

NUCLEAR REGULATORY COMMISSION

ORIGINAL

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

LONG ISLAND LIGHTING COMPANY

(Shoreham Nuclear Power Station)

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DOCKET NO. 50-322-OL

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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. 50-322-01
(Shoreham Nuclear Power Station) :

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Bethesda, Maryland
Tuesday, October 12, 1982

The hearing in the above-entitled matter
convened, pursuant to notice, at 10:35 a.m.

BEFORE:

LAWRENCE BRENNER, Chairman
Administrative Judge

JAMES CARPENTER, Member
Administrative Judge

PETER A. MORRIS, Member
Administrative Judge

1 APPEARANCES:

2

3 On behalf of Applicant:

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1	<u>C O N T E N T S</u>			
2	<u>WITNESSES:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u> <u>REXCROSS</u> <u>BOARD</u>
3	T. Tracy Arrington,			
4	Frederick B. Baldwin,			
	William M. Eifert,			
5	T. Frank Gerecke,			
	Joseph M. Kelly,			
6	Arthur R. Muller,			
	Donald G. Long and			
7	William J. Museler (Resumed)			
8	By Mr. Lanpher		11,311	

9	(Afternoon Session..11,383)			
10	T. Tracy Arrington,			
	Frederick B. Baldwin			
11	William M. Eifert,			
	T. Frank Gerecke,			
12	Joseph M. Kelly,			
	Arthur R. Muller,			
13	Donald G. Long and			
14	William J. Museler (Resumed)			
15	By Mr. Lanpher		11,384	

16	<u>E X H I B I T S</u>		
17	<u>NUMBER</u>	<u>IDENTIFIED</u>	<u>RECEIVED</u> <u>BOUND IN</u> <u>TRANSCRIPT</u>
18	Suffolk County 61	11,362	11,423
	Suffolk County 62	11,362	11,423* 11,481
19	Suffolk County 63	11,363	11,423*
	Suffolk County 56 thru 59		11,423*
20	Suffolk County 64	11,446	11,481
21	Suffolk County 65	11,478	
	Suffolk County 66	11,479	

22 *Those portions listed in Suffolk County Ex. 61 for identifi-
23 cation, those portions of the reports are admitted into evidence.

24	<u>RECESSES:</u>
25	Noon - 11,382 - Afternoon - 11,437

P R O C E E D I N G S

2 JUDGE BRENNER: Good morning.

3 We have several matters scheduled for today in
4 addition to quality assurance, quality control related
5 matters, and I think we will pass those for later this
6 week in order to get right to quality assurance, quality
7 control matters. The other matters relate to the status
8 of the items under review by the Staff in the context of
9 contentions still pending. We have received letters
10 from Staff and we will discuss that later this week.

11 In addition, we are going to hear from the
12 parties on the status of settlement negotiations
13 regarding inadequate core cooling and also possibly
14 other contentions which we have deferred.

15 Just a reminder which you probably need not
16 hear, the testimony on the phase one emergency planning
17 contentions was due to day and I imagine we will be
18 seeing that today.

19 With respect to quality assurance, quality
20 control, we have before us LILCO's motion for further
21 Board direction on the conduct of QA cross-examination.
22 The motion is dated October 5th. It caught up with
23 Judge Morris and myself in Pennsylvania on October 7th,
24 and I think was received here either that day or the day
25 after. Next time we hold a hearing out of town maybe

1 we'll have an unlisted hearing, I don't know.

2 After the date of the motion -- and we have
3 received the responses this morning from the County
4 which we requested, and we appreciate those and have had
5 a chance to go essentially through all of them, although
6 we were somewhat selective in what we thought we had to
7 read. I did not read all the letter attachments,
8 although I glanced at them. But we certainly read the
9 motion papers and the attachments to the submittal of
10 QA-QC information.

11 After LILCO's motion, there appears to have
12 been further correspondence, primarily from the County.
13 I'd like to inquire preliminarily whether the status of
14 the motion is the same as that filed.

15 MR. ELLIS: Yes, Judge Brenner. The status
16 has changed somewhat. The motion requested a
17 three-tier, a three-legged relief, like a stool. The
18 first was the limitation of time. The second was the
19 description of findings and identification of audits.
20 And third was the exclusion of certain audits identified
21 in our view in an untimely fashion.

22 The letters that you were referring to were
23 letters that were sent by the County to us since the
24 filing of the motion that relate to the second item.
25 That is, the identification of audit findings and

1 audits. And we received, I think, the final installment
2 yesterday.

3 But the short answer to your question is that
4 it is a response to that request, that leg of the
5 relief, but the other two legs remain. And I do have
6 also, at the appropriate time, whenever you wish,
7 comments concerning that particular leg as well.

8 JUDGE BRENNER: As to the legs that remain,
9 you believe that you need to make oral comments in
10 addition to the motion before us? I will give you a
11 brief opportunity if you want it, but I think we
12 understand your position.

13 My basic inquiry is whether there has been any
14 further movement on that position among the parties, and
15 apparently that has not been the case.

16 MR. ELLIS: No, sir. I think the pleading
17 filed this morning by the County clearly opposes the
18 remaining two legs. On whether LILCO wishes to make any
19 further argument, I am prepared to do so and would do so
20 if the Board would find it useful.

21 JUDGE BRENNER: I think we understand your
22 position quite well from the motion and from earlier
23 discussions we've had on the record, which are
24 referenced in the motion in large part.

25 Did I understand, however, that you wanted to

1 make a comment on the matter of the detail from the
2 County regarding what they will use the audits for, the
3 number two of your three-pronged relief request?

4 MR. ELLIS: Yes. That comment would have been
5 in the context of argument relating to the other two
6 legs. But I think it is fair to say that, with the
7 receipt of what we have received yesterday, the County
8 has responded to the Board's requirement that the first
9 leg of the requested relief be responded to.

10 JUDGE BRENNER: The second leg?

11 MR. ELLIS: The second leg. I'm sorry.

12 JUDGE BRENNER: It's a good thing you don't
13 have a four-legged stool.

14 Mr. Lanpher, we also understand the County's
15 position quite well on the motion. I'll give you a
16 brief opportunity to add anything if you want.

17 MR. LANPHER: I think our position is set
18 forth, unless the Board has specific questions. I would
19 make two comments.

20 I'm not sure in your question to Mr. Ellis,
21 I'm not sure whether you are referring to the fact that
22 -- I think there has been some movement. There has been
23 a deletion of a number of documents that were proposed
24 to be used, and so in that sense I think there has been
25 some movement on, I guess that would be, leg one.

1 The only other thing I would mention is that
2 in addition to the two pleadings which the Board
3 received this morning, you also received a letter which
4 I sent to Mr. Earley yesterday regarding the E&DCR area,
5 which had not been included in the other materials. But
6 I think that letter is self-explanatory. I have
7 provided the Board a copy or copies of that this morning
8 also.

9 JUDGE BRENNER: That letter isn't the October
10 8th letter that you referenced in paragraph D of your
11 response, is it?

12 MR. LANPHER: No, it's the October 11th letter
13 about E&DCR's, indicating that two of the three groups
14 of E&DCR's remaining we intended not to pursue and
15 providing a summary of the remaining -- the findings in
16 the remaining group. The summary is called "Courter
17 E&DCR Deficiencies".

18 JUDGE BRENNER: All right, I do have that
19 one. I did not find a copy of the October 8th letter
20 that you referenced, so I therefore have not read it. I
21 don't think I need to read it for the immediate purpose
22 of this motion.

23 MR. LANPHER: Well, I did not attach it. It's
24 purely factual. It did delete a number of additional
25 audits from proposed use, and those deletions are

1 reflected in the attachments to our submittal of QA
2 information, the big one. There just seem to be enough
3 pieces of paper. I don't think anyone would dispute
4 that we deleted it. I don't know the exact number,
5 maybe another 5, 10, 15, whatever.

6 JUDGE BRENNER: I'm not criticizing your
7 sparing us some additional paper, but the description
8 stimulated my interest, since it labels it as a detailed
9 proposal for expediting examination in the FSAR
10 configuration area.

11 MR. LANPHER: Oh, excuse me. That's Exhibit
12 21 to the submittal of QA information, the big thick
13 one.

14 JUDGE BRENNER: All right. I looked for it in
15 connection with the motion and that was my mistake.

16 MR. LANPHER: So that's Exhibit 21.

17 JUDGE BRENNER: Okay, thank you.

18 We received no response to the LILCO motion
19 from the Staff, and our telephone message had intended
20 that if the Staff wished to make its response it could
21 have and should have by the same date as the County. I
22 hope the Staff appreciated that opportunity.

23 MR. BORDENICK: Judge Brenner, I don't recall
24 whether the telephone message concluded that or not, but
25 in any event we would not have filed a response. We are

1 generally in agreement with the LILCO position, and we
2 are concerned down the road, at such time as the Staff
3 panel goes on, that we not have repetition.

4 JUDGE BRENNER: All right. We will talk about
5 the Staff panel after we deal with this motion, but
6 immediately after.

7 All right. We have discussed the motion quite
8 a bit last week among the Board members, some of the
9 Board members, and this morning among the entire Board.
10 We are not going to grant the relief limiting the use of
11 the categories of documents identified on or about
12 October 1st and for a few days thereafter. This would
13 have been item 1 of the requested relief, beginning on
14 page 14 and continuing over to page 15 of the County's
15 motion.

16 We're doing it because of the importance of
17 the issue. We think those documents could have and
18 should have been identified earlier. This is probably
19 little solace to the movement, that we think their
20 reasons are correct but we are not granting the relief.
21 Nevertheless, that is our view.

22 We disagree with the County's argument that
23 the need for those documents could not reasonably have
24 become apparent until the Board indicated that we wanted
25 cross-examination focusing on facts. The County always

1 had pattern area as part of its contention and then
2 presumably as part of its case.

3 We recognize that would change the order of
4 the County's intended cross-examination, but what we did
5 should not have changed the scope of the contention or
6 the scope of the examination, rather merely the order.
7 We did intend to change the emphasis, but not to the
8 extent of suddenly making new documents which were not
9 apparently material before now material.

10 Nevertheless, we are not going to cut it off,
11 for this reason: We believe the cross-examination has
12 not been as productive as it could have been. This has
13 nothing to do with the particular efficiency or ability
14 of the cross-examiner. In fact, to the contrary, we
15 think that aspect of it was quite efficient and quite
16 proper.

17 However, we don't believe there has been a
18 proper initial screening of what's important from what's
19 not important, and this is what we intended by our
20 interest in getting at the facts which the County
21 believes form a pattern within the particular subject
22 areas. We are going to require that that be done from
23 now on through several means in combination.

24 First is a time limit, which will not be a
25 hard and fast time limit. However, the County is going

1 to have to make a very good showing to get the time
2 limit extended. We are going to set a time period for
3 the completion of the County's cross-examination of
4 LILCO's panel of three weeks. That would be typically
5 12 hearing days. We think that's a very generous time
6 period and we hope is longer than the County actually
7 needs in fact.

8 We think the two-week period suggested by
9 LILCO is a reasonable one, but we do not want to make a
10 judgment that for unexpected reasons, reasons that are
11 not apparent to us now, would limit the County in
12 pursuing the significant items and in separating the
13 significant items from the insignificant items in
14 pursuit of its cross-examination.

15 As I said, it's our belief, which we hope the
16 County shares, that three weeks permits plenty of time.
17 By setting a time period, we believe it will spur all
18 parties to assure themselves that the truly important
19 matters are being asked about first.

20 The odds of establishing a pattern with 25
21 items, some of which are relatively unimportant, some of
22 which may be more important, any different than a
23 pattern that can be established with 5 important items
24 is not great. When we wanted the inquiry to focus on
25 the facts, we did not intend that we sit through every

1 detail on every finding that was possibly relevant to
2 the pattern, and we think that too much of that has
3 occurred.

4 As we approach the three-week time period and
5 possibly long before it, we may make some comments as to
6 the productivity of the examination such that the County
7 will get an indication as to whether a request near the
8 end of three weeks to extend it would be favorably
9 regarded or not by the Board. In short, to go beyond
10 three weeks the County is going to have to show us that
11 the examination was productive and efficient in
12 separating the important from the unimportant, and there
13 truly remains important matters for which we should
14 extend the time period.

15 So in summary, we view it as a time period
16 that we will probably maintain, absent some indication
17 that our own assessment was incorrect on the announced
18 time necessary to get at the truly important facts. If
19 the County can show us that the combination of its
20 efficient use of time during the three weeks combined
21 with what it still has to cover discloses that we in
22 fact did underestimate the time period, we will be
23 prepared to extend it.

24 As we approach the end of the County's
25 cross-examination, we're going to want to set similar

1 time periods for the examination by the Staff of LILCO's
2 witnesses and for the redirect by LILCO. "Similar time
3 periods" is perhaps a bad usage. I do not mean the same
4 time period. I mean an advance indication of what time
5 period is reasonable.

6 We will discuss it and if the parties cannot
7 agree on such time periods we will set them, and they
8 will be set in the same fashion as this one: not an
9 absolute deadline, but a deadline which we intend to
10 impose absent a showing as to why we should not, after
11 the examination has proceeded almost to that time
12 period.

13 In our comments on the County's
14 cross-examination to date, we have taken into account
15 our belief, which we expressed on the record, that
16 LILCO's witnesses are simply giving answers that are
17 much too long, given the questions. If that continues,
18 we are going to take that into account in looking at the
19 time period.

20 We still believe that the examination by the
21 County was not designed as well as it could have been to
22 separate out the important from the unimportant. But in
23 looking at the total time period, we have taken that
24 into account and that is basically why we believe three
25 weeks is an appropriate time period, rather than two

1 weeks.

2 We do not view it as a total of five efficient
3 weeks. We think some time during the prior two weeks
4 was spent with long answers by the witnesses.

5 I will instruct counsel now for LILCO -- to
6 the extent the witnesses are present they are hearing it
7 directly -- to tell their witnesses to answer yes or no
8 wherever that is possible, and then as concise an
9 explanation as possible, can support the yes or no.
10 Where a yes or no is not possible, they can state why,
11 but it had better be good.

12 Frankly, the witnesses have taken over the
13 role of counsel on redirect well in advance of the
14 redirect. While some explanation is helpful, the
15 explanations have become redundant and cumulative,
16 almost, so that among ourselves we can predict what the
17 witness is going to say in explanation and our
18 prediction has been pretty highly correct.

19 LILCO has also expressed concern as to two of
20 its witnesses and the time period they are spending
21 here. As to Mr. Youngling, as I understand it an
22 accommodation has been worked out; is that correct?

23 MR. ELLIS: Well, I think that what Mr.
24 Lanpher stated in his pleading is that we are working
25 out what we are following. Let me also add that the

1 concern goes for all witnesses. They are all managers,
2 and those two were particularly important to the
3 progress of the plant as it is now going on.

4 Mr. Youngling is not here today and we will
5 avail ourselves of the opportunity to have him
6 supplement the transcript if it's appropriate.

7 JUDGE BRENNER: Well, the suggestion we saw, I
8 guess in one of the County's papers, is a good one.
9 That is, have him here when the focus is going to be on
10 operational QA if you believe you need him here. For
11 all we care, don't bring him, but if your witnesses
12 don't know the answers that's your problem. I think you
13 understand that.

14 And as to the other matter, if he sees
15 something in the transcript when he wasn't here and
16 wants to come in and supplement it, that's acceptable
17 also, on notice to the other parties as to what he is
18 going to supplement.

19 MR. ELLIS: As I'm sure the Board appreciates,
20 we can't always predict when questions are going to lead
21 to answers where Mr. Youngling might be useful. As it
22 turns out, in reading the transcript on Friday when he
23 wasn't there, it appears that his answers would have
24 been appropriate.

25 It becomes a little more difficult down here,

1 of course, because he is on Long Island. But we will
2 review the transcript and give notice to the County and
3 the Staff and the Board of those areas where Mr.
4 Youngling will supplement. My own view is that there
5 are a great many areas where he has a great deal to add
6 because of the importance of the startup program.

7 JUDGE BRENNER: Well, if you think he's going
8 to be supplementing a lot then you better have him here,
9 because you're going to get into your own time problem
10 here. You're going to have to make the judgment.

11 MR. ELLIS: Well, may I inquire of the Board
12 when the Board thinks it might return to Long Island?
13 That might help me make a decision.

14 JUDGE BRENNER: Not this month, and in
15 November -- we discussed it -- you will end up with less
16 hearing time if you go to Long Island at the beginning
17 of November.

18 MR. ELLIS: Well, I understand your remarks,
19 Judge Brenner, and we will have to consider whether he
20 should be here all the time or whether we can avail
21 ourselves of the other scheme of doing it.

22 JUDGE BRENNER: Let me back up. As I
23 understood the discussion on hearing location, LILCO had
24 no objection to holding the hearing here when we
25 discussed it, and Mr. Reveley was speaking for LILCO at

1 that time. Am I correct? Because I believe I gave
2 every party an opportunity to object and received
3 statements to the contrary.

4 MR. ELLIS: My recollection of that, Judge
5 Brenner, is that initially Mr. Reveley said no
6 objection, and then subsequently he came back and
7 amended that by indicating that the company would prefer
8 the hearings when possible to be on Long Island.

9 MR. LANPHER: Judge Brenner, my recollection
10 is that he said, so long as the LILCO panel was on the
11 stand he wanted it to be on Long Island. Wasn't that
12 what it was, Mr. Ellis?

13 MR. ELLIS: You may be right. I think so, and
14 Mr. Earley says that's right.

15 JUDGE BRENNER: Well, we will consider going
16 back to Long Island if you want to. You think about it
17 among the parties. But you're going to end up with less
18 hearing days on Long Island because of when we start and
19 when we break. And in addition, because of the holidays
20 during which the facilities we use there will be closed
21 in November, you're going to lose hearing days. For
22 example, you will lose Election Day and you will lose
23 Veterans Day. And if you lose Veterans Day, which is a
24 Thursday, I doubt the practicalities of staying around
25 for Friday.

1 So you decide and get back to us, and I want
2 to know what the company's position is.

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1 MR. ELLIS: All right. I understand that that
2 is in the context of whether we think Mr. Youngling is
3 going to be needed on a continuous basis or only on an
4 interim basis.

5 JUDGE BRENNER: Just think about it and tell
6 us one way or the other what you want because, frankly,
7 I am confused.

8 MR. ELLIS: Yes, sir.

9 JUDGE BRENNER: What you're telling us is
10 well, if you have the advantage of being here, you don't
11 mind being here. If you have the advantage of being
12 there, you don't mind being there. You make the
13 decision as to where you think you will have the
14 advantage, and I think you will agree with the Board
15 that the tradeoffs are such that there is little
16 additional advantage and perhaps even a disadvantage in
17 being in Long Island for this time period.

18 But you let us know one way or the other. I
19 want a definitive position this week -- as early this
20 week as possible.

21 MR. ELLIS: We will give it to you very soon,
22 Judge Brenner.

23 JUDGE BRENNER: All right. With respect to
24 Mr. Museler, based on the way he has participated on the
25 panel, I think the County's observation is correct.

1 There's no way they can separate out the questions.
2 They are not directing questions to him in an unusual
3 amount. He is just taking it upon himself to answer in
4 an unusual amount. It is understandable why some
5 questions he would want to do so.

6 As far as we are concerned, you can take him
7 off the panel too and use him where you want him, but
8 don't bring him back on redirect if you do that. It's
9 that simple.

10 MR. ELLIS: Obviously he is going to have to
11 be here on the panel, and we will keep him here.

12 JUDGE BRENNER: Then I don't understand why
13 you included that fact as part of your papers to suggest
14 that there would be times when he need not be here.

15 MR. ELLIS: As I recall, we included that in
16 our papers to point out that we needed the time limited
17 so that we could have the entire panel free. That was
18 our point. Our point was that we were proceeding. We
19 had over 550 findings. We were proceeding at 50
20 findings per week. It looked like we were going to be
21 ten weeks and we made the point to the Board that we
22 thought that was intolerable and unfair.

23 We had this pleading that was -- that now has,
24 as I understand it, with the exception of the FSAR
25 conformance portions -- this pleading which we received

1 on the eleventh, yesterday, which contains all of the
2 findings -- the pleading I am now holding in my hand.
3 It is this pleading that we contend should have been
4 their direct testimony, not that the Board made them do
5 it. They should have done it in the first place.

6 And with this in hand in September, I think it
7 would have been expedited and I was pointing out to the
8 Board that Mr. Museler does play an important role, a
9 vital role, on this panel, as we acknowledge. He also
10 plays a vital role at the plant and it makes it very
11 difficult for us.

12 JUDGE BRENNER: Well, there was the
13 implication in your motion that it was because we wanted
14 witnesses with direct knowledge of the subject matter, a
15 requirement which I do not deem to be unusual in
16 jurisprudence. That is, you have somebody with
17 knowledge of the facts present. He was here and if --
18 the implication of that being that if it was up to LILCO
19 he wouldn't be here.

20 MR. ELLIS: Well, I'm sorry for the
21 implication. He is a knowledgeable witness and we want
22 him to answer questions before the Board. He is vital
23 in this area and he will be here for the duration of the
24 QA testimony.

25 JUDGE BRENNER: Okay. Well, you can see where

1 I got the other inference. On page 4 of your motion, it
2 states: "In response to the Board's request that LILCO
3 present witnesses with direct knowledge of the subject
4 matter, Mr. Museler and Mr. Youngling were included as
5 witnesses."

6 So that's not the only reason they are here is
7 what you are telling me now.

8 MR. ELLIS: Well, the reason he's here is that
9 he does have knowledge. That is the reason he's here,
10 is that he does have knowledge and we do want him to be
11 here. We didn't want him to be here for a total of five
12 or ten weeks, but we did want him to be here for the QA
13 testimony, and he will be here for the entire QA
14 testimony, however long the Board deems that to be.

15 JUDGE BRENNER: Okay.

16 MR. ELLIS: Judge Brenner, may I inquire? If
17 it becomes particularly necessary on a day or two for
18 some reason, some test or some particular thing at the
19 plant -- I know that you just indicated that if we
20 didn't intend to have him here the whole time, he
21 couldn't be asked questions on redirect. Could we have
22 some relief from that if it turns out that there is a
23 day or a couple of days here and there where it might be
24 particularly critical for Mr. Museler to be at the
25 plant?

1 JUDGE BRENNER: Yes. We have attempted to
2 accommodate all the witnesses and my comments as to not
3 using him on redirect, as you stated, were solely if you
4 removed him entirely from the panel.

5 Try to work it out with the other parties and
6 we will try to accommodate you.

7 MR. ELLIS: Thank you, sir.

8 JUDGE BRENNER: Let me add one other fact. We
9 believe that we have been very generous in the
10 subsequent rounds of examination we have been permitting
11 throughout this hearing. That is, there is cross
12 examination. There is redirect. There is Board
13 questions, and then we have been very generous in
14 permitting in effect recross and then re-redirect and so
15 on.

16 We are going to keep a careful eye towards
17 those further rounds, not just in the QA area but on all
18 issues remaining before us, so that the subsequent
19 rounds are focused only on particularly important points
20 raised by the last round of questions. It will not be
21 sufficient to ask questions just because the subject
22 matter was touched on in the redirect or in Board
23 questions.

24 The subject matter has been open throughout
25 the cross period and all parties have been guilty of

1 this to some extent. I think it represents an
2 understandable caution on the part of parties to make
3 sure we have understood everything. At times it has
4 helped us to focus on a particular point, but also many
5 times it has simply repeated matters that we have
6 already appreciated previously.

7 So we ask the parties to be very diligent
8 about limiting those further rounds of examination.

9 I think that's all we need to discuss with
10 respect to the LILCO panel. Am I correct?

11 I want to turn to the prospective Staff and
12 County panels, if I am correct.

13 All right, with respect to the Staff panel,
14 Mr. Bordenick, we have been thinking about that subject
15 independent of your thoughts. You have obviously been
16 thinking about it also. What should be done initially
17 since there is more time before the Staff panel than had
18 been taken advantage of before the LILCO panel is for
19 the parties to discuss the matter. I don't know if
20 discussions have taken place to the point where there is
21 a breakdown in discussions or not.

22 Is that the case?

23 MR. BORDENICK: That's not the case, Judge
24 Brenner. We have not discussed the matter. I think the
25 principal reason for that is because the County has been

1 focusing on the LILCO panel and I think -- this is just
2 my own impression; I don't know whether the County would
3 agree with me or not -- I think the problem is going to
4 be that it's going to be difficult to discuss the Staff
5 panel as long as they are examining the County's panel.

6 MR. LANPHER: Assuming that there is still the
7 hiatus next week, which we were informed of by your
8 secretary the other day, Judge Brenner, there is
9 probably an opportunity -- not this week so much as next
10 week -- to have discussions.

11 JUDGE BRENNER: That's what I had in mind.
12 That is, these times periods when we're not in hearing
13 should be used, as they have been, we believe, in the
14 past by the parties to make the hearing time more
15 efficient, so that they are not day-for-day times out
16 from the hearing.

17 It's time next week during the recess in this
18 hearing to focus on what the cross examination will
19 cover of the Staff panel, particularly to avoid the
20 problem we have had here -- early identification of
21 documents and the approximate sequence in which they
22 will be used, and some indication of the factual context
23 of the documents, the purpose in using the documents.

24 And those discussions could include the
25 witnesses if the parties deem that as appropriate and

1 the experts for the County, and get an advanced focus on
2 what items will be asked about, what the witnesses think
3 about them, where they fit in. You can call it informal
4 discovery while the hearing is going on, if you will,
5 and those are just some possible suggestions.

6 Things should be taking place in discussions
7 among the parties to shorten the examination of the
8 Staff witnesses and certainly, to the fullest extent
9 practicable, preclude the need for long delays while the
10 witnesses look at documents that they haven't looked at
11 for a long time because they were not recently
12 highlighted.

13 The other side of the coin, Mr. Bordenick, is
14 the result of the examination to date should certainly
15 have begun to clue the Staff in and, through counsel,
16 its witnesses as to what documents they had better start
17 becoming familiar with and the angle of attack, so to
18 speak, of the County, so that it's not just one-sided.

19 Nevertheless, these bilateral discussions, or
20 trilateral, if it is appropriate, should take place. We
21 would like to try to set a time period for the
22 examination of the Staff's witnesses also, and then
23 ultimately a time period for the examination of the
24 County's witnesses, and we will be open to suggestions
25 as we approach the completion of the cross examination

1 of LILCO's witnesses to get an approximate time period.

2 We will inquire as to the progress of
3 discussions on identifying the approach on cross
4 examination of the Staff's witnesses by the County and
5 by LILCO also, as well as whether the documents have
6 been identified in the context, as we have required
7 here, of what factual subparts of the Contention they
8 will support.

