugherty, and if the County could inform him
25 of our remarks this morning I would appreciate that.

1 WRBeb 1

Did you want to say something, Mr. Dynner?

2

MR. DYNNER: I have another preliminary matter,

3

Judge.

4

JUDGE BRENNER: Okay.

5

MR. DYNNER: We have a problem. I learned last

6

night for the first time that Dr. Anderson has a commitment,

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several commitments, but the major commitment next week is

8

that he is due to appear in court in California on Wednesday

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afternoon and on Thursday morning and therefore cannot be

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present at this hearing that was scheduled in that time

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frame.

12

I have discussed the matter extensively with

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Dr. Anderson. It is a matter which is based upon his

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assumption and my predictions early in the week that our

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panel would be finished by the end of this week. I have

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discussed with him at some length the fact that it would

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have been much more desirable had he notified me earlier of

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this previous commitment.

19

JUDGE BRENNER: Why do you term it a previous

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commitment? I don't know what the chronology is.

21

MR. DYNNER: My understanding is this is a

22

commitment he had before this week, and I had never before

23

yesterday been notified that he had this commitment to

24

appear in court in California on Wednesday and Thursday.

25

Upon learning of this commitment-- In addition

1 WRBeb 1 I should add that Dr. Anderson also informed me that
2 yesterday, in a telephone call, he learned that there was a
-3 special meeting that had been called by the dean of his
4 university that required his presence as chairman of his
5 department and that if he -- because of the time and other
6 meetings that he has missed as a result of his involvement
7 in this case, if he were not to be present at that meeting,
8 which I understand is Wednesday morning, that his
9 chairmanship of the department would be in jeopardy.

10 Upon learning of these facts I immediately --
11 last night I immediately contacted Counsel for LILCO and for
12 the NRC Staff and I told them of this problem. I made the
13 point, which I think is obvious to everyone, that
14 Dr. Anderson's testimony is the crux of the County's direct
15 case on the blocks and that I was in a considerable -- the
16 County is in a considerable bind due to this difficult
17 problem.

18 I proposed to both Counsel and left to them the
19 alternative of either going on with the cross-examination of
20 the Staff witnesses in the scheduled period of the two and a
21 half days that were allotted to the hearing for next week,
22 out of sequence and interrupting LILCO's cross-examination.
23 I noted that I could well understand if LILCO would be
24 hesitant to interrupt its cross-examination by interposing
25 the examination of the Staff, but I stated that the County

1 WRBeb

1 would have no objection at all, in the interests of time, to
2 proceeding on that basis.

3 It is of course not the intention of the County
4 at all in any way to delay these proceedings.

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1 I was informed this morning by Mr. Farley that
2 LILCO would oppose the County's position in both respects.
3 That is that LILCO would not be willing to proceed with the
4 cross-examination of the Staff next week, nor would LILCO be
5 willing to allow the two and a half days to serve as a
6 hiatus in this proceeding. The Staff has informed me this
7 morning that the Staff would be prepared to put forward its
8 witnesses on the block to proceed next week.

9 I can only add that -- and these gentlemen, of
10 course, can speak for themselves -- but I can only add that
11 in our view even if these two and a half days do become a
12 hiatus they would, in my view, be far from wasted. If, in
13 fact, we are to receive LILCO's motion by around Wednesday
14 of next week, the two days would give us an opportunity to
15 prepare our written response to LILCO's motion and have it
16 ready for the Board by Monday, the 12th.

17 In addition, I can assure the Board that that
18 time would also be available for the County's experts who
19 are now on the stand to proceed with all speed in their
20 analysis of the revised or amended FSAR proposal on load
21 limitations. So that, in any respect, it does seem to us
22 that even if in the worst case that there is a two and a
23 half day break, that there are a lot of things that we could
24 be doing and that would mean that that time would not be
25 wasted in the larger context of these proceedings.

1 WRBpp 1

2 JUDGE BRENNER: You're going to have to tell me a
3 little more about this and the court proceeding as to why it
4 should not be rescheduled as opposed to our proceeding,
5 given the fact that we had issued the schedule for this
6 proceeding and, I don't have the order in front of me, but I
7 thought -- the parties knew what the schedule was going to
8 be about three weeks ago and I think we issued the written
9 order approximately two weeks ago.

10 MR. DYNNER: Judge Brenner, all I can respond to
11 this point is that I don't know exactly when the other court
12 commitment was initiated. It does involve another
13 litigation in the courts in California.

14 I do know that it's quite possible, and I would
15 say probable, that in part I'm at fault in this matter in
16 that I have tried to keep my witnesses apprised of
17 predictions of the pace of this proceeding as everyone else
18 has.

19 JUDGE BRENNER: I'm going to relieve you of the
20 blame right now. It's considerate of you to put it that way
21 buy something similar to this came up before involving the
22 schedule of depositions and I expressly said at that time,
23 and I don't know if Dr. Anderson was present -- I believe he
24 was -- but I expressly said at that time we're going to
25 schedule the rest of the proceeding and next week if it is

1 WRBpp 1 right within the schedule that we set and I said we're doing
2 that so that no other commitments are made on some
3 assumptions which turn out not to be the case that this
4 schedule is not going forward. There were words to that
5 effect and you were here and I don't think you're to blame
6 because anybody involved in this proceeding, including
7 Dr. Anderson, knows that predictions are just that and
8 beyond that I expressly said there should be no reliance on
9 them.

10 MR. DYNNER: Well, sir, if I could just add one
11 point I will insist on taking some of the blame because in
12 fact, I, as other lawyers do, in fact, in a complex and long
13 trial like this where we have witnesses in some cases who
14 are not full-time there is a lot of juggling to be done in
15 people's schedules. I mean, this case may be my life but it
16 is not Dr. Anderson's life and it is not Professor
17 Christensen's life in the sense that they have a lot of
18 other obligations and I think that's true of other
19 witnesses.

20 I'm sure the Board will recall the fact in the
21 case of some of the NRC witnesses, Professor Sarsten, for
22 example, that there was a juggling done not, I will admit,
23 in the midst of an examination that had begun and, for that
24 reason, I think this is a more serious breach of what we had
25 hoped it to be a smooth and well-ordered proceeding.

1 WRBpp 1

2 But there were, in those cases, adjustments
3 made and I think under the circumstances and given the
4 significance and importance of Dr. Anderson's testimony it
5 would not seem to me to be a departure of great significance
6 from this Board's realistic attitude towards scheduling to
7 understand the circumstances in this case.

8 JUDGE BRENNER: Well, it is because we know
9 scheduling can be difficult that we gave you the schedule as
10 far in advance as we do, down to the time of day that we
11 have been starting and adjourning, and the reason I did that
12 -- and somebody might think it's unnecessarily detailed --
13 is because we're aware of the fact that witnesses are
14 scheduling things.

15 MR. DYNNER: We will accept the blame and we
16 will, of course, apologize for this circumstance, sir.

17 JUDGE BRENNER: I have not given up the
18 possibility that next week was to be the last week. That's
19 one of my concerns.

20 MR. DYNNER: I had hoped that this week would be
21 the last week and that's part of the reason and that's why I
22 said I'd take the blame. We have all tried to make --

23 JUDGE BRENNER: You misunderstand me. I'm
24 talking about looking at it right now today at this time. I
25 have not given up that possibility. Of course, you may know
more about the time for cross examination of the Staff's

1 WRBpp 1 witnesses than I do.

2 Mr. Farley, tell us why either alternative
3 suggested by the County to remedy this difficult situation
4 that the County finds itself in could not be done.

5 MR. FARLEY: Judge Brenner, for all the reasons
6 obvious to the Board LILCO has similar scheduling problems
7 with its witnesses and it has made arrangements in
8 accordance with the Board's orders both with respect to
9 attorneys and witnesses to proceed to the completion of this
10 aspect of the litigation as the Board ordered.

11 Not only would it have the detrimental effects of
12 disrupting the presentation of the evidence but there are
13 several things going on. The major effort, of course, is
14 concentrating on completing the cross-examination of the
15 County within the approximate estimate I gave the Board.

16 JUDGE BRENNER: Well, I want to hear how you're
17 prejudiced by either alternative suggested by the County.

18 MR. FARLEY: I think I am prejudiced by not being
19 able to complete my cross examination of the County's
20 witnesses as scheduled as prepared. I am prejudiced by
21 changing horses and cross-examination of the County's
22 witnesses to now preparing for the Staff witnesses. And I
23 am prejudice --

24 JUDGE BRENNER: Mr. Farley, I'll interrupt you if
25 you'll forgive me for doing that. You're telling me you're

2 WRBpp 1 prejudiced, but you're going to have to tell me why you're
2 prejudiced.

3 MR. FARLEY: I am prepared personally with
4 Dr. Rau and we are working on the completion of
5 cross-examination of the County's witnesses which we
6 hopefully anticipate we can complete on Wednesday. Mr Ellis
7 is working on the cross-examination of the Staff witnesses
8 which Dr. Rau has not been available to assist him with that
9 cross examination. Finally, the Board may view it as an ill
10 that we brought on ourselves but Mr. Ellis is also
11 preoccupied with completing and filing the motion that was
12 discussed yesterday.

13 JUDGE BRENNER: The Staff?

14 What about the hiatus suggestion, Mr. Farley?

15 I'm sorry, Mr. Goddard, I'll get back to you in a
16 moment.

17 MR. FARLEY: The prejudice there, your Honor, is
18 being prepared and getting prepared and going forward and
19 then stopping and having to pick up again almost inevitably
20 results in wasted effort and lost motions.

