

ORIGINAL
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of:

LONG ISLAND LIGHTING COMPANY

Docket No 50-322-OL-3

(Shoreham Nuclear Power Station
Unit 1)

Location: Hauppauge, New York

Pages: 9666-9934

Date: Friday, June 1, 1984

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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-OL-3
 :
 (Shoreham Nuclear Power Station, : (Emergency Planning)
 Unit 1) :
 :
 -----X

Court of Claims
 State of New York
 State Office Building
 Room 3B46
 Veterans Memorial Highway
 Hauppauge, New York 11787

Friday, June 1, 1984

The hearing in the above-entitled matter resumed
at 9:01 a.m., pursuant to recess,

BEFORE:

JAMES A. LAURENSEN, ESQ., Chairman
 Atomic Safety and Licensing Board
 U.S. Nuclear Regulatory Commission
 Washington, D. C. 20555

DR. JERRY KLINE, Member
 Atomic Safety and Licensing Board
 U.S. Nuclear Regulatory Commission
 Washington, D. C. 20555

DR. FREDERICK SHON, Member
 Atomic Safety and Licensing Board
 U.S. Nuclear Regulatory Commission
 Washington, D. C. 20555

1 APPEARANCES:

2 On behalf of LILCO:

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12 Washington, D. C. 20555

13 On behalf of Suffolk County:

14 CHRISTOPHER M. MC MURRAY, ESQ.
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19 On behalf of the State of New York:

20 RICHARD J. ZAHNLEUTER, ESQ.
21 Special Counsel to the Governor
22 Executive Chamber
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25 Albany, New York 12224

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C-O-N-T-E-N-T-S

	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>	<u>BOARD</u>
Steve Barnett	9686	9690	9764	9771	
David Harris and Martin Mayer	9775	9778	9899	9903	

	<u>EXHIBITS</u>	<u>Identified</u>	<u>Received</u>
Suffolk County EP-55		9695	9757
Suffolk County EP-56		9731	9757
Suffolk County EP-57			9760
LILCO Exhibits EP-38 thru 47		9824	

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P R O C E E D I N G S

1
2 JUDGE LAURENSEN: We are on the record now.

3 As we indicated yesterday, we will first
4 announce our decision concerning the discovery dispute with
5 regard to the training documents. I will announce that, and
6 Dr. Kline will then announce our ruling on the motions to
7 strike the LILCO testimony on contention 15.

8 We have before us a discovery dispute between
9 Suffolk County and LILCO concerning production of LILCO
10 training documents requested by the county.

11 Before we get to the merits of this dispute, the
12 Board wants to state for the record its appreciation to the
13 parties for their efforts since our first discovery
14 conference in resolving their discovery disputes amicably
15 without intervention by us.

16 As to this dispute, it began with a letter
17 on April 18 from Mr. Miller to Miss Monaghan requesting
18 13 categories of documents allegedly referenced in LILCO's
19 training testimony which testimony was filed on April 2.

20 As to 11 of these categories, there is no dispute
21 presently before us. However, as to categories 4 and 10,
22 LILCO and Suffolk County are unable to agree. And Suffolk
23 County presented an oral motion to compel production earlier
24 this week.

25 We begin our review with the April 18 letter from

1 Michael Miller. Request No. 4 in pertinent part is as
2 follows: "All documents relating to the critiques and
3 evaluations of LERO trainees' performance by drill and/or
4 exercise controllers and/or observers; see, for example,
5 LILCO testimony at 44, 54, 93, 109, and 111; including
6 all completed drill and/or exercise evaluation forms;
7 see, for example, attachment 5 and 6 from LERO drills and/or
8 exercises that have been conducted, see LILCO testimony
9 at 108 and 111."

10 This is one of my favorite sentences with four
11 "and/or's" in it.

12 Request No. 10 requests all documents relating
13 to proposed annual exercises to be conducted at the
14 Shoreham plant, other than what is in the LILCO plan or
15 has been previously provided to the county. This references
16 the LILCO testimony at 72 through 72.

17 As to request No. 4, LILCO has provided the
18 county with blank evaluation forms and blank critique forms,
19 but no completed forms.

20 The county references pages in the LILCO training
21 testimony where it asserts that these evaluations and criti-
22 ques are cited.

23 The county claims that LILCO witnesses relied
24 on these forms and discussed how LILCO instructors insure
25 that trainees learn their jobs by critiquing and evaluating

1 the trainees.

2 The county claims this would lead to admissible
3 and relevant evidence.

4 LILCO argues that the two Suffolk County requests
5 are not calculated to lead to the discovery of relevant
6 evidence as required by 10 CFR Section 2.740. LILCO
7 says they are not relevant to the contentions or to the
8 testimony.

9 Contention 44.F concerns whether LILCO will be
10 able to critique its own plan including exercises due to a
11 lack of expertise and objectivity. Contention 100.G says
12 that the LILCO drills contain no terminal performance
13 standards and, therefore, there are no objective,
14 observable criteria to be used by instructors in
15 evaluating the performance of individual trainees.

16 LILCO argues that neither of these contentions
17 involves the content of critique forms as filled out by
18 individual observers.

19 LILCO goes on to argue that the pages of
20 testimony cited by Mr. Miller demonstrate that LILCO
21 witnesses do not rely on the contents of the critique forms.

22 Finally, LILCO claims that the release of these
23 critiques and evaluations would have a "chilling" effect
24 on the candor of future analyses and critiques.

25 LILCO attempts to draw an analogy to the

1 Equal Employment Opportunity plans in Title 7 cases and
2 hospital and physician reports and reviews of medical treat-
3 ment.

4 Based upon our consideration of the arguments of the
5 parties and our review of the LILCO testimony in question,
6 we conclude that Suffolk County is entitled to the
7 discovery pursuant to 10 CFR Section 2.740.

8 That section defines the scope of discovery in
9 NRC proceedings in one sentence as follows:

10 "Parties may obtain discovery regarding any
11 matter not privileged which is relevant to the subject
12 matter involved in the proceeding."

13 LILCO has not claimed that any of these
14 documents are privileged, but it argued in terms of
15 the "chilling" effect of disclosure.

16 We have heard a log about chilling effects lately.
17 However, since LILCO has not claimed any privilege, we
18 decline to look for one.

19 Thus, the only test is whether these documents
20 are relevant to the subject matter involved in the
21 proceeding.

22 We need not look too far to establish
23 relevancy. The first page of testimony cited by Suffolk
24 County is page 44 where question 29 is as follows:

25 "Why does LILCO believe that its employees can be trained

1 to perform emergency tasks that differe from their
2 normal job activities?"

3 The answer states in part as follows:

4 "The LERO training program achieves this objective through
5 its educational design structure of presentation of informa-
6 tion during the classroom sessions, application of the
7 information in the drills and exercises and critique of the
8 applicants by drill and exercise controllers and observers."

9 On page 93 of the testimony it states, "The
10 job-specific training initiated in the classroom is given
11 practical application and is critiqued in drills and
12 exercises."

13 Contention 100.G asserts that there are no
14 objective observable criteria to be used by instructors
15 in evaluating the performance of individual trainees.

16 Taken together, we find that the completed
17 evaluations and critiques are relevant to the testimony and
18 contentions in controversy and must be produced.

19 END 1 However, we note one limitation and one caveat.
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1 First, the limitation. The names of individual
2 trainees or evaluators may be deleted by LILCO. Second,
3 the mere fact that we find these documents discoverable
4 should not be taken to establish that they are admissible
5 in evidence or that isolated critiques may form the basis
6 for cross-examination at this hearing.

7 The County is entitled to see these documents
8 to determine if it can establish its contention by showing
9 that the pattern of the critiques is inadequate or that
10 the pattern of the critiques establishes an absence of
11 objective evaluation criteria.

12 Turning to Request Number 10, the same reasoning
13 applies. On Pages 72 through 76, the LILCO testimony re-
14 sponds to Contention 44.F. That contention asserts, among
15 other things, that LILCO will not be able to critique ade-
16 quately its own plan, including exercises conducted under
17 the plan due to its lack of expertise and objectivity.

18 The testimony in question discusses provisions
19 for official government observers to watch, evaluate and
20 critique LERO training exercises. It discusses how such
21 comments will be evaluated and deficiencies corrected, the
22 performance of post-exercise critiques and the identity of
23 those who will attend.

24 We find that the documents requested are not
25 privileged and that they are relevant to the subject matter

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1 involved in this proceeding. LILCO shall produce the
2 documents requested in Mr. Miller's letter of April 18,
3 1984 concerning Requests Number 4 and 10.

4 This completes our ruling on the discovery
5 request.

6 MR. CHRISTMAN: Fine. We have the documents
7 compiled somewhere within the City, and we will produce
8 them today.

9 JUDGE LAURENSEN: Dr. Kline will now present
10 the Board's ruling concerning the motions to strike the
11 LILCO testimony on Contention 15, credibility.

12 JUDGE KLINE: I will identify these motions by
13 letter, A, B or C, without reading the entire motion.

14 First, for Motion A. The County argues in
15 support of this motion that testimony dealing with the
16 alleged credibility of the Suffolk County government or
17 its Executive or what LILCO believes Suffolk County would
18 have to do if it believed that it could implement an
19 emergency plan is irrelevant to and non-probative of
20 issues raised in Contention 15, which are limited to
21 LILCO's ability to implement its plan.

22 LILCO urges the Board to reject the County's
23 argument on the basis that the Board needs to compare
24 credibility of LILCO to that of other people or groups if
25 it is to assess the significance of LILCO's alleged lack

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1 of credibility. It argues further that LILCO's testimony
2 goes to the heart of the County's case, that only a
3 government can do adequate emergency planning.

4 The NRC Staff agrees with the County and argues
5 that the only issue raised by Contention 15 is the Applicant's
6 ability to implement the plan. Thus, they say the testimony
7 should be stricken.

8 The Board denies the motion to strike on Page
9 16, Lines 12 to 19, Page 17, Lines 20 to 23, and Page 18,
10 Line 3, containing the words "or the County Executive."
11 The Board finds that Contention 15 does raise the issue of
12 comparative credibility and will permit testimony that uses
13 such comparisons.

14 The motion to strike the passage at Page 18,
15 Lines 7 to 11 is granted. Speculation as to what the
16 County would have to do if it were participating in
17 emergency planning is irrelevant and non-probative to the
18 issues before us.

19 Motion B. The County states as grounds that
20 this testimony which compares LILCO's credibility with that
21 of other utilities is not relevant or probative of any
22 issues raised in Contention 15. LILCO responds that the
23 County takes too narrow a view of the evidence that may be
24 used to refute the contention.

25 The challenged testimony, they say, is relevant

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1 to the question of whether credibility is a unique LILCO
2 condition. They also state that to the extent that the
3 County's theory would make utility plans categorically
4 inadequate it would frustrate the will of Congress which
5 has previously permitted consideration of utility plans.

6 Finally, LILCO believes the County proves too
7 much, since all utilities must implement on-site plans and
8 notify off-site authorities in an emergency. Thus, a
9 comparison of credibility is relevant.

10 The Staff argues that the questioned testimony
11 may be relevant and should not be stricken. The Board
12 denies this motion to strike. This is an issue of the
13 weight that should be given to the testimony and not of its
14 admissibility.

15 Motion C. The County requests us to strike this
16 testimony for the same reasons given in Part 1.A. LILCO
17 responds that the testimony is relevant because it shows
18 that lack of credibility as defined by the County is some-
19 thing suffered by all institutions, public and private to
20 some degree, but that this does not preclude emergency plan-
21 ning.

22 The NRC Staff agrees with the County that the
23 testimony should be stricken as not relevant. The Board
24 denies this motion to strike, because it goes to the weight
25 to be accorded rather than admissibility.

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1 Motion D. The County asserts that the credibility
2 of the County or the Governor of New York or the NRC are
3 not relevant to the issues of Contention 15. LILCO re-
4 sponds that the testimony is relevant for the same reasons
5 asserted in its reponse to 1.A and 1.C of the County's
6 motion.

7 LILCO argues additionally that NRC would probably
8 have a highly visible role in an emergency at Shoreham and
9 that the credibility of all participants, particularly NRC
10 is relevant.

11 The NRC Staff argues that reference to the
12 credibility of the Governor of New York and of Suffolk
13 County is irrelevant and should be striken. However, testi-
14 mony concerning NRC is relevant and should not.

15 The Board denies this motion to strike. We find
16 that this motion raises issues of weight rather than
17 admissibility.

18 Motion E. The County asserts as basis for this
19 motion that this testimony is cumulative of LILCO's testimony
20 on the evacuation shadow phenomenon. LILCO acknowledges
21 that the quality of information is -- that quality of
22 information is discussed in both the shadow phenomenon
23 testimony and its credibility testimony but argues that this
24 is necessitated by the fact that Contention 23 and 15 are
25 themselves repetitive.

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1 LILCO further asserts that its Contention 15
2 testimony is tailored to the particular contention and that
3 the present testimony addresses matters not included in the
4 Contention 23 testimony and is not needlessly redundant.

5 The Staff asserts that the LILCO testimony on
6 Contention 15 is repetitive of that at Page 26 to 36 of
7 the evacuation shadow testimony, and that the motion to
8 strike should be granted.

9 The Board has taken note of the similarity of
10 Contentions 23 and 15 and of the difficulty and disentangling
11 testimony relevant to one but not the other. Although
12 we agree that there is some repetitive testimony contained
13 in the Answer to Contention 15, we do not find it unduly
14 repetitious, and we decline to undertake the task of separating
15 the new from the repetitious threads.

16 Therefore, the motion to strike is denied.

17 Motion F. The County says that this testimony
18 which discusses gas and lighter problems, earthquakes in
19 Japan, building evacuations in Brazil, and other like
20 matters, is not relevant or probative of the issues raised
21 by Contention 15.

22 LILCO responds that the testimony addresses
23 situations where private parties or corporations are involved
24 in emergency planning. Additionally, the testimony
25 addresses situations where LILCO itself is listened to

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in matters within its expertise. LILCO asserts that the discussion of theatre ushers and parking lot attendants is particularly relevant since it tends to show that the public follows directions given by people who lack credibility.

end #2

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1 The NRC Staff does not support the Motion to
2 Strike. It asserts that the County may inquire into the
3 relevance on cross examination.

4 The Board has consistently ruled that testimony
5 that addresses planning in response to emergencies other
6 than radiological emergencies is relevant to this case because
7 the amount of experience with radiological emergencies in the
8 United States is limited.