9 So I will ask for that. Rather than October
10 25, we will ask for it at the beginning of our next
11 hearing session, which will probably be the morning of
12 October 26. So we will talk about that later on in the
13 week.

14 We have the County's motion before us to
15 supplement its witness panel. Are the parties prepared
16 to address that this morning, or would you rather take
17 another day or two?

18 MR. ELLIS: We are opposed to the motion and
19 we would like some additional time to consider it.

20 JUDGE BRENNER: Would Thursday be okay?

21 MR. ELLIS: That would be fine.

22 JUDGE BRENNER: All right. We would prefer a
23 brief written response, if you can manage that. But if
24 you cannot because of the logistics of the hearing, we
25 will allow an oral response on Thursday.

1 Is the Staff prepared to take a position on it
2 this morning?

3 MR. BORDENICK: Yes, I am, Judge Brenner. I
4 do not oppose the motion, although I am somewhat
5 concerned that it might be a foot-in-the-door type
6 situation. I have no objection so long as it is
7 understood that the witnesses to be added are adopting
8 testimony previously filed by Mr. Hubbard and they will
9 not seek to expand that testimony.

10 I am sure the Board will be cognizant of that
11 type of situation if it arises. But in summary, I don't
12 oppose the motion.

13 JUDGE BRENNER: Well, if we granted it -- and
14 I might as well say this now so LILCO can consider it in
15 formulating its response later this week -- if we
16 granted it, there is not going to be any further direct
17 testimony by the witnesses, nor was that requested by
18 the County's motion, as we understand it.

19 To the extent questions are asked for which
20 all witnesses provide information which directly respond
21 to the question but nevertheless adds information, so be
22 it. That's part of the nature of cross examination.

23 You'd better examine what we have done in this
24 hearing in response to requests from LILCO and the Staff
25 to supplement panels when you take your position

1 opposing the County's request and differentiate the
2 County's request from your request.

3 That is all we had in the way of preliminary
4 matters. I don't know if the parties are keyed in as to
5 how the cross examination is going to proceed now and we
6 will inquire as to that.

7 Mr. Lanpher, did you have something else
8 first?

9 MR. LANPHER: I have two very brief matters.
10 I delivered to the Board a document -- and the
11 parties -- a document entitled "Notification of
12 Corrections to Suffolk County Exhibit 51 and 56," and
13 over the recess we have taken the reporter's copies of
14 those exhibits and have inserted pages in that.

15 This memorialized what we did and I gave the
16 reporter a copy. I'm not sure whether the Board would
17 want to bind a copy of this in or leave it up to you. I
18 just wanted it to be clear that we have done that. We
19 will be serving that independently.

20 JUDGE BRENNER: You will be serving these
21 corrections to the Board and the parties independently
22 in the near future? Is that it?

23 MR. LANPHER: I think my secretary is doing it
24 today.

25 JUDGE BRENNER: All right. I don't think we

1 need to keep this with the exhibits as long as the
2 corrections are made. We may give you back our copies
3 of the exhibits and have you fix them. We'll see.

4 MR. LANPHER: The second matter I wanted to
5 raise was in the form of inquiry what our daily hearing
6 schedule, in particular Friday, will be now that we are
7 in Bethesda, or for the period of time we are in
8 Bethesda -- just for planning purposes.

9 JUDGE BRENNER: Why are you asking?

10 MR. LANPHER: Well, my suggestion would be
11 that when we were in Long Island we adjourned at 2:30 on
12 Friday. While we have west coast problems from
13 Washington also, I think it is substantially easier to
14 get to the airport than it is to get to JFK, and so I
15 think we could run to about 4:00 on Fridays.

16 I must say that given a time limit I would
17 like to make the most of the time.

18 JUDGE BRENNER: We were contemplating running
19 essentially until 5:00, unless there were particular
20 problems. We are willing to adjust it somewhat after
21 you get keyed into the flight schedules and let us
22 know. Now when I say "somewhat", somewhere around 4:00
23 would be acceptable, but you check on what the later
24 flights are also.

25 MR. ELLIS: Judge Brenner, if I may at this

1 point, I think in addition to the flight schedules from
2 California, while it may be easy here, we have a very
3 substantial number of people here from Boston and Long
4 Island who have to get home on Friday afternoon, and I
5 would hope that that could be taken into account as
6 well.

7 JUDGE BRENNER: Why don't you all check the
8 flight schedules and let us know? We were hoping to be
9 able to run later if we were here, but we are flexible
10 if you tell us about particular problems.

11 MR. ELLIS: Thank you, Judge.

12 MR. BORDENICK: Judge Brenner, I had one minor
13 matter. You mentioned earlier that later this week the
14 Board would be inquiring into the status of the Staff's
15 review, which we are certainly prepared to address.
16 However, I would appreciate it if you would give me at
17 least an hour's notice so I could get the requisite
18 people here.

19 JUDGE BRENNER: Okay.

20 MR. ELLIS: Judge Brenner, one last thing, if
21 I may. So that we are all on the same wavelength, do I
22 understand correctly that the pleading that was filed on
23 the eleventh of October is, given all the flurry of
24 documents that have passed, is the final designation of
25 findings and audits that the Board is -- and the County

1 are pursuing?

2 It is this thick document that was delivered
3 yesterday.

4 JUDGE BRENNER: I want to look at one other
5 thing. Well, as modified by the other letter of October
6 11, which I presume you do not object to --

7 MR. ELLIS: No. That's the one where he
8 deletes items already designated. Now we always welcome
9 deletions, but when they come the night before the
10 hearing and we are already prepared for them, there is
11 some work that does go down the drain. We welcome
12 deletions and we welcome them sooner rather than later.

13 JUDGE BRENNER: I tell you what. If you think
14 you had good answers to the ones he deleted, let him ask
15 you off the record. If he doesn't want to ask on the
16 record, we don't need to hear it. That's our
17 understanding, Mr. Lanpher, that this is now the
18 submittal as to the examination based on the particular
19 findings in the documents cited.

20 I hesitate to use the term "audits" because
21 they may not all be technically audits, but they are all
22 on that vein. This is not to the exclusion of the
23 County wishing at any time it likes now, since we have
24 imposed an overall time limit of returning to the cross
25 examination that it had first embarked upon of direct

1 testimony, which County also makes clear it is not
2 abandoning, and it was never our intention, as discussed
3 several times, for the County to abandon it.

4 It was our own view that it was not the most
5 productive of the possible courses of examination, but
6 because of this time period we are not going to jump in
7 any longer in the order of the County's cross
8 examination. The County will move itself to do what it
9 thinks is most important in the priority of use in the
10 event it gets cut off after three weeks.

11 Is that a fair summary of the situation, Mr.
12 Lanpher?

13 MR. LANPHER: Judge Brenner, in what we call
14 the pattern audit-related examination, I think this is,
15 so far as I know, a complete listing. That pleading,
16 with the exception that it doesn't include the E&DCR
17 stuff that is in the October 11 letter, and subject to
18 my opportunity at the first chance to review this in
19 light of some comments that you made this morning about
20 making sure we focus on what appears to be most
21 important, I'm not intending to add anything more here
22 on these and I am hopeful that this pleading can serve,
23 frankly, to expedite, and we will just have to see as
24 soon as we get started on them.

25 JUDGE BRENNER: Mr. Ellis, did you want to add

1 something?

2 MR. ELLIS: Are there documents other than for
3 so-called pattern testimony that we are not aware of?
4 If there are, I think we ought to be made aware of those
5 so that we can prepare for those. I understand Mr.
6 Lanpher's reservation of rights. That's the same
7 reservation he indicated each time he excluded a group
8 of documents.

9 I hope that is not going to be a big door.

10 JUDGE BRENNER: Well, he actually didn't state
11 the reservation that you probably have in mind but which
12 we have permitted, as recognized by LILCO's motion also,
13 and as stated explicitly. That is, where a document
14 suddenly becomes important because of a particular
15 answer of a witness and the document would then be
16 needed to impeach what the witness is stating, we would
17 let him use it, even though it wasn't previously
18 designated.

19 But beyond that, these are the documents and
20 we're not going to add to them at all. What about
21 beyond the pattern examination, Mr. Lanpher?

22 MR. LANPHER: Judge Brenner, I previously
23 advised LILCO what I was intending to use beyond the
24 pattern examination. To be quite honest, my time has
25 been taken up trying to put together these pleadings and

1 I'm not intending to go back to my cross plan right
2 now.

3 I am intending to try, as efficiently as
4 possible, without any prediction of precise time, to
5 complete this pattern examination. What I will commit
6 to doing is certainly very early next week review the
7 previous designations that have been made to LILCO
8 relating to all the rest of their testimony and confirm
9 to them that they are accurate.

10 There may be some deletions, particularly in
11 light of the examination that we have pursued or will
12 have pursued by that time. There may be some additions,
13 although I don't believe so. I think we have identified
14 those before I will just have to look at that.

15 It appears to me there is one thing that the
16 Board has not commented upon, and that was the final
17 footnote of the pleading that we filed yesterday.

18 JUDGE BRENNER: I'm glad you reminded me.
19 Footnote 7. We had intended to comment on it.

20 MR. LANPHER: Fine. I won't say any more. I
21 will wait for your comments related to that. That would
22 be the only other aspect that I would like to raise.

23 JUDGE BRENNER: As I recall, it was on page 11
24 of your motion.

25 MR. LANPHER: Of our response.

1 JUDGE BRENNER: All right. Thank you for
2 reminding me, because we had intended to come to it. We
3 agreed that the matters requested for that footnote can
4 be useful, not necessarily as to all the attachments in
5 LILCO's testimony. We can think of at least one
6 attachment for which that would be useful, but we won't
7 tell you which one, because we don't want to limit it to
8 that one. I guess in the first instance we would like
9 LILCO to consider it and to come back and tell us which
10 attachments they would comply with the spirit of the
11 footnote. If you have problems with the particular way
12 the matters requested in the footnote is phrased, we
13 will consider that also.

14 At least one attachment that we have in mind,
15 and this was without going back to reviewing all your
16 attachments this morning, and that is why I emphasized,
17 do not feel that that is the only one. It may or may
18 not be. You have one attachment that responds to the
19 appendix of the contention. Your testimony states, for
20 details as to these findings in various I&E reports and
21 other similar documents, see Attachment so and so. I
22 forget the number of your testimony, and that attachment
23 is essentially nothing more than a raw compilation of
24 the correspondence of LILCO responding to those items.

25 That is the type of thing that can benefit

1 greatly from the spirit of what Footnote 7 and the
2 county's response is requesting, and that is some
3 organized assembling keyed to the appendix in the
4 contention, showing what was done in LILCO's view and
5 the general findings that we draw from it.

6 Here again, we use the term "findings" similar
7 to the way we have used it all the way along, not for
8 detailed proposed findings of fact, but something to
9 assist us better in seeing the context, similar to what
10 you might put in a trial brief.

11 MR. ELLIS: Judge Brenner, we will look at
12 these. We just received this at 9:30 this morning. We
13 did look -- Mr. Earley and I looked at three or four of
14 them, and we thought they were amply covered right in
15 the testimony where it indicated -- I think we looked at
16 17 or one of those involving design control, and it
17 stated what the form was included for.

18 JUDGE BRENNER: Some of them are simply
19 examples of forms, and I don't think those are the
20 attachments to which this footnote is directed. In any
21 event, we wouldn't expect you to apply it to such
22 attachments, but I gave the example of one attachment
23 which is not in that category, and there may be others.

24 I thought of suggesting others offhand, but I
25 won't. We haven't had a chance to look at them as

1 specifically as we would like also in the context of
2 that footnote.

3 MR. ELLIS: Judge Brenner, may I return for a
4 moment to the documents outside pattern?

5 JUDGE BRENNER: Yes.

6 MR. ELLIS: Mr. Lanpher indicated that he had
7 already given us some designation. He may have in mind
8 something more specific than I. A September 7th letter
9 indicated that they had received two shipments of
10 documents pursuant to the county's subpoena request, and
11 that he expected most of these documents would be used.
12 Am I correct in understanding that we can expect and the
13 Board expects a more precise definition of the documents
14 to be used in the non-pattern area?

15 JUDGE BRENNER: Mr. Lanpher?

16 MR. LANPHER: As I said, what I need is an
17 opportunity over this weekend, before then if there is
18 an opportunity, to go through that, and while I am not
19 providing summaries as I did with regard to the audit
20 findings, I will identify the precise documents that we
21 are intending to use, and if they are large documents, I
22 will identify the portions that we are intending to use,
23 and as I said before, for instance, my recollection is,
24 the notes of conference, I had indicated we had a large
25 number of those. I was not going to be interrogating

1 the witnesses relating to specific notes of conference,
2 but rather as to the process by which those notes of
3 conference are used, and I will attempt to be even more
4 definite after I have a chance to go over them again.

5 JUDGE BRENNER: Well, we are still talking
6 about a lot of documents. As I recall, those two
7 responses to subpoenas. Am I right?

8 MR. LANPHER: There are a lot of documents,
9 Judge Brenner. Frankly, with the time limit, and
10 factoring in the time that is necessary for my colleague
11 to pursue operating QA and listening to the things the
12 Board said this morning, I am going to have to take a
13 look at everything that I have designated, not only in
14 the pattern area, but in other areas, to ensure that I
15 do what is in the best interest of my client.

16 And so, I am going to have to look at this
17 again. I am very worried about making commitments on
18 the record, frankly, because they have come back to
19 haunt me, and I am going to have to have a chance to
20 reflect. Then I will get back to LILCO. I will do it
21 in writing and serve the Board as well.

22 JUDGE BRENNER: All right. Get back to us
23 this week as to when you would provide that. Bear in
24 mind, I think both parties should have an equal benefit
25 of the break next week. That is, you use some of the

1 break to put this together, but get it to them so that
2 they can use some of the break to review it, and I guess
3 Wednesday, being the middle day of the break,
4 approximately, would be the appropriate day, a week from
5 this Wednesday.

6 In addition, indicate to the extent you can,
7 and you should be able to do it fully, what you would
8 use the document or documents for, similar to what we
9 have gotten on these documents. So where there is a
10 group of them, such as the notes of conference, you can
11 group them together and then explain, as you did here,
12 that your point is the process rather than the
13 particular detail, and identify the portions of each
14 document you will use, even where they are not lengthy,
15 because even though a portion of a document is not
16 voluminous, it could lead to an extensive refreshing of
17 recollection by the witnesses if they think you are
18 going to ask about that one sentence when in fact you
19 are going to ask about another sentence.

20 Consistent with what we have been doing, the
21 time would have come very rapidly when this would have
22 been required anyway, so we understand and appreciate
23 the attention to the pattern documents that you have had
24 to have recently, and we expect the attention to shift
25 beyond, so that we are ahead of the game from now on,

1 instead of constantly having to back up as we have done
2 with the pattern documents.

3 So, we will require that to be received by
4 LILCO and the staff no later than Wednesday, October
5 20th, and the written submission should not take the
6 place of discussions also, so that each of the parties
7 understand what is going to be done.

8 Did you have a comment, Mr. Lanpher?

9 MR. LANPHER: Let me raise it. I was going to
10 raise it with the staff and with LILCO, but maybe it is
11 best to do it right now. I believe Judge Morris, in the
12 first phase of the hearing, had indicated an interest in
13 the Teledyne and Torrey Pines reports. My recollection
14 is that those final reports were due by about the 1st of
15 October. It would be very useful to get those as early
16 as possible, so that we can determine what, if any,
17 portions would need to be designated.

18 JUDGE BRENNER: Mr. Ellis, what is the status
19 of those reports?

20 MR. ELLIS: I don't know. I will find out.

21 JUDGE BRENNER: All right. I think we are
22 ready to resume cross examination. There is one
23 problem. If the filings that we now have from the
24 county had been received in advance of yesterday or this
25 morning, the examination, we believe, could have been

1 much more expeditious, that is, the witnesses being able
2 to take a look at what commonalities the county has in
3 mind and being able to respond to some of that
4 necessarily might involve some details but hopefully not
5 all the details that would have been required had these
6 findings not been included.

7 In fact, had it been done when we might have
8 hoped, we perhaps could have had even a written response
9 which could have formed the basis for further testimony
10 of one form or another, stipulated response to cross
11 upon which the county would be entitled to inquire
12 further, or even some sort of rebuttal in anticipation
13 of the fact that this would have been the cross
14 examination.

15 None of this has been able to take place, and
16 I think the best thing to do is just to proceed with the
17 examination, and that is one reason we have applied the
18 time period as an overall control. The parties, I
19 think, might be advised, and this is up to the parties,
20 to keep talking in terms of being able to develop some
21 sort of more focused questioning and response along the
22 lines we had hoped, but instead of requiring that, we
23 have adopted the alternative of the other measures that
24 we have taken in combination, but don't forget about
25 just because we are proceeding is the message I want to

1 leave.

2 MR. LANPHER: Judge Brenner, I acknowledge
3 that the E&DCR summary, which we will turn to first,
4 since we want to complete that area, was not provided
5 until yesterday. The storage related summaries were
6 provided last week. I think I mailed them out last
7 Wednesday, so that is the area I am turning to next, and
8 hopefully the witnesses will have had an opportunity to
9 review those materials.

10 JUDGE BRENNER: But you didn't provide the
11 relief which we granted of Part 2, if you will, of the
12 LIICO motion prior to this morning, did you?

13 MR. LANPHER: My opinion is that I think that
14 I did in my letter of October 6th which is attached to
15 the response which we filed this morning. We came close
16 to that, though we did not go the particular Appendix B
17 criteria. We identified, I believe, in that letter what
18 our basic theory was in terms of pattern related to the
19 storage-related documents.

20 JUDGE BRENNER: All right. I am not
21 personally familiar enough with the contents of your
22 October 6th letter to agree or disagree with you.

23 MR. LANPHER: It is on Pages 6 through 9 of
24 that latter, if during the break you want to look at
25 it.

1 JUDGE BRENNER: My general comments, however,
2 still stand that there are still more that can be done
3 which, as we have discussed a number of times, we would
4 have hoped had been done by now, and just because we
5 have got a handle on things so that we can proceed, do
6 not abandon these other possible approaches. There
7 should be incentive on both sides now. There was always
8 incentive on both sides, and now there should be even
9 more incentive on both sides to attempt some further
10 accommodations, so that individual findings can be
11 handled on other than an individual finding basis.

12 MR. ELLIS: Judge Brenner, a last point. I
13 still don't know what the status of Torrey Pines and
14 Teledyne are, but I do know that a status was mailed to
15 the parties and the Board, I guess, on Friday. I am
16 advised that it was mailed on Friday and you should have
17 it today.

18 JUDGE BRENNER: All right. We don't have it
19 yet. Maybe you can get ahold of a copy and give it to
20 us rather than trusting the mails.

21 Rather than adjourning early for lunch, we
22 will take a short break now of five minutes so that
23 everybody can get in place, including the witnesses, and
24 then we will attempt to run for about an hour.

25 (Whereupon, a brief recess was taken.)

1 JUDGE BRENNER: All right. Back on the
2 record.

3 Before we continue the county's cross
4 examination, Judge Carpenter wanted to say something on
5 the subject of the QA filings we have received.

6 JUDGE CARPENTER: We have spent a lot of time
7 on preliminary matters this morning. I hate to take any
8 more time, but I was there for a good many weeks, and I
9 would like to impose on you to satisfy my curiosity.

10 To be specific, looking at the Attachment 3 to
11 the county's letter of October the 6th, which has to do
12 with the storage problems -- the caption is Storage
13 Problems Particularly Related to Covering and Capping.
14 I would like to ask if the parties have considered the
15 desirability of looking at such listing and stipulating
16 to the veracity of that listing. Clearly, the matter of
17 interpreting the significance of each of those items is
18 what this is all about, but I am still perplexed about
19 whether we are proceeding in an efficient manner to
20 develop such a listing through cross examination rather
21 than stipulating to it.

22 It would be very helpful to me if I could get
23 some feeling for why the parties are unable to do that.

24 MR. ELLIS: Stipulating the particular audit
25 finding I don't think advances -- as you say, Judge

1 Carpenter, we have to look at each finding and to
2 explain it. When Mr. Lanpher uses that finding, it is
3 in effect brought before the Board just as a
4 stipulation. We cannot stipulate that the finding by
5 itself is self-explanatory, and therefore it has to be
6 discussed, and that is why we have to go through the
7 process.

8 There is no question but that the audits came
9 from our files. They are our audits. He is going to
10 introduce portions of them into the record. But
11 stipulating, if all we do is stipulated that D-8 on a
12 particular page says this, that hasn't advanced the
13 cause at all, because we still have to talk about what
14 D-8 means, and what happened with respect to D-8. So we
15 haven't advanced or streamlined the situation at all.
16 The real dispute is going to be whether they have
17 fastened on anything that is significant that hasn't
18 been fixed, and that is what we have to get into.

19 MR. LANPHER: Judge Carpenter, if I could.

20 JUDGE CARPENTER: Please.

21 MR. LANPHER: I disagree with Mr. Ellis on
22 that, and this is probably as good a time as any to get
23 it out. I am hopeful, and I think it will be clear by
24 the examination I pursue in the initial area, I am
25 hopeful to be able to get an agreement that my summaries

1 are basically accurate, we know what we are talking
2 about, and the findings say what they way.

3 My view, or the county's view, I should say,
4 is that where repetitive problems are demonstrated,
5 those findings in and of themselves are very important.
6 Now, the parties -- the witnesses may feel that they
7 have to supply additional explanation to explain why
8 they are not significant or something like that. I am
9 going to try to expedite my examination. I am hopeful
10 of not going through these audit by audit, finding by
11 finding. Mr. Ellis may need to on direct. I am hopeful
12 not to have to do that, because I think a pattern is
13 established without that necessity, and if we can
14 stipulate to the accuracy of these summaries, or, more
15 important, to the underlying findings, that the findings
16 say what they say, and this is really a road map to the
17 underlying findings -- this isn't, of course, the best
18 evidence -- but my summaries were to key them into
19 exactly what we are focusing on. If we can stipulate as
20 to what those say, and stipulate those into the record,
21 and I think this is helpful in showing what we consider
22 to be a pattern, the county thinks that that is
23 important.

24 If we are going to pursue that beyond,
25 materially beyond with explanations, then I think we

1 should maybe come back to a statement that Judge Brenner
2 made and which we alluded to in our filings, that may be
3 we should get the entire audit reports. If we are
4 having so much explanation, maybe the best would be to
5 have those entire reports where the corrective action,
6 preventive action, or whatever is documented.

7 MR. ELLIS: I think we are still coming back to
8 having to discuss the particular finding. Let me take
9 another point. Mr. Lanpher says that just because there
10 are several findings that appear to be related, that
11 that is a pattern, and then he goes on to call that a QA
12 breakdown. Well, I do want to make clear that we don't
13 concede and we don't agree, we disagree that that is
14 anything remotely resembling a QA breakdown, and in
15 order to understand our position on that, and in order
16 for Mr. Lanpher to make his case if he is going to, he
17 has to get into the substance of the findings as well.

18 Let's take as an example -- I'm not sure what
19 the testimony will ultimately show, but with respect to
20 the capping, I think the testimony when we get into
21 that, if we simply take a number of findings about
22 capping, I think it is important to know what capping is
23 and what happened on each one, and I think it will
24 become clear to the Board that is not terribly
25 significant at all, and I think that is what has

1 happened with respect to the past findings, such as
2 where people iin't put their names, or they signed
3 their names or their initials, or the fact that there
4 was actual traceability but not ready traceability. We
5 spent a good deal of time on that.

6 JUDGE CARPENTER: Let me interrupt you, if I
7 may, to come back to specifics. You have picked the
8 example of capping. We are not focusing on these
9 because of giving priority to them, but just so it's
10 clear. There is a good example why the issue, speaking
11 just for myself, will be that question of how
12 significant it is, but assuming that argument can be
13 made in general rather than piece of pipe by piece of
14 pipe by piece of pipe, that is where I am trying to look
15 for efficiency, getting the issue of the basic
16 disagreement clearly stated, not with respect to
17 individual instances, but the general significance, and
18 the difference of interpretation of the general
19 significance.

20 That to me is the issue that the contention
21 speaks to, not whether pieces of pipe are left uncapped
22 or not. You see, I am trying to think of what our two
23 weeks on Long Island accomplished in the sense of
24 calculations, whether or not where we got to at the end
25 of that couldn't have been gotten to more efficiently,

1 that is my question, by agreeing that, yes, these
2 reports did say the following, and then simply focus on
3 the significance of what those reports stated.

4 MR. ELLIS: Perhaps -- I am naturally leary
5 about stipulating a statement without the ability to
6 explain it. And you see, if we did stipulate, and then
7 we on redirect went through each finding, then you would
8 have recross on each finding, and I think we are
9 proceeding. Perhaps if Mr. Lanpher wants to take them
10 in groups this morning, that might work. Your point on
11 capping, I think, is well taken, and perhaps the
12 witnesses have been able to group some of these, and we
13 will be able to address them in groups. We have tried
14 to do that.

15 When we got this material, we began looking at
16 it in terms of doing that, but recall now that most of
17 this material has arrived just this Thursday, Friday,
18 and Saturday, and today, or yesterday, I should say. So
19 we are trying to look at this and trying to group it to
20 be able to address the significance of large groups.

21 The point of stipulating -- maybe another way
22 to do it is this way. I think that Mr. Lanpher could
23 offer to the Board -- it would not be probative, but he
24 could offer to the Board the actual documents where it
25 says all this, or he can offer this. We don't consider

1 that that is probative, and we would object to it, and
2 we think the witnesses ought to be given an opportunity
3 either to describe it or to explain it, and perhaps they
4 can do it in groups. I think they can, Judge
5 Carpenter. I think they can do it in groups.

6 JUDGE BRENNER: All right. Let's proceed with
7 the cross examination. I think that you have not
8 exhausted, you being all the parties, the possibilities
9 for partial groupings and then examination. Certainly
10 the written documents need clarification and explanation
11 of the witnesses, but Judge Carpenter's point, which we
12 all agree with, is that it doesn't have to be detailed
13 item by detailed item. Things can be grouped and then
14 inquired into.

15 One of the things we could have seen, although
16 without requiring it, would have been the responses to
17 the audit findings among other things, so don't abandon
18 other possibilities of a partial grouping and then
19 having the witnesses being asked about all of them
20 together. Now, if the answer is, you have to look at
21 each one individually, then that is LILCO's position,
22 and so be it, but at least the attempt will have been
23 made.