21 JUDGE BRENNER: Mr. Goddard?

22 MR. GODDARD: Thank you, Judge Brenner.

23 The Staff does not feel that a hiatus at this
24 point in the proceeding would be of any real advantage,
25 albeit the fact that everybody has been spread somewhat thin

1 WRBpp

1 by the way this proceeding has extended.

2 The Staff's position is that it would concur with
3 Mr. Dynner's request to proceed next Wednesday with
4 cross-examination of the Staff witnesses. The Staff would
5 normally prefer to present its case after hearing the
6 testimony of each of the other parties. However, the Staff
7 too has a scheduling problem.

8 Dr. Bush rearranged an extensive schedule to make
9 himself available this week and all of next week. The
10 following week he is going to be heavily committed as a
11 board member of the American Nuclear Society, which will be
12 meeting in Washington, D. C. He will be available
13 sporadically during that week should he be needed to testify
14 in this hearing. Bu the has presently made all of next week
15 available for this proceeding as he had agreed to do for
16 this week.

17 And the Staff would prefer, notwithstanding, the
18 problems of taking its witnesses somewhat out of turn in
19 this proceeding to go along with Mr. Dynner's suggestion
20 and present the Staff panel on cylinder blocks for
21 cross-examination when we begin next Wednesday.

22 JUDGE BRENNER: Well, if I understand you, you
23 would have had to make your own request of Mr. Dynner,
24 wouldn't you?

25 MR. GODDARD: We would either have to have made a

1 WRBpp 1 request or we would have had to further disrupt Dr. Bush's
2 schedule. But in any event, the Staff's position is that it
3 would clearly prefer to place the Staff witnesses on the
4 stand for cross examination next Wednesday morning.

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(The Board conferring.)

2 JUDGE BRENNER: Mr. Goddard, just to clarify a
3 question, as I understand it, you are not claiming that
4 Dr. Bush could not be available the hearing week that might
5 begin on Tuesday, November 13th, if the hearing did not
6 previously end because of the American Nuclear Society
7 meeting?

8 MR. GODDARD: The Staff attempted to contact
9 Dr. Bush last night, just to ascertain what his schedule or
10 commitments were following next week. We were unable to
11 reach him and--

12 JUDGE BRENNER: My question isn't-- For all we
13 know, he may have meetings scheduled day and night for the
14 American Nuclear Society that week. My question is you are
15 not saying that if that's the case that he could not be here
16 rather than there, are you?

17 MR. GODDARD: I did not say that, no.

18 JUDGE BRENNER: And you are not making that
19 claim?

20 MR. GODDARD: I could not make any commitment of
21 Dr. Bush's time without speaking to him.

22 JUDGE BRENNER: Well, I'm sorry, you are a
23 party. You have some responsibility for commitments of time
24 for your witnesses.

25 The way we see it, and I want you to know it, is

1 WRBeb 1 that the American Nuclear Society meeting, as important as
2 it may be, would not take precedence over this hearing.

3 MR. GODDARD: I'm sure Dr. Bush would share that
4 view.

5 JUDGE BRENNER: I did understand your comments on
6 possible schedule preferences and I heard them in that
7 light, as opposed to commitments for which it is claimed
8 that we should have to adjust our schedule, and I wanted to
9 make sure you were understanding my view of the information
10 you gave us to see if I was missing something.

11 MR. GODDARD: Your view is understood.

12 JUDGE BRENNER: And you are not asserting that
13 there is any reason why that view should be incorrect, are
14 you?

15 MR. GODDARD: I'm sorry, Judge Brenner.

16 JUDGE BRENNER: You are not asserting that there
17 is any reason why the view I just expressed is incorrect,
18 are you?

19 MR. GODDARD: No, I'm not.

20 JUDGE BRENNER: I just wanted to understand your
21 situation a little better.

22 MR. GODDARD: Thank you.

23 JUDGE BRENNER: We are very disinclined to alter
24 the schedule of the hearing because I have a concern that it
25 will affect the substantive record in terms of whom we want

1 WRBeb 1 to hear evidence from first, and then put that evidence to
2 the other parties.

3 We also would not skip the hearing week next week
4 because we have schedule -- if not absolute commitments,
5 great inconveniences in mind for all the parties.
6 Dr. Anderson is one person. There are tens of people
7 involved here, with things coming up on schedules later in
8 the month, based on assumptions of completing this hearing,
9 certainly by the week that starts the 13th. And I have a
10 concern that if we did not hold hearing sessions next week
11 that there was a possibility we would not therefore be able
12 to complete the hearing the week of the 13th. I think that
13 is a realistic concern to have at this point.

14 In addition, Mr. Dynner, you are not able to tell
15 me why -- if and if so, why these other scheduling matters
16 for Dr. Anderson would make it impossible for him to be
17 here, and what you are going to have to do is convince me
18 that that is the case. I am going to give you time. There
19 will be a break at mid-morning.

20 I cannot conclude that the matter of a court
21 schedule and a meeting with the dean, that those schedules
22 have been pursued to the point of informing persons who may
23 be involved with those scheduling matters that there is a
24 prior commitment here at this hearing, and that therefore,
25 those schedules should be adjusted.

1 WRBeb

1 And unless you can convince us-- And it's a
2 balancing, and I am not going to make the balancing in favor
3 of the County unless you can convince us that it is
4 impossible, in the true sense of that word, to adjust the
5 other scheduling commitments. And if you can do that we
6 will reconsider. You may have to obtain some more
7 information but you are going to have to do it this
8 morning.

9 MR. DYNNER: Well, I would point out to the Board
10 that there is a three-hour time difference between here and
11 California which will make it extraordinarily difficult to--
12 I am not saying it is impossible because I don't know, but--

13 JUDGE BRENNER: I'm not convinced that you have
14 pursued that information sufficiently with Dr. Anderson, who
15 is here, given the fact that you weren't able to answer some
16 of my questions.

17 MR. DYNNER: I couldn't answer that question, but
18 I assure you that my conversations with Dr. Anderson on this
19 matter at least rose to the level of aggressiveness that I
20 showed during some of the cross-examination of the LILCO
21 panel in that I did-- Well, I didn't explore that date but
22 I did explore with some intensity the alternatives that you
23 are speaking of.

24 I did not talk to the dean of his university and
25 I did not talk to the Judge in the court in California, and

1 WRBeb 1 I am not sure that I'm going to be able to do that this
2 morning, given the time differences, sir.

3 JUDGE BRENNER: You have exaggerated what you
4 have to do to give us further information. You don't have
5 to, yourself, talk to the dean or the judge. There are
6 counsel involved in the case, and they can have the
7 conversation with Dr. Anderson that you had to have, and
8 they can go before that court and point out those problems.
9 I know nothing about the nature of the case, the scheduling
10 of the case, et cetera.

11 Also on the other matter, it is difficult for us
12 to believe that a dean of a university would assert that
13 unless somebody -- a department head could be at a certain
14 meeting scheduled when there might be other matters
15 scheduled for persons at that meeting, have to be there or
16 else.

17 For example, Monday is an open day. There are
18 other open days, et cetera, et cetera. It is just difficult
19 for us to believe.

20 MR. DYNNER: I would suggest, sir, that given
21 that comment by you that you take the opportunity to direct
22 questions to Dr. Anderson. He is on the stand and under
23 oath.

24 JUDGE BRENNER: I don't want to do that. You
25 come back and give us your view as to why we should

1 WRBeb 1 believe that the dean is actually taking that position. And
2 as Counsel I will certainly accept your assessment along
3 with the basis for that assessment.

4 So we will ask you to pursue these matters to the
5 extent you can, Mr. Dynner, and then after the break, tell
6 us what you were able to pursue and what you were not able
7 to pursue because of the possibility of time zone
8 differences, and so on. But you may be able to obtain
9 information from persons present, and from other persons at
10 a time when they may well be available, notwithstanding the
11 time zone difference.

12 And then we will address it again, depending on--
13 Well, we will address it again, and we may alter our strong
14 desire not to shift the schedule, depending on what you tell
15 me.

16 I have given you the main reason, which is our
17 view that it might affect the substance of the evidence we
18 are adducing here. To put it directly, we want
19 Dr. Anderson's views through cross-examination and then we
20 want to ask the Staff questions, or other parties may also
21 want to ask the Staff questions, depending on what has
22 developed, particularly since there is going to be some oral
23 rebuttal-type testimony that we have not yet heard.

24 Beyond that, we give deference to the fact that
25 LILCO is pursuing its scheduling plans, based on what we

1 WRBeb

1 all thought would proceed. They have got another attorney
2 who is going to conduct the cross-examination of the Staff's
3 witnesses, and that creates problems also. The problems on
4 balance might be outweighed by problems of Dr. Anderson's
5 schedule if they truly become problems of impossibility.

6 And the reason we're setting the standard that
7 high is because of the fact that we think it extraordinarily
8 imprudent, to say the least, that these other matters were
9 allowed to occur, given the advance planning and scheduling
10 of our proceeding.

11 Let's proceed.

12 Whereupon,

13 ROBERT N. ANDERSON,
14 STANLEY CHRISTENSEN,
15 G. DENNIS ELEY,
16 RICHARD B. HUBBARD,
17 and
18 DALE G. BRIDENBAUGH

19 resumed the stand and, having been previously duly sworn,
20 were examined and testified further as follows:

21 CROSS-EXAMINATION (Continued)

22 BY MR. FARLEY:

23 Q Dr. Anderson, isn't it true that, everything else
24 being equal, degenerate Widmanstaetten graphite accelerates
25 fatigue crack propagation rates in gray cast iron?

1 WRBeb 1 A (Witness Anderson) Yes, that's generally true.

2 Q And it is also true, is it not, that you do not
3 have any basis to disagree with the test results reported by
4 FaAA? And I'm referring now particularly to LILCO's
5 Exhibits B-40, 42 and 44.