9 We also note that a question of credibility
10 is subjective in nature, with no clear boundary lines as to
11 what evidence may or may not be relevant.

12 Under these circumstances, the County's challenge
13 raises the question of weight to be given to the testimony
14 rather than admissibility, and the Motion is, therefore,
15 denied.

16 Motion G. The County says that this testimony
17 is cumulative to LILCO's previous testimony on Contention 25,
18 Role Conflict, at pages 18 and 19. LILCO acknowledges that
19 this testimony is similar to the Role Conflict testimony,
20 but that this testimony represents a specific application
21 of the emergency consensus idea to the credibility issue.

22 The Staff agrees that this testimony is repetitious
23 of LILCO's role conflict testimony, and supports the County's
24 Motion to Strike.

25 The Board agrees with LILCO that the challenged

1 testimony does specifically focus a previously articulated
2 principle on the question of LILCO's credibility. It is,
3 therefore, relevant and not unduly repetitious. Motion to
4 Strike is denied.

5 Motion H. The County says that this letter
6 received by LILCO from the coast guard is compared with an
7 unidentified letter relating to nuclear plants in Connecticut
8 and has no relevancy to issues raised in Contention 15, nor
9 is it probative or reliable evidence.

10 LILCO says that the letter shows that the coast
11 guard views LILCO's plan as business as usual, and therefore
12 bears on the question of whether the coast guard will fail
13 to function because of alleged doubts about LILCO's
14 credibility. LILCO, therefore, argues that the testimony
15 is relevant and should not be stricken. The Staff opposes
16 the Motion to Strike, arguing that the proativity or
17 reliability of the letter is something the County can pursue
18 on cross examination. The Board finds the challenged
19 testimony relevant to the contention. The challenge is to
20 the weight and not to admissibility, and the Motion is
21 denied.

22 Motion I. The County argues that this testimony
23 is repetitious and cumulative of LILCO's testimony on the
24 shadow phenomenon. LILCO responds that Question and
25 Answer 49 is merely a cross reference to Contention 23, and

1 as such is relevant and not duplicative.

2 Question and Answer 50 and 51 are asserted to be
3 simply specific applications of the shadow testimony applied
4 to this contention. The Staff agrees that the challenged
5 testimony is repetitious and should be stricken. Here, the
6 Board agrees with the County. The testimony does repeat that
7 given in the shadow contention without appearing to be more
8 particularized than the previous testimony. Motion to
9 Strike is granted, on the grounds that the testimony is
10 cumulative.

11 Motion J. The County says that LILCO's testimony
12 on rumor control is not relevant to Contention 15, and is not
13 probative or reliable evidence. LILCO responds that evidence
14 on rumor controlled programs that depend on utility personnel
15 is relevant to the County thesis that a rumor controlled
16 system manned by utility personnel is unworkable. The
17 Staff disagrees with the County that the testimony should be
18 stricken. It argues that the challenged testimony may be
19 relevant or probative, and that the County can pursue this
20 on cross examination.

21 The Board finds the testimony relevant to
22 Contention 15. Its reliability or probativity can be
23 discerned - cannot be discerned without cross examination.
24 Motion to strike is denied.

25 Motion K. The County says that this testimony

1 about what New York and Suffolk County would do in an
2 emergency is speculation, and has no relevancy to Contention
3 15, which deals with LILCO's credibility. LILCO argues that
4 the testimony is relevant because it describes what LILCO_
5 would do if Suffolk County or New York decided to take an
6 active role in emergency preparedness.

7 The assert further that the testimony addresses
8 the same issue that is raised in the County's prefiled
9 testimony regarding Contention 11 and 15. The Staff agrees
10 that the testimony is speculative and should be stricken.
11 The Board finds the challenged testimony to be irrelevant
12 to the issues to be decided within Contention 15. Motion
13 to Strike is granted.

14 And that completes our ruling on Contention 15.

15 JUDGE LAURENSEN: Thank you, Judge Kline.

16 Pursuant to the agreement and schedule previously announced,
17 I understand that the next order of business would be to
18 call Dr. Barnett out of order.

19 MR. CHRISTMAN: Yes, sir, thank you. The record
20 should reflect that Dr. Steve Barnett has taken the stand.
21 That is spelled B-a-r-n-e-t-t.

22 MR. McMURRAY: Excuse me. Judge Laurenson, I
23 was under the impression that the Board was going to be
24 ruling on LILCO's Motion to Strike Suffolk County's testimony
25 as well. If I am incorrect, fine, but I thought that was what

1 the Board was going to be doing today.

2 JUDGE LAURENSEN: Ordinarily we do, but I
3 think because we are taking this out of order we decided
4 to -- I think I announced yesterday afternoon that the
5 rulings on Motions to Strike would only be on the LILCO
6 testimony which is going to be presented today. We will
7 announce our rulings on the balance of this cluster, which
8 also includes Contention 11 when we get to it next week.

9 MR. CHRISTMAN: Dr. Barnett is a cultural
10 anthropologist who is presented for the purpose of testifying
11 on Contention 15 about credibility, and Judge, let me note
12 that I would propose today to insert into the transcript
13 only those portions of the prefiled written testimony on
14 credibility that Dr. Barnett himself sponsors, and I
15 would propose next week when the rest of the panel appears
16 to introduce at that time the bulk of the 15 testimony.

17 JUDGE LAURENSEN: What is the reason for that?

18 MR. CHRISTMAN: Simply neatness. Dr. Barnett
19 sponsors only testimony on pages 1 and 2, 18 through 27,
20 and 45 through 46. Now, I can do it the other way just
21 as easily, except that the transcript today would be thick,
22 and people wanting to compare the written testimony in the
23 transcript to the cross examination would have to have two
24 volumes rather than one if we put all of the testimony in
25 now.

1 JUDGE LAURENSEN: Let's go off the record
2 for a moment.

3 (Off the record discussion ensues)

4 JUDGE LAURENSEN: We have had a discussion
5 off the record concerning the LILCO proposal to admit
6 into the record today only the testimony sponsored by
7 Dr. Barnett, and because of the fact that other witnesses
8 on this panel will have changes to make that will not be
9 available today because the witnesses are not here, we
10 agree with the LILCO request, with the further proviso
11 that next week when the panel is here the entire transcript
12 will be placed in the record at that time.

13 MR. CHRISTMAN: Dr. Barnett, I am going to show
14 you a document dated March 30, 1984.

15 JUDGE LAURENSEN: I think before you do that
16 we ought to swear Dr. Barnett it.

17 MR. CHRISTMAN: I am sorry.

18 Whereupon,

XXINDEX 19

20 STEVE BARNETT,
21 was called as a witness on behalf of LILCO and, having
22 first been duly sworn, was examined and testified as
23 follows:

24 DIRECT EXAMINATION

25 BY MR. CHRISTMAN:

Q Dr. Barnett, I am going to show you a document

1 dated March 30, 1984, entitled: LILCO Testimony on
2 Contention 15 (Credibility). From that document, I have
3 excerpted pages 1 and 2, 18 through 27, inclusive, and
4 45 and 46. Do you have that document.

5 A Yes, I do.

6 End 3.
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1 Q Was that document prepared by you or under your
2 supervision?

3 A Under my supervision, yes.

4 Q Are there any corrections you would like to make
5 to that document?

6 A One on page 24, on the question one up from the
7 last, "How many plants under construction will be
8 completed?" That first percentage, 33, for most will be
9 completed should read 22 percent.

10 MR. MC MURRAY: May I have that --

11 THE WITNESS: Page 24, table 1, question one
12 up from the bottom, 33 becomes 22.

13 BY MR. CHRISTMAN:

14 Q And I take it that makes the table consistent
15 with the testimony on page 19 where you say -- where the
16 figure 22 percent is the correct one?

17 A Yes. And I hope it adds to 100 percent, too.

18 Q It does.

19 As corrected, Dr. Barnett, do you adopt this
20 as your testimony in this proceeding?

21 A Yes.

22 Q And is it true and correct to the best of your
23 knowledge and belief?

24 A It is.

25 MR. CHRISTMAN: Judge, with that I would like

1 to move the admission of this testimony into evidence and
2 ask that it be bound into the transcript as if read.

3 JUDGE LAURENSEN: Is there any objections that
4 we haven't previously ruled on to this?

5 MR. MC MURRAY: No objection.

6 MR. ZAHNLEUTER: No objection.

7 MR. BORDENICK: No objection.

8 JUDGE LAURENSEN: The testimony will be received
9 and bound into the transcript following this page as
10 though read.

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of)
LONG ISLAND LIGHTING COMPANY) Docket No. 50-322-OL-3
(Shoreham Nuclear Power Station,) (Emergency Planning
Unit 1)) Proceeding)

LILCO TESTIMONY ON CONTENTION 15 (CREDIBILITY)

I. IDENTIFICATION OF WITNESSES

1. Q. Please state your name and business address.
- A. [Barnett] My name is Steve Barnett. My address is Planmetrics, Inc., 34th Floor, 666 Fifth Avenue, New York, New York, 10103.
- [Clawson] My name is Carol A. Clawson. My address is Long Island Lighting Company, 250 Old Country Road, Mineola, New York, 11501.
- [Cordaro] My name is Matthew C. Cordaro. My address is Long Island Lighting Company, 175 East Old Country Road, Hicksville, New York, 11801.

[Mileti] My name is Dennis S. Mileti. My address is Department of Sociology, Colorado State University, Fort Collins, Colorado, 80523

[Robinson] My name is Elaine D. Robinson. My address is Long Island Lighting Company, 100 East Old Country Road, Hicksville, New York, 11801.

[Sorensen] My name is John H. Sorensen; my address is Oak Ridge National Laboratory, Building 4500 North, Room H-11C, P.O. Box X, Oak Ridge, Tennessee, 37830.

[Weismantle] My name is John A. Weismantle. My address is Long Island Lighting Company, 100 East Old Country Road, Hicksville, New York, 11801.

2. Q. Please state your professional qualifications.

A. [Barnett] I am a cultural anthropologist and Vice President of the Cultural Analysis Group at Planmetrics, Inc. I have studied public perceptions of electric utilities and energy issues, including those reported in a study for the Department of Energy called Public Perceptions of Future Electric Supply, Utility Financial Conditions, and Related Issues, DOE/PE/70009-1 (Nov. 1982).

(assuming the polls did a good job of measuring "credibility") that large numbers of people do not perceive LILCO or the County Executive as credible.

Who is or is not ahead (or whether they are tied) is quite irrelevant, since in an emergency all citizens, not just the majority, need credible information. If Suffolk County were participating in emergency planning for Shoreham, it would have to take exactly the steps that LILCO is taking to ensure credible emergency public information if and when an emergency ever happened. These steps, by the way, should be taken by emergency planners, be they government or utility, even if the emergency response organization had 100% credibility before an emergency, simply because popularity and credibility can change over time.

B. Credibility of Utilities Generally

8. Q. Is the low credibility suggested by the above polls unique to LILCO?

[Barnett] No. The part of Contention 15 that says "LILCO is not considered by the public to be a credible source of information" suggests that LILCO is distinct in credibility from other utilities

with nuclear plants on-line or under construction, since if LILCO customers resembled customers from those other utilities in nuclear attitudes, then no utility could be expected to develop a reasonable emergency plan. Planmetrics' data suggest that this is not so; nuclear attitudes of LILCO customers appear to be similar to nuclear attitudes across the country. Data on nuclear attitudes collected over the past four years by Planmetrics, Inc., suggest that LILCO falls within the range of utilities throughout the country on customers' nuclear attitudes and is therefore not exceptional in that regard.

Table 1, from a Planmetrics study for the Department of Energy (based on a national probability sample of 1,253 respondents), reveals a general suspicion of the quality of construction in nuclear plants (also, only 22% say that most plants now under construction will be completed), and specifically a clear perception that the utility industry has not been honest about nuclear costs (21% yes, 62% no) or safety (26% yes, 64% no). These figures are similar to the 60% in Suffolk County who do not trust LILCO to tell the truth about a nuclear accident. While the question we used in the DOE survey

is not the same as the one in the Suffolk County survey, in general both sets of figures are similar enough to indicate that LILCO is one of many utilities with a relatively low level of public belief in nuclear statements coming from a utility.

Table 2, from studies performed for other utilities, shows that, for three utilities in the Southwest and Midwest, scientists and the NRC are more trusted than the utilities. The similarity of numbers across these utilities reinforces confidence in the finding and suggests that they can be extended by inference across the United States.

LILCO, when compared to other utilities, seems representative of national public attitudes, which are suspicious regarding nuclear communications.

Looking at nationwide data on attitudes toward utilities is a more realistic approach than simply looking at frequency responses within LILCO's service territory and then concluding that LILCO is uniquely not believable.

9. Q. What accounts for this low credibility?
- A. [Barnett] Nuclear credibility of a utility is closely tied to overall favorability or opposition

to nuclear energy. Table 3 suggests that attitudes toward a utility's credibility (here "Utility A" on "Honesty About Nuclear Safety") are strongly correlated with overall opinions of nuclear energy.

Just as concern about radiation and waste sharply increases as opinion of nuclear energy goes from favorable to unfavorable, so also does perception of honesty in nuclear communications decline as respondents become more antinuclear.

10. Q. Are there any research findings specifically on the credibility of information in emergencies?

[Barnett] In anthropologically based group interviews (seven interviews, with seventy-eight participants in North and South Carolina, California, Massachusetts, and Indiana), Planmetrics has observed that:

- There is significant skepticism about nuclear emergency planning, including concerns about family members forced to act separately, traffic problems, extent of the spread of radiation, and so on.

- Interview participants are skeptical of receiving reliable information from any source, including the government, saying things like "How can they know quickly enough" and "They will tell you whatever makes it easier on them."

In general, Planmetrics' anthropological findings indicate that for many industrial sectors (including the chemical and automobile industry), there are strong doubts that those in authority will communicate the truth in problematic situations. For Americans an authority must be able to examine and state "facts." "Facts" is a word which, through a simplified version of the scientific method, has become cultural reality for many Americans. And, especially since Watergate, Americans tend to believe that vested interests override and obscure facts. If the potential authority is believed to have a vested interest, those interests will override the possible facts in that authority's presentation. Therefore, the issue of disbelief raised in Contention 15 is one that holds not only for LILCO and not only for all utilities with nuclear plants on-line or coming on-line, but is a

concern that many Americans feel for other industrial sectors as well.