24 MR. ELLIS: We are going to make that
25 attempt.

1 JUDGE BRENNER: I hope the witnesses were
2 either present or heard through counsel what I said
3 earlier about your direct answers to questions. Where
4 the question says, does this say this, I don't want a
5 long-winded explanation as to what it means. The answer
6 is yes or no. If you have an explanation, you can add
7 it briefly in terms of explaining it in the whole
8 context of the importance of the audit findings, do that
9 on redirect.

10 I want yes and no as a first word out of the
11 witness's mouth, one or the other, unless that is
12 impossible. We have been going through the transcripts,
13 and it is just a mess in terms of trying to pull the
14 answers together to the questions. Quid pro quo for
15 that, Mr. Lanpher, is, keep that in mind as you are
16 phrasing the questions, and if a witness wanted to add
17 something, I want it to be an additional answer to the
18 question, not a long explanation of the total process.

19 MR. LANPHER: Judge Brenner, I would like to
20 start by having several things marked for
21 identification, and I passed out two things during the
22 break, and I omitted passing out a third. Mr. Hubbard
23 is doing that now.

24 First, I would like to have marked, since we
25 will be referring to it, as Suffolk County Exhibit 61

1 for identification the three-page Courter E&DCR
2 deficiency summary which was referred to before. This
3 was prepared by my office.

4 (The document referred to
5 was marked for
6 identification as Suffolk
7 County Exhibit Number
8 61.)

9 MR. LANPHER: I would like to have marked as
10 Suffolk County Exhibit 62 for identification LILCO Field
11 Audit 970, dated July 12, 1979.

12 (The document referred to
13 was marked for
14 identification as Suffolk
15 County Exhibit Number
16 62.)

17 MR. LANPHER: And I would like to have marked
18 as Suffolk County Exhibit 63 for identification a
19 document which contains certain LILCO quarterly reports
20 to management beginning with May 4, 1978. There are 12
21 of them -- it is not all of them -- up through December
22 3, 1981. I will note, some of these we are planning to
23 use in the E&DCR area are referenced that some of these
24 be used in other areas of examination, but we have
25 bound them all in one place.

1 JUDGE BRENNER: All right. They will be so
2 marked, just to make sure that the documents are
3 accurate.

4 (The document referred to
5 was marked for
6 identification as Suffolk
7 County Exhibit Number
8 63.)

9 JUDGE BRENNER: As to Exhibit 63 for
10 identification, all the quarterly reports listed on the
11 first page entitled Index are in their entirety included
12 in the exhibit?

13 MR. LANPHER: No, it is just the quarterly
14 reports of management have a memorandum, I believe, in
15 each case by Mr. Gerecke, and then attached to that
16 memorandum is the details about many activities that
17 have been going on during that previous quarter. The
18 only thing that is attached is the memorandum of what
19 this exhibit consists of.

20 JUDGE BRENNER: All right.

21 MR. ELLIS: Judge Brenner, with respect to
22 Suffolk County Number 61, I just am looking at it, and
23 it strikes me that there may well be some repetitive
24 questions and testimony since we have been over Courter
25 matters in some detail already. Are these new items,

1 may I inquire?

2 MR. LANPHER: The answer is, I believe they
3 are. I think the proper way to proceed is with my
4 questions. Certainly some of these audit reports will
5 be used, and I will be frank, I'll make an effort, as I
6 did before when I went through some of these audit
7 reports, not to ask questions about Courter because I
8 had it designated as a separate category later.

9 I believe some of the Board's questions got us
10 into that, and I am going to hopefully avoid
11 repetition. I am sorry if there is some.

12 JUDGE BRENNER: Well, all right. For now,
13 let's proceed. It is his three weeks, unless he shows
14 us a reason to change it, and that is the reason we are
15 going to give him a lot of leeway.

16 Exhibit 61, as I have it, consists of three
17 pages, and these are the summaries prepared by the
18 county or its counsel, correct?

19 MR. LANPHER: Yes, sir. And Exhibit 62 is
20 Field Audit 970, the same format as the previous field
21 audits that we presented to the Board.

22 JUDGE BRENNER: And you did identify it by
23 date. I have three pages. Is that the entire exhibit?

24 MR. LANPHER: Yes.

25 JUDGE BRENNER: Okay, why don't we proceed?

1 MR. LANPHER: Thank you.

2 Whereupon,

3 T. TRACY ARRINGTON,
4 FREDERICK B. BALDWIN,
5 WILLIAM M. EIFERT,
6 T. FRANK GERECKE,
7 JOSEPH M. KELLY,
8 ARTHUR R. MULLER,
9 DONALD G. LONG
10 and WILLIAM J. MUSELER,

11 the witnesses on the stand at the time of recess, having
12 been previously duly sworn, resumed the stand, and were
13 examined and testified further as follows:

14 CONTINUED CROSS EXAMINATION ON BEHALF OF SUFFOLK COUNTY

15 BY MR. LANPHER:

16 Q Gentlemen, have you had an opportunity to
17 review the audit findings which are identified in
18 Suffolk County Exhibit 61? That is the exhibit which is
19 entitled Courter E&DCR Deficiencies. Have you had an
20 opportunity to review those findings? And by that I
21 include the quarterly reports, the portions of those
22 quarterly reports which are identified.

23 A (WITNESS KELLY) Yes.

24 Q Mr. Kelly, would you agree that the findings,
25 and that includes the quarterly reports again, reflect

1 that Courter had E&DCR related problems between the time
2 period of November, approximately November, 1977,
3 through at least June of 1981?

4 A (WITNESS KELLY) No, I would not.

5 Q Mr. Kelly, would you agree that Field Audit
6 654, dated November, 1977, identifies Courter-related
7 E&DCR problems?

8 A (WITNESS KELLY) No, I would not. Those
9 specific documents that were reviewed during that audit,
10 yes, there was a problem with some Courter documents.

11 Q Mr. Kelly or Mr. Arrington, would you agree
12 that in field quality control audit 38, dated June,
13 1981, Courter-related E&DCR problems were identified?

14 A (WITNESS ARRINGTON) Could you give us a
15 minute, please?

16 (Pause.)

17 A (WITNESS ARRINGTON) Mr. Lanpher, there were
18 some deficiencies in logging related to that.

19 Q Related to Courter?

20 A (WITNESS ARRINGTON) Yes.

21 Q And that was in June of 1981? The audit
22 report date was in June, 1981, correct?

23 A (WITNESS ARRINGTON) The report date was,
24 yes. The audit was in May of '81.

25 A (WITNESS BALDWIN) Mr. Lanpher, could I add

1 something there?

2 Q Yes.

3 A (WITNESS BALDWIN) In reviewing this
4 particular audit, FQC 38, I think it would be fruitful
5 to bring to light that in reviewing the backup
6 documentation, it was indicated that the E&DCR's were
7 there. The fact that we had a deficiency in the proper
8 placement in that they were in file cabinets and boxes
9 is true, but the E&DCR's were in the area. I just
10 wanted to add that.

11 Q Would you agree, Mr. Baldwin, that the E&DCR's
12 were not filed in accordance with requirements?

13 A (WITNESS BALDWIN) Yes. But they were within
14 the area, as I stated.

15 Q The procedures or the requirements require a
16 particular kind of filing, however. Correct?

17 A (WITNESS BALDWIN) That's correct.

18 Q Gentlemen, have you had an opportunity to
19 review the summaries of audits as depicted in Suffolk
20 County Exhibit 61, the descriptions?

21 A (WITNESS KELLY) Judge Brenner, we only got
22 this yesterday. I believe this was received only
23 yesterday.

24 MR. LANPHER: My question was if they had an
25 opportunity. Maybe they have.

1 JUDGE BRENNER: That is what I was going to
2 say, except I would have said it more moderately.

3 MR. LANPHER: I am sorry.

4 WITNESS KELLY: Not in any great detail.

5 BY MR. LANPHER: (Resuming)

6 Q From the review you have performed, do you
7 have any reason to disagree with the description
8 portions as relates to the particular audit findings in
9 the quarterly reports? Have you identified any
10 inaccuracies that you believe are material?

11 A (WITNESS ABRINGTON) Mr. Lanpher, speaking for
12 the field quality control audits, we have not reviewed
13 the description that you have provided us with with
14 regard to the observation itself, because we didn't get
15 this until yesterday, late.

16 A (WITNESS KELLY) Likewise, to go through and
17 say specifically that every single figure here and
18 sentence is correct, we haven't had the time to do that
19 in detail to agree.

20 A (WITNESS MUSELER) Mr. Lanpher, if we look at
21 a couple of the specific audit findings you are talking
22 about, we do have reason to disagree with your
23 construction of the findings. Not that your words are
24 really incorrect, but for example, field audit 654,
25 audit finding 6.4 -- 4.6, I am sorry, you characterize,

1 and I believe we discussed this in the previous
2 hearings, that some of the E&DCR's were missing, and
3 what the audit finding really says is that the E&DCR's
4 in this particular case did not -- were not listed on
5 the front page of the specification. We discussed
6 this. As a matter of fact, in these particular audit
7 findings, 4.6 and 4.7, they were specifically covered in
8 Group A-1. We covered that, the difference in the
9 meaning of the words at that time, but one of the things
10 you asked was, do we have reason to disagree with the
11 characterization.

12 In the case of 4.6 and 4.7 we do disagree with
13 the characterization, because the audit findings don't
14 say that the E&DCR's were missing. They do say that the
15 E&DCR's were not noted or logged on the specification
16 sheets in the case of 4.6 and that the E&DCR's were not
17 listed on the drawings, written on the drawings in the
18 case of 4.7. The finding was not that the E&DCR's were
19 missing. As we said in the past, we believe those
20 E&DCR's were in the hands of the people who needed them
21 to do the work, but that is just a specific response to
22 a question on, is there anything that we would disagree
23 with in this particular piece of paper.

24 JUDGE BRENNER: Mr. Lanpher, excuse me. Mr.
25 Museler, why don't you try your mike?

1 (Whereupon, a discussion was held off the
2 record.)

3 BY MR. LANPHER: (Resuming)

4 Q So the record is clear, field audit 654 has
5 previously been marked as Suffolk County Exhibit 57 for
6 identification. Do you have a copy of that field audit,
7 Mr. Museler?

8 A (WITNESS MUSELER) Yes, sir.

9 Q That finding, 4.6, that you were referring to,
10 Mr. Museler, that finding does state that E&DCR's, 39.4
11 percent of the E&DCR's applicable to the Courter
12 specifications and procedures which were reviewed were
13 missing, correct?

14 A (WITNESS MUSELER) It does. As I said, the
15 finding does use the word missing, and as we discussed
16 several weeks ago, if you read the finding, it says that
17 the copies of the specifications were not prefaced by
18 all their pertinent E&DCR's, and then it goes on to the
19 statistics. They were not prefaced, so the word missing
20 has to be interpreted in the context of the audit
21 finding, which is that they were not listed as
22 required.

23 However, the E&DCR's, the documents that were
24 needed to be used in order to perform the work, were not
25 missing, so I assume this is intended to be a summary

1 document, not just -- or a characterization of what the
2 findings mean, whether they are important or not, and in
3 that context, the way this is worded, since it leaves
4 out -- the summary doesn't describe, as the audit
5 finding does, that what the auditor found was that the
6 specifications were not prefaced by their own pertinent
7 E&DCR's. This document just says they were missing.

8 That is an important distinction. It's a
9 distinction between were they listed on the front of the
10 spec or were the E&DCR's not there.

11 Q Mr. Museler, where in 4.6 does it say that
12 they weren't missing?

13 A (WITNESS MUSELER) In 4.6 it doesn't say that
14 they were not missing. However, I will ask either Mr.
15 Kelly or Mr. Arrington to characterize what these audits
16 consist of. They checked for all of the attributes of
17 the procedures, which include were they logged, were
18 they there. In the case of specifications, the E&DCR's
19 are supposed to be logged and included in and filed with
20 the specification.

21 (Whereupon, the witnesses conferred.)

22 Q I am sorry. I thought Mr. Arrington or Mr.
23 Kelly was going to provide information that Mr. Museler
24 was referencing.

25 (Whereupon, the witnesses conferred.)

1 Q If that is not the case, fine.

2 JUDGE BRENNER: Okay. No one left to your
3 invitation, so why don't you ask another question?

4 BY MR. LANPHER: (Resuming)

5 Q Gentlemen, as I understand why you have not
6 reviewed the specific summary document marked as Suffolk
7 County Exhibit 61, you have had an opportunity to review
8 all of these audits and the specific findings since they
9 were designated earlier. Would you agree that the E&DCR
10 related problems identified for Courter in late 1977
11 were considered as significant or serious problems by
12 LILCO management?

13 A (WITNESS MUSELER) Mr. Lanpher, I believe we
14 answered the identical question several weeks ago, and
15 the answer is, in the context of the management of the
16 job, we did consider that they were serious problems and
17 we took rather extensive measures to correct those
18 problems. In the context of their importance relative
19 to the safety of the plant, we did not just review the
20 audit findings and take measures to correct the
21 individual audit findings, but we did, as we discussed
22 before, look further into the matter to assure ourselves
23 that it was not significant in terms of degrading the
24 safety of the plant.

25 So, the answer to your question is yes and

1 no. Yes, we did consider it serious, and we took strong
2 measures to correct it. No, we did not consider it
3 serious from the standpoint of the impact on the safety
4 of the plant.

5 Q Gentlemen, the Courter problems which were
6 considered serious were those that were identified
7 initially in field audit 554 in findings 4.6 and 4.7,
8 correct?

9 A (WITNESS KELLY) The actual problem, as
10 identified in previous testimony, was first identified
11 in Audit 602 as a problem with the E&DCR, as far as the
12 administrative aspects of it. Some of these further
13 audits just highlighted the particular problem in
14 Courter, but the problem was being worked on.

15 Q Mr. Museler, you have indicated that extensive
16 action was taken to correct this problem. When was this
17 problem corrected with respect to Courter?

18 A (Whereupon, the witnesses conferred.)

19 A (WITNESS MUSELER) Mr. Lanpher, let me first
20 ask, I believe you are referring to the types of
21 findings as in audit finding 554, 4.6 and 4.7.

22 Q Yes, sir.

23 A (WITNESS MUSELER) Okay, those audit findings
24 go predominantly to the logging on indexes of E&DCR's
25 and on drawings, and with respect to those situations

1 and the with respect to Courter and company, we have
2 also stated earlier in the testimony that we considered
3 that those problems were addressed and that improvement
4 began in late '77 and early 1978, and I believe I said
5 that I considered that the problem was under control at
6 that point, and reached what I would consider
7 satisfactory status in early 1979.

8 I believe in our previous testimony we also
9 added that an audit, one audit in 1981 gave us some
10 cause for concern along the same lines. However, that
11 turned out to be an isolated incident, as we had
12 expected it was, primarily in one area, and in late
13 1981, and the audits of 1982, the Courter audits on that
14 type of a finding were satisfactory.

15 So the answer to your question, which I
16 believe was, when did we consider that these problems
17 were satisfactorily resolved, we considered that they
18 were brought under control very soon after the audit
19 findings in 654. We believe that they were satisfactory
20 by early 1979, and have remained generally satisfactory
21 since then, although there have been audit findings
22 which on a specific audit finding basis were not
23 satisfactory since then.

24 Q Gentlemen, I would like to turn your attention
25 to the quarterly report to management dated August 20,

1 1979, the first page, last paragraph, that part of
2 Suffolk County Exhibit 63.

3 JUDGE BRENNER: Which one of those again, Mr.
4 Lanpher?

5 MR. LANPHER: August 20, 1979.

6 BY MR. LANPHER: (Resuming)

7 Q Gentlemen, is it not true that this quarterly
8 report, which refers to field audit 970, which is
9 Exhibit 62 for identification, states that the control
10 of E&DCR's is now generally satisfactory except that
11 Courter and Company control of those affecting
12 specifications is still only 91 percent effective.

13 Mr. Gerecke, you prepared this, I assume,
14 since your name is on the second page. That is what you
15 wrote at that time, correct?

16 A (WITNESS GERECKE) That's correct.

17 Q So is it fair to state that as of the time you
18 prepared this document, Courter control of E&DCR's, at
19 least those E&DCR's affecting specifications, was still
20 not satisfactory in your opinion?

21 (Whereupon, the witnesses conferred.)

22 A (WITNESS GERECKE) Mr. Lanpher, could you
23 repeat the question please?

24 Q At the time that you prepared this document,
25 was it your opinion that the control of E&DCR's by

1 Courter and Company, at least those E&DCR's affecting
2 specifications, was not satisfactory?

3 (Whereupon, the witnesses conferred.)

4 A (WITNESS GERECKE) I have stated here that the
5 Courter control, those E&DCR's affecting specifications
6 is only 91 percent complete. By that, I don't mean that
7 the Courter control of specifications even in that area
8 was considered as unsatisfactory. In this program, I
9 think, as we have mentioned earlier, the audit program
10 looks to get it 100 percent complete or 100 percent
11 effective, even though we know it would never -- likely
12 never reach 100 percent, but I don't consider that the
13 control was in this area basically unsatisfactory. It
14 wasn't up to 100 percent. It wasn't what we would like
15 to see it, but it was effective, 91 percent effective.

16 Q Then what does this sentence mean? I don't
17 understand the sentence, sir. You stated that control
18 of E&DCR's was generally -- had been identified as being
19 unsatisfactory in earlier audits, but it was now
20 generally satisfactory "except that Courter and Company"
21 and then it proceeds. Wasn't it your opinion at that
22 time that Courter and Company control of E&DCR's
23 affecting specifications was unsatisfactory?

24 A (WITNESS KELLY) I think it would be --

25 Q I would like to have the question initially

1 answered by the witness to whom I asked the question.

2 JUDGE BRENNER: Yes, I think that is fair in
3 this context.

4 WITNESS GERECKE: I think the Courter control
5 of E&DCR's affecting specifications we still did
6 consider unsatisfactory from a management standpoint, or
7 from a quality assurance standpoint, because quality
8 assurance, as I indicated, in quality assurance we
9 strive for perfection, although we realize that we
10 cannot get there. It was not unsatisfactory in the
11 sense of any impact that this lack of control would have
12 on the integrity of the plant, the integrity of the
13 design or the safety of the plant.

14 WITNESS KELLY: Can I add to that now? Okay,
15 the 91 percent was only an indication that we wanted
16 additional improvement. In the specific audit it is
17 looked at as a very small number of specifications. In
18 fact, in one case it was a specification that dealt with
19 structural steel which the individual did not need and
20 returned to document control. It was a case of another
21 specification that they had two copies, they did not
22 need two copies, they sent one back to document control
23 so that they did not have to maintain that.

24 So, again, we said before, you can't just look
25 at numbers, especially when you are talking about a very

1 small sample, without looking at the specific documents
2 that were being held. You are talking about in one case
3 this is a specification the individual did not even need
4 to have in order to perform his work. In another case,
5 two specifications where they only needed one. He sent
6 one back to document control.

7 BY MR. LANPHER: (Resuming)

8 Q Mr. Gerecke, when you prepare quarterly
9 reports to management, you do not discuss in your cover
10 memorandum all the audits that have taken place during
11 the previous quarter. Is that correct?

12 A (WITNESS GERECKE) That is correct.

13 Q In fact, you only discuss those audit findings
14 that are of such significance as to warrant management
15 attention, correct?

16 A (WITNESS GERECKE) That is generally correct.
17 The items discussed in the quarterly reports are those
18 from all of the audit findings, all the audit results
19 during that quarter we want to highlight for management
20 attention.

21 Q So is it fair to conclude that you wanted to
22 highlight this matter to management's attention as of
23 August 20, 1979?

24 A (WITNESS GERECKE) We had been reporting on
25 the results of the audits in the E&DCR area for a number

1 of quarters prior to this. We did not consider that it
2 was from the quality assurance standpoint totally closed
3 out yet. So what we are really doing is reporting the
4 status of this area during -- in this quarterly report.

5 A (WITNESS KELLY) I would also like to add that
6 I think it is necessary to understand the quarterly
7 reports as they relate to the field auditing program. I
8 don't believe the Board was given the attachments to
9 those memos, but in the Hicksville area, the Quality
10 Systems Division, the attachment details the findings as
11 part of the attachments. Because in my program we do
12 during a quarter typically, say, 45 audits, we do not
13 put that type of an attachment into strictly a listing
14 of the audit, the subject, and the number of findings,
15 so an attempt to do in this cover sheet is to just
16 highlight those of interest to the management rather
17 than listing, you know, findings for 45 audits.

18 I think that needs to be pointed out.

19 A (WITNESS MUSELER) Mr. Lanpher, that report is
20 given to our upper management because it does contain
21 the things that the quality assurance department feels
22 they should know about, and in respect to this ongoing
23 addressing of the E&DCR's, especially in the Courter
24 area, the nature of that report in that particular area,
25 while it does say that the E&DCR's in the specification

1 area are 91 percent and quality assurance would like
2 them to be higher, and so would the rest of us, the
3 basic thing that audit report -- excuse me, that
4 quarterly report says is that the situation had improved
5 to a large degree, and that while there was still more
6 work to be done in the judgment of quality assurance,
7 with which I concur, in the specification area, that the
8 problem was being addressed and was being successfully
9 solved.

10 So, it was something quality assurance wanted
11 management to know about, and it wanted them to know two
12 things. It wanted them to know, Number One, that the
13 problem was being taken care of, and that they were
14 making substantial progress on it, and Number Two, that
15 they hadn't closed it out, that they still thought that
16 there was more to be done in that one specific area.

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1 Q And with respect to quarterly E&DCR problems,
2 they started prior to November 1977. In fact, I
3 believe, Mr. Kelly, you stated in field audit 602 and as
4 of August 1979 the Courter-related E&DCR problems still
5 had not been completely closed out.

6 A (WITNESS KELLY) If you mean, had they reached
7 the point where every single E&DCR, every single item
8 that we checked was not there, if you consider that a
9 problem, I will agree that's a problem. In my opinion
10 that's not a problem, and you have to look at the scope
11 of what we're talking about. And we are looking at, as
12 you have laid out, an increasing gain towards
13 perfection.

14 Q As of August 1979, however, there were still
15 some unsatisfactory aspects of Courter's control of
16 E&DCR's, correct?

17 A (WITNESS KELLY) From a purely administrative
18 standpoint. And as I characterized those specific
19 specifications that we are referring to, they had no
20 adverse effect on the plant.

21 JUDGE BRENNER: Mr. Lanpher, we will break
22 whenever it's convenient for you.

23 MR. LANPHER: I could break now. I would be
24 happy to go for another 15 or 20 minutes also.

25 JUDGE BRENNER: No, let's break now.

1 I don't know what your situation will be in
2 terms of time, but since you always have things to do
3 besides eat we'll generally give you an hour and 15
4 minutes. Let us know if you think that should be
5 adjusted either way. And unless you tell us we will
6 stay with that.

7 So we will be back at 2:00 o'clock.

8 (Whereupon, at 12:40 p.m., the hearing in the
9 above-entitled matter was recessed, to reconvene at 2:00
10 o'clock p.m., the same day.)

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AFTERNOON SESSION

2

(2:00 p.m.)

3

JUDGE BRENNER: All right. We're going to
4 continue cross-examination by the County of the LILCO
5 witnesses.

6

MR. LANPHER: Judge Brenner, there are some
7 people missing. I will start or not.

8

MR. ELLIS: Judge Brenner, I know that a
9 couple of them took the stairs. I hope they got off at
10 the right floor, but they will be here very quickly. I
11 apologize. We are mindful of your requirement to be
12 timely and will do better.

13

(Pause.)

14

JUDGE BRENNER: All right, let's proceed now.
15 Whereupon,

16

WILLIAM J. MUSELER

17

T. TRACY ARRINGTON

18

JOSEPH M. KELLY

19

WILLIAM M. EIFERT

20

ARTHUR R. MULLER

21

FREDERICK B. BALDWIN

22

T. FRANK GERECKE

23

DONALD G. LONG,

24 recalled as witnesses, having previously been duly sworn
25 by the Chairman, were examined and testified further as

1 follows:

2 CROSS-EXAMINATION

3 BY MR. LANPHER:

4 Q Mr. Museler, let me follow up on one thing
5 from this morning. So I understand the missing
6 documents references that we have made in field audit
7 654, when an E&DCR is listed as missing it's your
8 testimony that in fact that is a logging problem, in the
9 sense that, as it pertains to drawings the E&DCR number
10 has not been written on the drawing; is that correct?
11 That's what is meant by missing?

12 A (WITNESS MUSELER) No, Mr. Lanpher, my
13 statement was not meant to mean that whenever the word
14 "missing" is used it doesn't mean missing. I was
15 referring to the specific audit observation we were
16 talking about, which was 654, where in that particular
17 instance the E&DCR's were not prefaced, and in that
18 context my understanding of the audit process, what the
19 auditors are told to look at -- in that context, it
20 doesn't mean that they were physically missing.

21 There are -- and I believe we have discussed
22 them in the past. There are instances when E&DCR's may
23 have been missing, but that audit observation does not
24 indicate that. Does that make it clear?

25 Q Well, looking at field audit 718, which is

1 Exhibit 58, and finding 4.3, sir, there 23 E&DCR's were
2 specified to be missing. Is it your understanding that
3 those E&DCR's were missing?

4 (Panel of witnesses conferring.)

5 A (WITNESS MUSELER) That's 4.3, right, Mr.
6 Lanpher?

7 Q Yes, sir.

8 A (WITNESS MUSELER) This audit observation does
9 refer to the fact that the E&DCR's were missing
10 themselves. This does not -- this is not the same case
11 as 4.6, which indicated that they were prefaced -- that
12 they were not prefaced properly.

13 Q I apologize. Let's go back to 654 for one
14 moment, the 4.7, observation 4.7, where E&DCR's are
15 listed as being missing. I believe 34 E&DCR's were
16 listed as missing.

17 Does this sort of speak to a logging problem,
18 or are these E&DCR's actually missing? This is
19 observation 4.7.

20 (Panel of witnesses conferring.)

21 A (WITNESS MUSELER) No, Mr. Lanpher, 4.7 refers
22 to a logging discrepancy there. The requirement is that
23 the E&DCR's be written on the drawings themselves. They
24 are not filed with the drawings. So it just means that
25 all the E&DCR's were not logged on the drawings. And as

1 we indicated in previous testimony, that did not mean
2 that the people who were performing the work in the
3 field did not have the E&DCR's. It meant that the
4 procedural requirement that all the copies, whether in
5 the office or in the field, have all E&DCR's listed on
6 them was not being adhered to in all cases.

7 Q Mr. Museler, turning back now to field audit
8 718, Exhibit 58, Suffolk County Exhibit 58, finding 4.4
9 -- and this pertains to drawings, and it states that 26
10 E&DC -- 100 E&DCR's were missing. Now, is this a
11 logging problem, since it was pertaining to drawings?