6 MR. FARLEY: Judge Brenner, I am on pages 7 and 8
7 of our supplemental cross plan.

8 MR. BRIGATI: Judge Brenner, we apologize. We
9 have to get the witness a copy of those exhibits. We don't
10 have them present in the courtroom.

11 (Document handed to the panel.)

12 JUDGE BRENNER: Do you need another copy for
13 Counsel? I can lend you one of ours I think.

14 WITNESS ANDERSON: What were the numbers, the
15 references?

16 BY MR. FARLEY:

17 Q 40, 42 and 44.

18 MR. BRIGATI: That's all right, Judge. He can
19 answer this question.

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2 JUDGE BRENNER: Mr. Farley, I'm sorry, could you
3 remind me of what the question is now?

4 MR. FARLEY: Yes, sir.

5 BY MR. FARLEY:

6 Q You do not have any basis to disagree with the
7 test results reported by FaAA on these exhibits?

8 A (Witness Anderson) Let's see. I have apparently
9 a new B-44, is that correct? I should be looking at the
10 new, that the old one has been removed?

11 Q Yes.

12 A No, insofar as the references are presented here
13 I have no basis for disagreement.

14 Q Dr. Anderson, are there shrinkage cracks
15 sometimes created around weld repairs in class 40 gray cast
16 iron during cooling?

17 A Yes, in most brittle materials it is possible to
18 get a shrinkage-type crack or a thermal-type crack by
19 welding.

20 Q Have you calculated or do you have any
21 independent verifiable calculations regarding the residual
22 stresses that are introduced by repair welding of the cam
23 gallery areas of the Shoreham EDG's with the exception of
24 the new 103?

25 A No, I wish I did. The residual stress is
extremely difficult to obtain and of course important to

1 WRBagb 1 know in any analysis.

2 MR. FARLEY: I don't think the question needs an
3 explanation if he says no.

4 JUDGE BRENNER: I think he is entitled to explain
5 it.

6 WITNESS ANDERSON: Normally a residual stress
7 measurement, which could be called an analysis, is a
8 destructive one.

9 BY MR. FARLEY:

10 Q It is a fact, is it not, Dr. Anderson, that there
11 must be compensating tensile and compressive residual
12 stresses resulting from the repair welds?

13 MR. BRIGATI: Objection to the form of the
14 question, it assumes facts not in evidence.

15 JUDGE BRENNER: I am tempted to ask you what
16 facts but I don't want to because I don't want testimony
17 from lawyers educating witnesses.

18 I am going to overrule the objection and if there
19 is any problem after you can come back on redirect with it.

20 MR. BRIGATI: Can I have a moment outside the
21 hearing with the witnesses, Judge?

22 JUDGE BRENNER: No.

23 MR. BRIGATI: -- and the record?

24 JUDGE BRENNER: No, it's not worth the effort
25 because it is easily cured if there is a problem.

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Dr. Anderson?

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BY MR. FARLEY:

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WITNESS ANDERSON: Yes. I got lost in the end when you said in the area of the weld. There has to be balanced forces operating, compressive and tension, in balance, otherwise whatever item we are talking about is going to be moving across the room or climbing the walls or doing something, so there must be a balance.

Q And it is also true, is it not, that the weld metal itself is in tensile stress after cooling?

A (Witness Anderson) That's not necessarily true because post-annealing, a recommended procedure, usually can take it out of the stress condition.

Q Would my question be true if there was no post-weld heating or treatment?

A It would approach truth, yes.

Q Dr. Anderson, isn't it also a fact that the stress due to shrinkage can cause cracking at the weld heat-affected zone on cooling?

A Well the heat-affected zone has been rapidly heated and rapidly cooled and therefore has different physical properties and therefore it can be subject to the stress behavior which will be different than the rest of the material.

Under some circumstances, that is an area where

1 WRBagb 1 the cracking could occur. In other areas, other
2 circumstances, it may be at the weld interface.

3 Q Do you know whether or not that in fact existed
4 on any of the weld repairs to EDGs 101, 102 and the original
5 103?

6 A Yes.

7 JUDGE MORRIS: I'm sorry, Mr. Farley, I'm not
8 clear what you meant by "that."

9 MR. FARLEY: I was following up, Judge Morris, on
10 his answer to my earlier question that stress can — that
11 stress due to shrinkage can cause cracking at the weld
12 heat-affected zone on cooling, and he said sometimes yes,
13 sometimes no, if I understood him correctly. And so then I
14 was asking if he had observed any at the Shoreham EDGs.

15 MR. BRIGATI: I don't believe that was the last
16 question he asked, Judge.

17 MR. FARLEY: That was my intention.

18 JUDGE BRENNER: All right. Judge Morris
19 perceives an ambiguity and now that I have heard your
20 explanation I perceive one, too, so why don't you ask the
21 question a different way and we'll see what the answer is.

22 MR. FARLEY: Why don't I just move to strike the
23 question and answer?

24 MR. BRIGATI: That is acceptable to the County.

25 BY MR. FARLEY:

1 WRBagb 1 Q Dr. Anderson, it is true, isn't it, that the
2 defect depth probe results on the cam gallery regions of EDG
3 101 indicate that the deepest cracks are much shallower than
4 those of the original EDG 103 block?

5 MR. BRIGATI: Objection, assumes facts not in
6 evidence.

7 JUDGE BRENNER: May I hear the question again,
8 please? Can you give it to me word-for-word, Mr. Farley?

9 MR. FARLEY: Yes, sir.

10 JUDGE BRENNER: All right.

11 BY MR. FARLEY:

12 Q Dr. Anderson, it is true, isn't it, that the
13 defect depth probe results on the cam gallery regions of EDG
14 101 indicate that the deepest cracks are much shallower than
15 those of the original EDG 103 block?

16 JUDGE BRENNER: The objection is overruled.

17 WITNESS ANDERSON: Do you have a reference that
18 you are referring to? Can you recite the material that you
19 are referencing?

20 BY MR. FARLEY:

21 Q Can you answer the question, Dr. Anderson?

22 A (Witness Anderson) I don't have a recollection,
23 therefore I would like to have a reference, if I may.

24 Q Do you have any recollection of the
25 cross-examination by the County of the LILCO witnesses on

2 WRBagb 1 the 101 block.

2 I will also object to this entire line of
3 question on the basis that the witness quite properly has
4 asked Mr. Farley for a reference concerning the measurements
5 that he is including as an assumption in his answer -- in
6 his questions and Mr. Farley has declined to provide the
7 reference.

8 JUDGE BRENNER: Well no objection is necessary
9 and that's why I am overruling a lot of your objections, I
10 want to hear what the witness has to say on some of these
11 points that overlap into substance and not what you have to
12 say. And we've got the witness' answer and then we've got
13 Mr. Farley's reaction or lack of reaction to it.

14 MR. BRIGATI: And Judge, the form of the question
15 is --

16 JUDGE BRENNER: Stop, Mr. Brigati. Let me get
17 back to the immediate question. I know you disagree with my
18 earlier rulings, you have made that clear, that's too bad.

19 Now as to this immediate objection, what about
20 it, Mr. Farley, the answer refers only to the replacement
21 block. Is that all you want to ask him about?

22 MR. FARLEY: No, sir.

23 JUDGE BRENNER: All right.

24 MR. FARLEY: I was referring to that as a broad
25 category --

1 WRBagb 1

2 JUDGE BRENNER: It was a bad reference for your
point then. Back up and ask your question directly.

3 BY MR. FARLEY:

4 Q Dr. Anderson, haven't you reviewed the inspection
5 reports provided by LILCO to ascertain crack sizes?

6 And I refer to your answer at the top of page
7 nine of the supplemental testimony.

8 A (Witness Anderson) Yes, I examined what are
9 present as Exhibits 5 and 6.

10 Q Do I understand you only examined S-5 and 6
11 attached to the supplemental testimony?

12 A No, you have no basis to assume that.

13 Q Well I was asking is that my understanding of
14 your answer?

15 A No, I said that I have looked at those — you
16 gave me a reference on the top of page nine, I said I had
17 looked at them.

18 Q Did you review any other LILCO inspection reports
19 other than Exhibits S-5 and S-6 attached to the supplemental
20 testimony of the County?

21 A There are other references further along which
22 are inspection reports also, so I have looked at those.

23 Q You are referring to the inspection reports that
24 are attached to the Suffolk County supplemental testimony?

25 A Yes, I am.

3 WRBagb 1 Q All right, sir.

2 Now from any of those inspection reports did you
3 observe any measurements by LILCO, FaAA or anybody else with
4 the TSI depth gauge to determine the deepest crack on the
5 old 103 block and the deepest crack on the 101 in the cam
6 gallery areas?

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2 MR. FARLEY: Your Honor, I object to the panel
3 conferring. This answer is being sponsored by Dr. Anderson
4 only.

5 JUDGE BRENNER: All right.

6 Dr. Anderson, he is asking you for now. If
7 anybody else needs to follow up after this line is
8 completed, we will allow that.

9 WITNESS ANDERSON: Okay. If I may have the
10 question again so I'm answering it with respect to the
11 proper engine?

12 MR. FARLEY: Yes, sir.

13 BY MR. FARLEY:

14 Q I am asking you if you have had an opportunity to
15 review a LILCO inspection report on the results of TSI depth
16 gage measurements in the cam gallery regions or areas of the
17 original 103 block and the 101 block.

18 A (Witness Anderson) Yes, I have some
19 information. I referenced the length and depth of cracks on
20 page 3 to the original Failure Analysis Block Report which
21 is on page 4-6, and that gives information on the length and
22 the depth of the DG 103, which I presume is the old one.

23 Q You are referring to page 3 of your supplemental
24 testimony. Is that correct?

25 A That is correct.

Q All right, sir.