I conclude that LILCO is not unique among utilities in public perception of nuclear energy and nuclear emergency planning. Therefore, a case cannot be made that people around the Shoreham plant are especially unlikely to follow emergency instructions.

Table 1

NATIONAL NUCLEAR ATTITUDES (NOVEMBER 1982)
FOR THE DEPARTMENT OF ENERGY

45% - Favor nuclear
35% - Oppose
20% - Don't know/depends

Nuclear Power As a Business Decision

51% - Good decision
3% - Average
35% - Bad Decision
12% - Don't know

Effect on Electric Bills

32% - Higher bills
26% - Remain the same
34% - Lower bills
8% - Don't know

Quality of Construction of Nuclear Plants

9% - Excellent
27% - Good
29% - Fair
20% - Poor
16% - Don't know

How Many Plants Under Construction Will Be Completed?

~~23%~~
22% - Most
31% - About half
18% - Less than half
18% - Very few
11% - Don't know

Has Utility Industry Been Honest About the Cost of
Nuclear Power?

21% - Yes
62% - No
18% - Don't know

Has Utility Industry Been Honest About Safety?

26% - Yes
64% - No
10% - Don't know

Table 2

PUBLIC TRUST ON NUCLEAR INFORMATION

		<u>Utility A ('83)</u>	<u>Utility B ('83)</u>	<u>Utility C (May '83)</u>	<u>Utility C (Oct. '83)</u>
Scientists from around country	Yes	69%	72%	72%	69%
	Not sure	9%	10%	8%	12%
	No	18%	14%	16%	16%
Scientists from state	Yes	70%	67%	68%	64%
	Not sure	8%	11%	8%	12%
	No	17%	18%	19%	19%
DOE/NRC	Yes	47%	51%	46%	38%
	Not sure	11%	15%	11%	14%
	No	34%	27%	36%	40%
Utility	Yes	42%	48%		31%
	Not sure	10%	16%		9%
	No	46%	34%		54%
Local newspaper	Yes	37%	22%		
	Not sure	8%	12%		
	No	53%	63%		
Local tv news	Yes	40%	31%	29%	28%
	Not sure	10%	14%	8%	8%
	No	42%	52%	61%	61%

Table 3

	UTILITY A <u>OPINION OF NUCLEAR ENERGY</u>			
	Very Favorable	Somewhat Favorable	Somewhat Unfavorable	Very Unfavorable
	<u>28%</u>	<u>27%</u>	<u>16%</u>	<u>26%</u>
Customer Concern About Radiation				
Very Concerned	19%	29%	42%	69%
Somewhat Concerned	28%	45%	49%	22%
Not at all Concerned	53%	27%	9%	7%
Customer Concern About Nuclear Waste				
Very Concerned	43%	66%	73%	89%
Somewhat Concerned	36%	29%	24%	4%
Not at all Concerned	21%	5%	3%	4%
Has Utility A Been Honest About Safety				
Yes	74%	41%	27%	17%
No	17%	43%	45%	74%

The key question becomes, therefore, how can belief be elicited -- in the public and in people who work in other organizations -- by the information that comes during an emergency from a group or organization who had low levels of credibility before the emergency.

21. Q. What do you mean by "covaried" above?

A. [Mileti] "Covary" as used above means that, in some past emergencies people have been more likely to believe information if it came from a source that they perceived credible than from a source that they perceived as not credible. In other words, as the credibility of information "givers" increases, so does belief in that information by "receivers." However, remember that it is possible to elicit belief in emergency information even when pre-emergency credibility is not high because other factors can be addressed in emergency planning to achieve this end despite credibility configurations before an emergency.

[Barnett] In the anthropologically based group interviews I discussed above, despite the reservations expressed about emergency planning and emergency information, participants indicated they

would follow instructions, saying "What else can we do?" and "You have to believe someone at a time like that because you must decide what to do." So even where utility customers are suspicious of nuclear emergency planning and suspicious of their utility's general communications on nuclear power, they still indicate that they will listen to and follow instructions in case of a nuclear accident.

Moreover, from the data I presented above showing that the more antinuclear segments of society tend both (1) to be more skeptical of information from utilities and (2) to have greater concerns about radiation and radioactive wastes, we might well infer that these same segments will be most concerned to follow emergency planning instructions, even if they question their utility's honesty about nuclear safety communications in general.

22. Q. Drs. Mileti and Sorensen, what role do you think credibility will play in determining response?

A. [Mileti, Sorensen] The major finding from previous studies of the role that perceived credibility plays in shaping response to a warning or in evacuation is that when a warning is received from a source judged to have low credibility, people tend

1 MR. CHRISTMAN: Thank you, Judge.

2 And with that, this witness is available for
3 cross-examination.

4 JUDGE LAURENSEN: Mr. McMurray?

XXXXX

5 CROSS-EXAMINATION

6 BY MR. MC MURRAY:

7 Q Dr. Barnett, you state that you are a
8 cultural anthropologist.

9 A Yes.

10 Q Could you explain what a cultural anthropologist
11 is?

12 A It is someone who has received a Ph.D. in
13 cultural anthropology. Cultural anthropology is that part
14 of anthropology which deals with living societies and
15 living human beings rather than what is called an
16 in anthropology "stones and bones."

17 I don't know much about that.

18 We specialize, as cultural anthropologists,
19 in the detailed analysis of the everyday symbols that
20 people use to go about their everyday lives and in their
21 commonplace everyday behaviors, both around the world
22 and in the United States.

23 Q Could you explain a little bit more about the
24 symbols that you study?

25 A By symbols, I mean any word or object which can

1 stand for something else. For example, the cross in
2 Christianity would be a symbol that we would look at.
3 In some cases, nuclear energy becomes symbolic for
4 Americans, has many meanings beyond mere nuclear energy.

5 We try to understand that universe of meaning
6 that people live in.

7 Q How would a cultural anthropologist distinguish
8 himself from a sociologist?

9 A As far as I am concerned, all social science
10 really tries to understand the same sorts of things.
11 The specialities -- sociology, political science,
12 anthropology -- in part reflect the history of establishing
13 departments and academic clout.

14 An anthropologist would tend to focus more on
15 qualitative explanations of everyday life rather than
16 immediately going to opinion surveys, but many anthropologists
17 also do quantitative analysis.

18 So as far as I am concerned, there really is
19 no important distinction between an anthropologist, a
20 sociologist, or a political scientist -- psychologist,
21 for that matter.

22 Q You state on page 2 of your testimony that you
23 are the vice-president of the cultural analysis group at
24 Planmetrics.

25 What is the business of the cultural analysis

1 group at Planmetrics?

2 A We do appropriate social science research for the
3 government -- that is the Federal Government -- state
4 government, and for private companies, both energy
5 companies and consumer companies. By appropriate social
6 science research, I mean that we explore with an
7 institution or a company what a particular problem is,
8 design some research, hopefully experimental or at least
9 a creative research design, and then come back with the
10 findings and the recommendations.

11 We have worked with, in the past three and a
12 half years, over 40 companies and governmental institutions.

13 Q Is one of the things that Planmetrics does
14 evaluating an organization's image and making recommendations
15 as to how to enhance that image in the public's eye?

16 A We have done both corporate image studies and
17 corporate cultural studies. That is looking at the internal
18 organization of corporations. We have also looked at
19 the image of some governmental institutions at their
20 request.

21 So, yes, that is part of it.

22 Q And also you have looked into -- I don't know
23 if this is distinct from image, but you have looked into
24 the credibility of organizations and made recommendations
25 as to how they could enhance credibility?

1 A I would put that somewhat differently.
2 We have looked at the credibility of some organizations
3 and let those organizations know what our findings.
4 In some cases our findings suggest that credibility cannot
5 be enhanced -- that is, we are not, as I think about how
6 we are hired and how we are used, we are not simply trying
7 to make silk purses out of sows' ears all the time.

8 We objectively try to look at the credibility
9 issue.

10 Q Let's turn to your testimony at page 18.

11 There on page 18 the question that is asked,
12 "Is the low credibility suggested by the above polls
13 unique to LILCO?"

14 Do you see that question?

15 A Yes.

16 Q You would agree with me, wouldn't you,
17 Dr. Barnett, that LILCO does have low credibility among
18 the public around Suffolk County?

19 A I am not hedging here, but I would say that
20 it is a semantic question. If most utilities have
21 nuclear power plants coming on line have about the same
22 level of credibility as LILCO --

23 Q Dr. Barnett, if you would focus on my question
24 which is, does LILCO have low credibility in your opinion
25 among the public in Suffolk County or around the plant?

1 A It has about the same level of credibility
2 we have seen elsewhere. I can't describe that in terms
3 of high, low, or any other evaluative term.

4 Q You have not been able to evaluate LILCO's
5 credibility and determine that that credibility is low?

6 A In terms of specific customer nuclear response,
7 LILCO does not differ from many of the other utilities
8 that we have done research for.

9 Q Let me refer you to a document that is in
10 front of you. Actually what is in front of you is an
11 excerpt. Do you have on front of you a document headed
12 Social Systems Analysts?

13 A Yes.

14 Q Entitled, LILCO, the Customer and the Company,
15 July 1979?

16 A Yes.

17 Q Detailed Report?

18 A Yes.

19 Q And in front of you do you have a number of
20 pages, I think there are four pages there? Do you have
21 those in front of you?

22 A Yes.

23 Q Do you recognize them as an excerpt from
24 this study?

25 A I assume they are. I don't recognize them, but

1 I assume that they are an excerpt from the study.

2 Q Did you conduct or participate in the preparation
3 of this report, LILCO, the Customer and the Company?

4 A For this report, at that time I was teaching
5 at MIT, and was hired by Social Systems Analysts as one
6 of their consultants on this report.

7 MR. MC MURRAY: Judge Laurenson, I think at
8 this time we should mark the document headed Social
9 Systems Analysts and entitled LILCO, the Customer and the
10 Company as Suffolk County EP 56, I believe.

11 JUDGE LAURENSEN: 55, according to my list.
12 It will be so marked.

13 (The document referred to was
14 marked Suffolk County Exhibit
15 EP 55 for identification.)

XXXXX

16 BY MR. MC MURRAY:

17 Q Let me refer you to what is marked as page
18 28 of the document in front of you?

19 A I am already there.

20 Q Okay.

21 Let me refer you to the bottom paragraph.

22 Was it the finding of you and your colleagues -- well, let
23 me ask you first, this study was done in July 1979, correct?

24 A Yes.

25 Q Okay.

1 A No. Excuse me. The report was in July 1979.
2 The study, I believe, took probably about three months.

3 Q What sorts of methods were used in order to
4 compile this report?

5 A This study really involved two methods. The
6 first was a series of focus group interviews or group
7 interviews of approximately ten people each held around
8 Long Island to try to understand the language and the
9 problems and the concerns that people had about their
10 utility company at the time.

11 And following that, a questionnaire, a very
12 complicated questionnaire was developed which had to
13 be administered in personal interviews. And so we set
14 up an office on Long Island and did a series of personal
15 interviews and then quantitatively analyzed those.

16 Q And one of the conclusions that you draw is
17 found on page 28 of your report where you say, and I
18 am beginning at the second sentence of that last paragraph,
19 "What is crucial is that customers now do not perceive
20 LILCO as inherently trustworthy or as a benign, rational
21 authority."

22 Do you see that?

23 A Yes.

24 Q And at the time that this report was prepared,
25 did you agree with that finding?

1 A Yes. Again, I would only say one thing, I
2 did not write these sections, but I would agree with the
3 finding.

4 Q The next sentence says, "Many customers actively
5 distrust rather than trust any LILCO communication."

6 At the time that this report was prepared, did
7 you agree with that finding?

8 A Yes.

9 Q Now, do you have any data that you have obtained
10 since this report was prepared that would lead you to
11 conclude that these findings are no longer valid?

12 A No.

13 (Pause.)

14 Q Let's go back to what we were discussing
15 earlier where the question I asked you before was whether
16 or not LILCO had low credibility.

17 A Yes.

18 Q Would you agree that in general the nuclear
19 utilities have low credibility?

20 A Based on our national findings, where approximately
21 60 percent of people that we have interviewed distrust
22 nuclear utilities, if you want to define that as low
23 credibility, I would agree with that.

24 Q And you say that in your opinion, LILCO would
25 fit among those utilities?

1 A Yes.

2 Q You say in your testimony on page 18, Dr. Barnett,
3 that contention 15 suggests that LILCO is distinct in
4 credibility from other utilities with nuclear plants on
5 line. And I want to refer you to contention 15 and ask
6 you to point me to where it said in contention 15 that
7 LILCO is unique in having low credibility.

8 And just to help you out, contention 15 is at
9 the beginning of your testimony.

10 A I don't have to refer to that. That is an
11 inference on my part. The inference goes as follows:
12 That if LILCO is not unique in terms of how its customers
13 think about it, then its credibility as a source of
14 information is not nearly as important, since around the
15 country we have various nuclear programs, nuclear evacuation
16 programs, on site programs, all of which are ostensibly
17 administered by counties and utilities with approximately,
18 I would suggest, the same level of credibility.

19 So that is an inference on my part, looking at
20 contention 15.

21 MR. MC MURRAY: Judge Laurenson, I ask that
22 the last part of or everything after the initial part of
23 Dr. Barnett's answer be stricken.

24 My question was, where in the contention does it
25 state that LILCO's credibility is uniquely low. He said that

1 it was an inference on his part and then went on to
2 explain why credibility is not an issue or is not as much
3 of an issue.

4 Now, I don't think that that was responsive to
5 my question, and the response should be stricken.

6 MR. CHRISTMAN: It was, of course, perfectly
7 responsive to the question. Mr. McMurray asked a
8 lawyer's question, and the witness gave a technical
9 expert's answer. There is no question but what that
10 answer was responsive to that question.

11 JUDGE LAURENSEN: I believe the witness gave his
12 answer as to what he understood the contention to be and
13 the motion to strike is denied.

14 BY MR. MC MURRAY:

15 Q Dr. Barnett, with respect to the sentence that
16 begins on page 18 and runs over to page 19, is it your
17 opinion that all utilities with plants on line suffer
18 from low credibility?

19 A Of the utilities that we have examined -- and
20 this is utilities with plants on line or under construction --
21 that would be about 15 utilities. I would say of those
22 15, 13 are in that category.

23 Q And of those under construction, would say
24 that all such utilities with plants under construction
25 suffer from low crediblity?

1 A The great majority do.

2 Q Can you be more specific?

3 A Again, of the utilities that we have studied,
4 I can think of only one company that does not suffer
5 from this kind of credibility.