12 A (WITNESS MUSELER) This is the same
13 requirement that we just discussed, that the drawings
14 are required to have the E&DCR numbers written on the
15 drawings. It does not refer to the absence of the
16 E&DCR's in the work area.

17 Q Mr. Arrington, I would like to turn your
18 attention to field quality control audit 26, finding
19 L.3, and I believe it states, paraphrasing, that four of
20 the applicable control drawings do not include the E&DCR
21 number as required by procedures; is that correct?

22 A (WITNESS ARRINGTON) This is under item A?
23 This is in four parts. B? Are you on B?

24 Q Yes, sir.

25 A (WITNESS ARRINGTON) I'm sorry. Would you

1 repeat your question?

2 Q Is this another example where, similar to the
3 previous ones that I was talking about with Mr. Museler,
4 where E&DCR numbers are not being logged on the drawings
5 as required by procedures?

6 A (WITNESS ARRINGTON) I'm not sure if this is
7 the same case. I think any time you have an E&DCR that
8 is not listed on a drawing you could say that it's the
9 same. I draw a distinct difference here because of this
10 being in a different area entirely.

11 This particular area was an office area that
12 was not maintaining the E&DCR numbers on their black on
13 white drawings. Subsequent to the audit itself, this
14 area went to black on pink drawings, which are
15 informational drawings only.

16 Q Mr. Arrington, this audit finding pertains to
17 Couter & Company correct?

18 A (WITNESS ARRINGTON) Yes, it did.

19 Q Mr. Museler -- well, not necessarily you, Mr.
20 Museler. Anyone on the panel, turning your attention to
21 field audit 842, which is Exhibit 59 for identification,
22 finding 4.1, the first part of that finding indicates --
23 and this relates to specifications -- that 53 E&DCR's
24 were missing; is that correct?

25 (Panel of witnesses conferring.)

1 Q Mr. Museler, my question only asked you to
2 confirm that that's what the audit finding indicates.

3 A (WITNESS MUSELER) That's what we're trying to
4 do, Mr. Lanpher. We don't want to, you know, get tied
5 up in the previous problem we had as to whether it means
6 E&DCR's are really missing or not logged. That's why
7 we're taking a minute.

8 JUDGE BRENNER: Okay. That's where we're
9 going to get into trouble. The question is more simple
10 than that. He wants to know if the document says that.

11 WITNESS MUSELER: Judge Brenner, the document
12 previously, the one where we said that the E&DCR's --
13 the one that indicated E&DCR's that were supposed to be
14 prefaced, those E&DCR's were missing and the audit
15 finding did say that.

16 JUDGE BRENNER: I will repeat, his question is
17 very simple. He wants to know if the document says
18 that. It's what is known as a foundation question.
19 Then he will ask the other questions he wants to ask.

20 WITNESS MUSELER: The audit finding reads,
21 11.3 percent were missing, yes, sir.

22 BY MR. LANPHER: (Resuming)

23 Q That was not my question. My question was,
24 with respect to Courter & Company, am I correct that the
25 audit finding 4.1 with respect to specifications

1 indicates that 53 E&DCR's were missing?

2 (Panel of witnesses conferring.)

3 A (WITNESS MUSELER) Of the specifications
4 checked in that audit, it is correct that 11.3 percent
5 were missing from the specification files, 11.3 percent
6 of the applicable E&DCR's.

7 JUDGE BRENNER: Just look at Courter, Mr.
8 Museler. He's asking about Courter's record. In fact,
9 in asking you to respond simply and directly, on the
10 other hand I don't want you to miss something. There's
11 a table on the first page and a table on the second
12 page, and you might have some explanation, given the two
13 tables.

14 But he's asking you solely what the document
15 says about the number of Courter E&DCR's stated to be
16 missing by the document.

17 MR. LANPHER: And related to specifications.

18 WITNESS MUSELER: Yes, that information for
19 Courter is correct. That number of E&DCR's was
20 missing.

21 BY MR. LANPHER: (Resuming)

22 Q We are having trouble communicating, but we
23 will work it out, I'm sure.

24 Now, do you understand that to mean that they
25 were physically missing, these E&DCR's, in this

1 instance?

2 A (WITNESS MUSELER) Yes, sir.

3 Q Okay, so this is not a logging problem; this
4 is similar to the other problem of physically not where
5 they were supposed to be?

6 A (WITNESS MUSELER) It indicates that the
7 E&DCR's were supposed to be filed with the
8 specifications. They were not being filed with the
9 specifications. That is not to say that those E&DCR's
10 were not available in those areas, but they were not
11 being filed with the specifications, as called for in
12 procedures.

13 Q Turning your attention to the top of page 2 of
14 field audit 842, the same audit finding 4.1 pertains to
15 drawings in this instance, and it indicates that ten
16 E&DCR's were missing. Is this a logging problem or is
17 this a missing document problem?

18 (Panel of witnesses conferring.)

19 A (WITNESS MUSELER) Mr. Lanpher, that finding
20 on the top of page 2 refers to the notation of the
21 E&DCR's on the actual drawings themselves. So it does
22 not refer to the E&DCR's being physically absent.

23 Q Would you agree, Mr. Museler, that this is
24 similar to the logging problem noted in finding 4.7 of
25 field audit 654?

1 A (WITNESS MUSELER) It is the same type of
2 administrative problem, yes, sir.

3 Q Gentlemen, I would like to turn your attention
4 now to field quality control audit 34 and finding N.1.
5 Part A of that finding I would like to direct your
6 attention to first. First, finding N.1 applies to
7 Courter & Company, correct?

8 A (WITNESS ARRINGTON) That's correct.

9 Q And at finding A it is noted, is it not, that
10 in the turbine, welding, yard, reactor and SQA areas
11 they were not logging E&DCR's that pertained to
12 specifications?

13 A (WITNESS ARRINGTON) That is correct. The
14 specs that were listed there were for information only.
15 The area supervisors used drawings for their work and
16 not the specs. But that is true, they were not logging
17 the E&DCR's on the drawings -- on the spec, I'm sorry.
18 They were listed on the drawings, and that is a document
19 that the area supervisor would use to install the
20 components.

21 Q The Courter quality assurance procedures
22 require that the E&DCR's pertaining to specs be logged,
23 correct?

24 A (WITNESS ARRINGTON) That is true. But as I
25 indicated, these specs that were listed were issued to

1 the area supervisor, were used for information and not
2 for the erection of the components they were responsible
3 for. The Courter supervisors work with the drawings and
4 not the specifications.

5 Q I'm sorry, I missed that last statement of
6 yours.

7 A (WITNESS ARRINGTON) The area supervisors
8 would use the drawings to perform their work assignments
9 as opposed to the specifications. The drawings would
10 have the dimensions and the specifics that they would
11 need in order to install the pipe or pipe supports, and
12 not the specifications.

13 A (WITNESS MUSELER) Or the E&DCR's would have
14 the appropriate erection information on them. If a
15 drawing is affected by an E&DCR, the E&DCR becomes the
16 governing document, and that's why we have said that the
17 important item in this discussion is whether or not the
18 E&DCR's were reaching the people who were actually
19 performing the work in the field.

20 And our record on that I believe shows that
21 they were using the proper documents, and that is the
22 bottom line, so to speak, that the plant was being built
23 using the drawings if the drawings were the applicable
24 document, or the E&DCR's if the drawings were being
25 changed as a result of the issuance of those E&DCR's.

1 A (WITNESS ARRINGTON) And that process is
2 verified with the inspection.

3 Q I'd like to turn your attention now to field
4 quality control audit 38, page 2 initially.

5 A (WITNESS ARRINGTON) Excuse me, Mr. Lanpher.
6 Which observation are you referring to?

7 Q I'm sorry.

8 A (WITNESS ARRINGTON) Observation 1.2?

9 Q Well, first on page 2 you should look at both,
10 item B at the top which states the E&DCR's are not
11 always properly logged and filed in accordance with
12 Courter & Company procedural requirements. That makes a
13 reference to observation 1.2.

14 Am I correct, sir, that this problem -- and I
15 think Mr. Baldwin may have mentioned this earlier --
16 this was a problem which included the fact that the
17 E&DCR's were not being physically filed with the
18 specification, but were rather being put in file
19 cabinets and boxes and in the general files along with
20 other E&DCR's?

21 A (WITNESS BALDWIN) Mr. Lanpher, I believe that
22 was my statement this morning.

23 Q Gentlemen, turning to the last portion or one
24 of the last portions of audit observation 1.2, it
25 states: "It should be noted that the individuals

1 contacted at both the above areas" -- and these were
2 areas where Courter was working -- "were not totally
3 knowledgeable about the QAP-4.2 requirements regarding
4 logging of E&DCR's."

5 Is that your understanding? By that I mean,
6 is it your understanding that the Courter personnel who
7 were contacted did not fully understand the requirements
8 for logging?

9 A (WITNESS BALDWIN) It's not my understanding,
10 sir. It's apparently the judgment of the auditor
11 through some type of a conversation with people who made
12 an observation such as that. I can't tell whether that
13 is totally accurate or not.

14 Q Do you have any reason to disagree with it,
15 Mr. Baldwin?

16 A (WITNESS BALDWIN) No.

17 A (WITNESS MUSELER) Mr. Lanpher, the comment
18 there, since I am somewhat familiar with that particular
19 audit, refers to -- does not refer to A. It refers to
20 B. It refers to the area document control log, which is
21 a redundant logging system that the areas who distribute
22 documents within their own organization have to maintain
23 over and above the weekly update of the master E&DCR log
24 and the monthly issue of the E&DCR log, which is the
25 controlling document.

1 The comment refers to the proper maintenance
2 of that particular reinjunct logging requirement, and it
3 is true that the particular people in this area were not
4 as familiar with that requirement as they should have
5 been. And that's primarily why those area logs were not
6 being maintained.

7 The master log is unaffected by this
8 particular problem. And I forget the time period of
9 this particular one. This is 38, so it is late in the
10 game.

11 I believe we indicated in our previous
12 testimony that the keeping on top of these
13 administrative requirements is an ongoing process that
14 we've been on top of since the problems were first
15 identified early in the game, and the turnover -- this
16 particular problem occurs as a result of turnover of
17 personnel and bringing certain new people up to speed.

18 It did indicate that those particular clerical
19 personnel were not aware of those requirements to the
20 extent they should have been. That problem was
21 rectified. And once again, the overall impact of the
22 fact that an area was not maintained is not relevant to
23 the adequacy of the E&DCR use or the E&DCR program with
24 respect to the construction of the plant.

25 Q Mr. Museler, is the basis for that last

1 conclusion Suffolk County Exhibit 60, which is the
2 sample inspection of program-related E&DCR's, which we
3 discussed at the earlier hearing in mid-September?

4 A (WITNESS MUSELER) Not really, Mr. Lanpher.
5 That and some other things are the basis of some
6 constants in what I said, but primarily the reason we
7 state that rather emphatically is that the overall
8 process with which the plant gets built and with which a
9 number of us are very familiar has indicated since the
10 construction permit was issued that the people in the
11 field are utilizing the proper documents to build the
12 plant, and that these types of problems in the
13 administrative control of E&DCR's which we have been
14 discussing, while they do occur and they occur more than
15 we would like them to occur, occur in what I will
16 characterize as the in-process portion of the
17 construction of the plant.

18 The final -- both in-process inspections by
19 the quality assurance group, as well as final
20 inspections by both the construction and the quality
21 assurance groups, have not shown that the plant was not
22 constructed in accordance with the E&DCR's. There are
23 44,000 E&DCR's, not all but most of which affect some
24 physical portion of the plant, and all of which are
25 utilized by the various inspection groups when they

1 perform their final inspections on the components, and
2 they are then looked at again by the startup personnel
3 when they take responsibility for the systems.

4 It is that process that I'm hanging my hat on,
5 so to speak, that indicates to me that the plant was
6 built in accordance with those E&DCR's. Whether they
7 were logged on the drawing or not, they were used to
8 build the plant. And that is with respect to all of the
9 E&DCR's, because that's the process of final inspection,
10 be it by QA or by construction personnel.

11 The fact that we might have looked at a sample
12 of 100 or 200 some time during the building of the
13 plant, it says something. But it's the overall process
14 that checks exactly whether or not this kind of a
15 document logging discrepancy does impact the final
16 product.

17 What I'm saying is that, our eyes having seen
18 what comes out the other end in a final inspection
19 process, it is not shown that these types of
20 deficiencies have resulted in any impact on the plant.
21 So that's the basis of it, not any specific audit of 100
22 or 50 or whatever.

23 But they are all looked at at the end, and
24 sometimes in several redundant manners, and it has not
25 shown that that is a problem.

1 A (WITNESS ARRINGTON) Mr. Lanpher, I would like
2 to add that field quality control, the Stone & Webster
3 field quality control division, to date has performed
4 some three-quarters of a million inspections. So we do
5 have a pretty good feel for the implementation of the
6 E&DCR system.

7 And we have gotten very few isolated cases
8 where all of the requirements of the E&DCR was
9 incorporated into the permanent plant installation. I
10 emphasize the fact that they were isolated. I don't
11 know of any case that comes to mind where an E&DCR was
12 not incorporated into the plant.

13 There are cases, isolated, that it was not
14 completely or properly incorporated, meaning that there
15 was some deviation in the field. But we've got
16 three-quarters of a million inspections out there and we
17 have some confidence that this process is working.
18 There are an awful lot of people out there that are on
19 distribution for specifications and drawings that are
20 simply there for information only, and these are the
21 people that are audited as well as the people that are
22 required to have these.

23 And I think that both the quality assurance
24 organizations and the construction management would be
25 concerned if we had the people that were responsible for

1 these documents that were not implementing them properly
2 in the field. An awful lot of the people that we have
3 discussed here by organizations are office personnel,
4 people that are keeping track of various things, for
5 reasons that I'm not sure of in some cases why they have
6 E&DCR's or specifications or drawings.

7 We indicated earlier that one contractor
8 returned 22 copies of specifications that he had, which
9 proves that in an awful lot of cases they have documents
10 that they really don't need. And when you pin them down
11 to incorporate these E&DCR's on the documents, they send
12 them back and tell you that they don't need them any
13 longer.

14 So we do have a good feel for the
15 implementation portion of this, with that many
16 inspections.

17 Q Mr. Arrington, Courter had its own QA
18 personnel, correct?

19 A (WITNESS ARRINGTON) From January of '78 on,
20 yes.

21

22

23

24

25

1 Q So Stone and Webster field quality control
2 would review the Courter work on an audit basis, is that
3 correct?

4 A (WITNESS ARRINGTON) We review Courter's work
5 on a surveillance inspection and in process and we do a
6 final 100 percent documentation review of all E&DCRs,
7 drawings and specifications that that work was installed
8 under. So it is several layers of inspections that are
9 performed. A document review -- a 100 percent document
10 review of all Courter SQA's documentation is reviewed by
11 Stone and Webster field quality control, as well as the
12 authorized nuclear inspector. He reviews it as well.
13 There are several layers of review there.

14 Q You said you looked at the documentation. You
15 mean you are looking at the paper or are you looking at
16 the as-built plant or what?

17 A (WITNESS ARRINGTON) We look at both. We look
18 at the documentation as it is sent over by Courter as
19 the areas are completed by, say, a hydro. After a hydro
20 is performed, we do a review of all of the documentation
21 for that particular area that sought pressure.

22 We also do a final documentation review at
23 system certification. We also do an as-built walkdown
24 of all code Class 1, 2 and 3 systems that's installed by
25 Courter. That's an independent review, so there are

1 several layers of inspections and verifications that is
2 performed by field quality control.

3 A (WITNESS KELLY) In addition to that, the
4 additional layer of the LILCO QA program, as far as
5 performing surveillances and audits of the Courter
6 organization, including documentation of the physical
7 plant, is performed.

8 (Pause.)

9 Q Mr. Arrington, when we were discussing field
10 quality control audit 34, I believe you made a
11 statement -- and correct me if I'm wrong -- that the
12 items were corrected. If you turn your attention to
13 field quality control audit 35, attachment 2 and
14 observation 2.4, isn't it true that this is an instance
15 where Stone and Webster FQC cited Courter for failing to
16 take proper corrective or satisfactory corrective
17 action, that this relates to audit 34's findings?

18 A (WITNESS ARRINGTON) Give me a second. I
19 think you asked a question on item B in 34, wasn't that
20 true?

21 Q Yes.

22 A (WITNESS ARRINGTON) And that was the black on
23 white drawings and I indicated that they had, subsequent
24 to the audit, they had received black on pink drawings,
25 which are information-only drawings.

1 Q Okay. Well, I must have misunderstood. Were
2 the remaining observations of audit 34 properly
3 corrected, or am I correct that in the subsequent audit,
4 field quality control audit 35, it was found that proper
5 corrective action had not been taken by Courter?

6 JUDGE BRENNER: Mr. Lanpher, I lost you. Are
7 you asking about everything else in all of 34, or just
8 everything else in attachment N in 34, or just the ones
9 you asked about, because your question is rather
10 open-ended as to the others, quote, unquote.

11 MR. LANPHER: Let me start over. It would
12 easier. I'm sorry.

13 BY MR. LANPHER: (Resuming)

14 Q Mr. Arrington, turning your attention to field
15 quality control audit 35, observation 2.4, am I correct
16 that this is an instance where Stone and Webster FQC
17 found that Courter had not performed satisfactory
18 corrective action to alleviate certain of the problems
19 that had been identified in field quality control audit
20 34?

21 (Witnesses conferring.)

22 A (WITNESS ARRINGTON) Would you give me a
23 second to read this? I don't recall being asked a
24 question about 34 for that particular item. That's why
25 I'm not familiar with it when I was talking about the

1 black on pink drawing. I think I was talking about
2 different audit entirely. Just give me a couple of
3 minutes.

4 Q If I can maybe help focus your attention, in
5 audit 34 I believe there are findings related to the
6 logging of E&DCRs. I'd like you to confirm whether that
7 is one of the problems that was not corrected and
8 subsequently is noted in August 35.

9 A (WITNESS ARRINGTON) Sure. Give me a minute.
10 (Witnesses conferring.)

11 A (WITNESS ARRINGTON) Mr. Lanpher, this is
12 indicating that the corrective action was not complete,
13 that the area document logs were not updated in
14 accordance with the procedures. They were using,
15 according to this statement here, they were using the
16 weekly E&DCR summary instead of the daily E&DCRs that
17 were received, which means that each week you get a
18 summary of E&DCRs that were processed in a given week.

19 The requirement is that you post the E&DCRs as
20 they come in. So apparently this individual here, as
21 opposed to doing it on a daily basis, it was being done
22 on a weekly basis. So at the most it would be one week
23 old that this E&DCR would not be posted on the spec or
24 drawing.

25 Q But the same problem continued to persist

1 approximately three months after the previous audit
2 finding, correct?

3 A (WITNESS ARRINGTON) This particular item did
4 reoccur. It was not closed out on that particular
5 audit, but I just tried to explain what the situation
6 was with the area people. They were listing E&DCRs with
7 the weekly logs as opposed to the daily E&DCRs that were
8 being submitted to them.

9 MR. LANPHER: Judge Brenner, I would like to
10 move the admission of certain audit findings and this
11 seems as good a time as any to see if this process is
12 going to work.

13 Turning to Exhibit 51, which is the Courter
14 E&DCR deficiency summary, there are particular audits
15 and audit findings which are noted. The first one is
16 field audit 654, which is Suffolk County Exhibit 57 for
17 identification, and two findings are noted -- 4.6 and
18 4.7. I would like to move their admission.

19 My proposal is to continue down this list and
20 move in those portions of the documents which are noted
21 here, and I am not intending to pursue audit-by-audit
22 questioning or quarterly report-by-quarterly report
23 questioning, because I don't think it's necessary for
24 the purposes that I am pursuing here.

25 JUDGE BRENNER: Let me make sure I understand

1 what is encompassed in your request. It is all the
2 findings listed in Suffolk County Exhibit 61 -- just the
3 findings. We are only using 51 as an index. We are not
4 moving any part of 61 itself into evidence?

5 MR. LANPHER: That's absolutely correct,
6 although I think it might be useful since we have
7 referenced it to bind it in. Perhaps it is fairly
8 short, but that certainly would not be in evidence. It
9 is to make it clear those findings that we want to come
10 into evidence and also the title of the document, and
11 that.

12 But in terms of, for instance, audit 654, at
13 this point I'm not moving finding 4.1 or 4.2 in. It's
14 just 4.6 and 4.7.

15 JUDGE BRENNER: Is it correct that all of
16 these source documents listed in Exhibit 61 have been
17 otherwise identified by an Exhibit number?

18 MR. LANPHER: Well, let me -- yes. Field
19 audit 654 is Suffolk County Exhibit 57. Field audit
20 71-A is Suffolk County Exhibit 58. The quarterly report
21 for May 1978 is part of Suffolk County Exhibit 63. All
22 the field quality control audits are part of Suffolk
23 County Exhibit 56. I think that covers the universe, so
24 to speak.

25 JUDGE BRENNER: Well, not quite.

1 MR. LANPHER: Going to page 2, the next
2 quarterly report is part of 63. The quarterly report
3 for 11/3/78 is part of Exhibit 63. Field audit 842 is
4 Suffolk County Exhibit 59. The quarterly report dated
5 1/29/79 is part of Exhibit 63. The quarterly report for
6 4/16/79 is part of Exhibit 63. Field audit 970 was
7 marked as Exhibit 62.

8 Quarterly report for 8/20/79 is part of
9 Exhibit 63. And field quality control audits 34, 35,
10 and 38 are all part of Exhibit 56.

11 JUDGE BRENNER: Okay. Any objections?

12 MR. ELLIS: Yes, sir. I think I have -- I
13 need to understand, I think, more clearly what we are
14 about here. I don't know whether he's examined on all
15 of these and I take it -- am I correct that there hasn't
16 been examination on all of these and is there
17 contemplated to be examination on all of these?

18 If what we are doing is simply putting in all
19 the findings and then it is -- then we must go through
20 audit finding-by-audit finding, I think we need to be on
21 notice of that. And also I think we might as well face
22 directly this question of significance, and I think we
23 should do it directly.

24 We've had some testimony today just a few
25 minutes ago about logging requirements, the fact that

1 logging requirements were not met in certain instances.

2 JUDGE BRENNER: Let me say something and see
3 if this affects your position or at least addresses it,
4 even it is doesn't affect your position. I don't know
5 if he has examined on all of these or not. I hope it is
6 the case that he hasn't because that would be the
7 primary -- one of the primary purposes in moving them in.

8 We could sit here and have him ask Mr. Museler
9 whether the audit says this and then after we beat
10 around the bush for three or four questions as to
11 whether it says that, we will then get yes, it says
12 that. That's what I want to accomplish by having these
13 items moved in, and in terms of your notice, that is
14 your notice.

15 If he is moving them in, he thinks now that he
16 is going to use them for some hot stuff in his findings
17 someday because we are not moving in all the audits and
18 if he made a request to simply move them all in, that
19 would be denied. But it seems to me the logical outcome
20 of not allowing him to do this would be to go back to
21 question and answer and question and answer about each
22 of these audit findings.

23 Now the shoe is on the other foot if they are
24 moved in. If you don't think they are significant, you
25 can come back and we will allow you to ask redirect

1 about it. Just because he did not orally cross examine
2 would not preclude you from asking redirect in the sense
3 that we would view moving particular audit findings into
4 evidence as being a substitute for having asked about
5 them.

6 MR. ELLIS: Judge Brenner, I don't think the
7 shoe is on the other foot because to follow this to the
8 extreme, then all he would have to do is simply move
9 into evidence all of the findings he intends to offer
10 and not do anything further.

11 My objection is going to go to the
12 significance of these. His contention -- the contention
13 of the County -- is that there has been a pattern of QA
14 breakdowns. I believe that they ought to be required to
15 show that they are QA breakdown, not that there has been
16 a number of logging deficiencies or something else. I
17 can see that --

18 I don't want to annoy the Board, but I do feel
19 strongly about this and I do want to be heard.

20 JUDGE BRENNER: We've been annoyed in this
21 proceeding by everybody. That's all right -- and vice
22 versa, as Judge Carpenter points out. So you feel free
23 to annoy us and we will feel free to annoy you.

24 MR. ELLIS: Well, I would rather have it so we
25 don't do it to each other, if I can, and you would

1 prefer I not continue and I won't.

2 JUDGE BRENNER: No. I will let you continue,
3 but I'm having trouble understanding significance as a
4 basis for not admitting something into evidence.

5 MR. ELLIS: Because it makes it irrelevant to
6 the contention and it makes it not material. Relevancy
7 and materiality are certainly aspects of admissibility
8 and are aspects of admissibility that are to be weighed
9 by the Board.

10 Suppose there are 20 findings on logging
11 discrepancies or 20 findings or maybe 100 findings that
12 the weekly log was maintained; but that the daily log
13 wasn't. The question arises, so what. Is that a
14 situation that leads to the relief sought by the County
15 in this contention? We submit not. We don't think
16 that's relevant at all.

17 JUDGE BRENNER: You are way ahead of the stage
18 at which we are at. I believe you are at the findings
19 stage. The items are relevant in terms of being audit
20 findings showing -- and I don't want to use the word in
21 a technical sense -- but their failure to fully meet
22 some standards. You can argue later whether that's a
23 deviation -- an important deviation -- whether the
24 standard is a self-imposed standard or a requirement of
25 the regulations.

1 But there's something that the auditor at the
2 time of the audit thought it was noteworthy in the most
3 literal sense of the term "noteworthy" as he noted
4 them. They are material at this stage of the proceeding
5 in the broad sense of the term "material", in the sense
6 that the County has now given us the roadmap, if you
7 will, that we have asked for many, many weeks ago as to
8 the connection between these findings. We have them on
9 one list.

10 You can look at the listing in Exhibit 61 and
11 just from the description see the connection that the
12 County asserts. Now the actual audit finding may be
13 something other than either what the County asserts or
14 what the literal language used by the auditor was,
15 because at the time he was writing he wasn't thinking
16 about all these other things.

17 But that doesn't make it immaterial in the
18 admissibility sense, just as if you had objected to all
19 his questions as to all these audit findings on the
20 grounds of materiality, you would not have succeeded
21 generally in such an objection.

22 But I would rather just get the findings in
23 and have them addressed on redirect, if necessary. He's
24 gotten enough of this E&DCR area where I would be
25 inclined to let it in for the reasons I have indicated.

1 I'll talk to the other Board members. This is to be
2 distinguished from the other end of the spectrum as to
3 where we would simply get all the audit findings that
4 are listed in the County attachments and he would say
5 move them into evidence, and that's the end of it.