1 WRBeb

1 Do you have Suffolk County Exhibit 7 at page 4-6
2 before you?

3 A Yes, I do.

4 Q So what you're telling me then, as I understand
5 it, is that in connection with your answer on page 9 of your
6 supplemental testimony that the inspection reports that
7 you're referring to were the inspection reports referenced
8 by FaAA in its preliminary draft report of June 1984. Is
9 that right?

10 MR. BRIGATI: Objection to the characterization
11 of the testimony. He has also referred to the supplemental
12 exhibits and the supplemental testimony.

13 JUDGE BRENNER: Yes. But he is asking him,
14 Mr. Brigati, and that is why your objection is overruled.
15 He is not characterizing it and not allowing the witness to
16 answer. He is putting the question to the witness, just for
17 the very purpose of ascertaining whether his
18 characterization is correct in the witness' view.

19 The objection is overruled.

20 WITNESS ANDERSON: May I have the question again,
21 please?

22 BY MR. FARLEY:

23 Q The inspection reports that you are relying on in
24 the answer to your question on page 9 of your supplemental
25 testimony are the inspection reports that are referenced in

1 WRBeb 1 the June 1984 preliminary draft report by FaAA. Is that
2 correct?

3 A (Witness Anderson) No, that is not correct.
4 Exhibits 5 and 6, which are attached, give the length of
5 cracks. The indications with respect to depth go back to
6 the earlier report which I previously referenced on page
7 4-6.

8 Q So on page 9 of your supplemental testimony, when
9 you refer to LILCO inspection reports, you are not referring
10 to any inspection report that reflects the results of the
11 use of the TSI depth gage. Is that correct?

12 A That's correct, I have not referenced any TSI
13 depth gage inspection reports.

14 Q All right.

15 So, finally, you don't know what the depth of the
16 longest crack was on the original 103 block as measured by
17 the TSI depth gage. Is that right?

18 A Well, the crack information is given by the
19 sectioning that was done, and that is much more valuable
20 than the instrumental analogues.

21 MR. FARLEY: Objection, your Honor. I move to
22 strike. It is not responsive.

23 JUDGE BRENNER: No, I won't strike it because I
24 will view that as part of the explanation which he should
25 have given after.

1 WRBeb

1 But now answer the question directly.--

2 WITNESS ANDERSON: Yes.

3 JUDGE BRENNER: -- and what you just said will
4 also remain on the record.

5 The answer is Yes?

6 WITNESS ANDERSON: Yes.

7 WITNESS HUBBARD: I want to supplement
8 Dr. Anderson's answer because it goes to the answer that he
9 and I jointly sponsored on page 3 of the supplemental
10 testimony..11 As far as the depth goes on the original 103, we
12 did reference Exhibit 7, which is the page 4-6 that talks
13 about that the deepest one in all three of the engines
14 originally was stated to be 0.375 inches deep and that--
15 You know, it does not describe what methodology was used to
16 arrive at that depth in the particular reference, but it
17 said that the depth was 0.375.18 Then we go on to show in our answer on page 3
19 that when they did the sectioning which is shown on Exhibit
20 S-2 that the depths in fact were deeper than that.

21 BY MR. FARLEY:

22 Q Mr. Hubbard, prior to the filing of the
23 supplemental testimony that you are a joint sponsor of this
24 answer 3 with Mr. Anderson, did you see any LILCO inspection
25 report reporting on the depth of the cracks in the cam

1 WRBeb 1 gallery regions of the old 103 block and the 101 block
2 measured by TSI depth gage?

3 A (Witness Hubbard) I can't really recall. We saw
4 numerous inspection reports and non-destructive examination
5 reports.

6 Q All right, sir.

7 And, Mr. Anderson, getting back to my question, I
8 assume that based on what you have testified to, you do not
9 know today the deepest crack in the cam gallery region of
10 the original 101 block measured by the TSI depth gage?

11 A (Witness Anderson) Well, I think that's
12 difficult. As you know, my position is that these cracks
13 are dynamic, moving cracks and therefore, today is going to
14 be different than some earlier reports I may have examined.
15 I do not recall the reports. I can probably get them
16 assembled during the break and look and tell you the
17 progression, but I don't recall at this time.

18 Q From any inspection report that you have seen on
19 the cam gallery cracks in EDG 101, were they significantly
20 shallower than those shown by inspection reports for the old
21 EDG 103?

22 A I don't recall. If you have a reference I will
23 look at it and comment on it.

24 Q Dr. Anderson, referring back again to your answer
25 in the first full paragraph on the top of page 9, you state

1 WRBeb 1 that:

2 "The cracks...."

3 And I believe you are referring to the cam
4 gallery cracks --

5 "....are similar to those found in the original
6 block of EDG 103."

7 And I am trying to ascertain from you what, if
8 anything, is your basis for that testimony.

9 A Okay. I have read the section but I don't have
10 the question in mind.

11 Q What is the empirical data or analyses that you
12 rely on to support the statement that the cam gallery cracks
13 that you found or are familiar with in the original block of
14 EDG 103 are similar to those in block 101?

15 A Well, first of all, they are similar in location,
16 so that would give them geometric similitude, probably
17 loading similitude.

18 They are similar in orientation. In other words
19 they are not at right angles to one another, and that would
20 speak to load similitude.

21 Their etiology is similar also.

22 Q Dr. Anderson, did you understand, in the initial
23 questions on this subject, that I was probing your knowledge
24 of the depth of the cam gallery cracks in the old 103 and
25 the 101?

1 WRBeb 1 A There were some questions that you used to touch
2 on that, and I think in one of my responses I pointed out
3 that the references show the lengths as opposed to not
4 showing the depths. My understanding is that these other
5 blocks, 101 and 102, have not been sectioned to determine
6 their depth in the manner that old 103 has been sectioned.

7 Q Other than the sectioning that has taken place,
8 as you referred to on the old 103, aren't there TSI depth
9 gage inspection reports that show the depth of these cam
10 gallery cracks on EDG 101?

11 MR. BRIGATI: Objection. Asked and answered.
12 The witness has said he doesn't recall.

13 JUDGE BRENNER: I think you may be right,
14 Mr. Brigati, but I am going to overrule the objection out of
15 an abundance of caution, because the way the questions have
16 been phrased has changed from time to time. But I think we
17 have just about pursued this area as fully as it is going to
18 be profitably pursued with this witness, but I will allow
19 this question.

20 WITNESS ANDERSON: If I have the sense of the
21 question--

22 JUDGE BRENNER: Don't have the sense of the
23 question.

24 Ask it again, Mr. Farley.

25 BY MR. FARLEY:

1 WRBeb 1 Q Did you review any TSI depth gage inspection
2 reports by LILCO or anyone else showing the depth of the cam
3 gallery cracks on the original EDG 103?

4 JUDGE BRENNER: I think you changed the question,
5 Mr. Farley, and if Mr. Brigati had objected to that question
6 I would have more confidently sustained it.

7 Mr. Bloom, can you back up and read the previous
8 question?

9 (Whereupon, the Reporter read from the record
10 as requested.)

11 WITNESS ANDERSON: I do not clearly recall. I
12 believe there are some. I just don't have a recollection.

13 My concerns are— In doing the TSI you normally
14 would have it calibrated with the same material, and my
15 concerns on seeing something like that would be the fact
16 that it may not have been calibrated with the weld present,
17 and that would have an incredible effect on its reading.
18 But I just don't recall.

19 MR. FARLEY: I would move to strike that
20 explanation.

21 JUDGE BRENNER: You are overruled.

22 I would like to back up on one of the previous
23 answers. I didn't want to interrupt at the time.

24 Dr. Anderson, on one of your previous answers you
25 said you thought the etiology was similar between the cam

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1 gallery cracks or crack indications, depending on who you're
2 talking to, between the old 103 block and the other blocks.

3 Can you tell me what you meant by etiology?

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1 WITNESS ANDERSON: Yes, the old 103 and the 101
2 had welds, so I believe there were some repairs made.
3 Therefore there could have been some initial fissures caused
4 at the time of fabrication and that was the beginning of
5 what occurred and these have continued to grow.

6 BY MR. BARLEY:

7 Q Dr. Anderson, would you call the cracks in the
8 cam gallery regions similar if you knew the maximum depth of
9 101 was .164 inches and in 103 was about .90 inches?

10 A And the lengths are the same?

11 Q Yes.

12 A Thank you.

13 By the criteria I previously announced of
14 location, orientation and length, they would be similar.
15 The depth would indicate that the one with the shallower
16 depth is either younger or has less load in that area or has
17 not propagated to the same extent.

18 Q Isn't the crack depth the singlemost important
19 factor in determining the strength of this particular cam
20 gallery area?

21 A I wouldn't characterize it as single, no. I
22 think it is one of several: the strength of the material,
23 the length of the crack, the depth of the crack.

24 Q Do you know from any of the inspection reports
25 that you have referred to in your supplemental testimony

1 what was the maximum depth measured on any cam saddle in the
2 original 103 block?

3 A Again the reference in the Failure Analysis
4 report to .375 inch deep in DG 103.

5 Q And you have not had occasion to look at any
6 other references to inspection reports or the reports
7 themselves other than what is reported in the preliminary
8 draft June 1984 FaAA report?

9 A I think that has been asked and I said I had
10 looked at a lot of inspection reports and I have no clear
11 recollection of any particular one.

12 Q But now I am asking you are you aware or do you
13 know from a particular inspection report whether or not the
14 maximum depth measured on any cam saddle in the original 103
15 block was .83?

16 A I don't recall the reference to that.

17 A (Witness Hubbard) Excuse me, Mr. Farley, I am a
18 sponsor of the answer, again. Are you referring to the
19 subsequent sectioning that was done that was shown in our
20 Exhibit S-2?