6 Q So you have studied 15 utilities with plants on
7 line and found that 13 --

8 A I'm sorry. Fifteen utilities with plants on
9 line or under construction. Fifteen is the total.

10 Q Do you know how many utilities have plants on
11 line or under construction throughout the country?

12 A Throughout the country, no. I know it is in
13 the, you know, upwards of 50, whatever.

14 Q And you have only studied 15?

15 A Yes.

16 Q You say in your testimony on page 19 that --
17 it is starting on page 18 --

18 A Can I add something to that "only studied 15"?
19 Is that allowed?

20 MR. CHRISTMAN: It is allowed if it is
21 responsive to the question.

22 MR. MC MURRAY: Why don't you, if you have
23 studied more than 15, then why don't you tell us?

24 THE WITNESS: We have done a national study for
25 the Department of Energy using a sample from across the

1 country of approximately 1200 people that does include
2 many more utilities than the 15 I mentioned.

3 I just forgot about that.

4 Q Did the survey that you conducted nationwide
5 ask any questions about any particular plant?

6 A No, but we tabulated in some cases the
7 responses based upon people that we knew were in areas
8 where nuclear plants were coming on line. But we did not
9 ask any questions about any specific plants.

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end 4

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Q Okay. The sentence that runs from Page 18 over to Page 19, there is a clause that states that no utility could be expected to develop a reasonable emergency plan.

Do you see that?

A Yes.

Q Now, when you say a reasonable emergency plan, you are talking there about an off-site plan, aren't you?

A Yes.

Q Now, is it your understanding that utilities are normally expected to develop and assume command and control of off-site emergency plans?

A No. In fact, that's a very remarkably unusual situation.

Q In fact, are you aware of any other utility where that is the case?

A No. The reason that clause is in there, however --

Q Excuse me. I think you have answered the question.

Now you say at the bottom of that paragraph on Page 19, the paragraph that we have been referring to, that data on nuclear attitudes collected over the past four years by Planmetrics suggests that LILCO falls within the range of utilities throughout the country on customers' nuclear attitudes.

Now, when you say the range of utilities, could

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1 you describe what that range is? I assume that you are
2 referring to a quantitative range?

3 A By range, I'm especially referring to Table 1
4 in which the National Department of -- study for the DOE,
5 we asked two questions. The last two questions on the
6 bottom: Has the utility industry been honest about the
7 cost of nuclear power. And, has the utility industry been
8 honest about safety, and that's safety of nuclear power.

9 And in both questions, between twenty and twenty-
10 five percent say yes. And between sixty and sixty-five
11 percent say no, they have not been honest either about cost
12 or safety.

13 And so that the range that I'm thinking here,
14 given statistical margins of error, is really in that
15 twenty to twenty-five positive, sixty to sixty-five percent
16 negative.

17 LILCO, in terms of the surveys that I've seen
18 at least but have not conducted, seems to fall within that
19 range.

20 Q Just to get this clear, you are then referring
21 to the last item on Page 24 of your testimony which shows
22 that sixty-two percent of the people do not believe the
23 utility industry has been honest about the cost of nuclear
24 power?

25 A The last two items. Safety is the one below.

#5-3-SueT

1 Q Okay. And that last item is on the top of
2 Page 25 of your testimony?

3 A Yes.

4 Q Now, are you aware of the question that was
5 asked in the Suffolk County survey that you refer to in
6 your testimony which --

7 A I --

8 Q -- showed that about sixty percent of the people
9 believe that -- well, do you know what the question was that
10 resulted in that sixty percent negative response --

11 A I've read --

12 Q -- of the Suffolk County survey?

13 A I've read that question.

14 Q Can you -- do you know --

15 A It's a question that relates specifically to
16 believability about the nuclear emergency planning I
17 believe.

18 Q Would this be a fair paraphrase of the question?
19 Do you believe that LILCO officials would tell the truth
20 during a radiological emergency?

21 A Yes, I'm trusting you on that. It sounds
22 familiar to me. But I don't have that question in front
23 of me.

24 MR. CHRISTMAN: Why doesn't counsel give the
25 witness a copy of the question if you are going to talk about

#5-4-SueT

1 the precise language?

2 MR. MC MURRAY: I think we both agree it's a
3 fair paraphrase.

4 MR. CHRISTMAN: The witness said he is trusting
5 you on that.

6 MR. MC MURRAY: He has every right to.

7 (Laughter.)

8 BY MR. MC MURRAY: (Continuing)

9 Q Now, you would agree that the questions asked
10 in the DOE survey and the question asked in the Suffolk
11 County survey are not the same, correct?

12 A Yes. And, in fact, I think I emphasize that
13 in my testimony.

14 Q So you can't conclude quantitatively that the
15 results of the two surveys are similar, correct?

16 A What I can conclude is that if we begin to get
17 consistent numbers almost regardless of what questions we
18 ask about nuclear energy, my conclusion is that we are
19 tapping a basic feeling or series of basic mind-sets about
20 nuclear energy that, by inference, will result in pretty
21 similar percentages no matter what the question is.

22 Now --

23 Q Your conclusion is qualitative, correct, not
24 based on quantitative comparison?

25 A I don't understand the question.

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1 Q Do you believe that you can compare the results
2 of responses to two different survey questions in order to
3 compare similarities of attitudes?

4 A I believe by inference, by a series of inductive
5 steps, by looking at the numbers, one can begin to make
6 inferences which, thinking about these things as an
7 experimental social scientist, one would want to test
8 further with further experiments.

9 Q Well, you don't know, do you, whether or not
10 if the people in your National Survey had been asked whether
11 or not they expect their own utility to give them truthful
12 information during an accident whether or not their response
13 would equal, for instance, the sixty-four percent negative
14 response which is found on the top of Page 25 of your
15 testimony?

16 A No, I can't know that since we didn't ask the
17 question.

18 Q So you don't really know that if that question
19 was asked of all utilities whether or not LILCO would fair
20 better or worse than the majority of other utilities?

21 A As I say, I can make an inference. I would love
22 to see an experiment in which the question was asked across
23 the country.

24 Q But you --

25 A I have not done the -- no, and I don't know.

#5-6-SueT

1 Q And you don't know how LILCO would fair?

2 A No. And no one can know.

3 Q Now, you say on Page 19 that twenty-two percent
4 of the people in your -- of the respondents in your Depart-
5 ment of Energy survey said that most plants under con-
6 struction will be completed. Only twenty-two percent say
7 that most plants under construction will be completed.

8 I'm just curious what sort of light this sheds
9 on the credibility of LILCO.

10 A The only light that it would shed, again, is
11 that we have about the same number, twenty-two, and then we
12 can go back to the sixty again who have strong doubts about
13 the completion of nuclear plants.

14 It's a similar pattern of numbers. But specifi-
15 cally about LILCO, again, the question -- we did not ask
16 that question to LILCO customers.

17 Q I guess my problem is, are you comparing the
18 responses to whether or not people think plants will be
19 completed to other responses to the question of whether or
20 not a utility is expected to be truthful?

21 A No. Table 1 gives you a number of percentages.
22 It's there just for completion. It's a table taken directly
23 from the DOE Study.

24 The things that to me are relevant are the last
25 two questions: Has your utility been honest about nuclear

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1 safety and nuclear cost.

2 Q Well, are you saying then that this portion of
3 your testimony is not relevant, the portion about how many
4 people believe plants under construction will be completed?

5 That's not really relevant to credibility?

6 A Except as I say in the testimony, it reveals a
7 general suspicion of the quality of construction of nuclear
8 plants, suggesting that suspicion about LILCO's quality of
9 construction again is not unique to the service territory,
10 nothing more than that.

11 Q What information do you have on people's per-
12 ception about the quality of the construction of the
13 Shoreham plant?

14 A Nothing specific since that 1979 study which
15 was early days for Shoreham.

16 Q Not so early. Let me refer you to one of your
17 tables, that's Table 2 on Page 26. Do you have that in
18 front of you?

19 A Yes.

20 Q That table is labeled "Public Trust on Nuclear
21 Information," correct?

22 A Yes.

23 Q Okay. Could you explain a little bit what the
24 various headings mean?

25 A What we have here, A, B and C refer to three

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1 separate utilities with nuclear power plants coming on line.
2 Two in the southwest, one in the midwest.

3 And what we did here was to ask a question,
4 the same question for all three situations. In Utility C
5 you can see that we did the survey twice, in May of '83 and
6 October of '83. And we asked the question: Who do you
7 trust for critical nuclear information, nuclear information
8 relevant to your own safety and your own well being. And
9 we had -- this was not an open-ended question. We gave
10 people this list, scientists from around the country,
11 scientists drawn more locally, scientists from the state,
12 DOE/NRC. We asked that as one unit even though that is
13 obviously incorrect, because in the public mind they are
14 inextricably linked together and it's the only way to ask
15 that question. If you separate them out, people say why.
16 It's all part of DOE, or whatever.

17 We also included the local utility in there, local
18 newspaper and local T.V. news. And in accordance with cor-
19 rect telephone interviewing procedure, we rotated these
20 categories so they were not all asked in the same order.

21 Q Okay. Let's not get into the whole methodology.
22 I just wanted an explanation of the headings.

23 A Okay.

24 Q Could you explain or describe the specific
25 question that was asked that elicited these responses and

#5-9-SueT

1 these results?

2 A I don't have the specific question in front of
3 me. The question was --

4 Q Could you paraphrase it?

5 A Yes. Would you trust, for example, scientists
6 from around the country to provide you with reasonable
7 nuclear information related to your own well being. Would
8 you trust DOE/NRC. Would you trust your local utility
9 company, et cetera.

10 Q The question was not specifically focused on
11 an accident situation, correct?

12 A No.

13 Q Let's look at the figures that appear in the
14 line headed "Utility."

15 A Okay.

16 Q That's the category on the left labeled "Utility."

17 A Yes.

18 Q Now, for Utility A, you have almost a fifty/fifty
19 split between the yeses and the noes, right?

20 A Uh-huh.

21 Q And for Utility B, you have a rather significant
22 plurality favoring the utility, correct?

23 A Yes.

24 Q And for Utility C, you have a significant
25 plurality having negative reactions to the utility, correct?

#5-10-SueT 1

A Yes.

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Q Let me ask also about Table 1. Is this table from the same study that Table 2 is from?

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A No. Table 2 is a composite table which we compiled for this testimony based on four separate studies.

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Table 1 comes directly from our study for the Department of Energy. So, Table 1 is based on a national probability sample. Table 2 is based on distinct samples in the case of A, B and C twice.

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Q You will agree with me, won't you, that the questions, especially the ones you are relying on at the bottom of Table 1, do not ask specifically about attitudes during an emergency or an accident at a plant?

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A Yes. They don't.

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Q Let me refer you to the fifth line of your testimony on Page 20. What do you mean by the term "nuclear statements?"

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Can you give a definition of that?

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A Given what I said before, that it's my hypothesis right now that many statements about nuclear energy from safety to cost to reliability to quality of construction, that all these begin to give me back, as I see doing research around the country, the same sorts of numbers.

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By nuclear statements, I mean any public announcement from the utility company that relates to the entire

#5-11-SueT

1 gamut of nuclear activity, be it specific construction data,
2 data about costs, future reliability, safety, waste disposal,
3 what you will.

4 Q Again, you are not focusing on just accidents?

5 A No.

6 Q And I believe it's your testimony that people
7 generally don't believe these statements?

8 A Yes. A relatively low level of public belief.

9 Q On Table 2, you state that -- I'm sorry, let's
10 go to -- stay on Page 20. You say that Table 2 shows that
11 the similarity of numbers across these three utilities,
12 Utility A, B and C, reinforces confidence in the finding
13 that -- let me withdraw that question and start over again.

14 A I could tell you what I meant, if you like.

15 Q Let me just ask the question. You state on
16 Page 20 that Table 2 shows that for three utilities in
17 the southwest and midwest scientists and the NRC are more
18 trusted than the utilities.

19 Let me ask you first, when you say scientists,
20 you were asking specifically about scientists from around
21 the country or scientists from the state, correct?

22 A Yes. And I would add that when we did the
23 question we did nuclear scientists.

24 Q Nuclear scientists?

25 A Not simply abstract.

#5-12-SueT

1 Q You did not have a specific question focusing
2 on the credibility of a scientist associated with the
3 utility at issue, correct?

4 A No. But we do have data on that.

5 Q That data is not reflected in Table 2, correct?

6 A No.

7 Q Now, you say then that the similarity of numbers
8 across these utilities reinforces confidence in the findings
9 and suggest they can be extended by inference across the
10 United States.

11 Is it your testimony that results of surveying
12 the public around these three utilities can be used to
13 draw conclusions about people's views all over the United
14 States?

15 A Yes. Again, by inference since one has not
16 done it.

17 We have found in our own research efforts that
18 if we get similar findings from the midwest, a relatively
19 economically, still sluggish part of the country, our mid-
20 west utility here is from an extremely sluggish part of the
21 country; and from the southwest, our utilities are from
22 economically booming areas, that that tends to reinforce
23 confidence when we go to other parts of the country, that
24 the findings are suitable throughout the United States.

25 Again, since we have not done this particular

#5-13-SueT

1 thing around the country I have to say in the testimony that
2 it's by inference.

3 Q Were the studies in Table 2 random sample
4 surveys?

5 A Yes. Approximately five hundred sample size in
6 each study.

7 Q Also, on Page 20, you say that looking at
8 nationwide data on attitudes towards utilities is a more
9 realistic approach than simply looking at frequency re-
10 sponses within LILCO's service territory, and then con-
11 cluding that LILCO is uniquely not believable.

12 Let me ask you this. Do you have any data which
13 tells you that within the range of credibility that you
14 have already described, LILCO is not on the low end of that
15 range?

16 A I have -- it appears to me on the basis of what
17 I've seen, given the County survey, that LILCO is not in
18 the low or high range. It's just simply in the range.

19 I wouldn't put an evaluation on that unless
20 you've got some numbers you want to show me.

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1 Q Go to Table 2, please.

2 A All right.

3 Q Would you say that LILCO's credibility is lower
4 or higher than Utility B?

5 A In this particular table, LILCO would be lower,
6 yes.

7 Q And what about Utility A?

8 A And also lower than A.

9 Q What about C?

10 A In the ballpark of C. I would -- you would
11 have to refresh my memory about LILCO's specific numbers.

12 Q Now, let's use the sixty percent figure?

13 A In the ballpark, then because of the 500 sample
14 we are talking about a statistical error of plus or minus
15 about five percent.