6 Just in terms of managing the proceeding, we
7 would not permit that because then we are not focused on
8 where the case is going and what is being done, and much
9 of your argument is going to the ultimate weight, which
10 may turn out to be close to zero if you've got the
11 answers.

12 If I granted your objection, we are going to
13 sit here a mighty long time while he asks about each and
14 every one of them. It's a matter of degree.

15 MR. ELLIS: Then are we to understand that
16 there will be no further -- because essentially he
17 hasn't asked questions about many of these, and I take
18 it we've got an inch and a half or so of those that have
19 now been designated by the County as matters that they
20 intend to pursue. Is that all to be left for redirect?

21 JUDGE BRENNER: Well, he has asked about much
22 of them and, for all I know, all of them. Maybe I
23 should ask him that question, but I will tell you why it
24 doesn't matter. As long as he has asked about a
25 sufficient number of them that we see the context in

1 which they are being used, we are not going to buy a pig
2 in a poke in the sense that if he just moved all the
3 audit findings in, we would then have to wait until the
4 proposed findings to find out why they are important,
5 and we're not going to do that.

6 We do have to understand the case as it
7 unfolds as a Board, and the other parties have to also.
8 So we wouldn't just do it all on paper, but the other
9 extreme of doing none of it by moving it in would be to
10 do what we have sought mightily to avoid, and that is
11 ask questions about each and every one. And it is a
12 matter of degree.

13 I can see the context in which he is using the
14 E&DCR findings in Suffolk County Exhibit 61 for
15 identification now, now that he has pursued E&DCR cross
16 examination to some extent. I think it does what the
17 Board wanted it to do -- that is, talk about six or
18 seven items and then either stay with those, or move
19 others in that you claim are similar. Ideally it should
20 have been done by stipulation, but that is not the case,
21 and this is a reasonable proximity for starters.

22 If, before he had asked any questions about
23 E&DCRs, the County had moved this in, then we would have
24 been much less inclined to allow it in because we
25 wouldn't have known what it was all about, and it's a

1 matter of degree. He has given us the context of what
2 it's about now.

3 How many of these haven't you asked about, Mr.
4 Lanpher? Maybe you haven't saved us any time and you've
5 asked them all already.

6 MR. LANPHER: Judge Brenner, I haven't done a
7 count. I was castigated, to be blunt, in the first two
8 weeks for going too slowly. Judge Carpenter this
9 morning said I want to find a way to go quicker. I have
10 spent a lot of time this last week putting together
11 things and thinking a lot about this to try to go
12 quicker and not ask questions on every single one.

13 I am frankly astounded that when I don't ask
14 questions I'm also being -- not attacked, but these
15 things are being said. I don't know how to comply with
16 your three-week order, Judge Brenner. It's really less
17 than three weeks because obviously there is time for
18 operating QA and I want to go as quickly as I can while
19 laying a roadmap.

20 MR. ELLIS: But what we are doing, though, is
21 we are delaying -- we are shifting to redirect on all of
22 the information which they then are going to want to
23 recross on, and we might as well do it now.

24 JUDGE BRENNER: I'm not ready to give up that
25 easily. You may be right in the end, but I surely hope

1 not.

2 MR. ELLIS: Well, let me --

3 JUDGE BRENNER: Let me finish. We are taking
4 more time on this than I usually allow on this type of
5 motion because I want to view it in the context of
6 various options that we can pursue throughout this
7 proceeding. We still urge the parties to work on a
8 stipulation.

9 If you had worked on a stipulation, it might
10 well have taken the form of here are 25 items that the
11 County believes are similar and the listing of the
12 audits and the findings, and both parties agree that if
13 the County inquires on the record about six of them, so
14 that you can enlighten us as to what the situation is
15 while we're here on the record, that will be
16 illustrative of all 25 items.

17 I take it that this is that offer. If the
18 County is going to use these items for completely
19 different findings, then the defects it sees in the
20 E&DCR findings it asked about, it's going to have a hard
21 time. I'll tell you now we are not going to look at new
22 findings by admitting these into evidence. We view
23 these are other examples of the same types of findings
24 that the County has questioned about in this said area,
25 and that is the control of E&DCRs.

1 MR. ELLIS: I understand the Board's view and
2 I simply will restate that our view is that in terms of
3 materiality and relevancy they must make a showing that
4 it's a QA breakdown, and they have not done so, but I
5 understand the Board's view.

6 JUDGE BRENNER: Let me say when we granted
7 your partial relief requested, it was not as a
8 pre-condition that the significance of the alleged QA
9 breakdown had to be established as a prerequisite to
10 talking about the item. It was, rather, so that we can
11 see the allegation in context.

12 If we decided right now as a precondition as
13 to what was significant and what wasn't, then we have
14 ended the case. That's what we have to decide in the
15 end, to a large extent.

16 MR. ELLIS: Well, I simply thought -- and I
17 guess I was mistaken -- that they need to make a prima
18 facie showing, which I don't believe they have. But I
19 understand that the Board's view is that that burden is
20 not on their shoulders to do that. And, that being the
21 case, I understand the Board's ruling on the relevancy
22 and materiality point.

23 JUDGE BRENNER: I don't want to debate prima
24 facie. They have a showing that an auditor at one time
25 found something wrong with an item. Whether or not you

1 want to slap a label like prima facie on that or not is
2 your concern. But it is enough to go forward to cross
3 examination on.

4 If you want to move for a directed verdict, if
5 there were a jury here at the end of the case, that
6 would be another use of prima facie, but we don't have
7 that procedure here and there is no need for it in the
8 absence of a jury.

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1 (Board conferring.)

2 JUDGE BRENNER: Staff, I didn't ask you if you
3 have a position.

4 MR. BORDENICK: I have no objection to the
5 motion.

6 JUDGE BRENNER: All right. We're going to
7 grant the request in this instance, and I emphasize in
8 this instance. If suddenly there are a large number of
9 audit findings being moved into evidence without the
10 context being set such that we know what the County is
11 contending they are illustrative of, we will not let
12 them in. And we are allowing these findings in to be
13 used as additional examples of the pattern which the
14 County is alleging with respect to the other E&DCR items
15 it has asked about.

16 We understand there is overlap between
17 different findings, so if you are going to use the same
18 findings for some totally different purpose, then you
19 have to somehow alert us to it either by questions on
20 the findings or otherwise, because we are admitting them
21 now as E&DCR findings.

22 MR. ELLIS: Well, in keeping, Judge Brenner,
23 with their definition of pattern of QA breakdowns, which
24 I assume they are adhering to, I take it these are
25 admitted to show a pattern of QA breakdowns on Courter

1 EEDCR deficiencies as noted on Suffolk County Exhibit
2 No. 61 and that the findings that are being admitted are
3 those that are listed in 61 from the actual audits and
4 not the summaries that are set forth on 61?

5 JUDGE BRENNER: Yes. That's what I made clear
6 at the outset. You've stated it correctly.

7 I should have said a word about your burdens
8 on redirect which are going to be mighty ones. We have
9 no illusions as to that. We understand the problem you
10 face, but your problem is not exacerbated any in our
11 view by this procedure. If we had asked about each and
12 every one, you would have the same problem. You don't
13 have to address each and every one individually when you
14 come back. The witnesses can talk about them in
15 groupings.

16 MR. ELLIS: But it might be -- perhaps this
17 isn't the appropriate time, but in terms of that burden
18 we will plan to address them to the extent possible in
19 groups. And as testimony already reflects it is our
20 view, and I think we presented testimony to that effect,
21 that many of the findings, though there may be a number
22 of ones that recur, are not significant in a QA
23 breakdown sense. And if the Board has a view on which
24 ones it wants us to go into particularly or whether, for
25 example, something like logging errors are considered to

1 be a QA breakdown by the Board, we need to know that
2 because that is not in our view, and I don't see how a
3 logging problem can lead to the relief sought by the
4 County. And we need to be apprised of that to be able
5 to address it and confront it for the Board's purposes.

6 JUDGE BRENNER: We will help you where we can,
7 but as we have done all along in this case but we're not
8 promising in this instance, we have to hear the full
9 explanation as to what the problem was or why in LILCO's
10 view there was no problem with respect to these
11 particular audit findings.

12 I can certainly give you a theory as to why
13 logging problems could be QA breakdown problems. I
14 don't think you want to hear it, and I don't want to
15 give it because it would in no way necessarily be
16 related to any of the evidence. But it doesn't take
17 much imagination to see how logging problems could lead
18 to implementation problems where they might have an
19 effect.

20 And I want to get it on redirect in a focused
21 context instead of hearing at every other answer, which
22 we are still hearing to some extent today, that however,
23 in the total context of things there is no problem. I
24 understand that is LILCO's view. It just doesn't help
25 to have that general statement. I want to see the

1 particulars matched up.

2 MR. ELLIS: I think that this is very
3 important for me to understand. Otherwise, I won't be
4 able to prepare it the way you all want it. I'm not
5 sure that I agree with that. The testimony we've heard
6 is not general but specific. In other words, we have
7 these inspection programs that follow on, and we have --
8 and these inspection programs are specific to checking
9 to see whether the plant is built in accordance with the
10 E&DCRs.

11 The testimony was that there are 750,000 of
12 them. I don't see specifically, unless you want us to
13 take the specific E&DCRs that are referenced, which may
14 be impossible to do in terms of documentation, take
15 specific E&DCRs and send someone to the field now to
16 doublecheck that after the inspections have been done
17 not only by the FQC but by the startup organization.

18 You see the problem I'm having, Judge Brenner?

19 JUDGE BRENNER: I will stay with my
20 characterization that the answers here when they got
21 into that other area went general beyond the needs of
22 the particular question, did not focus on the fact that
23 these particular findings were checked on. I'm not
24 talking about for purposes of this hearing. I'm talking
25 about in the basic inspection process.

1 In addition, we have been down that road
2 before in previous hearing weeks. A statement that
3 there was no impact on the plant means different things
4 to different people. And I must tell you I resisted the
5 temptation to come back on that line at one point this
6 afternoon.

7 MR. ELLIS: Well, I hope you won't in the
8 future, Judge Brenner, because it is critical that we
9 address those problems and address them as early as we
10 can to see if we could satisfy the Board.

11 JUDGE BRENNER: Not on Mr. Lanpher's cross
12 examination, as long as he is asking fair questions
13 which are reasonably directed to get an answer. It is
14 that division, which is not a clear division, between
15 redirect and cross but which line has been crossed over
16 yet again today, notwithstanding our statements this
17 morning.

18 And you're going to get it much more
19 efficiently and your case much better directed, LILCO's
20 case much better directed by focusing it on redirect and
21 discussing things together when you can, because I can
22 tell you, just a general statement "But it has never had
23 any impact on the plant" is okay only as a bottom line
24 after you have tied it up.

25 You know, the simple fact of it is we have

1 that message already that that is LILCO's witnesses'
2 views. I don't need it repeated each and every time.

3 MR. ELLIS: Yes, sir, I understand that. But
4 my impression is that they have told you why in each
5 instance. But I will review that, and I have your
6 remarks in mind, and I will study them and take them to
7 heart.

8 JUDGE BRENNER: They have told us why in many
9 instances, but after telling us why in the particular
10 instances, they then expound and broaden it. And it is
11 was at one point that we had -- this may have been
12 before lunch -- where we had three different witnesses
13 give essentially the same answer to a question in
14 different words.

15 MR. ELLIS: They are all different
16 organizations, Judge Brenner.

17 JUDGE BRENNER: It did not require three
18 answers in the context.

19 Those portions listed in Suffolk County
20 Exhibit 61 for identification, those portions of the
21 reports are admitted into evidence.

22 (Portions of the
23 documents previously
24 marked as Suffolk County
25 Exhibits 56 through 59

1 and 62 and 63 for
2 identification were
3 received in evidence.)

4 What I would like to do as an index of which
5 portions of those exhibits are admitted into evidence at
6 this point for E&DCR deficiencies is bind in Suffolk
7 County Exhibit 61 for identification; but I think the
8 cross-reference of which other Suffolk County exhibits
9 they are contained in was useful. I guess we already
10 have it in the transcript.

11 (Suffolk County Exhibit 61 for Identification
12 only follows:)

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Insert 1
SC Ex 61

COURTFR E&DCR DEFICIENCIES

<u>Audit No.</u>	<u>Page/Finding</u>	<u>Date</u>	<u>Description</u>
FA 654 (SCEy.57)	4.6	11/77	The auditor reviewed ten specifications and/or procedures as to which there were 180 applicable E&DCRs. 71 of these E&DCRs were missing, meaning that 39.4% of the Courter-related E&DCRs were missing.
	4.7		54 Courter-held drawings were reviewed, as to which there were 110 applicable E&DCRs. 34 E&DCRs were missing; 18 drawings had missing E&DCRs; and 5 drawings had the wrong revisions. This meant that 42.6% of the Courter drawings had problems.
FA 718 (SCEy.58)	3.1	3/78	The audit indicates that there has been an improvement in the site E&DCR program with the exception of that part of the program controlled by Courter.
	4.3		The auditor reviewed 7 specifications and procedures held by Courter, as to which there were 103 outstanding E&DCRs. 23 E&DCRs were missing or 22.3%.
	4.4		The auditor examined E&DCRs affecting drawings. Courter & Company was responsible for 30 of the 44 drawings found to be in error. With respect to Courter, 53 drawings were reviewed as to which 369 E&DCRs were still outstanding. 100 E&DCRs were missing, which affected 26 drawings. All together, 56.6% of the Courter drawings had errors.
Quarterly Report (SCEy.63)	p. 1, # 3	5/78	Referring to Field Audit 718, and Field Audit 654, the report to management notes that E&DCR deficiencies have improved, except in the area controlled by Courter.
FQC 26 (SCEy.56)	L.3	6/78	Courter-related E&DCR deficiencies are noted. Document control does not report E&DCR numbers affecting a document on the applicable site document distribution card as required by Quality Assurance procedures. Further, from a sample of 10 E&DCRs, it was noted that 4 of the applicable control drawings did not include the E&DCR number as required by procedures. In the turbine area, it was determined that E&DCRs listed on the drawings did not correspond to the master E&DCR log. Finally, E&DCRs which have been incorporated into the drawing are still being noted on the revised drawing.

<u>Audit No.</u>	<u>Page/Finding</u>	<u>Date</u>	<u>Description</u>
Quarterly Report (S(Ex.63))	p. 1, last ¶	8/31/78	The Quarterly Report to management notes the need to continue to monitor Courter in the area of E&DCR control. It notes that Courter appears to be responsive in this area.
Quarterly Report (S(Ex.63))	p. 1, ¶ 3	11/03/78	No audits have been conducted during the preceding 3 months concerning the Courter E&DCR compliance matter.
FA 842 (S(Ex.59))	4.1	11/78	The audit reviewed 5 Courter-held specifications as to which there were 354 applicable E&DCRs. 53 or 14.9% of the E&DCRs were missing in the specifications held by Courter which were reviewed. In addition, the audit reviewed drawings held by Courter. Fifteen drawings were reviewed as to which there were 71 outstanding E&DCRs. Ten E&DCRs were missing, which affected 6 documents. Accordingly, 14.1% of the E&DCRs which Courter should have been holding were missing.
Quarterly Report (S(Ex.63))	p. 1, ¶ 2	1/29/79	Referring to Field Audit 842, the report to management notes that the concern relative to Courter control of E&DCRs has not been resolved. It goes on to note that the posting by Courter of design change documents was found to be only 85-90% effective.
Quarterly Report (S(Ex.63))	p. 1, ¶ 3	4/16/79	Referring to Field Audit 905 conducted during February 1979, it notes that the Courter problems related to E&DCRs remain unresolved. Maintenance of E&DCR documents by Courter showed an effective rate of approximately 92%.
FA 970 (S(Ex.62))	4.3	7/79	Two copies of a specification could not be located.
Quarterly Report (S(Ex.63))	p. 1, last ¶	8/20/79	Referring to Field Audit 970, the Quarterly Report notes that E&DCRs seem generally satisfactory except for the Courter & Company control of E&DCRs affecting specifications, where it is only 91% effective.
FA 974 (S(Ex.56))	N. 1	6/80	Contrary to requirements of its Quality Assurance procedures, in the turbine, welding, yard, reactor, and SQA areas, Courter was not logging in E&DCRs that pertain to specifications. Only those that affected drawings were being logged.

<u>Audit No.</u>	<u>Page/Finding</u>	<u>Date</u>	<u>Description</u>
			<p>The Courter QAPs require the holders of control documents to maintain the area document control log and file copies of the E&DCRs in front of the specifications which are effected. It was noted that the ADCL did not list an E&DCR and the effected specifications did not have the E&DCRs posted with them.</p> <p>The QAPs require control documents to be updated with E&DCR information using a weekly E&DCR summary and a daily E&DCR distribution. Courter was updating its Logs only using the weekly summary. That summary is considered by Stone & Webster Construction to be only 85-90% complete and should only be used as a double check to ensure daily posting of E&DCRs.</p>
FQC 35 (SC Ex. 56)	Attachment 2, Observation 2.4	9/80	Courter has failed to perform satisfactory corrective action for the violations noted in Observation N.1 of FQC audit 34.
FQC 38 (SC Ex. 56)	p. 2, Item B at top & Attachment 1, Observation 1.2	6/81	E&DCRs are not always properly logged and filed in accordance with Courter procedural requirements. The problems include that E&DCRs applicable to specification SH 1-343 were being filed in file cabinets, boxes and in the general file along with other E&DCRs, rather than in front of the particular specification as required by Courter procedures. Further, the Courter instrumentation group was not properly maintaining the document log book in that certain E&DCRs were not logged as required. The auditor noted that the individuals contacted were not totally knowledgeable about the QA requirements about logging of E&DCRs.

1 MR. LANPHER: Judge Brenner, during the recess
2 I can probably mark up the Reporter's copy that is going
3 into the transcript very quickly during the recess so
4 that it is in tomorrow. I have it all written out here.

5 JUDGE BRENNER: All right. Why don't you just
6 put in parens after each one Suffolk County Exhibit
7 whatever. It would be good if you can then -- we have a
8 lot of copying facilities available here in the building
9 -- it would be good if you could then run copies so that
10 the three exhibit copies also will conform to the copy
11 bound in the transcript.

12 Okay. Let's proceed.

13 Mr. Lanpher, at the risk of belaboring the
14 point, what we prefer in the future is the parties to
15 discuss this in advance so you can get some sort of
16 stipulation that you will ask about these findings and
17 after asking about them you will move these other
18 additional findings in as being part of that same
19 sequence so that counsel for the other parties are keyed
20 in in advance and can consider it, because they may have
21 a particular one that they don't want to agree to, in
22 which case you'll have to ask about it.

23 We will adjust, and we will be aware of the
24 good faith on balance on all sides given our other
25 rulings as to time and so on. We're not asking for

1 their agreement that they are significant. It's just
2 their agreement that if you asked about these others it
3 would be essentially the same types of questions and
4 answers about the ones asked about.

5 On the other hand, you have to ask about a
6 minimum number of them, even perhaps just one, perhaps
7 two, so that we are keyed in to where you are going so
8 that when we see the findings later we won't see
9 something new for the first time.

10 MR. LANPHER: Judge Brenner, if I could just
11 say, one of the things -- I will ask those questions.
12 One of the things I attempted to do in the thick
13 pleading that we have been referring to is to try to key
14 people in in advance, and I footnoted which findings I
15 thought fell into various categories because I want to
16 keep -- I want to key in but keep it to a minimum so
17 that it is streamlined. I'll do my best.

18 JUDGE BRENNER: All right. The other side of
19 the coin is -- I will say it for Mr. Ellis. LIILCO's
20 counsel has simply not had that in the form in which you
21 last provided it sufficiently so that they can feel
22 comfortable proceeding on the record with that type of
23 thing, and that's why the kind of discussions off the
24 record are going to be very important.

25 BY MR. LANPHER: (Resuming)

1 Q Mr. Gerecke, I'd like to ask several questions
2 about the quarterly reports to management, Suffolk
3 County Exhibit 63.

4 You prepare these reports every month -- every
5 quarter, excuse me.

6 A (WITNESS GERECKE) Normally by quarter, yes.

7 Q And what is the purpose of these reports?

8 A (WITNESS GERECKE) These are general
9 informative type reports, overview type reports to keep
10 certain management personnel apprised of the overall
11 status of the audit program, the LILCO audit program.

12 Q Do you have criteria for determining which
13 audit reports are highlighted in your cover memorandum?

14 A (WITNESS GERECKE) At the end of each quarter
15 the division managers initially look at all of the
16 audits they have performed and make a recommendation to
17 me based upon all of the audit findings, those that they
18 feel should be called to management's attention for
19 their information. They will give me their
20 recommendations. I will look at them, and if I have any
21 questions I will discuss them with them, and then the
22 final report to management will be prepared. It's based
23 on the judgment of the division managers and myself of
24 the relative importance of specific findings or specific
25 audit findings to the total picture of the audit

1 findings during that quarter.

2 Q Would it be fair to state that the findings
3 which are highlighted on the audits which are
4 highlighted are either those which contain the most
5 significant problems during that quarter or which
6 represent followups on findings which had been
7 highlighted in previous quarters?

8 (Panel of witnesses conferring.)

9 A (WITNESS GERECKE) I think these are just the
10 items which I feel management would be interested in and
11 should be aware of. It may be those that in comparison
12 with all the audit findings, the ones that we feel are
13 of most concern, or even those which may be of potential
14 concern, not necessarily a concern at present, but
15 something they should be aware of.

16 A (WITNESS KELLY) They also would note positive
17 improvement typically to follow an item through that was
18 previously identified.

19 Q I thought I included that in my question, that
20 it was either to highlight a problem or to follow up on
21 that problem after the initial quarterly report had
22 first addressed.

23 Is it fair to state that these quarterly
24 reports are to inform management on the status of
25 implementation of the LILCO quality assurance program?

1 A (WITNESS GERECKE) No. That would not be a
2 fair statement. They are merely to keep management
3 apprised of the current status of the LILCO audit
4 program.

5 Q Well, that audit program is part of your
6 quality assurance program, correct?

7 A (WITNESS GERECKE) Yes, it is.

8 Q And that audit program is one means of testing
9 or analyzing or checking on the implementation of that
10 overall quality assurance program, correct?

11 A (WITNESS GERECKE) That's correct.

12 Q Mr. Museler, maybe this question should go to
13 you. When did Courter first begin work on the Shoreham
14 project, if you know?

15 A (WITNESS MUSELER) I believe the time frame
16 was early 1975 because some of the initial piping work
17 was done by Dravo. However, there was a labor strike
18 very soon after Courter began their efforts on the
19 site. Courter either immobilized in very late '74 but
20 probably very early '75. A good part of 1975 was lost
21 due to labor problems. And the actual piping erection
22 was really a late 1975, early 1976 start, so they were
23 on the site in '75 doing some work. The bulk of their
24 work really began in late '75, early '76. Since that
25 time they have been the piping contractor uninterrupted

1 up to the present.

2 Q Mr. Museler, looking at page 152 of the
3 prefiled testimony it indicates that Courter and Company
4 assumed responsibility for ASME piping installation on
5 January 1, 1978. Was this a change in their previous
6 responsibilities?

7 A (WITNESS MUSELER) It did represent a change
8 in their responsibilities. It did not change -- they
9 were the piping erector prior to that, and they were the
10 piping erector subsequent to that. However, what this
11 indicates is that at that point in time Courter and
12 Company assumed the first line quality assurance
13 responsibilities and the code responsibilities for the
14 erection of the ASME piping on the site. Prior to that
15 time the code responsibility -- well, the code
16 responsibility is both an erection code responsibility
17 and an overall responsibility.

18 The overall responsibility has always been
19 that of Stone and Webster, and prior to this date in
20 1978 the installation code responsibility had been Stone
21 and Websters. Subsequent to this date the installation
22 code responsibilities were Courter's and the final
23 overall code responsibilities remained with Stone and
24 Webster. So it was primarily a change in the first-line
25 quality assurance and installation code

1 responsibilities. The same steam fitters, the same
2 supervision in terms of the field erection was present
3 both before and after this date.

4 Q But they took over first-line QA
5 responsibilities?

6 A (WITNESS MUSELER) That is correct, sir.

7 Q Was any consideration given at that time, if
8 you know, around the 1st of 1978 to not having Courter
9 take over those first-line QA responsibilities in view
10 of the E&DCR-related problems which had been identified
11 during 1977 with the Courter program?

12 (Panel of witnesses conferring.)

13 A (WITNESS MUSELER) Mr. Lanpher, there were a
14 number of considerations that went into the decision to
15 make this change. I think Mr. Arrington can add
16 something to the audits of Courter's quality assurance
17 responsibilities prior to this, prior to assuming code
18 responsibility.

19 But the principal reason for the change went
20 to the ASME code group, and with the evolving code
21 requirements the situation of having a quality assurance
22 organization different from the organization performing
23 the work and having the contractual responsibilities of
24 both not interrelated was something that the code --
25 that the ASME code wanted rectified.

1 The traditional method of installing ASME
2 piping and the one that the ASME code prefers is the
3 current situation where the installer has his own QA
4 program and the person who has overall responsibility
5 performs surveillance and audits on the installer's
6 first-line quality assurance program. That is the
7 primary reason that this change was made.

8 The situation with the control of E&DCRs by
9 Courter and by other contractors was of concern in and
10 of itself. As it would affect the ASME piping,
11 certainly by this point in time we had established to
12 our own satisfaction that the piping erection -- and
13 that includes the E&DCRs because in the field inspection
14 packages the E&DCRs are individually included in the
15 field inspection packages; and that process had been
16 going on from the beginning regardless of who had the
17 code responsibility. And that had not indicated a
18 problem in the installation. In other words, the E&DCRs
19 that were required to be attached to the piping to show
20 whatever modifications to the original piping drawings
21 were required had not been found to be inaccurate. And
22 that's on the basis of Mr. Arrington's inspections,
23 because prior to that time his organization was
24 inspecting those what we call baggies.

25 So that I can't recall whether or not we

1 specifically asked ourselves the question of whether the
2 E&DCR findings that we have been discussing in the areas
3 of area logs and logging the E&DCRs on the drawings or
4 not was specifically addressed in a context of making
5 this decision.

6 Certainly, if we had known, and we would have
7 known if the E&DCRs had not been being processed to the
8 field and being attached to the actual piping stool
9 pieces that they affected, we would have known that, and
10 we would have done something about that. We did know
11 that the E&DCRs were being incorporated in the baggies
12 because we had no findings. We may have had a few
13 isolated instances, but we certainly had no significant
14 number of findings that showed that E&DCRs were not in
15 fact in the field where they were supposed to be.