21 Because in that case there are depths up to .906
22 inches which we state in our testimony.

23 MR. FARLEY: Judge Brenner, I don't have any
24 pending question to Mr. Hubbard.

25 JUDGE BRENNER: He supplemented the question that

1 you asked of the previous witness.

2 MR. FARLEY: He did it in the form of asking me a
3 question.

4 JUDGE BRENNER: No, he supplemented it.

5 BY MR. FARLEY:

6 Q Dr. Anderson, again turning to page nine of your
7 supplemental testimony -- strike that.

8 Dr. Anderson, did you know how deep the cam
9 gallery regions were in the new 103 block at the time of the
10 filing of your supplemental testimony?

11 A (Witness Anderson) I only find references to the
12 length, not to the depth, which was your question.

13 Q Did you attempt to find out prior to the filing
14 of your supplemental testimony whether the depth of the cam
15 saddle or cam gallery cracks had been measured in either the
16 original 103 or the 101?

17 A I imagine I did. That would be a normal type of
18 information that would be helpful.

19 Q Dr. Anderson, would you answer yes or no, and
20 then you can give an explanation, please.

21 A Yes.

22 Q Did you obtain any information?

23 A I don't recall.

24 Q You cannot tell me what it was?

25 A I looked at a number of documents and materials.

1 I don't recall at this time.

2 A (Witness Hubbard) Mr. Farley, again I would like
3 to supplement.

4 We went back to the FaAA report that talked about
5 what the depths were and then we also looked at the
6 sectioning data. It is our answer on page three. We looked
7 at what had been done before and that's where we addressed
8 that.

9 JUDGE BRENNER: I heard you, Mr. Hubbard, but
10 either I lost the gist of the question or you did. But it
11 is on the record in any event. You may be talking about
12 something different than what was asked about, but we will
13 put it together later.

14 BY MR. FARLEY:

15 Q Dr. Anderson, did you attempt to ascertain
16 whether the depth of the cracks in the cam gallery regions
17 of the replacement block 103 had been measured prior to the
18 filing of your supplemental testimony?

19 A (Witness Anderson) Yes, it was my understanding
20 that there had been no destructive measurements.

21 Q Other than destructive measurements, are you
22 familiar with any type of measurement of the depth of the
23 cracks in the cam gallery region in replacement EDG 103?

24 A I don't recall. I may have heard some testimony
25 while I was here this week, I just don't recall.

1 A (Witness Hubbard) I would like to supplement
2 that answer.

3 We did ask for all of the inspection reports
4 having to do with depth and length of cracks and my
5 recollection is there weren't any depth measurements
6 available for the new block 103 at the time we submitted our
7 supplemental testimony.

8 Q Mr. Hubbard, what specific information do you
9 have on the deepest crack in the cam gallery region of the
10 replacement EDG 103 block?

11 A I have no data on the crack depth of the
12 replacement 103 block that I am aware of.

13 Q Then would I be correct in stating that you also
14 do not have any data on the depth of the crack in the cam
15 gallery region of EDG 101?

16 A No, I may have some data but I haven't gone back
17 to compare that to what is in the FaAA report that talks
18 about depth.

19 Q And you did not list that depth in your
20 supplemental testimony, isn't that right?

21 A That's correct.

22 I would like to add that the depths that we did
23 have, you know, had to do with the gauging of the area with
24 the weld in it and we felt, when Dr. Anderson and I
25 discussed it, that that was probably not reliable data for

1 the reason that I mentioned so we did not spend a lot of
2 time trying to reconstruct the depths of the original cracks
3 in the cam gallery area.

4 Q Did you consider them?

5 A Yes, we did. As Dr. Anderson has already
6 mentioned it is in our testimony. We also considered the
7 fact that there was a large difference in 103 between what
8 was measured and stated in the FaAA report and what actually
9 was there when sectioning occurred and then based on the
10 fact then we learned that there was weld there on 101 and
11 102 we had an explanation of why the original data might not
12 be reliable and that's how we reached our conclusions.

13 Q Dr. Anderson, did you assume a particular depth
14 in the cracks in the cam gallery region of either the
15 replacement block 103 or 101 in order to reach the
16 conclusions that you expressed in your answer on page 10 --
17 I'm sorry, page nine.

18 MR. BRIGATI: Which answer on page nine, Judge,
19 there are two?

20 MR. FARLEY: The first one.

21 JUDGE BRENNER: Which conclusion?

22 He wants to know whether you assumed a particular
23 depth for the cracks in the original 101 and 102 blocks in
24 reaching the conclusion that you reach in the first full
25 paragraph on page nine that the "I believe these cracks are

1 similar to those found in the original block of EDG 103."

2 WITNESS ANDERSON: Thank you.

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1 No, I assumed no particular depth for the other
2 block cracks.

3 BY MR. FARLEY:

4 Q Wouldn't it be important, Dr. Anderson, in
5 determining your conclusion that they are propagating cracks
6 to know the difference between the depths and the cracks in
7 the old 103 and in 101 and 102?

8 A (Witness Anderson) I think that would be of
9 value. I don't think it's of prime importance because of
10 the ad hoc nature which these blocks are made. Each one is
11 an individual block, individual fabrication, individual
12 time. I think it would be valuable and certainly if they
13 could be sectioned and cut open and examined we could put to
14 rest whether they are propagating at a reasonable rate or
15 not.

16 Q Everything else being equal, Dr. Anderson, don't
17 bigger cracks propagate more and faster than smaller cracks?

18 A That is something I can agree with without
19 comment, yes.

20 JUDGE BRENNER: Do you want to take the break at
21 this time, Mr. Farley?

22 MR. FARLEY: Please, your Honor.

23 JUDGE BRENNER: All right. Let's take a few
24 extra moments. We will break until 10:50. Come back and
25 tell us what you can tell us, Mr. Dynner, we we'll

1 .WRBpp 1 reconsider the circumstances.

2 (Recess.)

3 JUDGE BRENNER: Back on the record. Can you tell
4 us anything else, Mr. Dynner?

5 MR. DYNNER: Yes, Judge. During the break we
6 were able to reach Mr. Tony Handley in California. He's the
7 attorney in the other case which is an ongoing trial in the
8 Superior Court of California. The trial is approximately a
9 three-week trial. Mr. Handley represented to me that
10 Professor Anderson is a key witness in the trial without
11 which he does not believe this case would have a chance of
12 prevailing. He indicated to me that he expects now and is
13 fairly sure that Professor Anderson will be required for
14 this ongoing trial on Thursday and Friday of next week.

15 As I say, he informed me that Professor Anderson
16 would be required Thursday and Friday of next week. He told
17 me that Professor Anderson has been regained as an expert
18 consultant and witness in this matter since last July. That
19 Professor Anderson told Mr. Handley that he expected to be
20 available next week because he expected that his need to be
21 before this proceeding would be ended by then.

22 I asked Mr. Handley whether in his view the Judge
23 would be willing to grant a continuance or some kind of
24 relief and he told me that he did not think that this Judge
25 would do under these circumstances. Although we don't know

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1 without talking to the Judge and, of course, it was 7:30 in
2 the morning in California when I spoke to Mr. Handley on the
3 telephone.

4 JUDGE BRENNER: Probably not a good time for him
5 to make his motion to the Judge.

6 (Laughter.)

7 MR. DYNNER: That's the information I have for
8 you, sir, on the trial. If you have any further questions I
9 will try to answer them.

10 JUDGE BRENNER: I would like to find some way for
11 it to be formally pursued that that trial will be adjusted
12 and not our trial. And, of course, that is adjusting the
13 schedule of witnesses that are not necessarily the trial and
14 the Judge there can go through everything we will have to go
15 through. I feel it's fair to say that this is an
16 extraordinarily complex proceeding here in terms of issues
17 and number of parties involved, and I've given you our view
18 that I am concerned at the potential for the effect of the
19 substance of the quality of the record if we make the
20 adjustment here. And that is my overriding concern in terms
21 of the balance of schedule inconveniences to the different
22 parties. Even taking that into account, if it were just
23 that, it would be an easier decision and I believe we could
24 make the adjustment for you, although not without expressing
25 our strong distaste for the lack of prudent planning.

2 WRBpp

1 Nevertheless, you would have gotten relief.

2 We need to work out some way to pursue that among
3 other problems caused by this extraordinary lack of
4 prudence and foresight. Here it is Friday and we're going
5 to be back here on Wednesday.

6 Do you have any suggestions?

7 MR. DYNNER: I was informed -- the only other
8 information I can give you is Mr. Handley told me that the
9 Judge would not be sympathetic, that he had given one
10 continuance in the case and then the prosecution is
11 beginning next week and that he will need Professor Anderson
12 on Thursday and Friday.

13 JUDGE BRENNER: You told me it was his estimate,
14 I thought.

15 MR. DYNNER: Yes. When we're dealing with
16 courts, of course, my comment was based upon what
17 Mr. Handley told me. It's just like we say when people will
18 be needed and sometimes we're wrong and there might be a
19 chance that that will slip or be accelerated. I just don't
20 know.

21 Now, with respect to the meeting --

22 JUDGE BRENNER: Is that trial in progress; do you
23 know?

24 MR. DYNNER: Yes, sir.

25 JUDGE BRENNER: Evidentiary hearings are in

1 WRBpp 1 progress right now?

2 MR. DYNNER: Yes, sir. I was told the trial had
3 begun. I think he said it was a three-week trial and next
4 week is presumably the last week expected for the trial.

5 Mr. Handley was ill in bed today and he told me
6 that because of his illness there had been a continuance
7 this week or a couple of days relief.