16 Q What is the margin of error on the sample of 500?

17 A It is probably a little bit less than five percent;
18 four and a half percent, plus or minus four point five.

19 Q Let's go to the bottom of page 20, in your
20 response to Question 9, you use the term, 'nuclear
21 credibility.'

22 A Yes.

23 Q Okay. I would just like a definition of
24 nuclear -- well, let me ask you this: Are you again referring
25 to all statements regarding nuclear matters, not just

1 credibility associated with statements during an accident?

2 A Yes. This goes back to honesty about cost,
3 honesty about safety. The basic range of statements that
4 a utility can make about nuclear matters.

5 Q On page 21 you refer to Table 3.

6 A Yes.

7 Q How was the data in Utility A derived. In other
8 words, what was the methodology?

9 A What we did here was to first ask the sample
10 overall what is your opinion of nuclear energy? Are you
11 very favorable, somewhat favorable, somewhat unfavorable,
12 or very unfavorable, and then we just took those percentages
13 which you see across the top, and then we cross tabulated
14 that; that is, we looked at the responses based on opinion
15 of nuclear energy, and we looked at that in terms of radiation,
16 nuclear waste, and nuclear safety.

17 That is, we were trying to understand what is the
18 interrelation between an overall opinion of nuclear energy
19 and what a customer thinks about radiation, what is the
20 relation of the overall opinion about nuclear energy, and
21 what a customer thinks about nuclear waste, and honesty about
22 nuclear safety communications.

23 Q Was this based on a random sample telephone
24 survey?

25 A Yes.

1 Q Just curious. When you have -- the question:
2 Has Utility A been honest about safety? For the very favorable
3 category -- as a matter of fact, for almost all the categories
4 it doesn't add up to a hundred. Did you eliminate the,
5 Don't knows?

6 A Yes.

7 Q Why did you do that?

8 A In the findings -- this table was prepared for
9 Utility A, and it turned out to make for a more economic
10 presentation to take the Don't Knows out of the table.

11 Q Why didn't you do it for the question: Customer
12 concern about radiation?

13 A Because there is not really a don't know category.
14 Many more people felt that they could answer that question
15 in terms of the categories, and gave them.

16 Q Is it your testimony that nobody said, 'Don't
17 know' in response to the customer concern about radiation?

18 A One or two percent. It was insignificant.

19 Q Do you have any specific data on -- which pertains
20 to whether or not people on Long Island are in favor of
21 nuclear energy as a whole?

22 A No, we have done no specific studies on the Island.

23 Q You would not say, would you, that all people
24 who find LILCO to lack credibility are anti-nuclear, would
25 you?

1 A I would guess there would be a good correlation
2 between those two, but I would agree with you not all. It
3 is never all.

4 Q Do you believe that the correlation would be
5 in the sixty percent range we are talking about?

6 A I believe it would be statistically significant,
7 a correlation -- point zero one, however you want to do it
8 --

9 Q But you are not saying ninety-nine percent of the
10 people --

11 A No, no. You never get those results when you do
12 research on human beings.

13 Q Just for future reference, let me finish my
14 question before you answer.

15 A I am sorry.

16 Q You would agree then, wouldn't you, that opinions
17 on nuclear energy are not the only factor that would have
18 an effect on perceptions of credibility of a utility,
19 correct?

20 A Yes.

21 Q Do you have any data from Long Island which tell
22 you that LILCO's lack of credibility might come from other
23 factors other than anti-nuclear feelings?

24 A Nothing specific to Long Island. I would say
25 that some of our strongest results around the country are

1 that a utility's credibility precipitously declines as a
2 nuclear power plant comes closer to going on line. That
3 has been absolutely consistent across the country. I would
4 be very surprised if it was different here.

5 Q My question was: You don't have any specific
6 data --

7 A No. I am sorry.

8 Q -- with respect to whether or not LILCO's lack
9 of credibility comes from factors other than anti-nuclear
10 attitudes?

11 A No, I don't.

12 Q Are you aware of a report called the Marburger
13 Commission Report?

14 A I have heard of that, and my Staff has glanced
15 at it. I have not seen it.

16 Q Are you aware of whether the findings of that
17 Report were, in fact, reported in the local newspapers?

18 MR. CHRISTMAN: Objection to this line of
19 questioning, which goes beyond the testimony.

20 MR. McMURRAY: I don't see how. Mr. Christman
21 hasn't even heard my questions yet.

22 MR. CHRISTMAN: Well, I heard the last question,
23 and I object to it.

24 JUDGE LAURENSEN: Objection is overruled.

25 WITNESS BARNETT: Do you mean local papers on

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1 Long Island?

2 BY MR.. McMURRAY: (Continuing)

3 Q Those publications that are read by the people
4 in Long Island?

5 A No.

6 Q You are not aware of whether that has been --
7 whether the Marberger Commission findings have been reported
8 in the local newspapers read by the people on Long Island?

9 A No. I don't read Long Island newspapers. I
10 know there has been some mention in the New York Times. I
11 have seen some people on Long Island read that. But I have
12 no specific information about that.

13 Q In your opinion, would newspaper articles read
14 by people which stated that LILCO had been found to have
15 low credibility among the public, in fact, decrease LILCO's
16 credibility among the public?

17 A That to me is an experimental question. I don't
18 know the answer to that.

19 Q Can you infer?

20 A I have no data to do that. I have never done a
21 research project which has looked at something like that
22 and has then seen a change of the sort that you ar describing.

23 Q So let me just get this clear. You are saying
24 that you do not know what the effect of adverse publicity
25 to LILCO would be on the public's perception of credibility?

1 A Yes, and the reason I am saying that is that one
2 of the things that one wants to do as a good researcher is
3 to try to come up with counter-intuitive hypotheses, and
4 perhaps to you a counter-intuitive hypothesis might be a
5 certain amount of negative publicity -- consistent negative
6 publicity might cause people to rally around a particular
7 institution, and therefore, might cause perceptions of
8 credibility to increase.

9 As a researcher, I wouldn't want to entertain that
10 hypothesis.

11 Q Are you saying you are aware of no studies which
12 conclude that adverse publicity would, in fact, reduce an
13 organization's credibility in the public's eye?

14 A Oh, there must a number of studies that suggest
15 that.

16 Q Are you aware of whether or not LILCO's problems
17 with its diesel generators have been reported in the local
18 newspapers?

19 A Let me say this. I have not in the past, since
20 the social systems analysis study, nor now do I follow the
21 daily events related to LILCO and Shoreham, so my answer to
22 this would be no, and I think any related specific question
23 would have to be I just don't know.

24 Q You are saying also then that you would not be
25 aware of the nature or extent of any news coverage of PSC

1 hearings where the PSC staff was reported to have claimed that
2 LILCO had mismanaged the construction of the Shoreham plant?

3 A My sole source of information about this comes
4 from New York Times articles when I am not on the road, which
5 is about half the time, and it doesn't go beyond that.

6 Q So, to sum this all up, you really have no in depth
7 knowledge of the media coverage surrounding the Shoreham
8 plant?

9 A I don't.

10 Q Your Company has found, has it not, that negative
11 attitudes towards a utility, and again, I think we can say
12 also negative attitudes towards it's credibility, have been
13 influenced by large rate increases, isn't that correct?

14 A Yes.

15 Q Are you aware of any large rate increases that
16 have been discussed regarding LILCO and the Shoreham plant?

17 A Again, only from the New York Times. I also
18 know of a utility that has had a large rate increase without
19 falloff in credibility. Gulf States Utilities in Beaumont,
20 Texas.

21 Q But the general findings of your Company are that
22 when there are large rate increases, negative feelings towards
23 a utility increase, correct?

24 A In most of the studies we have done yes, negative
25 feelings increase.

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MR. McMURRAY: Judge Laurenson, this is a fairly good breaking point for me if you want to take the morning break.

JUDGE LAURENSEN: We will just go off the record.

(Off the record discussion ensues)

End 6.
Reb fols.

1 JUDGE LAURENSEN: We are back on the record.
2 Before we resume the cross-examination of Dr. Barnett, we
3 have had a discussion off the record with regard to
4 next week's schedule, and the Board will order the filing
5 of the full cross-examination plans concerning clusters
6 15 and 16 on Tuesday morning here when we reconvene.

7 Mr. McMurray?

8 BY MR. MC MURRAY:

9 Q Dr. Barnett, are you aware of any polls conducted
10 subsequent to the county's poll which would indicate to you
11 that LILCO's credibility had fallen further from the poll
12 that was done by the county?

13 A No, I have not seen that.

14 Q Are you aware of any?

15 A No.

16 Q Given what you have said about the generally low
17 credibility of the nuclear utilities, would it surprise you if a
18 survey conducted on Long Island showed that 75 percent of the
19 public did not believe that LILCO personnel could supervise
20 an off-site emergency response in the event of an accident
21 at Shoreham?

22 MR. CHRISTMAN: Objection to counsel's
23 characterization of what the witness said as generally
24 low credibility. I think we went through that this
25 morning. The witness declined to characterize credibility

1 as low or high.

2 MR. MC MURRAY: The witness specifically agreed
3 that generally the credibility was low.

4 JUDGE LAURENSEN: The objection is sustained.
5 I don't recall that that was the agreement without an
6 explanation. Since you have prefaced your question with
7 that -- the question itself, of course, is proper, but
8 with the remarks that you have put in at the beginning,
9 I think I have to sustain it because he did explain the
10 relevance and the fact that this was a comparative term.

11 Let me also ask Mr. Christman to turn on his
12 microphone.

13 MR. CHRISTMAN: Yes, sir.

14 BY MR. MC MURRAY:

15 Q Let me ask you then, would it surprise you
16 if a recent survey done on Long Island showed that 75
17 percent of the public did not believe that LILCO personnel
18 could supervise an emergency response in the event of an
19 accident at Shoreham?

20 A No survey response would surprise me. Survey
21 responses depend very much upon how questions are asked.
22 In order for me to honestly respond whether or not I have
23 been surprised, I would like to see the exact questions and
24 how they were asked.

25 Q Well, given your knowledge about the credibility

1 of utilities generally, would that sort of response
2 surprise you?

3 A I would have to answer as I answered just before,
4 it would depend very much on how the question was asked,
5 how close the survey was done to media events, was there a
6 re-survey done after media events died down to see if
7 that was just a little blip in opinion that would go back.

8 There are many, many questions one can ask of
9 survey data which anthropologists tend to ask of that kind
10 of data.

11 Q Well, assume for me -- let's assume that the survey
12 was conducted in a manner that you would deem appropriate.
13 Would those results surprise you?

14 MR. CHRISTMAN: Objection. Too vague to be
15 answered.

16 JUDGE LAURENSEN: Overruled.

17 THE WITNESS: I wouldn't -- no, I would not
18 be very surprised.

19 BY MR. MC MURRAY:

20 Q Now, is that response based on your specific
21 knowledge of LILCO's credibility or the credibility of
22 nuclear utilities as a whole?

23 A Frankly, the response is based upon great leaps
24 of faith in my mind to answer a question on your part which
25 has a lot of hypotheticals in it.

1 Q Is it based -- let me ask my question again --
2 on specific knowledge about LILCO, or is it based on
3 your knowledge about nuclear utilities as a whole?

4 A As far as knowledge bears on my response, it is
5 nuclear utilities as a whole.

6 Q Just to clear up any problems here, I believe
7 that we had agreed earlier that -- and I think you state
8 on page 20 that "nuclear utilities have a relatively low
9 level of public belief in nuclear statements," correct?

10 A What are you referring to on page 20 in my
11 testimony?

12 Q The top paragraph.

13 A Yes. With the -- the word "relatively" is
14 extremely in that testimony. LILCO is one of many
15 utilities with a "relatively low level of public belief."

16 Q What are you comparing belief to?

17 A Well, the question -- the reason the word
18 "relatively" is in there is, you have to ask a hypothetical
19 question, what would be a high level of public belief
20 in nuclear statements, what would be an average or
21 reasonable level of public belief in nuclear statements.
22 And I don't know of any good method, logical way to get
23 at those answers. So I just put the word "relatively" in
24 there to indicate that we don't have abstract scales as
25 we do in physics and engineering in the social sciences that

1 would enable us to make those kinds of judgments.

2 Q Well, according to your data in table 1, wouldn't
3 you say that the majority of people do not find nuclear
4 utilities to be credible?

5 A Table 1 tells me, the last two questions
6 especially tell me that the majority of people in the
7 United States do not think the utility industry has been
8 honest about the cost of nuclear power or nuclear safety.
9 That would be as far as I can answer.

10 Again, the analytic question is, what does that
11 mean? Is that -- does that mean high? Does that mean
12 low? What can one expect?

13 And those are value judgments which I am
14 uncomfortable making.

15 Q But from that data, that data supports your
16 statement, does it not, that utilities have a relatively
17 low level of public belief?

18 A Yes, I would stand by the statement "relatively
19 low level of public belief."

20 Q Page 22 you refer to various industrial sectors,
21 including the chemical and automobile industries.

22 Are you aware of any examples where an automobile
23 company is in command and control of an off-site emergency
24 plan to be implemented in the event of an accident at one
25 of their plants?

1 A No.

2 Q Let me ask you about a chemical company, ask you
3 the same question about a chemical company, that is, whether
4 it is in command and control of the off-site emergency
5 response to be implemented in the event of an accident at
6 that plant?

7 A No.

8 Q On page 23, the last sentence says, "Therefore,
9 a case cannot be made that people around the Shoreham
10 are especially unlikely to follow emergency instructions."

11 Correct?

12 A Yes.

13 Q Now, you use the words "especially unlikely"
14 because it is your opinion that LILCO is not uniquely
15 low in its credibility, correct?

16 A Yes. And also because of the qualitative data
17 that I cited in my testimony which you haven't cross-
18 examined me on.

19 Q We'll get to it.

20 Would you say that it follows from your statement
21 that people around other plants where the utility has
22 an approximately equal low or an equal credibility would
23 be approximately equally likely or unlikely to follow
24 instructions?

25 A I would agree with that.

1 Q Let me refer you to your table, table 2.
2 You talk about public trust and specifically about
3 scientists both from around the country and from the state.
4 Do you have any data which shows that in fact the believ-
5 ability or credibility of scientists is, in fact --
6 and I am talking about nuclear scientists -- decreasing?

7 A I believe we have done a study with one
8 utility that suggests in that particular case believability
9 in nuclear scientists did decrease as did general
10 believability of just about every source of information
11 in that particular situation.