16 In direct answer to your question, I don't
17 think we specifically addressed that question, but we
18 would have had we had findings that indicated that that
19 situation could have had an effect on this code
20 responsibility change, and it would not have been the
21 case.

22 A (WITNESS KELLY) I might add for the record
23 that a baggie is a weld traveler package.

24 MR. LANPHER: Judge Brenner, I am going to
25 turn to the E&DCR verification program at this point. I

1 don't know if you want to take an afternoon break or go
2 through.

3 JUDGE MORRIS: Mr. Lanpher, if I might ask a
4 question, and then maybe we could proceed.

5 At the time that Courter assumed this
6 additional responsibility for first-line QA of erection
7 of piping was any additional qualification or
8 qualification of Courter by ASME involved?

9 WITNESS MUSELER: Yes, sir. I believe we went
10 through a six-month initial implementation period
11 followed by a full ASME audit of Courter's program on
12 the site. Courter had previously had a QA program which
13 had been, in terms of the corporate QA program, which
14 had been accepted by ASME. But each site is specific,
15 and the specific site program and the appendices to the
16 corporate program have to be examined by ASME. That did
17 occur.

18 I believe it was -- the program's change
19 occurred in January of '78. In October the official
20 ASME survey took place which Courter and Company did
21 pass in its initial inspection by ASME. That's the way
22 it's normally done. You have to implement the program
23 to have it working, as ASME wants to essentially inspect
24 an operating program. They took their corporate
25 program, applied it to Shoreham, got ASME's concurrence

1 as to how they were going to apply it and when the
2 survey was going to occur, and the survey subsequently
3 was done and passed by Courter.

4 JUDGE MORRIS: I recognize that you can't
5 represent ASME. Could you briefly describe how ASME
6 would conduct such a qualification program, what
7 criteria are used? For example, are there criteria that
8 are parallel to the 18 criteria of Appendix B?

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1 WITNESS MUSELER: I believe Mr. Arrington
2 participated directly in this particular audit and I
3 think he can supply that information.

4 WITNESS ARRINGTON: Yes, sir, Judge Morris.
5 The survey team consists of approximately three to four
6 people and during the one-week stay -- the
7 four-day-stay -- there at the site they are looking at
8 the implementation of the contractor -- in this case it
9 would be Courter -- to see that they are meeting the
10 intent of their procedures, both from a corporate
11 standpoint and from an ASME code standpoint.

12 The survey consists of verification from the
13 code, which is the document that Courter surveys to, and
14 to the implementing procedures, which covers all 18
15 points of Appendix B.

16 JUDGE MORRIS: Do they write a report that
17 describes their findings during such a qualification, or
18 do they just say yes or no at the end of it?

19 WITNESS MUSELER: No, sir. They provide a
20 report on their findings. They write the report. The
21 report indicates definitively whether the program is
22 acceptable, but it also goes into detail of what they
23 looked at and what their findings were.

24 I should also note that part of that ASME
25 survey was the implementation of E&DCRs into the field

1 because change control is a part of a piping
2 installation program. So they did look at the E&DCR
3 program and they found it to be satisfactory. It's one
4 of the criteria that is looked at, and that is the
5 mechanism on the Shoreham site for making those changes.

6 I would also note that it's not just ASME that
7 is performing an overview at the time. The independent
8 inspection agency -- in the case of Shoreham Hartford
9 Steam Boiler was the independent inspection agency both
10 before and after this change -- they were the authorized
11 nuclear inspector, A&I, for Stone and Webster. They
12 also continued in that capacity when the program was
13 switched over to Courter.

14 So it wasn't just a case of one audit
15 inspection in October for the year. The A&I was
16 maintaining a continuous overview and does right up till
17 today. And the A&I in his review of the inspection
18 packages also considers whether or not the E&DCRs have
19 been properly implemented in the field, whether the
20 piping configuration is correct.

21 JUDGE MORRIS: Thank you. I just wanted a
22 general idea of what kind of processes took place at
23 that time. I don't want to pursue the details at this
24 time.

25 JUDGE BRENNER: All right. Let's take a break

1 until 3:45.

2 (A brief recess was taken.)

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1 JUDGE BRENNER: All right. Let's continue the
2 examination.

3 BY MR. LANPHER: (Resuming)

4 Q Gentlemen, I would like to turn your attention
5 to page 179 of your prefiled testimony concerning the
6 E&DCR implementation verification program. Your
7 testimony indicates that this program was established in
8 July, 1976. Can you tell me why -- I understand the
9 purpose is to verify that installed field conditions
10 coincide with changes required by E&DCRs.

11 Why was this program instituted?

12 (Witnesses conferring.)

13 A (WITNESS MUSELER) Mr. Lanpher, there was no
14 one reason why the program was implemented at that
15 particular point in time. It was implemented to provide
16 additional insurance, assurance to ourselves that all
17 E&DCRs were being properly implemented. There were a
18 number of things occurring at that point in time that
19 contributed to that decision.

20 One was that the startup organization was
21 beginning to enter or beginning to move from their
22 planning phase to their actual system C&IO and testing
23 stage and safety-related components would be entering
24 that phase in a short time.

25 Another consideration was that Stone and

1 Webster had on another site identified a potential
2 problem in the E&DCR implementation area that caused us
3 to look at the situation again, even though we believed
4 that the current site processes ensured that the E&DCRs
5 were implemented. In fact, when that program was
6 finally -- when the program at the other site was
7 finally checked, I believe they did identify one case
8 out of 50,000 E&DCRs where the E&DCR had not been
9 implemented. But that was occurring at this point in
10 time and we didn't know the results of that.

11 So all of those factors together resulted in a
12 decision by LILCO, and with Stone and Webster's
13 concurrence, to institute this particular program to
14 provide additional insurance, additional assurance that
15 the E&DCRs were in fact being implemented in the field.

16 This was prior to the audits that we were
17 discussing earlier.

18 Q So would it be fair to state that there was no
19 catalyst that you know of in terms of problems with
20 E&DCRs that this program was designed to respond to
21 except for what you alluded to at the other Stone and
22 Webster project, or the potential at the other project?

23 A (WITNESS MUSELER) That's my recollection, Mr.
24 Lanpher.

25 Q You state in your testimony that this program

1 was over and above QA requirements that include E&DCR
2 verification as part of the Category 1 inspection
3 program. You say over and above that. Is this part of
4 the QA program, sir -- part of the LILCO --

5 A (WITNESS MUSELER) It is not part of the
6 Appendix B quality assurance program on the site. It is
7 a quality measure because it does affect the quality of
8 the plant, but it is not part of the quality assurance
9 program that is described as the quality assurance
10 program in the FSAR.

11 Q Is it administered by LILCO quality assurance
12 personnel?

13 A (WITNESS MUSELER) It's administered -- the
14 program is administered by the UNICO construction
15 organization. The inspections are performed, depending
16 on the particular component or process involved, by
17 UNICO Construction personnel, contractor personnel, in
18 some cases by quality assurance personnel -- depending
19 on the particular item.

20 Q Which items or class of items do the quality
21 assurance personnel verify?

22 A (WITNESS ARRINGTON) Under this program, only
23 those E&DCRs that reference additional NDT to the
24 installation would be the ones that field quality
25 control would be required to verify that they are in

1 fact complete -- just the NDT -- the non-destructive
2 testing.

3 A (WITNESS MUSELER) Mr. Lanpher, I should add
4 that this program is not a part of the normal erection
5 procedures. It is not performed -- as a particular
6 supervisor completes a piece of work, he doesn't verify
7 it at the same time. It is an additional layer above
8 the normal construction process. It is performed, in
9 those cases, except those noted by Mr. Arrington, by
10 construction management personnel.

11 Q At the top of page 180 you indicate that the
12 E&DCRs that affect startup or operation of the plant or
13 require NDT are included in the program.

14 What E&DCRs fall within that grouping? What
15 do you mean "affect startup or operation"?

16 A (WITNESS MUSELER) I will try to answer by
17 giving some general examples. It's not meant to be
18 all-inclusive. But, for instance, any E&DCR, whether it
19 was safety-related or not, which affected the wiring of
20 the plant, any change in determinations of the wires or
21 change in an instrument or change in an electrical
22 circuit would require verification. Any change in the
23 mechanical logic of the system, a change in the piping,
24 for instance, the addition of a bypass path around a
25 pump, the addition of a valve would be the subject for

1 verification.

2 Contrast that to the pipe support, which does
3 not change the function of the system. The pipe
4 supports are verified in many other ways other than
5 through this program, but the verification for pipe
6 support E&DCR would not be covered by this program.

7 Painting, if we change the paint on a panel
8 via an E&DCR, that would not be covered by this
9 program.

10 Q Mr. Museler, I can understand why verification
11 of change in paint would not be included in the
12 program. Your other example of changing a pipe support
13 I understand would not be in the program, while those
14 that changed the wiring of a system would be.

15 How was this delineation decided upon?

16 A (WITNESS MUSELER) You mean who made that
17 decision or who decides it on a day-to-day basis?

18 Q No. What was the basis for deciding that the
19 scope would be those that affect startup or operation as
20 opposed to, for instance, E&DCRs that also affect pipe
21 supports?

22 Mr. Museler, if I could expand on that
23 question, don't pipe supports affect operation? They
24 are certainly crucial. I would think that they are
25 awfully important to operation. So if you could give a

1 little more insight into the basis for this
2 delineation.

3 A (WITNESS MUSELER) Mr. Lanpher, the pipe
4 supports certainly are important, as are the building
5 structures and as are any other safety-related --
6 anything else that relates to a safety-related component
7 in the plant. And all of those E&DCRs that do affect
8 those components -- both safety-related and
9 non-safety-relate -- are inspected and verified. They
10 are done as part of the normal quality assurance program
11 for safety-related items and as part of the normal
12 construction inspection program for non-safety-related.
13 So they are verified. They are verified 100 percent by
14 the respective organizations responsible.

15 As I said, this program was decided upon to
16 provide some added assurance to management and to the
17 startup organization who did not, for practical reasons,
18 want to perform testing and then have to go back and
19 perhaps perform retesting if an E&DCR had not been
20 implemented prior to their taking over the system and
21 performing their tests.

22 A lot of the impetus did come from startup.
23 So the decision -- and the decision was made by LILCO
24 project management after conferring with Stone and
25 Webster project management as to what would be the most

1 significant E&DCRs to verify from the standpoint of the
2 operation and logic of the systems.

3 Why we didn't incorporate the pipe supports?
4 Because we believe that all of the verification programs
5 ensure that the plant is built to the E&DCRs. The pipe
6 supports literally would not affect the testing
7 program. Certainly if they were not implemented when
8 the plant was brought into full operation, or if a
9 certain system functions, it could be a problem. But
10 that was handled in a different way.

11 We had a separate program to ensure that the
12 pipe supports for system testing are in the
13 configuration they need to be, and that is verified on
14 every system at the time of turnover, even though all
15 the pipe supports in the system for seismic and pipe
16 break requirements may not be complete at that time.

17 But for the functioning of the system so that
18 the test program can go forward and the most important
19 -- and I'm not trying to establish different quality
20 assurance categories here, but from a system standpoint,
21 the most important item is that the system is configured
22 properly, that it will function properly, that the pumps
23 work, the relays perform in their required logic.

24 So that is the basic reason why those types of
25 E&DCRs were chosen to be incorporated in this program,

1 and also that they be verified as rapidly as possible.

2 Q Mr. Museler, are all verifications pertaining
3 to a particular system made prior to the time that
4 system is turned over to startup?

5 A (WITNESS MUSELER) No, they are not all made
6 at that time, sir. There are some of them that are not
7 made until subsequent to system turnover.

8 Q Will all of the verifications be completed
9 prior to fuel load?

10 A (WITNESS MUSELER) Yes, sir, they certainly
11 will.

12 Q Has that always been the case -- your
13 intention to complete the entire E&DCR verification
14 program prior to fuel load?

15 A (WITNESS MUSELER) Yes, sir, it has. The only
16 possible exception to that might be -- and this is
17 unlikely, but the only possible exception to that might
18 be -- some systems that are not required initially in
19 the fuel loading and low power sequence. If some
20 systems were not completed and the NRC agreed that we
21 could proceed a certain way down the fuel load path
22 without them, they might not be covered.

23 I would like to emphasize, though, that in the
24 turnover process many times the verification occurs
25 after the turnover process, and the turnover process, in

1 order to turn over a system, the initial verification by
2 the normal quality assurance program would already have
3 had to have taken place. In other words, on a
4 safety-related component, Mr. Arrington's program would
5 have already verified that those E&DCRs had been
6 incorporated in the particular components that they
7 affected, so that this program might not have covered
8 them all at that particular point in time.

9 But a system is not turned over -- the
10 jurisdiction of a component does not change to startup
11 unless the E&DCRs have been verified through the normal
12 program -- either the quality assurance program or the
13 construction inspection program.

14 MR. LANPHER: Judge Brenner, I would like to
15 have marked as Suffolk County Exhibit 64 for
16 identification a document entitled "Construction Site
17 Instructions, Number 2.16," and it's title is "E&DCR
18 Implementation Verification Program."

19 JUDGE BRENNER: Okay. Just to complete it.
20 The version we are using, in case there are other
21 versions, this one is dated November 5, 1979.

22 (The document referred to
23 was marked Suffolk County
24 Exhibit Number 64 for
25 identification.)

1 JUDGE BRENNER: It is Revision Number 4.

2 BY MR. LANPHER: (Resuming)

3 Q Mr. Museler --

4 A (WITNESS MUSELER) Someone just informed me
5 that's Revision 4?

6 Q Yes. Is that the current version?

7 A (WITNESS MUSELER) No, sir. Revision 5 is the
8 current version.

9 Q What is the date on Revision 5?

10 A (WITNESS MUSELER) May 3, 1982.

11 Q Do you know whether it significantly changes
12 this document?

13 A (WITNESS MUSELER) If you give us just thirty
14 seconds, the changes attributable to each revision are
15 indicated. We can take a real quick look and see if it
16 does. It may well not be substantively different from
17 the revision you are referring to.

18 (Pause.)

19 JUDGE BRENNER: Mr. Lanpher, did you have
20 questions about a large portion of this document or just
21 one particular portion? It might be that you could
22 focus the witnesses on the particular portion and find
23 that that has changed.

24 MR. LANPHER: I do have questions on, I think,
25 the first three pages of it.

1 WITNESS MUSELER: Mr. Lanpher, there is only
2 one change with Revision 5, affecting paragraph 3.2, and
3 it doesn't affect the substance of the paragraph. It
4 directs that specific GE changes still be verified by
5 the UNICO construction organization, but clarifies that
6 after system turnover the verification is not the
7 responsibility of this program.

8 BY MR. LANPHER: (Resuming)

9 Q Mr. Museler, directing your attention to the
10 bottom of the first page of Suffolk County Exhibit 64,
11 it indicates that there are three phases to this
12 program: Phase 1, the period prior to July 15, '76;
13 Phase 2, July 15, '76 through August 5, 1977; and then
14 Phase 3 is all the rest.

15 Now is Phase 1 the same as the backfit review
16 which is described at page 179 of your testimony?

17 A (WITNESS MUSELER) Yes, sir, it is.

18 Q How many E&DCRs are part of Phase 1? How many
19 were verified in Phase 1?

20 A (WITNESS MUSELER) 6,300, sir. That question
21 came up earlier and I think we may have thought the
22 number was different. But the number is 6,300. We
23 verified that.

24 Q I want to make sure you understand my
25 question. That confuses me. On page 181 you indicate

1 that a total of 6,205 E&DCRs had been verified at the
2 time your testimony was prepared. Do you see at the top
3 of page 181 of your testimony?

4 Now how many E&DCRs were verified as part of
5 Phase 1?

6 A (WITNESS MUSELER) There were 6,300 --
7 6,250 -- whatever the number is. That number is the
8 number of E&DCRs that were considered. That's the
9 number written up to that point for Phase 1. Some of
10 those E&DCRs physically could not be seen any more.

11 For instance, an E&DCR that would have
12 affected, in some cases, the placement of reinforcing
13 bars prior to the pouring of concrete would not be
14 verified by physical field inspection. That would have
15 been verified and was verified through the quality
16 assurance program where the QA inspectors verify it.
17 But as far as going back to look at it, you could not go
18 back and physically look at it.

19 So of those 6,300, some number were not
20 actually seen again in the field, but -- and
21 information-only E&DCRs are included in that number
22 also, which would not have been verified.

23 Q I'm not sure that we have communicated
24 correctly. Am I correct that prior to July 15, 1976,
25 there were a total of 6,300 E&DCRs that had been written

1 for the Shoreham project?

2 A (WITNESS ARRINGTON) I believe that was the
3 number that we got, although the day that we made the
4 phone call the supervisor that was responsible for the
5 area was not on the job site. He was on vacation that
6 day and we talked to one of his subordinates. The
7 number of 6,200 or 6,300 could have -- and we can verify
8 it very easily because the documentation is still
9 available as far as Phase 1 as to how many E&DCRs were
10 in fact written or verified prior to 1976.

11 But the answer that came back from the
12 individual -- I talke with him directly -- it was 6,200
13 or 6,300.

14 Q Mr. Arrington, you used the word "written or
15 verified", and to me those are two different things.

16 A (WITNESS ARRINGTON) They are. That's why I
17 am saying I can talk with the individual. The
18 supervisor who is responsible for this program, who
19 reviews virtually all of these E&DCRs, is one person.
20 He was not there. His subordinate was there and I asked
21 that he look up the records to see whether or not he
22 could determine how many E&DCRs were verified during the
23 Phase 1 of the process.

24 This number of 5,205 is about the number,
25 although I'm not saying it's exactly the same number

1 that I got from him. There could be some confusion as
2 to whether or not it was all of the E&DCRs, or whether
3 it was Phase 1, or whether or not it was 6,000 E&DCRs
4 that had been issued then. The number of 6,200 or 6,300
5 was the number we received. That was what I passed on.

6 A (WITNESS MUSELER) I think we are undergoing
7 some confusion because on page 181 the number that is
8 quoted as being the total number of E&DCRs that have
9 been verified to date, the 6,205, is very close
10 numerically to the number that was given to us as being
11 required to be checked in Phase 1 -- 6,300. Those
12 numbers are unrelated. They just happen to be very
13 close numerically, and your question, which I don't
14 think we have answered properly, is I believe you wanted
15 to know -- probably wanted to know two things.

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1 Q Why don't I ask. That's why I was pursuing
2 this, because I think you made a statement that was
3 confusing to me on the record. Maybe it was my question.

4 On page 181 it states that a total of 6,205
5 E&DCR's had been verified as of the time you write the
6 testimony. Do you know how many of those 6,205
7 constitute phase one verifications?

8 A (WITNESS MUSELER) No, sir, but we can find
9 that out.

10 A (WITNESS ARRINGTON) We thought we did.

11 Q It's clearly not 6300?

12 A (WITNESS MUSELER) No, it's not, sir. The
13 subsequent phases of this program have verified a large
14 number of E&DCR's. But we can clarify that rather
15 rapidly.

16 Q Okay. When you get that I would appreciate
17 it.

18 The phase one --

19 JUDGE BRENNER: Mr. Lanpher, if you are going
20 to go off this, I take it that "verified" can mean
21 different things depending on the accessibility of the
22 construction for verification, is that right? Anybody?

23 WITNESS ARRINGTON: "Verified" in this sense
24 means that the work was physically done and verified by
25 construction and the field quality control

1 organization. What Mr. Museler was referring to, in
2 some cases we had rebar that was issued on E&DCR's.
3 That rebar had been encapsulated in concrete.
4 Therefore, you could not physically see it. But a
5 review of the documentation indicated that that E&DCR
6 was in fact incorporated.

7 JUDGE BRENNER: Then the answer to my question
8 is yes, because some of those are included in the
9 statistics of E&DCR's which have been verified as part
10 of this implementation and verification program,
11 correct?

12 WITNESS ARRINGTON: Yes, sir.

13 MR. LANPHER: Judge Brenner, that's what I was
14 going to follow up on.

15 BY MR. LANPHER: (Resuming)

16 Q What does it really mean to verify in phase
17 one and phase two and phase three, or is it all the same
18 thing? In that regard, Mr. Arrington, turning to page 2
19 of the procedure, Exhibit 64 for identification,
20 regarding phase one, is it a requirement for phase one
21 E&DCR's to actually check the installation in all cases
22 except where, for instance, it is covered with
23 concrete?

24 A (WITNESS ARRINGTON) Yes, sir, it would be.
25 The construction organization would perform a physical

1 inspection. This form was in a three or four-part
2 form. The construction organization I believe was the
3 first organization that would respond, to fill out part
4 A of the form. They would physically go out and check
5 to be sure that the dimensions on an E&DCR, as an
6 example, was incorporated into that component.

7 When this form arrived at field quality
8 control, we would verify it through our documentation.
9 If I had documentation indicating that it had been
10 performed -- in other words this E&DCR was specifically
11 listed on an inspection report, therefore it had been
12 verified -- I would not physically go out and check it,
13 because I had records indicating that that had already
14 been done.

15 Q Mr. Arrington, looking at section 4.1 and .3,
16 it states that -- and this is for phase one --
17 "certification by the installing organization and FQC
18 inspection is not essential or feasible for E&DCR's
19 covering work earlier in the project." Why is that so,
20 if an item is not covered up?

21 A (WITNESS ARRINGTON) I'm not sure what that
22 means. I know by being at the site at the time that we
23 actually did on a one on one basis account for all of
24 the E&DCR's issued prior to July of 1976.

25 A (WITNESS MUSELER) Mr. Lanpher --

1 Q Let me follow up.

2 What do you mean, "account for"?

3 A (WITNESS ARRINGTON) We accounted for -- prior
4 to that date, under phase one there was a form that was
5 issued with every E&DCR that would be a drawing or
6 inspection E&DCR. And each form, two organizations at
7 least, construction and field quality control, would
8 indicate that this work had or had not been incorporated
9 in the field on every case, every E&DCR that was issued,
10 not an information-only E&DCR that didn't change
11 anything, but that was just clarification of what was
12 already there. It was not necessary to verify that that
13 had been implemented, because there's no implementation
14 there.

15 But on a one on one basis, every E&DCR that
16 was issued, there was a form that went with that E&DCR.
17 This is a backfit. And we had to account for that
18 document as to whether or not it had been incorporated
19 in the field.

20 Q So you verified it by reviewing documents?

21 A (WITNESS ARRINGTON) Documents and/or physical
22 inspections. Construction would go out and do the
23 physical inspection. They had the first responsibility
24 with this form. They would go out, because -- the
25 reason for that is, if the work had not taken place

1 there's no point in submitting it to field quality
2 control if it hadn't gotten to that point on the job
3 site.

4 Q Mr. Museler, I cut you off before.

5 A (WITNESS MUSELER) I was going to say that,
6 you know, I asked the same question about the wording of
7 that particular paragraph, because it has been in there
8 and it's been worried that way for quite a while, since
9 phase one was implemented. Probably we should have
10 changed the procedure to make it clear.

11 But when I asked the question and talked to
12 the construction disciplines that were responsible for
13 implementing this work in phase one, the answer was that
14 early in the project there were a lot of E&DCR's or a
15 lot more E&DCR's that were subsequently changed by the
16 time 1976 came around, and those E&DCR's had been
17 superseded or that work had been done and then
18 eliminated and something else put in its place.

19 It also covered the situation we mentioned
20 where a lot of piping was installed and rebar was
21 installed in concrete and could not be looked at. So it
22 certainly isn't worded to say that clearly, but I have
23 asked that question quite a while ago and that's the
24 answer. They still did verify by physical field
25 inspection those E&DCR's that were accessible to them

1 during phase one, as well as during the other phases of
2 this.

3 Q Why have phase one, phase two and phase three
4 -- let me lead into that first of all with a question.
5 Even in phase three, you have, I believe, certain
6 situations accounted for in paragraph 4.4 or section 4.4
7 where you can't actually verify the change because
8 subsequent work or whatever would have covered it up or
9 made it impossible to verify, correct?

10 A (WITNESS MUSELER) Is your question, why isn't
11 there just one phase because it sounds like everything
12 is being done the same way?

13 Q Yes.

14 A (WITNESS MUSELER) Because there was no phase
15 three at one point. Phase two originally encompassed
16 verifying every E&DCR. Phase three was a change to
17 that, that verifies the E&DCR's affecting the function
18 or operation of the plant, as we discussed. So that
19 there was a phase one which was the backfit phase, to
20 check all of the E&DCR's that had been installed in the
21 field, phase two -- and you will note in the attachments
22 there are different E&DCR verification forms. Stone &
23 Webster had inaugurated a different E&DCR form which
24 allowed the verification specifically -- and again, this
25 is independent of the normal quality assurance

1 inspections -- but allowed verificatin of every E&DCR
2 and provided a tear-off form to accomplish that.

3 Approximately a year after phase two was
4 instituted, we made the decision to verify only those
5 E&DCR's that affected the function or operation of the
6 plant. Therefore, that was a change to what was going
7 on at the time. So that indicates why there were three
8 phases. It was a change in direction one year,
9 approximately a year after the implementation of the
10 initial program.

11 Q Gentlemen, you are going to look for an answer
12 on how many E&DCR's were verified in phase one. Do you
13 know how many were verified in phase two?

14 A (WITNESS MUSELER) No, sir. We will get phase
15 one, two and three numbers.

16 Q Thank you, sir.

17 A (WITNESS MUSELER) I can say that the bulk of
18 the E&DCR's, certainly more than 50 percent, were
19 written since phase three was inaugurated, since 1977.
20 My recollection is that we may have been at perhaps
21 15,000 E&DCR's at that point, which would have meant
22 that 30,000 were written subsequent to the
23 implementation of phase three.

24 (Pause.)

25 Q Mr. Arrington, if I could go back to one

1 answer you provided, you stated that in the backfit
2 review you checked all the E&DCR's except those for
3 information only.

4 A (WITNESS ARRINGTON) Yes.

5 Q 4.1 at the top of page 2, section 4.1, talks
6 about taking the F and P series E&DCR's. Which are the
7 F&P series?

8 A (WITNESS ARRINGTON) The F series would be the
9 field-listed E&DCR's. P would be project. These are
10 initiated and issued out of our Boston office.

11 Q In taking the F and P, is that the total
12 universe, then? It sounds as if it is less than all of
13 them.

14 A (WITNESS ARRINGTON) That would include the
15 F's and P's, all of those series E&DCR's, excluding
16 information only, naturally.