8 I will try to contact Mr. Handley and see whether
9 it can be further pursued with the Judge in the Superior
10 Court in California. It's an awful position to be in, I'm
11 between two judges and I've got the same guy who is a key
12 witness in two cases and everybody in the situation
13 normally. Each Judge feels, and sometimes with good reason,
14 that his case is the one that is going to be the most
15 important and cause everybody else the most inconvenience if
16 there is any change in the schedule. And I say that simply
17 because I am aware of the realities of these situations
18 having been here at least once before. I regret them. I
19 understand everything you have said and I agree with
20 everything you have said concerning the inconvenience and
21 the importance that we proceed.

22 I do think, and I will state, that it seems to me
23 if I can get this out of the context of each Judge or each
24 court believing that their matter is the most important,
25 that it does seem to me, and I will state this just as a

1 WRBpp

1 personal observation that given Mr. Farley's strong reaction
2 that he would not want to see a break in the cross
3 examination and your own comments concerning --

4 JUDGE BRENNER: We feel strongly about that for
5 the reasons I indicated.

6 MR. DYNNER: Yes, and I agree. If I may state,
7 my personal view is, given the length of this matter, other
8 pranks that have occurred and the scheduling problems, that
9 LILCO from time to time has been responsible for, as you
10 will recall, including the late filed testimony, it would
11 seem to me tht a two and a half day hiatus would not
12 severely prejudice anyone in this proceeding and I just
13 wanted to state that because it is my personal view.

14 Now, if you want to hear about the meeting with
15 the Dean, I can proceed.

16 JUDGE BRENNER: I don't think so. I'm not going
17 to take that into account. In other words, unless you have
18 information that I really should I think it's going to turn
19 on the court's schedule situation and if that can be
20 resolved I think Dr. Anderson could be and should be here.

21 Do you know if that's a jury trial in California?

22 MR. DYNNER: That's one question I didn't ask,
23 Judge. I'll check with Professor Anderson.

24 Professor Anderson just indicated to me that it
25 was a jury trial.

2 WRBpp 1

JUDGE BRENNER: Is that right?

2

WITNESS ANDERSON: It's my understanding.

3

(The Board conferring.)

4

JUDGE BRENNER: All right, we will proceed as follows: We will open the evidentiary hearing next week, so that is a given. We will give you the following options, Mr. Farley, that is to decide now that we will take up the Staff witnesses on Wednesday or to require that the formal request for relief be filed in the California case to adjust the schedule there and only upon denial of that request would we make the schedule adjustment.

12

If, under either approach the schedule is adjusted, and we would get the information on the ruling, the parties would receive that information on Monday and transmit it to the Board also. If we do through one route or another in adjusting taking the Staff's witnesses and we are starting on Wednesday, then we are going to require -- we're going to entertain the possibility that after we hear the County's testimony we will want to go back to witnesses for the Staff and, for all I know, for other parties on any particular discreet points that have either come up for the first time or been clarified and sharpened in focus for the first time. After all, the testimony is in through the County's testimony. That might include the possibility of putting witnesses for different parties up there together

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1 WRBpp

1 and focusing on particular disputes if there are particular
2 material disputes as we see it. And, of course, the parties
3 can't give us their views on whether they see such a need
4 for particular discreet points not going over the whole
5 testimony again.

6 In addition, Mr. Brigati, if we make the schedule
7 adjustment, the County is going to have to put the proposed
8 rebuttal testimony in writing and get it to the Board and
9 the parties by the beginning of the Wednesday session so
10 that we will know the time the Staff witness are coming up,
11 the full extent of any further testimony from Dr. Anderson
12 or any other County witnesses since we'll defer the whole
13 Panel. And it is our hope that through all these measures
14 we will avoid what I saw as the potential for adversely
15 affecting the quality of the substantive record coming in.

16 Mr. Farley, do you want to think about which
17 option to take and tell us at that time we adjourn in about
18 50 minutes?

19 MR. DYNNER: Yes, sir.

20 JUDGE BRENNER: All right, I think my preference
21 would be to make the decision now, but I -- now, meaning
22 today -- as to what our adjustment would be. But I
23 recognize that the equities of the situation are not with
24 the County and therefore I will give you the other option if
25 you want to take that.

1 WRBpp

1 MR. BRIGATI: Do I understand correctly that that
2 rebuttal testimony must be filed on Wednesday, Judge,
3 Wednesday morning?

4 JUDGE BRENNER: Yes, that's right, at the very
5 latest. The first thing, 9 a.m. Wednesday morning here. It
6 would be preferred if the parties at least could get in a
7 little earlier than that. But we recognize the timeframe.

8 MR. BRIGATI: Thank you, Judge.

9 JUDGE BRENNER: And the reason is, as I
10 indicated, so that we were aware of what that testimony will
11 be before questions begin of the Staff witnesses. It's not
12 a penalty, it's to avoid the prejudice that might arise
13 otherwise by the shift in the schedule.

14 MR. BRIGATI: I don't interpret it to be a
15 penalty, Judge.

16 JUDGE BRENNER: When we are ready to adjourn,
17 we're not going to have much time to discuss it again, so
18 just tell us how you want to proceed at that time.

19 MR. FARLEY: I'm having someone inquire right
20 now.

21 JUDGE BRENNER: All right.

22

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1 WRBeb

1 Mr. Dynner, I didn't further respond to your
2 views that I had earlier disagreed with, that the hiatus
3 would in effect be a minor perturbation and not much of a
4 problem. I told you what my concern was, that if we took it
5 we might extend beyond the week of Tuesday, the 13th. The
6 week after that is Thanksgiving week, which would be a short
7 week, and before you know it, the two-and-a-half-day delay
8 would not be a day-for-day delay in the end.

9 And we'd get into schedules way beyond what any
10 party would reasonably have contemplated. And then we are
11 going to find out I suspect that there are other schedule
12 commitments that were made with what I would view as the
13 reasonable assurance that the proceeding was not going to
14 extend into the very end of November, and so on. And I
15 think that is a real concern. And that is why I disagree
16 with you on the hiatus point.

17 All right. Mr. Farley, why don't you proceed?
18 Keep an eye on the clock and why don't you come to a
19 reasonable break by 11:50.

20 BY MR. FARLEY:

21 Q Dr. Anderson, you have referred in some of your
22 earlier answers on my cross-examination to an inspection of
23 the placement EDG 103 block at Shoreham. Is that correct?
24 (Dr. Anderson) I don't know what sense you
25 talked about it?

2 WRBeb 1 Q Do you recall when you -- accompanied by
2 Mr. Dynner and me and representatives of LILCO, you saw the
3 replacement -- I mean the original 103 block at Shoreham on
4 October 3, 1984?

5 A Yes, I do.

6 Q And at that same time didn't you inspect the
7 Number 2 and Number 8 cam gallery regions of replacement EDG
8 103?

9 A Yes.

10 Q Were you able to locate visually the indications
11 on the cam gallery locations you inspected on replacement
12 EDG 103 on October 3, 1984, that were reported on any of the
13 dye penetrant and magnetic particle inspection reports?

14 A Yes, I believe I have that location in mind.

15 Q I asked if you could locate visually the
16 indications. You say you can?

17 A The indications at the time I was there had been
18 cleaned from the dye penetrant and the other aids. I did
19 have a feeling that there may have been something in the
20 area, but without a dye penetrant check it would be very
21 difficult to confirm.

22 Q So in fact you could not see the indications in
23 the cam gallery locations Numbers 2 and 8 on the replacement
24 103 on October 3, 1984. Is that correct?

25 A No, I didn't say that. What I said was that

2 WRBeb 1 there was no dye penetrant. I could not check that what I
2 saw was the indications that had been referenced.

3 MR. FARLEY: Judge, I object to Mr. Hubbard
4 continuing to confer with Dr. Anderson.

5 MR. BRIGATI: Judge, there is no pending
6 question.

7 JUDGE BRENNER: Yes, but nevertheless Mr. Farley
8 wants to play by the same rules that the County wanted its
9 panel to play by. And as I understand it, he is in the
10 midst of a line of questions on a subject, and I assume that
11 the conferences might be related to the substance.

12 Are you still in the middle of pursuing a line of
13 questions with Dr. Anderson, Mr. Farley?

14 MR. FARLEY: Yes, sir. Dr. Anderson was the only
15 one there on October 3rd, 1984.

16 JUDGE BRENNER: Well, I don't want your
17 testimony.

18 MR. FARLEY: I'm sorry.

19 JUDGE BRENNER: He is entitled to ask that they
20 not confer for now, and we have tried to adjust. We have
21 discussed how panel dynamics can be difficult, and we'll
22 give Mr. Farley that leeway for now.

23 And Mr. Hubbard can add, as we allowed the LILCO
24 witnesses to add when the same situation occurred when they
25 were on the panel.

1 WRBeb 1

BY MR. FARLEY:

2 Q Dr. Anderson, can you state Yes or No, you did or
3 you did not see cracks or indications on the cam gallery
4 saddle regions Numbers 2 and 8 visually on October 3, 1984?

5 A (Witness Anderson) Yes, I believe I did. But I
6 have no further analysis to examine it.

7 Also I could not adjust the light and therefore,
8 all I could look at was the area. I believed I saw
9 something but I could not confirm it.

10 Q Were these reasons that you just stated the
11 reasons why you asked Dr. Wachob to point out to you the
12 indications or cracks in those cam gallery regions?

13 MR. BRIGATI: Objection. Assumes facts not in
14 evidence.

15 JUDGE BRENNER: All right, I'll give you this
16 one.

17 Sustained.

18 I think these witnesses can straighten it out.
19 Why don't you save those for when it is really
20 important, that is, when the record is going to really be
21 factually confused?