12 Q Let me refer you to a document which is in
13 front of you, entitled October 1983 survey, Customer
14 Attitudes Toward Nuclear Energy.

15 Do you recognize this document?

16 A Yes, that is the document, in fact, I was referring
17 to. That is the study I was referring to.

18 Q That is the study you were referring to.

19 And this study was conducted by you --

20 MR. MC MURRAY: First of all, Judge Laurenson,
21 I would like this document entitled October 1983
22 Survey, Customer Attitudes Towards Nuclear Energy
23 marked as Suffolk County Exhibit EP 56.

24 JUDGE LAURENSEN: It will be so marked.

25

1 (The document referred to was
2 marked Suffolk County Exhibit
3 EP 56 for identification.)

4 MR. MC MURRAY: Just for the record, there
5 are some deletions in this document. I believe they
6 were there when we got them, but they were made, I believe,
7 and Mr. Christman can correct me if I am wrong, so
8 that the client could not be identified.

9 MR. CHRISTMAN: That is correct.

10 MR. MC MURRAY: Okay.

11 MR. CHRISTMAN: That was by agreement of the
12 parties.

13 MR. MC MURRAY: We have no problem with that.

14 BY MR. MC MURRAY:

15 Q This October 1983 survey, Dr. Barnett, was
16 conducted by you and your colleagues, correct?

17 A Let me refer you to page 5 of this document.
18 You state under the hearing Trust in Authorities for
19 Nuclear Information that, "As noted earlier, there has
20 been a decrease in the believability of nuclear scientists
21 and the NRC as sources of information on nuclear energy."

22 Correct?

23 A Yes.

24 Q Is the -- well, the client that was -- for whom
25 this was done a midwestern client, a client located in the

1 A I personally, in order to really maintain the
2 confidentiality, would not like to even answer that.
3 If directed, I will.

4 Q Well, I am not really sure how defining the
5 geographical, the large geographical area of the United
6 States would, in fact, reveal the client's identity.

7 MR. MC MURRAY: Maybe we can go off the record
8 and try and discuss this.

9 MR. CHRISTMAN: That would be best I think.

10 JUDGE LAURENSEN: Why don't you talk to each
11 other about it.

12 (Discussion off the record.)

13 MR. MC MURRAY: Judge Laurenson, I believe the
14 parties have reached an agreement with respect to SC EP 56.
15 The county has agreed to redact some other information
16 that has presently not been redacted. We are going to
17 offer this exhibit into evidence, but before it is
18 given to the court reporter and bound in, we will agree
19 to redact the information that Dr. Barnett feels would
20 identify his client.

21 So with that --

22 MR. CHRISTMAN: Well, I think with the deletion
23 of four words -- I will check that -- I think we will be
24 okay. It shouldn't make much difference.

25 BY MR. MC MURRAY:

1 BY MR. MC MURRAY:

2 Q Dr. Barnett, was the utility for whom this
3 survey was done a midwestern utility?

4 A Yes.

5 Q Let me refer you to page 45 of your testimony.
6 There you are talking about anthropologically based
7 group interviews and some conclusions you draw from them.

8 First, could you describe briefly what an
9 anthropologically based group interview is?

10 A Ideally, anthropological field work is a sloppy
11 business which consists of hanging out with a group of
12 people for a year, even two years, and just observing
13 what they do and say in the course of their everyday lives.

14 As a consultant, that method is not really
15 open to me. And so we try to force people, if you will,
16 to talk about things that are relevant for us.

17 So we do have group interviews -- that is,
18 groups of people that we have gathered with wide demographic
19 ranges appropriate to the areas where we do the interviews,
20 and in these interviews we typically will set out tasks
21 for people to accomplish, things for them to discuss among
22 themselves where we do not intervene as moderators.

23 There are some group interview techniques called
24 focus groups where a moderator leads the group. In
25 what I would call an anthropologically based group interview,

1 no one leads the group.

2 Rather, we provide tasks and let the group
3 talk about things as they would in their own living rooms.
4 If an issue isn't raised, we assume it wouldn't be raised
5 in the course of ordinary conversation.

6 We analyze those interviews in terms of what
7 are the key issues that cause people to make up their
8 minds, to change their minds. How do people resolve
9 differences. What are the words and phrases that are
10 important to them and what behaviors do they say will
11 follow from some of the outcomes of these discussions.

12 Q From these types of interviews, can you draw
13 conclusions that can be generalized to the population as
14 a whole?

15 A That is an extremely difficult area in
16 social research. I would say two things. The first thing
17 is that the kind of data you get from most surveys and
18 the kind of data you get from a qualitative anthropological
19 interview are not comparable data. That is, what you get
20 in the one you typically cannot get in the other, so
21 that you have no choice, if you are dealing with this
22 in-depth data, you have no choice but to try to generalize
23 from a relatively small qualitative group of people to a
24 much larger group.

25 That is what we try to do. We try to test this

1 where possible. But I think that you would find
2 most anthropologists would say one's ability to generalize
3 from this in-depth data is quite strong even though the
4 ability to generalize is not based upon an application
5 of statistical method.

6 Q Let me ask you this, can you establish
7 causality by the responses that are listed during an
8 anthropologically based group interview?

9 A I, in doing social research, try as carefully
10 as I can to avoid the word "causality." I can explain
11 this in length, if you would like me to, why I try to
12 avoid that word.

END 7

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#8-1-SueT

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Q Well, do you recall being deposed on Friday, March 23rd, 1984?

A Yes.

Q Do you recall being asked this question -- well, let me ask you this first.

Would you agree that anthropologically based group interviews are to be described as qualitative research?

A Very much so, yes.

Q Okay. And, do you recall being asked the question: So, I am correct then that you are not able to do -- not able, or do not determine causality from your qualitative research?

Do you recall being asked that question?

A Vaguely, yes.

Q Do you recall your response?

A Not the exact words. Could you read it to me?

Q Do you recall responding: Almost never?

A Yes, that's what I said this morning.

Q Thank you.

A I'm glad I was consistent.

Q In these anthropologically based interviews, I take it that an employee of Planmetrics or someone associated with Planmetrics takes part in these group interviews?

A Someone on my staff, or someone we use on a part-

#8-2-SueT

1 time basis, will set up the group, create the tasks for
2 the group, and then typically leave the room or come back
3 periodically to set up new tasks.

4 Q But tasks are assigned or given to a group and
5 also questions are asked and responses are elicited?

6 A We ask relatively few questions. Most of the
7 data results from people within the group talking among
8 themselves rather than our directly questioning them.

9 Q How do you know -- or, how would you be able to
10 determine what percentage of people in the United States as
11 a whole hold a view similar to one that you have determined
12 exists from an anthropologically based group interview?

13 A As I said before, the methods of degrees of
14 confidence in this kind of research are not statistical.
15 Our assumption of relative confidence depends upon, if you
16 will, the thickness of the data. If in the course --

17 Q If I could, listen to my specific question. How
18 do you know, or can you know, to determine what particular
19 percentage of people in the U.S.A. hold a particular view
20 that is similar to one that you have determined exists from
21 an anthropologically based group interview?

22 A I'm going to have to continue in the same direction
23 that I was going in.

24 Q Well, are you telling me how you will know this
25 particular percentage?

#8-3-SueT

1 A I leave that for you to judge. If, in fact, we
2 discover that people hold fifteen to twenty attitudes that
3 seem interlinked and they are consistently evoked in the
4 same way in the course of these interviews, we find we have
5 warrant for saying this complex interlinkage of attitudes
6 is a deeply held mind-set in the United States. And if we
7 find it recurring again and again in groups throughout the
8 country, we are able to make large judgments. We are not
9 able to say forty-eight percent of the people across the
10 country would agree with this, but we would be able to say
11 things like the majority or most or a significant number
12 would agree or disagree.

13 Q So, in order to -- you just can't make those
14 kinds of findings then based on one anthropologically based
15 group interview? You have to do a number around the
16 country in order to be --

17 A Oh, yes.

18 Q -- more confident about whether you can draw
19 conclusions for the whole country?

20 A Yes. In fact, we draw no conclusions from a
21 single interview ever.

22 Q Now, you state that in the anthropologically based
23 group -- I'm sorry. Beginning on Page 45: In the anthropo-
24 logically based group interviews I discussed above, despite
25 the reservations expressed about emergency planning and

#8-4-SuET

1 emergency information, participants indicated they would
2 follow instructions.

3 My first question is, in how many group inter-
4 views was this indication given?

5 A Well, we have done interviews on this subject
6 in Massachusetts, New York, midwest, Texas, Florida, and
7 California. I believe in my testimony I've cited seventy-
8 eight respondents specifically.

9 We have done many more interviews than that.
10 The basis upon which this data is derived is a task that
11 we asked people to do. We asked people who lived close to
12 a nuclear power plant to design by themselves what they
13 think would be a safe evacuation plan. And then we listen
14 very carefully to what they say and what they don't say.

15 And we found that in every one of these inter-
16 views people, even people opposed to nuclear energy,
17 people who believe local government or utilities don't know
18 what they are talking about, in the end say: Well, you
19 know, you have to make a choice.

20 And as I say on Page 46, "What else can you do?"
21 "You have to believe in something."

22 This doesn't mean they are happy about it. But
23 it means that they have to act in a difficult situation.

24 Q How many people are involved in each group
25 interview?

#8-5-SueT

1 A We live to get twelve. The practice of recruit-
2 ing means we get from eight to fifteen depending on the
3 particular interview.

4 Q And in -- let me ask you this first. What is
5 the total number of interviews that are relevant to this
6 testimony on Page 45 and 46?

7 A I think it's seventy-eight respondents and also -

8 Q Seventy-eight respondents?

9 A -- four interviews, four, five.

10 Q Four interviews?

11 A Let me go back to my testimony here. Six
12 interviews, I'm sorry.

13 Q And you say that in every one of the interviews,
14 people said, in fact, that they would follow instructions?

15 A In every one, yes, people did say that. And,
16 in fact, that was in every one, in every case that was
17 consensus. It did not mean that every person in every inter-
18 view said that but more or less people grudgingly accepted
19 that.

20 And, again, when we do these interviews we have
21 people from my staff observing. And we take as a grudging
22 assent sometimes someone will shrug their shoulders. They
23 may not verbally say something. So, the analysis of these
24 interviews is quite complex, using non-verbal cues as well
25 as verbal cues.

#8-6-SueT

1 Q In each one of these interviews, was the
2 question raised, or the issue specifically raised, regard-
3 ing whether or not the participants would follow instructions
4 regarding protective actions from a utility?

5 A No. One of the things that we intentionally left
6 open-ended when we said, please construct a safe nuclear
7 evacuation plan, what we try to do is provide very little
8 information. We want people to input into the task their
9 own sense of what's going on. And we found interestingly
10 in no case did people say: Well, this plan would have to
11 be implemented by the state or this plan would have to be
12 implemented by a utility company or by ourselves, or what-
13 ever.

14 They would just try to go with the plan in the
15 abstract and talk about it that way.

16 Q Did you inform the participants in the interview
17 that -- strike that. Did you determine or attempt to
18 determine from the participants who they felt would normally
19 carry out the man and control of an off-site response?

20 A No.

21 Q Did you attempt to determine from the partici-
22 pants whether or not they just assumed that a government
23 would take over the command and control of an off-site
24 emergency response?

25 A No. Again, we listened to what people said. In

#8-7-SueT

1 some cases they talked about their local government. In
2 other cases they talked about the fact that the plan would
3 have to be administered by citizens just getting up and
4 doing the correct thing, you know, taking control of roads
5 and things like that.

6 Q Let me ask --

7 A We didn't provide that. We didn't ask those
8 questions.

9 Q Did any of the participants in those interviews
10 indicate that they would follow instructions regarding off-
11 site protective actions from a utility?

12 A No.

13 Q Now, you say that four interviews formed your
14 data base here --

15 A I'm sorry, six.

16 Q It was six. Okay. Dr. Barnett, the County was
17 only provided with transcripts for two such interviews.

18 Can you tell us why?

19 A In one case, the transcript -- that is, the
20 taped transcript was just garbled and unintelligible, even
21 to us. In the other three cases, we took notes and did not
22 have a transcript.

23 Q Are you relying at all on the interview where
24 the taped transcript was garbled even to you?

25 A No. In that case, we are relying on notes that

#8-8-SueT

1 were -- we always take notes in addition to a transcript.

2 Q In the -- let me show you two interviews which
3 we will identify as Interview One and Interview Two, which
4 were, I will proffer, obtained from LILCO's attorneys.

5 Let me ask you, did you conduct an interview
6 in any area of the country on June 10, 1983?

7 A No. I was present at it, but the moderator in
8 that case was not me.

9 Q Okay. You were present at it, though?

10 A Yes.

11 Q Okay. What do you mean, was moderated by some-
12 one else?

13 A I mean the group was established. Initially,
14 the people were introduced to each other and tasks were
15 given out periodically by the person that has been identified
16 here by the rather prosaic name "Daisy." She is actually
17 Dr. Daisy Dwyer, a cultural anthropologist who has taught
18 at Columbia University and is now a student at Columbia Law
19 School.

20 (Laughter)

21 That says something about anthropology.

22 Q I would like you to look at that interview,
23 please, and tell me where in that interview the statement
24 is made that either a participant would in fact follow
25 instructions or where the statement is made, what else can

#8-9-SueT

1 we do, or where the statement is made, you have to believe
2 someone at a time like that because you must decide what
3 to do?

4 A Those statements come from other interviews.
5 There are similar statements in this interview.

6 Q Well, you have a general category of statements
7 running from Page 45 over to 46 saying that participants
8 would follow instructions.

9 A Yes.

10 Q And would you please refer me to the -- to that
11 page in the interview?

12 A Well, in this particular interview, you can --
13 I would say from Page 30, 31, 32 -- I will get more
14 specific.

15 For example, on Page 32, someone says: Given
16 the amount of time you could evacuate anybody. Of course,
17 they may die in the process of doing it.

18 And then someone says: It's better than sitting
19 in your house and dying. It's there someone is going to
20 follow an evacuation instruction, albeit reluctantly without
21 much hope perhaps. But statements like that --

22 Q What page are you referring to?

23 A Page 32. In the middle.

24 Q Where are you on the page?

25 A Giver the amount of time you could evacuate

#8-10-SueT

1 anybody. Of course, they may die in the process of doing it
2 with the radiation from it. But I'm not arguing that point,
3 says one respondent.