17 Q So it is the entire -- F and P does constitute
18 the entire universe of E&DCR's?

19 A (WITNESS ARRINGTON) With the exception of the
20 N series E&DCR's, which is strictly an E&DCR that is
21 issued to cover engineering input as a result of the
22 disposition to an N&D. It's just to get it into the
23 system so that the engineer is familiar with using the
24 E&DCR, as opposed to having an N&D attached to the
25 specifications.

1 But that's the only reason why we have the N
2 series E&DCR. If an N&D is issued on a particular
3 installation and the results of that disposition is a
4 spec change -- in other words, there was a problem in
5 the field that was identified under the normal course of
6 inspection -- and as a result of the disposition by the
7 engineer, the cognizant engineer of that discipline,
8 that it be a spec change to be incorporated into the
9 spec, we issue an E&DCR, so everyone that has drawings
10 or specifications would have that E&DCR, as opposed to
11 having E&DCR's and N&D's attached to the spec.

12 So that's a very low number, but that is the
13 entire universe of E&DCR's that I recall, would be the
14 P's, the F's, and the N's. I don't know of any others.

15 MR. LANPHER: Judge Brenner, I was just
16 conferring. I don't have any further questions on
17 this. I'm going to go to another subject, unless the
18 Board has questions.

19 JUDGE BRENNER: By this subject, do you mean
20 E&DCR's or just construction site instructions, 2.16?

21 MR. LANPHER: On the E&DCR verification
22 program, which is what I was referring to.

23 JUDGE BRENNER: Did I miss something today?
24 There is something in your letter -- it's okay if you
25 don't want to cover it, but did you cover the two

1 observations called out in the first page of your letter
2 of October 11th?

3 MR. LANPHER: I indicated that I intended to
4 cover that in the FSAR configuration examination.

5 JUDGE BRENNER: Okay, I understand now. I
6 just wanted to make sure I didn't miss something.

7 MR. LANPHER: You don't want me to miss any
8 findings?

9 JUDGE BRENNER: I didn't recall. I wanted to
10 make sure that they didn't happen while I was sitting
11 here, or else I would start to question my own presence
12 here today.

13 JUDGE CARPENTER: I'd like to ask whether any
14 member of the panel is familiar with how many deviations
15 have been discovered as a result of the verification
16 program? If you don't know at this time and want to
17 check on it, that would also be acceptable.

18 WITNESS ARRINGTON: We would have to check,
19 Judge Carpenter. There have been a few isolated cases,
20 but as I indicated this morning I'm not sure of which
21 ones they would be. I would have to review the
22 nonconformance reports to find that out.

23 I can't recall specifically any E&DCR that was
24 not incorporated into the plant, other than some
25 isolated cases where they did not incorporate all the

1 requirements of the E&DCR. In no cases do I recall
2 where no one knew it existed and we got out there and it
3 was not incorporated properly, meaning that the
4 dimension that it was listed on the E&DCR was not
5 exactly like the E&DCR. I'm just giving an example
6 now.

7 But in order to give you that information, I
8 would have to review the nonconformance and disposition
9 reports. That is between 4500 and 5,000 documents.
10 You're talking about implementation and verification of
11 the E&DCR itself.

12 JUDGE CARPENTER: Yes.

13 WITNESS ARRINGTON: As I indicated this
14 morning, I don't know of any that we had that particular
15 case.

16 JUDGE CARPENTER: And you feel you would
17 know?

18 WITNESS ARRINGTON: Yes.

19 JUDGE CARPENTER: Thank you very much.

20 WITNESS MUSELER: Judge Carpenter, were you
21 referring to specifically via this program that we had
22 been discussing?

23 JUDGE CARPENTER: Yes. As we leave this item,
24 I just wanted to get a feel for how many fish you had
25 caught.

1 WITNESS MUSELER: In this net, to my
2 knowledge, on the construction end we didn't catch any
3 fish. We have caught a small number of isolated
4 instances. I can only recall one in Mr. Arrington's
5 net, an electrical panel where construction had not
6 picked up the E&DCR and it was picked up in Mr.
7 Arrington's net, not this E&DCR verification program,
8 although it might have picked it up later. But Mr.
9 Arrington's net occurred first and he picked it up.

10 That's the only one that I can recall.

11 JUDGE CARPENTER: Thank you.

12 (Board conferring.)

13 JUDGE BRENNER: Okay, Mr. Lanpher, why don't
14 you pick up with your next area.

15 BY MR. LANPHER: (Resuming)

16 Q Gentlemen, I'd like to turn your attention to
17 what we have labeled as the storage housekeeping area.
18 I do have a few preliminary questions.

19 First, do you agree that basic requirements
20 which LILCO must meet for storage, receiving and
21 handling of materials and equipment during the
22 construction phase are set forth in Appendix B,
23 criterion 13?

24 A (WITNESS MUSELER) Mr. Lanpher, I assume that
25 is the right cert. for the part of Appendix B. We

1 don't have it right here, but to the extent it refers to
2 storage and handling of equipment we can concede that we
3 are required to meet that part of Appendix B.

4 Q If you need Appendix B, it's your attachment
5 one.

6 Gentlemen, do you agree that further
7 definition of the criterion 13 requirements related to
8 receiving, storage and handling are set forth in ANSI
9 Standard N45.2.2, which was issued in 1972?

10 A (WITNESS KELLY) Yes, that's correct.

11 Q Mr. Long, you are familiar with that ANSI
12 Standard, are you not?

13 A (WITNESS LONG) Yes, sir, I am. You are
14 referring to ANSI N45.2.2?

15 Q Yes, sir.

16 A (WITNESS LONG) Which revision?

17 Q Issued in 1972. It's the 1972 revision.

18 A (WITNESS LONG) Yes, I am familiar with the
19 1972 version, although I don't have a copy with me.

20 Q You were a member of the main ANSI
21 Subcommittee that balloted that; is that correct?

22 A (WITNESS LONG) Yes, sir.

23 Q Am I correct, gentlemen, that LILCO has
24 committed in the FSAR to comply with these ANSI
25 requirements or these ANSI standards?

1 A (WITNESS KELLY) Yes, we have.

2 Q Do you know whether you have taken any
3 exceptions to ANSI N45.2.2, 1972?

4 A (WITNESS KELLY) Give us one minute, okay?
5 (Pause.)

6 MR. ELLIS: Excuse me. Mr. Lanpher, on your
7 October 6th letter, which I think related to that, can
8 you point out to me where the N45.2.2 is referred to?

9 MR. LANPHER: It's not referred to in there.
10 I mentioned earlier that the guides and other standards
11 that were being utilized in, I think it's, Appendix B of
12 the FSAR may be questioned on. This is in the nature of
13 a foundation question.

14 I believe, besides that, the Board's direction
15 was to provide detailed audit findings.

16 WITNESS KELLY: Mr. Lanpher, as far as our
17 position on Reg Guide 1.34, it states in our FSAR,
18 Appendix 3B, that Stone & Webster is complying with ANSI
19 N45.2.2, 1972, for receiving, storage and handling of
20 safety-related components, except that some packaging
21 and shipping procedures were developed and specified
22 prior to the issuance of this guide. Also, significant
23 components were shipped to the construction site prior
24 to the issuance of this guide and thus were not subject
25 to its provisions.

1 Excuse me. It was Reg Guide 1.38.

2 MR. ELLIS: If there are going to be
3 substantial questions on this, we would like to get
4 copies to have before us, because we weren't prepared.
5 At least, we don't have N45.2.2 here.

6 MR. LANPHER: Judge Brenner, we get into our
7 copyright situation here. The reason I want to use this
8 is just because I think it will expedite some foundation
9 questions. I have made some copies, and if -- I would
10 like not to mark it as an exhibit and then get rid of
11 the copies. I think we did this once before.

12 JUDGE BRENNER: You mean if you leave them on
13 the corner of your table and if Mr. Ellis happens to
14 come by and picks it up, it's his business?

15 MR. LANPHER: Right.

16 JUDGE BRENNER: All right. His other point,
17 which he is not pressing strongly at this time because
18 he wants to see the extent of your use first -- at least
19 I infer that from some of his remarks -- is a valid
20 one.

21 Our focus on the identification for the
22 witnesses' study of the audit findings should not have
23 been taken to mean to the preclusion of the approach we
24 have adopted throughout this proceeding of giving
25 advance notice, unless you have a reason not to do that,

1 of documents that are being used. The purpose was not
2 as crucial to the control of the case as these other
3 detailed audit findings, but nevertheless was the valid
4 one of saving time so that parties do not have to sit
5 there, not having read a document recently. And the
6 same goes for the witnesses.

7 So if you're going to be using other documents
8 through the course of this, we want those identified
9 reasonably in advance also. And that is the same rule
10 we have applied for every contention throughout the case.

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1 WITNESS KELLY: Excuse me, Mr. Lanpher. I
2 only have Pages 10, 11, and 12 of the ANSI standards.

3 MR. LANPHER: That is all I gave out. That is
4 all I am intending to address. We have a copy of the
5 complete one, so it has some markings.

6 I just have a few questions, Judge Brenner.

7 JUDGE BRENNER: Let's proceed with the
8 questions, and if the witnesses don't know the answer
9 because they haven't recently refreshed themselves with
10 the contents of this document, that will be a sufficient
11 answer at this time.

12 BY MR. LANPHER: (Resuming)

13 Q Gentlemen, turning your attention to the
14 bottom of Page 10 of the ANSI standard, the righthand
15 column, the last sentence states that "Levels and
16 methods of storage necessary are designed to minimize
17 the possibility of damage or lowering of quality due to
18 corrosion, contamination, deterioration, or physical
19 damage from the time an item is stored upon receipt
20 until the time the item is removed from storage and
21 placed in its final location."

22 Do you agree with that statement?

23 A (WITNESS KELLY) Yes.

24 Q And that is the purpose of LILCO's storage
25 program under this standard?

1 A (WITNESS KELLY) Yes, I would say that's the
2 basic reason.

3 Q Turning your attention to the top of Page 11,
4 the righthand column, Section 6.2.2, entitled
5 Cleanliness and Housekeeping Practices, it states,
6 "Cleanliness and good housekeeping practices shall be
7 enforced at all times in the storage areas. The storage
8 areas shall be cleaned as required to avoid the
9 accumulation of trash, discarded packaging materials,
10 and other detrimental soil."

11 Does the LILCO quality assurance program
12 commit to meet this standard?

13 (Whereupon, the witnesses conferred.)

14 A (WITNESS KELLY) As far as housekeeping, that
15 is addressed in our FSAR. As far as commitment to Reg.
16 Guide 1.39, the housekeeping requirements for
17 water-cooled nuclear reactor plants, it states that,
18 "The housekeeping requirements comply with Regulatory
19 1.39 to the extent practical considering the stage of
20 construction at the time of the issuance of the guide."

21 Q Do you know when that guide was issued, sir?

22 A (WITNESS KELLY) 3/73.

23 Q Does LILCO in its cleanliness and housekeeping
24 program, is that program designed to assure that
25 cleanliness and good housekeeping practices are enforced

1 at all times in the storage areas?

2 A (WITNESS KELLY) To the extent practical,
3 yes.

4 Q Turning your attention to the bottom of that
5 same page, under the topic of Coverings, do you agree
6 that a basic purpose of coverings is to prevent moisture
7 from entering under the covers and to protect the
8 covered object from wind damage?

9 JUDGE MORRIS: Would you repeat that question,
10 please, Mr. Lanpher?

11 MR. LANPHER: Let me rephrase it, gentlemen.

12 BY MR. LANPHER: (Resuming)

13 Q One of the areas that we are going to pursue
14 later is whether adequate coverings were provided for
15 stored equipment and materials. Do you agree that the
16 purpose of coverings in this ANSI standard is to provide
17 drainage, to assure air circulation, to minimize
18 condensation, and also to protect from wind damage?

19 (Whereupon, the witnesses conferred.)

20 A (WITNESS MUSELER) Mr. Lanpher, we generally
21 concur with the words. These words cover a lot of, you
22 know, different situations. Certain coverings outdoors
23 are required to protect against moisture entering into
24 components. Others are to prevent dirt from getting
25 into it.

1 What we are having a little problem with is
2 wind damage. That doesn't fall into our normal
3 categories of what we are trying to prevent, but the
4 general words there, to prevent moisture from components
5 that are sensitive to moisture and to prevent dirt from
6 components that are sensitive to dirt, those are the
7 reasons for coverings outdoors.

8 Q Does the same basic purpose apply to the
9 provision of caps for pipes and other materials to
10 prevent moisture or corrosion or dirt from entering
11 those pipes?

12 A (WITNESS MUSELER) In the case of the
13 components you referenced, the primary purpose of those
14 caps has been to protect the ends of the pipes which
15 were prepared for welding. It serves also to prevent
16 debris from entering the pipe. It prevents water from
17 entering the pipe. But in the context of the pipe caps
18 as used at Shoreham on the large bore pipe, it serves
19 several functions, the primary one being that the end of
20 the pipe is protected if it has been prepared for
21 welding and shipment.

22 Q And if it is not covered, what kind of damage
23 can result if the end cap is not provided?

24 A (WITNESS MUSELER) If the end cap is not
25 provided, and the pipe were banged against a hard

1 surface, the end preparation of the pipe would have to
2 be reworked, thereby requiring additional work in order
3 to achieve a satisfactory weld.

4 Q Do the end caps also provide protection
5 against corrosion and other kinds of damage besides
6 banging? This is in the welding area.

7 A (WITNESS MUSELER) They do provide some
8 benefit in that respect. However, the normal practice
9 is that the end preparations have to be touched up in
10 any case because nothing provides total oxidation
11 resistance, so that would have to be done in any case.

12 (Pause.)

13 Q Gentlemen, turning your attention to Page 12,
14 the righthand column under Storage Records, it states
15 that "Written records shall be prepared that include
16 such pertinent information as storage location,
17 inspection results, protection and personnel access."
18 Does LILCO have a program to comply with this storage
19 record requirement?

20 A (WITNESS KELLY) Yes.

21 Q Is that the storage history card or storage
22 card which is one of the areas that is designated for
23 examination by the county?

24 A (WITNESS KELLY) No, it is not just simply the
25 storage history cards. It's the total storage program.

1 Q What is the purpose of the storage history
2 card?

3 A (WITNESS KELLY) The purpose of the storage
4 history card is to document necessary preventive
5 maintenance and inspection activities that need to occur
6 on an item if they need to occur.

7 Q Just so I understand, then, the storage
8 history card has really a limited purpose, such as the
9 inspection and maintenance activities that must be
10 performed as to a particular piece of equipment for
11 materials.

12 A (WITNESS KELLY) The purpose of the storage
13 history card is to provide the item for component
14 identification, it's location for preventive
15 maintenance, and what inspection activities were being
16 performed. The storage history card is not made out for
17 every item. Obviously, a pipe spool does not have a
18 storage history card. It does not require any
19 preventive maintenance activities. It would just be
20 stored in a controlled storage area that receives
21 periodic inspections.

22 Q So what kinds of materials or equipment do
23 have storage history cards on them?

24 A (WITNESS KELLY) Those that are deemed to
25 require preventive maintenance, typically items that

1 would require measuring, shaft rotation, pumps,
2 lubrications.

3 Q Heaters?

4 A (WITNESS KELLY) In certain instances.

5 Q Gentlemen, just above that portion of the ANSI
6 standards that I read before relating to storage
7 records, it states that "Items released from storage and
8 placed in their final locations within the power plant
9 shall be inspected and cared for in accordance with the
10 requirements of Section 6 of this standard and other
11 applicable standards."

12 Section 6 pertains to storage. Do you agree
13 that when items are released from storage, that the
14 basic requirements for their care and handling continue
15 to apply?

16 (Whereupon, the witnesses conferred.)

17 A (WITNESS KELLY) Some do, some don't.

18 Q You can't make a general statement that the
19 care and handling requirements which are described
20 pertaining to storage in this ANSI standard, you can't
21 make a general statement whether they continue to apply

22 A (WITNESS KELLY) All those activities to meet
23 the requirements or the intent of the storage program
24 are maintained. There would be certain cases where that
25 would not, so a generalization could not be made.

1 MR. LANPHER: Judge Brenner, I am going to
2 turn to audit findings at this point.

3 JUDGE BRENNER: We are going to break in about
4 the next five minutes. Is that why you are asking with
5 such hesitation in your voice?

6 MR. LANPHER: Yes. I am just wondering if I
7 should start. I think it might be useful to mark as an
8 exhibit, or I can pass it out, or we can mark it first
9 thing in the morning, the summary sheets which have been
10 previously provided for the storage area. I was
11 proposing to mark that.

12 JUDGE BRENNER: As befits the subject, why
13 don't we take care of that housekeeping matter today,
14 and then we could get rolling as soon as we meet
15 tomorrow.

16 MR. LANPHER: Fine.

17 JUDGE BRENNER: While you are passing them
18 out, and we will mark them, it would be okay with us if
19 we shifted to an 8:30 to 4:30 schedule for the rest of
20 this week, since we are in town. For us, it is more in
21 keeping with our normal earlier starting time here, but
22 we will leave it up to the parties. I don't know what
23 your logistics are in the morning. Mr. Ellis?

24 MR. ELLIS: Yes, sir. Judge Brenner, you
25 still, I think, are giving me the opportunity to address

1 Friday afternoon as soon as I collect my information on
2 that?

3 JUDGE BRENNER: That's right.

4 MR. ELLIS: We do have a large number of
5 people from New York and Boston, and we have determined
6 that getting to the airport is no easy task.

7 JUDGE BRENNER: Right. I meant starting at
8 8:30 and adjourning generally at 4:30, subject to your
9 telling us you have a problem on Friday. Mr. Lanpher?

10 MR. LANPHER: That generally is not a problem
11 for me, though my wife will probably be angry.

12 JUDGE BRENNER: Well, I will let her make a
13 special appearance.

14 MR. LANPHER: You wouldn't want that. She is
15 wonderful, but she has her own views on this case.

16 (General laughter.)

17 JUDGE BRENNER: I suspect we could have all of
18 the spouses get into quite a debate as to the hours of
19 this case.

20 MR. LANPHER: Judge Brenner, I would like to
21 have marked as Suffolk County Exhibit 64 for
22 identification --

23 JUDGE BRENNER: Wait. We can start at 8:30,
24 as far as you are concerned?

25 MR. LANPHER: Yes.

1 JUDGE BRENNER: Mr. Bordenick?

2 MR. BORDENICK: Are you inquiring regarding an
3 early starting time?

4 JUDGE BRENNER: Yes.

5 MR. BORDENICK: If it is agreeable to the
6 others, it is agreeable to me.

7 MR. ELLIS: We have no problem. We did take a
8 poll, and 9:00 to 5:00 was preferable to us, but it is
9 not a strong preference.

10 JUDGE BRENNER: I didn't mean to take up as
11 much time as we have talking about the time. It doesn't
12 matter much to us. We wanted to offer it to the
13 parties. If you prefer 9:00, we will stay with 9:00.

14 MR. ELLIS: We prefer 9:00 to 5:00. I think
15 Mr. Lanpher does, too. His wife at least does.

16 MR. LANPHER: Fine, 9:00 o'clock.

17 JUDGE BRENNER: All right. Okay, we will stay
18 with 9:00 for tomorrow morning, and then you can let us
19 know if you want to change it. If we don't hear
20 otherwise, we will stay with that.

21 MR. LANPHER: Judge Brenner, what I have done
22 in this instance is, I combined all the storage related
23 exhibits that were attached to my previous exhibits, so
24 we just have -- my previous pleading, so we have got one
25 document marked as Suffolk County Exhibit 54. I will

1 note that over lunch we reviewed some materials, I
2 reviewed some materials --

3 JUDGE BRENNER: Sixty-four is the construction
4 site inspection.

5 MR. LANPHER: This should be 65. I thought I
6 said that. We had decided to delete one area out of the
7 storage findings, Storage Group 6, and so there are five
8 storage groups which are here. Storage Group 1 concerns
9 storage card deficiencies. Group 2, failure to protect
10 against weather. Group 3, the covering and capping
11 area. Group 4, environmental protection. And Group 5,
12 litter and debris.

13 JUDGE BRENNER: What was Group 6 again?

14 MR. LANPHER: Group 6 was failure to maintain
15 items in segregated storage.

16 JUDGE BRENNER: All right. So all this
17 document would be Suffolk County 65 for identification.

18 MR. LANPHER: Yes.

19 (The document referred to
20 was marked for
21 identification as Suffolk
22 County Exhibit Number
23 65.)

24 JUDGE BRENNER: You might want to renumber the
25 pages within it so that they are sequential, and give

1 them back to the Reporter that way tomorrow. You will
2 have time to do it tomorrow.

3 MR. LANPHER: Fine. Okay. Now, in that
4 connection we also have the field audits which we have
5 designated for use related to these matters, and we have
6 them available and I would like to have them marked as
7 Suffolk County Exhibit 65 for identification. They are
8 a bound volume which I will hand out in just a moment.

9 JUDGE BRENNER: Okay, great.

10 (The document referred to
11 was marked for
12 identification as Suffolk
13 County Exhibit Number
14 66.)

15 MR. LANPHER: Those are the major additional
16 documents which will be used in that storage area.

17 JUDGE BRENNER: All right. Great was the
18 comment. We appreciate your binding them together. So
19 we will do that for the storage and handling field
20 audits. The audits listed in Suffolk County Exhibit 65,
21 I take it?

22 MR. LANPHER: Yes.

23 JUDGE BRENNER: And that group of field audits
24 will be marked Suffolk County Exhibit 66 for
25 identification.

1 MR. ELLIS: Judge Brenner, may I inquire
2 whether we anticipate -- we I guess chiefly meaning Mr.
3 Lanpher anticipates going beyond the storage and
4 housekeeping area tomorrow, and if so, do we have any
5 notion of where we might get, so that we can set our
6 preparation sites and look at the groups?

7 MR. LANPHER: I have been burned too many
8 times by making those predictions. I don't know. I
9 can't make that prediction, Judge Brenner.

10 JUDGE BRENNER: All right. The sole purpose
11 of his inquiry is an understandable one. It is how far
12 ahead he has to --

13 MR. LANPHER: I am going to go to document
14 control next after this.

15 JUDGE BRENNER: He knows that. At least I
16 believe he knew that.

17 MR. LANPHER: There is no more I could say.

18 JUDGE BRENNER: Let me phrase it differently
19 so as not to burn you, and I will tell you why, just to
20 make you feel better about it. As soon as we get the
21 exhibits out, we can adjourn for the day and go off the
22 record maybe, and see if we can get a sense of the pulse
23 of it, since I think I recognize the very limited
24 purpose for which he is asking it.

25 Do we have 66? All right.

1 Before we adjourn, would it be useful to bind
2 in the exhibits you used today, even though they were
3 just for identification, for convenience? I guess I
4 have in mind the two thinner ones, 62 and 64.

5 MR. LANPHER: We certainly can.

6 JUDGE BRENNER: Let's bind those two in, just
7 for convenience, since they are rather thin documents.
8 We will not bind in 63, since it is a compilation of a
9 few.

10 (Suffolk County Exhibits 62 and 64 for
11 identification only follow:)

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COMP	1, A, 1, 1, -	F, A, A, -	A, U, O, 9, 7, 0,
TITLE	A, U, D, I, T, R, E, P, O, R, T, , , , ,		
FILE	910	LOC	
DOC	4, 9, 3, 1	DATE	7-12-79 FLAG A

July 12, 1979

Mr. T. F. Gerecke

Field Audit No. FA-970: E&DCR/Design Change Program
Shoreham Nuclear Power Station - Unit 1 - W. O. 48923

1. Purpose: To determine if applicable procedures and instructions are being implemented with regard to the control of Engineering and Design Coordination Reports (E&DCR's) and other design change documentation utilized in lieu of formal revision to drawings, specifications and procedures.
2. Scope: On June 26, 1979 and subsequent days, the undersigned, Mr. T. W. Koch and Mr. M. G. Smith audited the Site E&DCR Control Program. A formal review of 50 E&DCR's generated within the past four months was performed and field verifications were made of 55 drawings and 15 separate copies of SH1-152, SH1-224, SH1-412 and W200A with Technique Sheets. Various supervisory and clerical personnel from Stone & Webster SEO, FQC, UNICO, Courter & Co., Comstock/Jackson and John Grace were contacted during the audit.
3. Conclusions:
- 3.1 The Shoreham Design Change/E&DCR Control Program may be considered generally satisfactory except as noted below.
4. Action Required: (Three Violations, Two Open Items)
- 4.1 (Violation) Out of 55 drawings reviewed during the audit, comprising a total of 628 outstanding E&DCR's, 16 E&DCR's were missing or 2.6%. Out of 15 specifications and procedures reviewed during the audit comprising a total of 443 outstanding E&DCR's, 22 were not properly filed with their affected documents or 4.9%.
- FQC is requested to supply a response which demonstrates the appropriate corrective and preventive action. This response is to include steps taken in areas showing deficiencies which address the causes of missing E&DCR's. It is apparent in some areas that not all holders of controlled documents are fully aware of the tools at their disposal which are in existence to aid in the control of E&DCR's. Reference checklist item 4 and attachment 2.
- 4.2 (Violation) This item is written to document a deficient condition acknowledged by Stone & Webster Site Engineering to exist concerning Verbal Instructions in the area of duct supports. SEO Memo 55A paragraph 8 states that upon completion/partial completion... UNICO will initiate an E&DCR detailing the "as-built" installation. E&DCR shall be submitted within 3 months from the date the verbal was given. The problem being described here appears to be generic to duct supports in that completion of installation is not always feasible within 3 months due to various interferences. As noted in checklist item 6 some verbals in the area of duct supports presently date back as far

Insert
2A
SC Ex 62

4. Action Required: (Continued)

4.2(continued) as July 28, 1978.

FQC is requested to supply a response indicating the proper action to be taken in accordance with EAP 6.3 and SEO Memo 55A.

4.3(Violation) Prior to performance of the field inspection of documents in the Courter area the auditors requested to see the corresponding Subcontractor Document Distribution Record Cards for SH1-152, SH1-224 and SH1-412. Neither of these cards stated actual conditions as the two copies of SH1-152 assigned to R. Mathusen could not be located; there was only one copy of SH1-224 on the Plan Rack instead of two listed on the card; and, likewise the Reactor Area could only locate one of their assigned two copies of SH1-412. This problem was not indicated in the Courter control of drawings.

Courter SQA is requested to supply a response providing the appropriate corrective and preventive action in accordance with QAP 3.1.

4.4(Open Item) Upon review of the 50 E&DCR's in conjunction with checklist item 1, the following discrepancies were identified as not being in full compliance with EAP 6.3. E&DCR F-18059 was voided with an explanation that work was already completed, however it does not indicate how the identified problem (installation of steel plate without end prep details) was resolved. Upon review of E&DCR F-4457C and previous supplements F-4457A and F-4457B it was noted that a different QA Category was specified on each. All three E&DCR's were drawing change E&DCR's affecting FC-18M.