22 MR. BRIGATI: Judge, I'm trying to restrict my
23 objections to a minimum.

24 JUDGE BRENNER: All right. I knew you were going
25 to tell me that so that's why I stopped you. But I think

1 WRBeb 1 you can lower the minimum a little bit.

2 Mr. Farley.

3 MR. FARLEY:

4 Q Dr. Anderson, did in fact Dr. Wachob accompany
5 you and Mr. Dynner and me and other LILCO representatives to
6 the Shoreham Nuclear Power Station on October 3, 1984?

7 A (Witness Anderson) Yes.

8 Q Did you not in fact, at the time you looked at
9 the Numbers 2 and 8 cam gallery regions on the replacement
10 EDG 103, ask Dr. Wachob to point out to you where the
11 indications or cracks were located?

12 A No. I believe you are confused there. I did
13 clearly ask him on photographs that were supplied by LILCO
14 to mark them showing where they found crack indications, and
15 this was because there was an orientation problem. There
16 were splatters of dye penetrant. There were a number of oil
17 traces that were all very confusing, and so I asked him if
18 he would, and he was kind enough to do so, and we had those
19 marked.

20 Q You are now referring to a conversation or an
21 incident that took place at the offices of FaAA in Palo Alto
22 during the discovery deposition of Drs. Rau, Wachob and
23 Mr. Taylor, are you not?

24 A It did occur at Failure Analysis, yes. We left
25 the pictures with them for part of the day to so mark.

1 WRBeb

1 Q In your supplemental testimony on page 10 you
2 concluded that cracks initiated or propagated from
3 subsurface defects in the replacement EDG 103 were present
4 at the time it was inspected by Mr. Isleib. Isn't that
5 correct?

6 A Let me look at the reference. That's page 10?

7 Q Yes, sir.

8 MR. BRIGATI: Objection. I don't think that
9 fairly characterizes the testimony referred to by Mr. Farley
10 on page 10. The testimony does not say that the indications
11 were present when they were inspected by Mr. Isleib. In
12 fact, the testimony infers just the opposite.

13 JUDGE BRENNER: That's enough.

14 Sustained.

15 You are going to have to rephrase the question,
16 Mr. Farley. But in the meantime, read the answer.

17 Have you done that? All right.

18 Mr. Farley, I think you can more directly get to
19 where you're going with this line of inquiry, and find out
20 what the witness took into account and what he didn't take
21 into account a little more directly. I understand that that
22 is your area of inquiry, and it is certainly a legitimate
23 area, but I am worried about the efficiency of it.

24 BY MR. FARLEY:

25 Q Dr. Anderson, at the conclusion of your

1 WRBeb 1 supplemental testimony on page 10 you state:

2 "We therefore conclude that the cracks
3 in the cam shaft gallery area of the replacement
4 block initiated or propagated from subsurface
5 defects during and as a result of the operation
6 of EDG 103."

7 Isn't that correct?

8 A (Witness Anderson) Yes, that is correct.

9 Q All right, sir.

10 Now my question was: In connection with that
11 conclusion did you not consider that the subsurface defects
12 that you refer to were not present at the time of casting
13 the EDG 103 replacement block?

14 MR. BRIGATI: Objection to the question. I think
15 it is vague and ambiguous, Judge. I don't understand it.

16 JUDGE BRENNER: I am going to overrule the
17 objection. I want to hear the answer. But we can cure it
18 with follow-up. It is not the best phraseology of the
19 question; I will agree with you there. But let's see how it
20 goes. I want to get some facts down here instead of
21 question after question.

22 WITNESS ANDERSON: I know of no mechanism that
23 would introduce subsurface defects after the time of
24 fabrication.

25 BY MR. FARLEY:

1 WRBeb

1 Q Is that an assumption on your part?

2 A (Witness Anderson) I would make it stronger than
3 an assumption. We are talking subsurface defects, not
4 surface or finishing defects, and I am incorporating the
5 entire fabrication. There just isn't any mechanism to
6 produce them.

7 Q In connection with the conclusion that you reach
8 at the end of your answer on page 10 of the supplemental
9 testimony, have you calculated how far below the cam gallery
10 surface of the cast iron of this replacement 103 these
11 alleged subsurface cracks were located?

12 A No.

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1 WRBpp 1 Q Have you calculated the size of the alleged
2 subsurface defect that you believe was present when
3 Mr. Islip inspected the replacement 103 block at TDI?

4 MR. BRIGATI: Objection. There is no allegation
5 that there was subsurface defects. There is an allegation
6 that the cracks in the cam shaft gallery area either
7 initiated after the block was fabricated or they propagated
8 from some surface defects.

9 JUDGE BRENNER: I am going to sustain the
10 objection and I want to get some things clear. The
11 phraseology in the conclusion is not very good either and I
12 think that's part of the question's problem.

13 Dr. Anderson, when you say subsurface defects, is
14 defect synonymous with a crack or a crack indication?

15 WITNESS ANDERSON: Not necessarily. It could be
16 a different phase which is weaker than the gross matrix. It
17 could be a cementite or a graphitic phase that is present
18 and that is much, much weaker than the normal matrix. It
19 could also be porosity which is the just the absence of
20 material or it could be a silicate inclusion.

21 JUDGE BRENNER: All right. I'm not sure I
22 understand some of your previous answers to Mr. Farley's
23 questions just in the immediate last few minutes.

24 Is it your view that the cracks initiated or
25 propagated from defects which had to exist as of the time

1 WRBpp

1 casting and cooling process was completed and no later?

2 WITNESS ANDERSON: Any defects, of course,
3 exacerbate the cracking procedure. Those defects, unless we
4 talk about some very unusual mechanisms must be put in at
5 the time that the casting is completed.

6 JUDGE BRENNER: And when you say completed, at
7 what point in time is that in the casting?

8 WITNESS ANDERSON: For deep surface, that would
9 be at the time of solidification and cooling below a tear
10 temperature surface. For surface it would be at the
11 completion of any grinding or finishing operations where,
12 say, a bit of abrasive can be driven to the shallow surface.

13 JUDGE BRENNER: What do you limit because the
14 alleged causation of the cam shaft gallery cracks or crack
15 indications in the new 103 block to a subsurface defect as
16 distinguished from just the normal material as if cast of
17 the block. It's a bit of a — I'm having a bit of a
18 semantic problem given your previous explanation of defect,
19 but see if you can answer that. Otherwise, I'll try to
20 clarify the question.

21 WITNESS ANDERSON: I think I have a sense of the
22 question. I'll try to answer it.

23 We're not talking about a homogeneous piece of
24 material. We're talking about a cast iron that has several
25 phases in it and therefore I was being technically correct

1 WRBpp

1 and perhaps a little bit confusing by saying that the weaker
2 phases that may be present are going to help the
3 initiation. Now, we can call these subsurface defects
4 because nobody's examined yet this area in detail to
5 identify it, whether it's a cementite structure, whether it
6 is some other defects that we've described. Nobody has
7 examined them.

8 But they make the process happen more easily.

9 JUDGE BRENNER: All right. Let me stop there.
10 Depending on what else has developed we may have some more
11 questions in the area.

12 Mr. Farley, why don't you proceed?

13 BY MR. FARLEY:

14 Q Isn't it true, Dr. Anderson, that you have not
15 relied upon any measurements or calculations of the depth of
16 any of the cam gallery indications in the replacement EDG
17 103?

18 A (Witness Anderson) That's true, because as I
19 stated earlier it's my understanding there has been no
20 sectioning done and there has been no drilling done to
21 determine the depth and there has been no other analysis
22 which has been made available to me to make that
23 examination.

24 Q Dr. Anderson, on page 2 of your supplemental
25 testimony you testified that cam gallery cracks in 101,

1 WRBpp

1 .102 and the original 103 were formed during casting and have
2 since propagated; is that correct?

3 A That's page 2?

4 Q Yes, sir.

5 MR. BRIGATI: Objection of the characterization
6 of the testimony. That is not what it says.

7 JUDGE BRENNER: Well, it's overruled. He's
8 asking him to tell him if that's what it says.

9 MR. BRIGATI: He has asserted that that's what it
10 says and he's asking him to confirm that assertion.

11 JUDGE BRENNER: Yes, that's why your objection is
12 overruled.

13 WITNESS ANDERSON: Well, without the coaching I
14 think it speaks for itself and it does say it a little bit
15 differently than you asked.

16 BY MR. FARLEY:

17 Q What was the depth of the casting-induced crack
18 that you assumed or took into consideration in this answer
19 on page 2 of your supplemental testimony.

20 A I assume that question means — this is
21 clarification — what it was before it grew in service.

22 Q How deep was the casting-induced crack?

23 A It would be on the order of the — and I have no
24 way of knowing with certainty — but I can try to estimate.
25 It would be in the approximate order of the depth of the

1 WRBpp

1 weld. There would have been an attempt to grind the crack
2 until it had no further visible indication and then it would
3 have been backfilled with the weld metal.

4 Q Do you distinguish in this answer on page 2,
5 where the casting crack stops and the subsequent propagation
6 begins?

7 A No, that would be very difficult to do.

8 Q All right, sir.

9 Haven't you testified that the oxide was uniform
10 over the entire crack depth?

11 A Except that the top end area of where the
12 weldment is. I said it is rather uniform with maybe a
13 variance of a factor of two.

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1 WRBagb .1 Q How did you tell what portion of the crack was
2 introduced in casting?

3 A Oh I think I premised my original answer by
4 saying there was no way with certainty that I could
5 determine at this time but it is the procedure at TDI to
6 grind to the bottom, or to the apparent bottom of a crack
7 and repair it.

8 Q How do you know about TDI's welding procedure in
9 1974?

10 A When previously asked about welding repairs at
11 TDI, I mentioned my experience visiting TDI and observing
12 what they were doing currently. Now whether there had been
13 a more primitive operation in the past I cannot comment on.