4 Another participant says: It's better than sit-
5 ting in your house and dying. That would be one to follow
6 the evacuation instruction.

7 Q Now, you would agree with me, would you not,
8 that there is no indication here that an evacuation in-
9 struction has been given?

10 A They are talking about evacuation. You could
11 evacuate anybody --

12 Q Is there any indication in this scenario they
13 are playing out that an evacuation instruction has been
14 given?

15 A My interpretation of this material is that when
16 they say evacuate they are assuming a set of evacuation
17 instructions.

18 Q That is your assumption?

19 A Yes. And I think I could, if we go back over
20 each of these pages, argue it more strongly. They are
21 talking about -- they do invoke what kind of a plan could
22 you evacuate four thousand people. What about Highway 40.
23 There are a series of things that they go through which I
24 would take to be indicative of what instructions would
25 look like.

#8-11-SueT

1 Q And so, is it your testimony that that
2 language supports the statement in your testimony that
3 participants indicated they would follow instructions?

4 A Yes. Let me also refer you to Page 33 where
5 someone says: There is going to be some kind of evacuation.
6 This is at the top.

7 And then someone says: If you are out car to car
8 and there is no place to go, I think everybody will realize
9 that I'm just going to have to move along if I can.

10 You have to understand when you do these kinds
11 of --

12 Q Excuse me. Could you read that full paragraph
13 more slowly so the court reporter can get it all down?

14 I'm talking about the whole paragraph there.

15 A There is going to be some kind of an evacuation.
16 If you are out car to car and there's no place to go, I
17 think everyone will realize that I'm just going to have to
18 move along if I can. As far as just the plan for doing it,
19 if anybody would even consider it or pay attention to it.

20 Q The last line was "if anybody would even consider
21 it or pay attention to it?"

22 A Yes. But this person is saying that they would
23 have to move along and they hope that other people would
24 consider it and pay attention to it.

25 Q Again, in this statement nobody is saying -- there

#8-12-SueT

1 is no explicit statement that some sort of protective
2 action recommendation has been given, is it?

3 A No, not in your terms.

4 Q Are there any other portions of -- I think you
5 have said between Page 30 and 33. Are there any other
6 sections in those pages that you say would support your
7 statement that participants said they would follow in-
8 structions?

9 A Okay. If we look at the bottom of Page 29,
10 there is a somewhat complicated -- when you get this kind
11 of data, it's messy, complicated data. I don't apologize
12 for it. That's the way people talk to each other.

13 Toward the bottom someone says: If there was
14 a nuclear accident, ten, twenty miles from here, and you
15 broadcast that on the radio station there is absolutely no
16 way that anybody could have a plan to do anything. So
17 there is a person who says there isn't a plan.

18 However, the following person says: Several
19 years ago Plant X was on fire. It happened in the middle
20 of the night. Does anybody remember that? Most people were
21 in bed sleeping, no radio and t.v., so the fire department
22 and rescue squad were going door-to-door telling people
23 where to go or just to get out of the state. So, it was a
24 counter there saying that, in fact, you could have a plan
25 and it would be reasonably followed.

#8-13-SueT

1 Q Now, the organizations identified are fire
2 department and rescue squad, correct?

3 A Yes.

4 Q Okay. Now, are you able to conclude from these
5 passages that you have just pointed out in these interviews
6 that, in fact, a consensus was formed that people would
7 follow instructions?

8 A From all six interviews we were able to conclude
9 that, not from this, not from any one single interview.
10 Even if the data were overwhelming, I wouldn't conclude
11 that. I would have to go to some others.

12 Q Did you also participate in another interview
13 in June of 1983?

14 A That's the Greenville, what's identified here
15 as --

16 Q I thought we weren't going to identify --

17 A I'm sorry.

18 Q I was avoiding using the word so --

19 A In this case, it doesn't make any difference.
20 An interview in North Carolina, since we didn't do it for
21 a utility company, it doesn't -- the client is well
22 protected.

23 Q Okay. So you also conducted an interview in
24 Greenville?

25 A Yes.

#8-14-SueT

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Q Okay.

A I'm sorry.

Q Now, would you please point me to the passages in this -- well, do you have a transcript of that interview in front of you?

A Yes, I do. It's a partial transcript, by the way. Again, the tape gave out at a certain point. And, as you by now realize, anthropologists are low-tech people. We have trouble with machinery.

(Laughter.)

Q Could you point me to the passage in this interview which supports the statement that the participants indicated they would follow instructions, or which actually give the quotes which you have here on Page 45?

A Yes. The bottom of Page 9, the business that starts, "As far as notification is concerned..." there is a long paragraph there which I can read if you like, but that discusses specific components of how they are thinking about evacuation.

What you really need is a method by which you can contact people. You need to handle whatever crowd and traffic problems develop, et cetera, et cetera.

end #8
joe flws

1 Q Let me ask you to read into the record that
2 portion on page 9 of the interview which supports the
3 statements we have been talking about.

4 A I am just going to be reading a whole lot then.
5 To notify everybody at one time is dangerous. You will have
6 a panic. What you really need is a method by which you can
7 contact police, power control, whatever people are going to
8 be in charge, police, whatever. I would underline the
9 'whatever.' We can set up and be ready to handle whatever
10 crowd or whatever traffic problems might develop with a low
11 level radiation leak, which is probably a small number of
12 people that will have to have a certain role or path in the
13 least amount of time, and then if a large level leak developed,
14 then the entire population had to leave the town, you would
15 have to have your police and firemen and all those people
16 in those type positions available and ready to -- and here
17 the tape is not clear -- there has to be some kind of code
18 in which these people are informed, that they have pre-
19 arranged plans and be ready to get you back out of the city.
20 And after you have these people stationed in their particular
21 areas, then the general public, in the case of a small leak,
22 women and small children, would then be notified and say from
23 radio and television, whatever methods you intend to use, but
24 you can't notify everybody at one time.

25 Then another participant says: The first thing

1 you want to say is how much time we have. What if it
2 happened during the day.

3 Another participant says: The way we are
4 educated now, it would probably be safer to stay at home
5 than it would be to go out with the masses. Which way
6 are we going to go. There would be mass confusion. You
7 can't control hysterical people. You might get down
8 Route 76. There are so many variables.

9 They are talking about what is going to happen
10 with the details of such a plan, and they invoke Switzerland.
11 Switzerland has a plan to preserve their whole people, all
12 of them will return to the mountains, and someone says ten
13 thousand years, assuming that is half life radiation. Ten
14 thousand years is a long time.

15 And on and on and on. I think in a general
16 sense this is supported.

17 Q Now that, -- you would say that that is the
18 portion of this interview which supports your statement that
19 participants would follow instructions?

20 A Yeah. There is more in that interview that we
21 have notes on that was not on the tape.

22 Q As far as what you just read goes, the only
23 groups explicitly mentioned were police and firemen, correct?
24 As far as emergency response groups?

25 A Yes, and one other group. The residual category

1 called, 'whatever.'

2 Q Okay. The term was police, 'whatever?'

3 A Police, firemen, whatever. In other words
4 anybody -- my interpretation at least is anybody who will
5 take charge at that moment.

6 Q Was the person who gave this little speech the
7 moderator?

8 A Oh, no. This was one of the participants, yes.
9 The moderator, in fact, was not even in the room when this
10 was done.

11 Q Was this the participant given the task of
12 coordinating the group to develop emergency plan?

13 A No. We assigned a chair or leader, and this
14 person was not that leader. In the transcripts you have,
15 you don't have people identified. In our own notes we keep
16 a running tally, and when we analyze it we do have them all
17 identified.

18 Q Again, with respect to this Greenville interview,
19 does that -- is this passage in this printed transcript the
20 only one you can point to that supports what you just said?

21 A Yes, in the printed transcript.

22 Q In the printed transcript.

23 A Again, I should point out that these interviews
24 range over many topics other than evacuation, and so they
25 are talking about nuclear waste disposal, whole sets of

1 other issues.

2 Q And we have generally been talking about parts
3 of the interview which deal with evacuation, correct?

4 A Yes.

5 Q Or emergency planning in broader context.

6 A Yes.

7 Q I take it then that the exact quotes: What else
8 can we do, and you have to believe someone at a time like
9 like this, because you must decide what to do; comes from
10 one of the other interviews from which we have not received
11 the transcripts, correct?

12 A Yes. There are no transcripts for those. Both
13 of those comes from -- one comes from Northern California,
14 near Diablo Canyon, the other near San Onofre, in Southern
15 California.

16 Q Were those statements that people voted on, or
17 was this just a statement in each case made by a participant?

18 A A statement made by a participant. It is
19 included here to be illustrative.

20 Q You state on page 46 that: Moreover, from the
21 data I presented above, showing that the more anti-nuclear
22 segments of society tend, one, to be more skeptical of
23 information from utilities; and two, to have greater concern
24 about radiation and radioactive waste. We might well infer
25 that these same segments will be most concerned to follow

1 emergency planning instructions, even if they question their
2 utility's honesty about nuclear safety communications in
3 general.

4 Do you see that?

5 A Yes.

6 Q First of all, let me ask you this: Is it your
7 testimony that anti-nuclear people are more likely to
8 follow instructions than pro-nuclear people?

9 A What kinds of instructions?

10 Q Protective action instructions during a radio-
11 logical emergency.

12 A That would be my guess. I use the word, 'guess'
13 very carefully.

14 Q You guess that anti-nuclear people would be more
15 willing to follow instructions than pro-nuclear people?

16 A Yes.

17 Q Is it -- I take it then that you are saying also
18 that a heightened concern or fear of radiation increases
19 perceptions of credibility?

20 A Oh, no. But a heightened fear about radiation
21 increases a feeling of a necessity to act. That is, if
22 someone was -- believed the utility had realitively low
23 credibility -- I am following a logical train of thought
24 rather than something that I can demonstrated with data
25 at each point -- but if someone had believed that their

1 utility was too credible, but was strongly anti-nuclear and
2 had also a strong fear and concern about radiation, if their
3 utility in an emergency situation said there is a problem
4 or an emergency at the nuclear power plant, these are the
5 people who would say: Well, the utility would cover up.
6 If they are saying there is an emergency, there, by golly,
7 really must be an emergency at this plant, and I had better
8 start to act in this case.

9 So I would think that the low credibility of
10 a utility for these people would not be particularly relevant
11 in that specific situation.

12 Q So in that case they would even be more likely
13 to evacuate?

14 A They would be more likely to act. There are
15 choices for action. Staying, evacuating, who evacuates,
16 whatever. I am not competent to really testify on what
17 specifically people would do in a specific situation.

18 Q Well, are you saying that their concern would
19 make them more likely to evacuate, or their concern would
20 make them more likely to shelter?

21 A I think their concern would more likely make
22 them act. Now, acting can be sheltering; acting can be
23 evacuating. Acting can be swallowing a tablet in certain
24 cases. I don't know how they will act. My guess is they
25 are more inclined to act in some way.

1 Q Would they act even if they were told not to
2 act?

3 A My guess is, and again a guess, that if a statement
4 were made about a nuclear emergency, these people as well as
5 many other people would be inclined to act. If anybody
6 made the statement, I should add.

7 Q Excuse me.

8 MR. McMURRAY: Judge Laurenson, can we go off
9 the record for a second.

10 (Off the record discussion ensues)

11 BY MR. McMURRAY: (Continuing)

12 Q Now, with respect to your assumption, guess, or
13 whatever it was, inference that anti-nuclear people would
14 be more likely to follow instructions, you don't have any
15 data that tells you that, correct?

16 A No, and I said -- I didn't say they would be more
17 likely to follow instructions. I said they would be more
18 likely to act.

19 MR. McMURRAY: Judge Laurenson, at this time
20 I would like to move into evidence Suffolk County Exhibits
21 EP-55 and 56.

22 JUDGE LAURENSEN: Is there any objections to
23 those exhibits being received in evidence?

24 MR. ZAHNLEUTER: No objection.

25 MR. CHRISTMAN: No objection.

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JUDGE LAURENSEN: Those exhibits will be received in evidence and bound in the transcript. The County will supply the corrected copy of Exhibit 56.

XXXINDEX

(Suffolk County Exhibits EP-55 and 56 are received in evidence.)

(Above referenced documents follow)

OCTOBER 1983 SURVEY
CUSTOMER ATTITUDES TOWARD NUCLEAR ENERGY

The October survey revealed an increase since May in customer awareness of the construction project. There are several leading indicators of an erosion of support for nuclear energy. Customers increasingly question the need for the plant; there has been a slight increase in opposition to nuclear energy in general (especially in the [redacted] division); and customers have become less trusting in outside authorities as sources of credible information on nuclear energy. Also, customers (except for the most Pro Nuclear segment) do not trust the Company as an information source. The results suggest increasingly difficult communications problems for the Company, given the lack of customer trust and the inherent complexity of the issue (i.e., the question of need, and the effect on customers' bills).

CUSTOMER AWARENESS OF

There has been an increase since May in customer awareness of the construction, from 46% aware to 56%. This increase was concentrated in the [redacted] and [redacted] divisions, but the level of awareness in the [redacted] division remains significantly lower than in the others (Table 1). This was the only difference across divisions on the October nuclear attitude questions.

CHANGES SINCE MAY

The analysis of changes in attitude since May was focused on customers who were aware of the construction project at

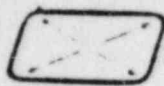
Under an assumption of cancellation of the plant, majorities in all segments believe their bills will be higher. The biggest change since May occurred in the Anti Nuclear segment where the proportion believing their bills would increase went from 48% in May to 68% in October. Apparently, they are becoming more realistic about the possible effects of cancellation. Nevertheless, they remain opposed to nuclear energy.

Trust in Authorities for Nuclear Information

As noted earlier, there has been a decrease in the believability of nuclear scientists and the NRC as sources of information on nuclear energy. The loss of trust in scientists from around the country was concentrated in the Leaning Pro, Leaning Anti, and Anti Nuclear segments, while scientists from ^{the utility} lost credibility among the Pro Nuclear, Leaning Pro, and Leaning Anti segments.

NRC lost credibility across all segments, but especially among the Pro Nuclear segment. As was the case last May, trust in all three groups was lower in negative segments than in positive segments. The decrease of trust in all three groups among the two middle segments will make it increasingly difficult for the Company to utilize outside authorities to bolster its position.