Stone & Webster is requested to supply a corrective action response.

4.5(Open Item) Upon review of the Master E&DCR Log dated 6-22-79 to determine whether all information contained on the 50 E&DCR's selected for review, has been transcribed, two discrepancies were identified. The Problem Solution section of E&DCR F-14137G states that F-14137A, B, and C are changed from specification change E&DCR's "To Be Incorporated" to "Not To Be Incorporated". This information was not picked up on the Site list. E&DCR F-18670A was issued as an Information Only E&DCR which changed the affected document on E&DCR F-18670 (a drawing change E&DCR) from 61.25-331 to 61.25-361. This information was also not picked up on the Site list.

Stone & Webster is requested to respond as to whether a previous E&DCR can be supplemented by a subsequent E&DCR, rather than superceded, when the "Change block" portion of the previous E&DCR is affected. In order for UNICO Document Control to have accurately transcribed the above information, these E&DCR's would have to have been carefully reviewed by the data transcriber.

(con't)

4. Action Required:(continued)

4.5(continued) It should be noted that the auditors were made aware during the audit of certain discussions being held between S&W Engineering and UNICO which are intended to resolve this type of problem. The outcome of these discussions should take the above exsmples into consideration.

5. Previous Audit Items Closed During This Audit: One

5.1 Open Item 4.3 of FA-905 may be considered closed as all items to be corrected have been verified on the Master E&DCR listing dated 6-22-79.

T. W. Catchpole
T. W. Catchpole

Approved: Joseph M. Kelly
Manager Field QA Division

TWC/ra

Attachment

- cc: Messrs. J. P. Novarro
- T. T. Arrington - S&W (2 w/att.)
- R. S. Costa - S&W (2 w/att.)
- L. C. Lilly
- K. A. Howe
- D. W. Papa - Courter (w/att.)
- A. B. Czarnomski - Courter
- R. Reagan - John Grace
- A. Shevade - UNICO
- C. A. Fonseca - SEO
- J. Hull - Comstock/Jackson
- Q.A. File 41.2.2 (w/att.)
- Eng. File All.391

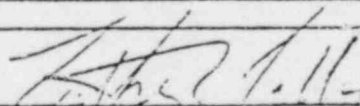
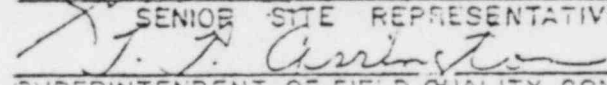
Insert 2B
SC Ex 64

Stone & Webster Engineering Corp.

CONSTRUCTION SITE INSTRUCTIONS

TITLE E&DCR IMPLEMENTATION VERIFICATION PROGRAM	NUMBER C.S.I. 2.16
	REVISION No. 4
	DATE November 5, 1979
	PREPARED BY: R. R. Klein/W. J. Stoll

APPLICABILITY SHOREHAM NUCLEAR POWER STATION - UNIT 1
--

APPROVED FOR USE:	
	SENIOR SITE REPRESENTATIVE
CONCURRENCE:	
	SUPERINTENDENT OF FIELD QUALITY CONTROL

FLAG	A	SYS	A13-
COMP	CSI-02.16		
FILE	101	DOC	4.655
E&DCR IMPLTAT VERT-4			
X0133	00459		

INPUT MAR 22 1981

SUBJECT: E&DCR Implementation Verification Program
SHOREHAM NUCLEAR POWER STATION - UNIT 1
W010-48923

1.0 PURPOSE:

To define the system whereby Engineering & Design Coordination Report (E&DCR) implementation and incorporation into the construction effort is verified.

2.0 REFERENCES:

Construction Site Instruction
C.S.I. 2.12

Information Requests

3.0 GENERAL:

- 3.1 The program covers E&DCR's which affect startup or operation of the plant. Mechanical, electrical, piping and the function of a system must be verified by UNICO Supervision and/or the Contractor who performed the work and SWEC FQC, when required. [2]
- 3.2 E&DCR's which incorporate field work on General Electric C & I and electrical FDI's and FDDR's shall be verified. FQC shall verify that QA Category I work has been inspected and UNICO Construction shall verify that QA Category II work has been inspected. (Required by G.E. letter RMP-79-89 dated 9/24/79). [2]
- 3.3 E&DCR's designated as "Information Only" and procedure, method or specification changes which do not affect the operation of the end product do not require verification.
- 3.4 In order to prevent inadvertent oversight, all E&DCR's or E&DCR Change Control Forms are to be reviewed. Those not included in the Program shall be marked "REVIEWED - NOT PART OF VERIFICATION PROGRAM", and initialed by the Reviewer. The Construction Area/Discipline Supervisors are responsible for review determinations during the backfit phase and the Resident Engineer shall make similar evaluations during the remaining periods, defined in paragraph 4.0. E&DCR's designated as "Information Only" do not require the above review and signature. [2]

4.0 PROCEDURE:

The program is divided into three phases. Phase I covers the backfit period prior to July 15, 1976. Phase II extends from July 15, 1976 to August 5, 1977, and Phase III extends from August 6, 1977 to the end of construction.

4.0 PROCEDURE: (Continued)

- 4.1 Phase 1 - Each Construction area shall copy Field and Boston - generated ("F" and "P" series) E&DCR's in their files bearing a Construction Office received date before July 15, 1976.
- 4.1.1 Each E&DCR shall be reviewed and implementation of E&DCR instructions shall be certified by stamping the copy "IMPLEMENTATION VERIFIED", and application of the date and the signature of the responsible Construction Supervisor similar to sample Attachment 5.1.
- 4.1.2 Copies of E&DCR's addressing Electrical, Mechanical, Piping, Welding and Instrumentation changes shall be sent by Construction Area personnel to the discipline department head for verification and execution as described in paragraph 4.1.1.
- 4.1.3 Certification by the installing organization and FQC inspection is not essential or feasible for E&DCR's covering work early in the project.
- 4.1.4 Verified E&DCR's are to be forwarded to the Resident Engineer's office for review and concurrence. The processed E&DCR will be noted in the Implementation and Verification Status Log which will be maintained by the Resident Engineering office until the computerized program is in effect. After entry into the log, the verified E&DCR is forwarded to the E&DCR Coordinator and finally to SR2 Files. [1]
- 4.1.5 The Master Log which is maintained by the Document Control Department will include the status of E&DCR verification. Weekly and monthly E&DCR summaries by E&DCR and by affected document will list the status information in the column titled "DATE CLOSED" (see Attachment 5.2). The date shown will be the date of signature by the UNICO Supervisor, or the person otherwise designated. [1]
- 4.2 Phase II - During this period a 3-part E&DCR Change Control Form, Attachment 5.3 is used. It is preprinted with the E&DCR No., short description, affected document numbers and their revisions.
- 4.2.1 The E&DCR Change Control Form is forwarded by Computer Services to the Resident Engineering Department where a copy of the dispositioned E&DCR is attached. After review, the 3-part form and E&DCR are assigned and forwarded to the responsible construction area or Chief Construction Supervisor of the pertinent discipline for implementation

4.0 PROCEDURE: (Continued)

4.2.1 (Continued)

verification. Installing contractor's certification and signature shall be obtained by the responsible construction area. The yellow part is retained by the responsible construction area or department. The remaining parts of the E&DCR Change Control Form are forwarded to FQC with the copy of the E&DCR.

- 4.2.2 FQC personnel will perform necessary Category I inspections. When findings are satisfactory and in accord with the designated specification the inspector's signature is applied. When the E&DCR covers Category II and III work or equipment FQC shall note that no FQC inspections are required and shall likewise sign the E&DCR Change Control Form.

In Category II and III applications where FQC does not perform inspections the SWEC Supervisor's or his designee's signature shall indicate change incorporation verification and satisfactory construction inspection.

- 4.2.3 The pink copy of the E&DCR Change Control Form is retained for FQC reference and file. The White original copy and attached E&DCR's are forwarded to Document Control, Attention: E&DCR Coordinator, for status input into the Master E&DCR Log and ultimately to Central Files for permanent file.

- 4.2.4 Routing of the E&DCR Change Control Form is shown in Attachment S.4 and final distribution is as follows:

- | | | |
|----------------|---|---|
| Yellow copy | - | Retained by the responsible construction area or department verifying E&DCR Implementation. |
| Pink copy | - | Forwarded to FQC for reference and file. |
| White Original | - | Forwarded to Document Control, Attention: E&DCR Coordinator for status input to the Master E&DCR Log and then sent to Central Files for permanent file. |

4.0 PROCEDURE: (Continued)

4.3 Phase III - E&DCR Form 52.10.49B modified. Attachment 5.5 is used during this period.

4.3.1 Upon receipt of a dispositioned E&DCR, the Resident Engineer or his designee shall review the document and note that implementation verification is or is not required.

4.3.2 When verification is required the organization/Department responsible for completing the implementation verification will be designated by circling the name in the distribution portion of the E&DCR. The name will be added and circled if not present when the dispositioned E&DCR is presented to the Resident Engineer for review.

Verification shall be made on a copy of the original E&DCR. Completion of the work and verification of the disposition changes will be indicated by the signature and date of the responsible Supervisor/designee of the organization/Department circled.

The executed copy of the E&DCR shall be forwarded to the E&DCR Coordinator for incorporation into the Master E&DCR Log as outlined in paragraph 4.1.5 and finally to SR2 File.

If Nondestructive Testing (NDT) is required by the disposition, verification that the change was incorporated shall be made by PQC instead of Construction.

4.3.3 When verification is not required the Resident Engineer or his designee shall initial the E&DCR in the "VERIFIED BY" block as evidence or review.

4.4 When designated personnel are unable to verify change implementation due to transfer of responsible personnel, inaccessibility of the modified work or absence of evidence or documentation, the following statement or similar will be made: "The modification described in this E&DCR was implemented in keeping with existing procedures, guidelines and good construction practice to the best of my knowledge and belief".

5.0 ATTACHMENTS:

5.1 Phase I Implementation Verified E&DCR.

5.2 E&DCR Monthly Summary by Affected Document.

5.3 E&DCR Change Control Form.

5.0 ATTACHMENTS: (Continued)

5.4 E&DCR Change Control Flow Chart.

5.5 E&DCR Format for Phase III Implementation Verification.

6.0 EFFECTIVE DATE:

This instruction shall be effective upon receipt and until cancelled or modified by the Senior Site Representative.

AS21049A

STONE & WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

F-3045
PAGE 1 OF 2

PROJECT CLIENT: SHOREHAM NUCLEAR POWER STATION UNIT 1
LONG ISLAND LIGHTING COMPANY

REFERENCES: FC-65-4 SHI-364 (Turb. Bldg)

PROBLEM DESCRIPTION:
Sect 892-892 shows # 11 bars being continuous in the concrete beams for the elev. 39'-6" slab. No. provisions are made for interference with steel column T-04
Please resolve

TELECOPY DATES (REQUESTING PARTY)

Sent:
Rec'd:

Requested By: K.A. Curman K.C. Dept. or Div: Turb. Contr. 161 Tee. Ext.: 2/26/76 Date: Needed By: ASAP

PROBLEM SOLUTION:
SEE ATTACHED SKETCH
11600.02 - SECK-113 EOL SOLUTION

IMPLEMENTATION VERIFIED

J.P. Allen 6/9/77
Signature Date

CONFIRMED TO (2277)
CHANGE TO DRAWING 11600.02-FC-65
WILL NOT BE INCORPORATED

Prepared By: J. P. Allen, R. Brunelle Date: 3-1-76 Responsible Lead Engr.: L. E. Janson Date: 3-2-76

<input type="checkbox"/> INFORMATION ONLY	Project Design Engr. PS Y. [unclear] 3-1-76	Date	PSAR CHANGE <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> DRAWING CHANGE	Equipment Specialist: [unclear]	Date	CLIENT APPROVAL:
<input type="checkbox"/> SPECIFICATION CHANGE	Quality Systems Div. - QA Dept. [unclear]	Date	<input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Req'd.
L.W.G. OR SPEC. NO. FC-65	Materials Engr. [unclear]	Date	Obtained Date:
CATEGORY <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III			Reference:

HEADQUARTERS	FIELD DISTRIBUTION	CONST. SUPERVISORS
<input type="checkbox"/> Project Engr.	<input type="checkbox"/> Originator	<input checked="" type="checkbox"/> Structural
<input type="checkbox"/> Project Design Engr.	<input type="checkbox"/> Client QA Mgr.	<input type="checkbox"/> Mechanical
<input type="checkbox"/> Responsible Engr.	<input type="checkbox"/> Client Const. Inspector	<input type="checkbox"/> Electrical
<input type="checkbox"/> Equip. Specialist	<input type="checkbox"/> S & W Field QC	<input type="checkbox"/> Piping
<input type="checkbox"/> Mat'ls Engr.	<input checked="" type="checkbox"/> S S W Resident Engr.	<input type="checkbox"/> Welding
<input type="checkbox"/> QA - Quality Syst. Div.	<input type="checkbox"/> Design Engr.	<input type="checkbox"/> Instrument
<input type="checkbox"/> Production CC Div.	<input type="checkbox"/> Field Ext. Office	<input type="checkbox"/> Planning
R. S. [unclear]	TURB. Bldg	

Project Engineer Approval & Date: *J. P. Allen* 3-2-76

TELECOPY DATES (RESPONDING PARTY)
Received:
Sent:

E&DCR MONTHLY SUMMARY
 BY AFFECTED DOCUMENT

WEEK ENDING 11/25/77

PAGE 1172

AFFECTED DOCUMENT	CATEG	EDCR NUMBER	INC DWG	DATE CLOSED	RECORD SERIAL
FP-21G	3	F-05437			1
	2	F-05437A			1
	2	F-05437B			1
	2	F-05437C			1
	3	F-05454			1
	2	F-06115			1
	1	F-07601	Y		1
	1	F-08382	Y		1
	1	P-01565			1
	1	P-02084			1
	1	P-02112			1
	1	P-02112A			1
	1	P-02120			1
	1	P-02134			1
	1	P-02212			1
1	P-02261			1	
FP-21H	2	F-06888	Y		1
	1	F-07333			1
	0	P-02042			1
FP-21J	1	F-03614			1
	1	F-03670			1
	1	F-03759			1
	2	F-04074	Y		1
	1	F-04074A			1
	2	F-04074B			1
	1	F-04074C	Y		1
	2	F-04232			1
	2	F-04681			1
3	F-05264			1	
1	F-08319	Y		1	
FP-22 SERIES	2	F-02055			1
	2	F-02465A			1
	2	P-00726			1
	2	P-00765			1
	2	P-00805			1
	2	P-00809			1
	2	P-00897			1
FP-22A	2	F-00894	Y		1
	2	F-00921			1
	3	F-01125			1

E & DCR CHANGE CONTROL

Stone & Webster Engineering Corporation

PROJECT NAME <i>Shoreham Nuclear Power Station Unit—1</i>	E & DCR No. <i>E-6970</i>
LOCATION <i>Shoreham, New York</i>	
CLIENT NAME <i>Long Island Lighting Company</i>	

FITZGERALD

E & DCR NO. *E-6970* TITLED: *PROGUEL TRAY INTF W/O HTR*
AFFECTING THE FOLLOWING DOCUMENT HAS BEEN ISSUED:

<u>Document No.</u>	<u>Rev.</u>	<u>Document No.</u>	<u>Rev.</u>
---------------------	-------------	---------------------	-------------

FB-330

NOTE: E&DCR NO. *E-6970* WILL NOT BE INCORPORATED INTO ABOVE DOCUMENTS

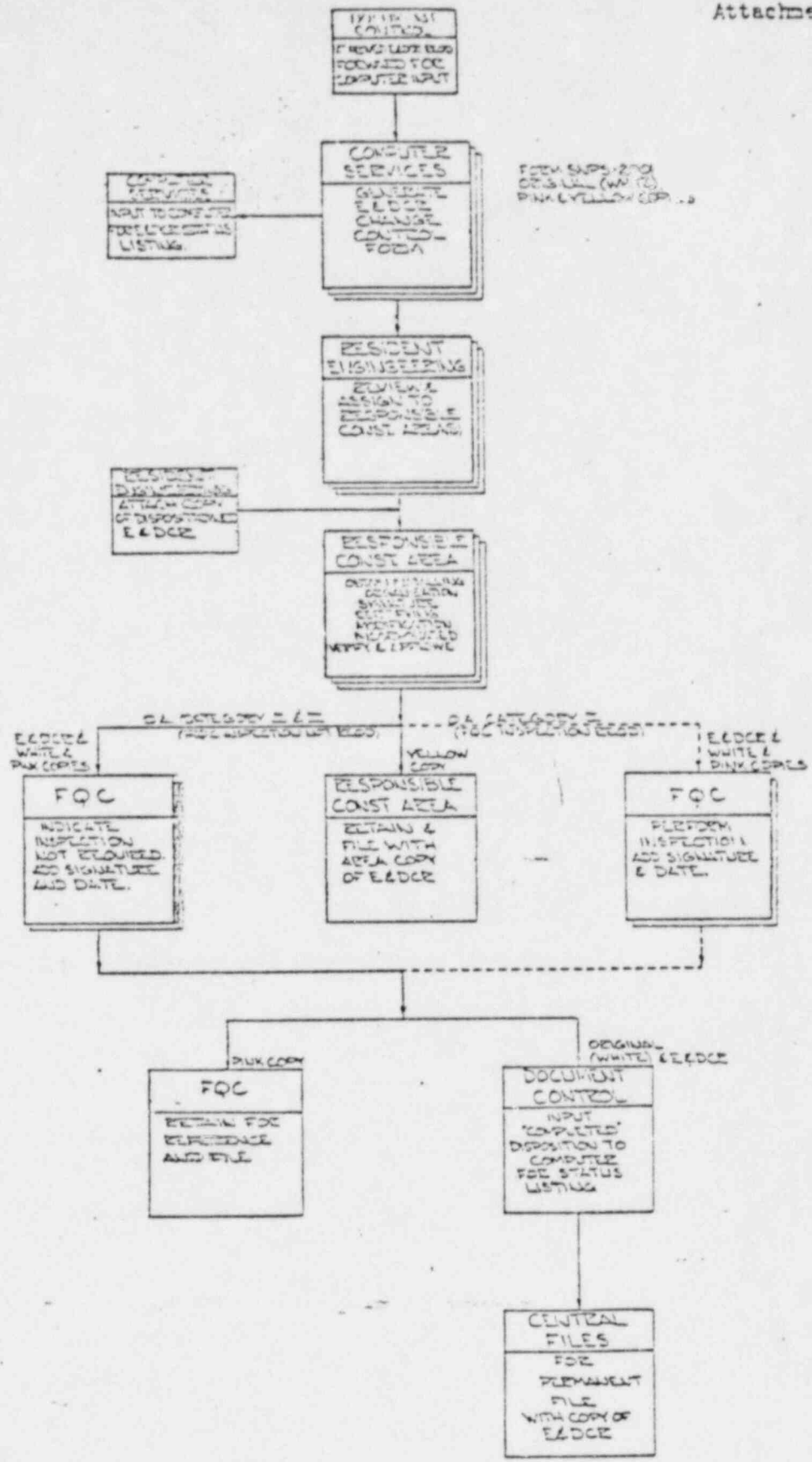
THE MODIFICATIONS DESCRIBED IN THE ABOVE ENGINEERING DESIGN & COORDINATION REPORT HAVE BEEN INCORPORATED INTO THE CONSTRUCTION EFFORT

INSTALLING ORGANIZATION NAME <i>D. Fortunato</i>	SWEC SUPERVISOR <i>R. Fitzgerald</i>	DATE <i>6-10-77</i>
SIGNATURE <i>William Tharman</i>	DATE <i>6/15/77</i>	

THE MODIFICATIONS DESCRIBED IN THE ABOVE ENGINEERING DESIGN & COORDINATION REPORT

REQUIRE NO F.Q.C INSPECTIONS HAVE BEEN INSPECTED TO REQUIREMENTS OF SPECIFICATION AND ARE SATISFACTORY

FQC INSPECTOR	DATE
---------------	------



E & DC CHANGE CONTROL
 (FORM SNPS-200)
 FLOW CHART

REVISION No 1 2/25/77
 FORM NO. 2 6/27/77

STONE & WEBSTER ENGINEERING CORPORATION ENGINEERING & DESIGN COORDINATION REPORT

(K)

PROJECT / CLIENT:

SHOREHAM NUCLEAR POWER STATION UNIT 1
LONG ISLAND LIGHTING COMPANY

JOB NO.

11600 03

REFERENCES:

PROBLEM DESCRIPTION:

Page 10 of 10
C.S.I. 2.16
Attachment 5.5

TELECOPY DATES
(REQUESTING PARTY)

Sent:
Rec'd:

Requested By:

Dept. or Div.

Tele. Ext.

Date

Needed By:

PROBLEM SOLUTION:

TELECOPY DATES
(RESPONDING PARTY)

Sent:
Rec'd:

AFFECTS WORK UNDER SPECIFICATION SH 1-

IMPLEMENTATION VERIFICATION IS REQUIRED IS NOT VERIFIED BY

Furnished By:

Date

Responsible Lead Engr.

Date

INFORMATION ONLY

Project Design Engr.

Date

SAR CHANGE Yes No

DRAWING CHANGE

Equipment Specialist

Date

CLIENT APPROVAL:
 Required Not R'qd.

SPECIFICATION CHANGE

Qual. Sys. Div. or Eng. Assur. Div.

Date

Obtained Date:
Reference:

PROCEDURE CHANGE

ENG. SERV. SCOPE OF WORK CHANGE
Change will be incorporated in the
will not following documents:

Materials Engr.

Date

CLIENT DISTRIBUTION - CLIENT HEADQTRS

Engineering _____
 Project Manager _____

Nuclear Safety Related (QA Cat. I)

Project Engineer Approval & Date

Not Nuclear Safety Related (QA Cat. II)
 QA Cat. III

HEADQUARTERS

FIELD DISTRIBUTION

CONST. SUPERVISORS

<input type="checkbox"/> Proj. Engr. _____	<input type="checkbox"/> Chief _____ Engr. _____	<input type="checkbox"/> Originator _____	<input type="checkbox"/> Structural _____
<input type="checkbox"/> Proj. Des. Engr. _____	<input type="checkbox"/> Chief _____ Des. Engr. _____	<input type="checkbox"/> Client QA Mgr _____	<input type="checkbox"/> Mechanical _____
<input type="checkbox"/> Resp. Engr. _____	<input type="checkbox"/> Supt. Const. Serv. _____	<input type="checkbox"/> Client Const. Insp. _____	<input type="checkbox"/> Electrical _____
<input type="checkbox"/> Equip. Spec. _____	<input type="checkbox"/> Ch. Engr.-EA Div. _____	<input type="checkbox"/> S&W FOC _____	<input type="checkbox"/> Piping _____
<input type="checkbox"/> Mat'l's Engr. _____	<input type="checkbox"/> _____	<input type="checkbox"/> S&W Res Engr. _____	<input type="checkbox"/> Welding _____
<input type="checkbox"/> QA-Qual. Sys. D. _____	<input type="checkbox"/> _____	<input type="checkbox"/> Fld. Des. Engr. _____	<input type="checkbox"/> Instrument _____
<input type="checkbox"/> QA-PQC Div. _____	<input type="checkbox"/> _____	<input type="checkbox"/> Head-Fld. Ext. O. _____	<input type="checkbox"/> Planning _____
<input type="checkbox"/> QA-FOC Div. _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

1 JUDGE BRENNER: If there is nothing else that
2 needs to be done on the record -- Recognizing my use of
3 the words "need be done", go ahead.

4 MR. ELLIS: I think that you asked for it, and
5 I think I want to respond as soon as I can, even though
6 I may not be able to be responding definitively.

7 On Transcript Page Number 10,211, I am
8 referring now to the issue of LILCO's position with
9 respect to the hearings in Bethesda. Initially, I
10 recall, and I verified in the record, Mr. Reveley
11 readily agreed. The following day, Mr. Reveley, at
12 10,211, said, "My second item concerns a ready agreement
13 I stated yesterday to hearings in Bethesda beginning on
14 October 12th. I should have qualified that in this
15 fashion. The company has no problem at all with
16 hearings concerning staff testimony on QA and the
17 counties. We will have a problem if we have to take our
18 exceptionally numerous witness panel and their even more
19 numerous documents to Washington, rather, Bethesda.
20 Thus, if at all possible, we would like to complete the
21 cross examination of our panel in New York as opposed to
22 Bethesda. That should pose no problem if in fact it is
23 completed in the next two weeks. We realize it may pose
24 a problem if it extends beyond that, but there would be
25 significant logistical burdens involved in moving our

1 eleven people and all of their documents and other
2 support to Bethesda."

3 That is the statement I had in mind, Judge
4 Brenner, and that is the qualification. The fact of the
5 matter is that we are here, we have experienced the
6 logistical problems of moving down here, and the Board
7 has ruled on three additional weeks, and therefore,
8 since we are here, obviously, we have a logistical
9 problem in terms of the people going back, but all of
10 our movement is completed down here, and while Mr.
11 Reveley will be here tomorrow morning, and I will get
12 him to confirm this, I take it since we are here and we
13 have that logistical burden already borne, we don't have
14 an objection to staying.

15 JUDGE BRENNER: There are other tradeoffs from
16 your point of view that I alluded to, and that is that
17 there would simply be less hearing days if we are in
18 Long Island, at least two less days, and maybe more, if
19 you start counting up half-days and so on. So you take
20 that into account, too, and recognizing the situation
21 has changed from the time of that statement, let me know
22 what the situation is.

23 We are going to pick up this hearing again
24 some time on the week which begins October 25th. I am
25 not saying the hearing will begin that day, but either

1 that day or the next day. The week after that you would
2 lose a day, and the week thereafter you would lose a
3 day.

4 All right. I think we can adjourn for today.
5 We will pick up at 9:00 o'clock tomorrow morning, so we
6 are off the record now.

7 (Whereupon, at 5:05 p.m., the Board was
8 recessed, to reconvene at 9:00 a.m. of the following
9 day.)

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NUCLEAR REGULATORY COMMISSION

This is to certify that the attached proceedings before the

ATOMIC SAFETY AND LICENSING BOARD

in the matter of: LONG ISLAND LIGHTING COMPANY (Shoreham Nuclear Power Station)

Date of Proceeding: October 12, 1982

Docket Number: 50-322-OL

Place of Proceeding: Bethesda, Maryland

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

Susan A. Harris

Official Reporter (Typed)

Susan A. Harris

(SIGNATURE OF REPORTER)