14 Q This inspection or this trip which you made which
15 lasted approximately three or four hours was in the spring
16 of 1984, isn't that right?

17 JUDGE BRENNER: You should have gone for it,
18 Mr. Brigati, I would have sustained it.

19 Mr. Farley, if you are going to put the question
20 to him then I don't care how you screw up the facts, I will
21 allow the question because you are putting it to the witness
22 and the witness can agree or disagree. But when you are
23 assuming facts in subsidiary clauses and then the ultimate
24 question you put to him is different than the clause in
25 which you have assumed facts, you might run into trouble.

1 WRBagb 1

2 The problem on the other hand is if the fact is
3 totally unimportant it isn't worth either putting in the
4 question or objecting to.

5 MR. BRIGATI: That's why I didn't object to it,
6 Judge.

7 JUDGE BRENNER: All right. I am proud of you.

8 I interjected as much as I did for the benefit of
9 all counsel to see if we could avoid having to do it
10 question-by-question.

11 BY MR. FARLEY:

12 Q Dr. Anderson, would you please describe for me
13 what your understanding was at the time of the filing of
14 your supplemental testimony of the visual inspection
15 criteria used by LILCO for reportable indications on the
16 replacement 103 block?

17 A (Witness Anderson) I think I would defer to my
18 colleagues that have been working in quality control and
19 quality assurance for many years, if I may.

20 Q Can you answer the question?

21 A I just did, I said I deferred and my basis for
22 joining was discussions with them, so I defer completely.

23 A (Witness Hubbard) Can I supplement his answer?

24 Mr. Anderson and I obtained the LILCO inspection
25 documents as well as the Stone and Webster inspection
documents as well as the TDI inspection documents for the

1 WRBagb 1 new block and, to the best of my knowledge, there is no
2 place any visual inspection criteria set forth nor any
3 evidence that there was an inspection to some visual
4 criteria other than that cited by Mr. Isleib with his 5X
5 visual inspection with good lighting.

6 This was provided to us in a letter of October 6
7 from Mr. Range of Hunton and Williams.

8 Q At the time of the filing of your supplemental
9 testimony, Mr. Hubbard, was that the basis on which you used
10 the inspection criteria followed by LILCO in connection with
11 the replacement 103 block?

12 A Yes, we had asked, as noted at the top of page 10
13 in answer number 15, for all inspections of the replacement
14 block by TDI, LILCO, Stone and Webster, FaAA and the owners
15 group and these are the documents we received and none of
16 them showed the visual inspection criteria other than what
17 was stated by Mr. Isleib or evidence that such a visual
18 inspection was in fact accomplished to any procedure.

19 MR. FARLEY: Judge Brenner, I am still in the
20 same region but I am getting ready to switch to strain
21 gages. I now have a report in response to your inquiry if
22 you would like to hear that.

23 JUDGE BRENNER: Yes. Go ahead.

24 MR. FARLEY: We would agree, first of all, that
25 you do reschedule to take the Staff testimony first next

1 WRBagb 1 Wednesday.

2 Secondly, as you have indicated that you require
3 the County to file its rebuttal testimony by Wednesday
4 morning.

5 Thirdly, we would like to have — and I think he
6 has it — but we would like to have some assurance that
7 Dr. Anderson will be available without further interruption
8 after the Staff is finished.

9 We desire that both the Staff and LILCO have the
10 right to respond to the County and LILCO is prepared to put
11 its witnesses up with the County witnesses to resolve
12 disputes before the Board.

13 This is a reluctant agreement but it is a direct
14 response to your request.

15 JUDGE BRENNER: Yes, I understood what you mean
16 when you said "we agree," you meant based on the latest
17 options presented to you.

18 MR. FARLEY: Yes, sir.

19 JUDGE BRENNER: All right.

20 In terms of a response by other witnesses, we
21 will handle that in the particular context as it may come
22 up. And in terms of any threshold required for us to
23 respond if there are objections we will deal with any
24 threshold in the context of what occurred in the
25 scheduling to the extent that might affect the need for

1 .WRBagb 1 it.

2 In terms of assurance that Dr. Anderson be
3 available after next week, that is a good point. I
4 certainly assumed that that would be the case.

5 I assume, Mr. Dynner, that you had that type of
6 conversation -- or Mr. Brigati, I don't know who wants to
7 respond. In other words, as you well recognize I'm sure, we
8 don't want to go through this adjustment and then find out
9 that, when we do get to Dr. Anderson -- which is going to be
10 a date uncertain in view of this adjustment -- that he will
11 be available.

12 Now I can make some guesses as to when that date
13 might be and that is it would be the week, the hearing week
14 which would begin on Tuesday the 13th, but that is not a
15 promise. For all I know my worst fears may come to pass and
16 we may not complete that week.

17 If you need time to check on that aspect I will
18 give it to you now.

19 MR. DYNNER: Well sir, the only thing I could say
20 is that based upon my conversation with counsel in the
21 California trial, he said that he fully expected that the
22 trial, insofar as Professor Anderson would be concerned,
23 would be finished on Friday, that is Professor Anderson's
24 testimony would be completed on Friday of next week.

25 I understand that there isn't going to be a

1 WRBagb 1 hearing on the 12th -- is that correct, sir?

2 JUDGE BRENNER: Yes.

3 MR. DYNNER: I will let Professor Anderson come
4 in if he can on the record.

5 JUDGE BRENNER: Why don't you talk to him?

6 MR. DYNNER: Everything we know is that he will
7 be available the week starting the 13th until the conclusion
8 of his requirements here.

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1 JUDGE BRENNER: Which may be beyond that week for
2 all I know now.

3 MR. DYNNER: Which may be beyond that week. He
4 will not be available next week, just so it's clear, if we
5 were to finish for some reason on Thursday.

6 JUDGE BRENNER: I understand that.

7 You find out if there is any question that he is
8 going to be available beginning on the 13th and thereafter
9 as may be necessary for the rest of the month, just to make
10 sure. We are not going to make this adjustment -- not
11 counting of course Thanksgiving and the Friday after
12 Thanksgiving.

13 We might as well stop the cross-examination right
14 now.

15 MR. FARLEY: I was going to suggest,
16 Judge Brenner, a combination of getting this matter resolved
17 before formally adjourning a little bit before 12:00 as you
18 had asked yesterday, and my going into stress areas, that we
19 might as well.

20 JUDGE BRENNER: Judge Morris points out in effect
21 that the humor material has degenerated along with other
22 materials dealt with in this proceeding. I guess that
23 happens at the end of the week.

24 All right. We are going to take a five-minute
25 recess and come back just for a minute or two to get that

1 WRBeb 1 commitment because without that commitment, the schedule
2 adjustment— Well, let me think about it for a moment.

3 (Pause.)

4 You come back and give us that commitment next
5 Wednesday, because it won't matter in terms of the events of
6 next week in any event. We still have to get the staff
7 testimony even if Dr. Anderson is never going to be back,
8 and he is the crux of the County's testimony in this area.

9 MR. FARLEY: Judge Miller,--

10 JUDGE BRENNER: Excuse me.

11 You tell us then, because the point is we are not
12 going even to allow the continuation of any
13 cross-examination of Dr. Anderson the beginning of the week
14 of the 13th or any time that week if there is then going to
15 a possibility that he is going to become unavailable before
16 the case is complete. And I think you understand that.

17 MR. DYNNER: Yes, sir.

18 I mean, frankly, I have talked to Dr. Anderson
19 and after the conclusion of that trial, he has indicated to
20 me that his desk is totally clear for this proceeding. And
21 the reason why I couldn't give you a commitment is obvious,
22 that if that other trial were to continue for an extra day
23 because of their problems, then we would have a problem.
24 And I am going to have to go and talk to this lawyer and
25 have him talk to the judge and let him understand clearly--

1 WRBeb

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JUDGE BRENNER: -- what occurred here.

MR. DYNNER: -- what occurred here, and that we've got a trial starting on Tuesday so he had better get finished with him in that other trial.

JUDGE BRENNER: That's right, and not just that we have one started but that we have interrupted the sequence of this one for that trial.

MR. DYNNER: Yes, sir.

JUDGE BRENNER: And I suspect that he shouldn't wait until the morning of Friday to inform the judge of a schedule problem such as occurred here before this judge.

MR. DYNNER: I am going to ask him to do it right away, as soon as he goes back on, for obvious reasons.

JUDGE BRENNER: Okay. In that way you will do him the professional courtesy of not putting him in the position that you yourself found yourself in this week.

MR. DYNNER: No, sir, no lawyer wants to be in this position.

JUDGE BRENNER: All right.

We will adjourn now and we will resume at nine o'clock on Wednesday with the Staff witnesses.

MR. GODDARD: The Staff wants to raise the point that Counsel for all parties had discussed the possibility of starting at ten-thirty on Wednesday rather than nine o'clock Wednesday. Does the Board wish to consider that

1 WRBeb 1 option?

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JUDGE BRENNER: No.

(Whereupon, at 11:43 a.m., the hearing in the above-entitled matter was recessed to reconvene at 9:00 a.m., Wednesday, November 7, 1984.)

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceedings before the UNITED STATES NUCLEAR REGULATORY COMMISSION in the matter of:

NAME OF PROCEEDING: LONG ISLAND LIGHTING COMPANY
(Shoreham Nuclear Power Station)

DOCKET NO.: 50-322-1 (OL)

PLACE: HAUPPAUGE, NEW YORK

DATE: FRIDAY, NOVEMBER 2, 1984

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission.

(Sigt) William R. Bloom
(TYPED)

WILLIAM R. BLOOM
Official Reporter

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