A new question on the October survey concerned customers' trust in ^{the utility} as a source of information. A majority (83%) of the Pro Nuclear segment said they would trust the Company, but a majority would not trust the Company in the Leaning Pro (60%), Leaning Anti (69%), and Anti Nuclear (81%) segments.



SOCIAL SYSTEMS ANALYSTS

2 CALVIN ROAD, WATERTOWN, MASSACHUSETTS 02172

617/924-1611

SC EP 5

LILCO:

THE CUSTOMER AND THE COMPANY

July, 1979

Detailed Report

Submitted to:

Long Island Lighting Company
250 Old Country Road
Mineola, New York 11501

4) There is no formal refresher course. Weaknesses in a particular CAR's performance or knowledge are not easily corrected, except if caught while that CAR is being phone monitored. Rather, weaknesses tend to be reinforced over time.

2.3.2.3 COMPANY Expectations

There is considerable confusion among CARs about LILCO expectations. This confusion also is paralleled by issues discussed for service personnel. On the one hand, district offices "compete" in terms of volume of complaint calls handled. On the other hand, CARs are told to spend enough time with each customer so that the complaint or concern is as fully resolved as possible. The CAR can usually balance these demands, but some cases pose special difficulties, contributing to the development of tension between CARs, the COMPANY and customers.

2.3.2.4 Staff Shortage

There is a shortage of available CAR personnel as measured by LILCO's own goals for acceptable delay in answering customer telephones and processing complaints.

2.3.3 District Offices

2.3.3.1 Customer Perceptions

Customers are highly aware of the location of LILCO district offices. They either have visited one personally or know someone who has. These offices typically present one image to LILCO and another to customers who need service. The open rows of desks and video-displays enable managers and assistant managers to easily see what is going on. However, customers are often confused; their waiting behavior suggests apprehension and even hostility. Customers do not know whether all personnel at the desks have equivalent skills, or whether they are going to get qualified assistance. The general sense of bustle is also intimidating.

In over half the CAR - customer interactions observed, customers forgot the CAR's name during the course of the interaction. When that happens, the customer perceives the CAR as a nameless extension of an impersonal LILCO bureaucracy. One respondent was dealing directly with this problem when he suggested that "you should have your own personal representative to take care of you when you call."

2.3.3.2 Competition

There is a strong sense of competition among the district offices since it is an important way for district office managers to demonstrate performance to higher management. Office managers often point to charts comparing the performance of their office to other offices.

This sense of competition is also expressed and shared at all levels of district office staff. Competition among these offices, while healthy in the abstract, tends to take forms which are at odds with other requirements of good service. For example, the volume of complaints handled in a given period may be a measure of office performance. This practice is actually at odds with the requirement of effectively resolving customer problems.

2.3.4 LILCO Perceptions of Customers

LILCO personnel perceptions of customer attitudes generally do not coincide with customer perceptions. Table 16 shows that customers tend to be less satisfied with LILCO and rate LILCO's honesty of communication with the public lower than estimates by COMPANY personnel. The skewing is toward a more positive sense of LILCO than customers in fact indicate when they respond to similar questions. Furthermore, because of sample bias, we estimate that this disparity is even greater.

TABLE 17

COMPARISON OF LILCO AND CUSTOMER PERCEPTIONS:
SATISFACTION AND HONEST COMMUNICATION

	<u>Very(%)</u>	<u>Somewhat(%)</u>	<u>Not at All(%)</u>
How satisfied is the customer with LILCO?			
LILCO Perception	34.4	60	5.6
Customer Perception	14	56	30
How honestly does LILCO communicate with the public?			
LILCO Perception	26	49	23
Customer Perception	18	45	37

LILCO employees also think rates and service are the important sources of customer dissatisfaction. In fact, as shown in Table 17, customer responses to questions about rates and service are poorer predictors of overall dissatisfaction with LILCO than responses to questions about honest communication and nuclear energy. This does not imply that customers are unconcerned about rates, but that as the cost of living generally rises, customers do not use price to judge favorableness toward a particular company. One respondent said of LILCO, "They do get more expensive year to year but I think that's justifiable. I see that everything is getting more expensive year to year. I don't find the level of service or the quality of service is going down at all."

Employee overevaluation of customer attitudes is not surprising, but the extent and nature of LILCO's misunderstanding are revealing. LILCO has a positive historical relationship with its customers and there are long employment links with the COMPANY by many LILCO employees. However, LILCO's understanding of present customers reflects a time lag recreating a prior reality that no longer holds. This prior reality retains a powerful significance in the minds of LILCO staff and therefore has a powerful influence on LILCO planning. Long-time LILCO employees tend to think both they and the COMPANY are inherently trustworthy and that the public responds to this trustworthiness by accepting and believing LILCO communications, since it is LILCO doing the communicating. They believe that LILCO's policy positions are rational, indeed the only rational option, and that opposition to these policy positions is at bottom irrational.

Whether LILCO's positions are in fact "rational" is not the issue. What is crucial is that customers now do not perceive LILCO as inherently trustworthy or as a benign rational authority. Many customers actively distrust, rather than trust, any LILCO communication. Some of this negative attitude is an inevitable spinoff from a current post-Watergate American distrust of bureaucracy in general and so is difficult to change by any LILCO action. (One respondent described utility companies as "too bureaucratic, too fast and heavy.")

1 BY MR. McMURRAY: (Continuing)

2 Q Dr. Barnett, the four interviews that the County
3 has not received of transcripts of because they don't exist,
4 do you say that those interviews were conducted in a fairly
5 similar manner to the two that we have discussed?

6 A Yes, as close as we could make it.

7 Q And would you say that the responses of the
8 participants with respect to emergency planning were
9 along the same order as we have discussed in the two
10 interviews that we did discuss?

11 A Yes. Broadly so.

12 Q Broadly so.

13 MR. McMURRAY: Judge Laurenson, if I may have
14 just one minute to go through my notes.

15 BY MR. McMURRAY: (Continuing)

16 Q With respect to Suffolk County Exhibit EP-56,
17 which is your October 1983 Survey, Dr. Barnett, where on
18 page 5 you talk about the believability of nuclear scientists,
19 I would just like a yes or no answer to this: Isn't it true
20 that the nuclear scientists referenced there were not
21 necessarily limited to nuclear scientists associated with
22 the NRC?

23 A Yes.

24 MR. McMURRAY: Judge Laurenson, also at this
25 time it appears that the -- I did not anticipate this -- but

1 the interviews that were conducted have been referenced to
2 and I would like to have the first interview that we
3 discussed, Interview No. 1, which was conducted on June 10,
4 conducted by Daisy, distributed and marked as EP Exhibit
5 -- or Suffolk County Exhibit EP-57, and admitted into the
6 record.

7 And let me state that it is not the entire
8 interview. It is pages we discussed, which I believe were
9 pages 30 through 33 of the first interview. Or 29 through
10 33.

11 WITNESS BARNETT: Hopefully you have page 28
12 there, too.

13 MR. McMURRAY: I don't think we discussed page 28.

14 WITNESS BARNETT: That is the beginning in the
15 interview the discussion of the evacuation procedures.

16 MR. CHRISTMAN: Let me ask Doctor Barnett if
17 it would be more meaningful to just put the whole interview
18 in rather than selected portions.

19 MR. McMURRAY: I am not sure that that is
20 appropriate.

21 MR. CHRISTMAN: Okay. I don't think we are going
22 to object to putting in either parts or the whole of the
23 thing. My impression from having looked at these is that
24 the documents themselves, and particularly selected portions
25 of them, are of very little use except as filtered through

1 the experienced mind and judgment of cultural anthropologists.

2 However, I don't suppose there is any harm
3 in having the raw data in the evidence, except that it
4 adds to the bulk of the transcript.

5 MR. McMURRAY: It adds very little to the bulk
6 of the transcript, and these are the data that Doctor
7 Barnett has relied upon, and I asked questions about --

8 MR. CHRISTMAN: I wasn't objecting, Chris.

9 JUDGE LAURENSEN: There is no objection this
10 being received in evidence? Is that your position, Mr.
11 Christman?

12 MR. CHRISTMAN: No objection.

13 JUDGE LAURENSEN: Does anyone else have an
14 objection.

15 MR. ZAHNLEUTER: No objection.

16 MR. BORDENICK: No objection.

17 JUDGE LAURENSEN: All right. Suffolk County
18 Exhibit EP-57, which is marked at the Interview No. 1 of
19 June 10, 1983, will be received in evidence without
20 objection.

XXXINDEX 21

(Suffolk County Exhibit EP-57

22 is received in evidence)

23 It will be bound in the transcript following this page.

24

(Above referenced document follows)

25

[Interview I]

SUFFOLK (Y EP-57

June 10, 1983

Moderator: Daisy

-That's a low level, but how sure can you be that nothing escaped? You don't walk right with a geiger-counter in your hand, ya know?

-Just what is a low-level leak?

-Yeah.

-Yeah.

-Is it dangerous or just a little bit dangerous or does a lot have to be leaking?

-What's a safe level of radiation to be absorbed?

-They mentioned that on TV the other night, and I was trying to think what that is--they say it is less than what they consider to be low level--is less than what you would get in a normal chest X-ray.

-5?

-I'm not positive about the numbers, but...

-I avoid X-Rays like the plague. Unless it's an absolute necessity.

-That's called fear of medicine.

-Like my boss...

-I had X-rays once a month 'til I was nine years old, I had bronchial asthma and I may die in two years. I don't scare - I'm not scared right now - I mean I'll go have x-rays right now if I need to.

First thing you'd have to do is notify everybody - how would you notify everyone?

-I would think broadcasting, radio - TV...

-Do you think that would panic every body?

-If there was a nuclear accident 10-20 miles from here- whatever - and you broadcast that on the radio station- there is absolutely no way that anybody could have a plan to do anything. Make sure now when you come out on _____ Road that you turn left at Interstate [number] If I could get ... there shorter going around the river then I'm going around the river.

-Several years ago, Plant _____ was on fire. It happened in the middle of the night. Does anybody remember that? Most people were in bed sleeping - no radio and TV. So the fire department and rescue squad were going door to door telling people where to go or just

to get out of the area.

-Do you think bomb shelters in this case would have been an answer to someone or a family going in and staying for weeks if necessary until the general radiation leak passed by? And if they could have been properly gotten a message to they could come out later?

-Well the bomb shelters are I think primarily to shield you from the blast effect -

What's underground?

-Look at all the buildings around town - this probably is a bomb shelter - it's got some of those yellow stickers on it.

-Dirt won't stop radiation. You get concrete reinforced steel plus a lead lining to eliminate the radiation.

I'm just asking the question. I didn't say you have to build one...I didn't say this was my idea. I just asked the question.

-How about we just try to get out of town instead of going to bomb shelters.

-You might not need to get out of town.

-Where we gonna go to?

here

-We've got 10,000 people/to move out and shelters someplace. Where we gonna take all the children and women?

-Well now, if you're gonna leave you'd better find out which way the prevailing winds blowing or you'll ride on into that radiation.

-Bomb shelter's lookin' better! (Laughter).

-I think we'd have to utilize something like the local - maybe this is crazy - but use school buses and things like that and mass transit and have certain areas where you have bunches of people and they're bussed out because everybody's got a car nowadays and I can just imagine if something like this happened -even if you had some top disaster plan - _____ you couldn't leave unless you- it sounds mean- but it isn't fair for the person that heard first to get out and the one who didn't hear, was asleep-

-You're gonna wander around the country in a school bus?

-No, you would have plans as to where to go but I think that would be more realistic than everybody just out for his own cause it's something that you'd have to work

together on. You couldn't just -

-You couldn't take 50,000 people from here to [Cory] with any kind of facilities to keep them.

-Do you have another idea?

-Yes, the question should have been asked to start with
-Can you develop a plan not development.

-There's no plan feasible.

-You're talking about women and children taking off on their own and going someplace. How many husbands are gonna be responsible for saying -now, now, women and Johnny and Harold - you all jump in the car there and haul it. I'll see you later.

-It's just like in a war zone when they start bombing a place - they grab whoever they can, who's closest to them, and there they go.

-How many women are going to leave their husbands?

-That's right.

-There's no plan to be made. It's just like the second coming of Christ. I mean, nobody knows when it's going to happen - you can't say this time tomorrow morning at eight o'clock - let's all get in this bus and go out ...

-Does anybody remember - was it in the '50's - when everybody's building the bomb shelters - And I knew some people in the neighborhood when I was a kid who built these bomb shelters. They built these shelters and they had all kinds of food stashed in there and all that sort of stuff and there's not one of them that could withstand any kind of ^{nuclear} blast right now, and there's a book

that the Library of Congress puts out that tells you how to build one that will withstand radiation (and it tells you how much radiation it will withstand) how close you can be from the center of the blast and all this stuff. But the thing about it is who knows if when you get into one - they're going to be able to come out of it.

-Not only that, if there's a nuclear blast somewhere - like me - I travel every day - I'm in more towns like [name] and [name] and [name]. I might be out in [town] when one of those things happen.

-I didn't take the question as being a blast - I took it as being a leak.

.....I'd go hog wild - I wouldn't know what to do - I'd rather have somebody...

-I'm not an evacuation specialist but I know that areas bigger than this area have had to be evacuated for other reasons - so I know

-We're talking about two different things; we're talking about two automobiles smashing at the end of a road and you try to evacuate somebody. That's the in town. You're talking about evacuating the mass population of the whole county and the western end of the state.

-They evacuated the Three Mile area and it's a lot bigger than this area.

-That was a limited evacuation...within one mile of that plant. That's all.

-Yeah, but the population in that area is tremendous.

-They didn't evacuate more than 40,000 people.

-I really think that we should have a plan. In other words, if we had a leak tomorrow and we had an opportunity to design a plan and we didn't just because we didn't think we could that would really be a big help.

-Given the amount of time, you could evacuate anybody. Of course they may die in the process of doing it with the radiation from it, but I'm not arguing that point.]

-It's better than sitting in your house and dying.]

-Huh!

-At least you tried.

-What's the point of evacuating if you're gonna take 2 or 3 days to do it and die in the process of doing it?

-You don't know that.

-I think that if something's planned it can be done fast - I really do. If you have certain areas.....

-Nothing wrong with that.

-I'm gonna try real hard.

-We're gonna have all the law enforcement and all the people that are normally involved -you may have the roads full but you're still gonna have those people trying direct where things are going. So I think there is gonna be some kind of evacuation no matter where you plan it or not and I think it's gonna have some kind of organization. There are people - that's what they do- that's all they do.

-There's gonna be some kind of evacuation - if you're out car to car and there's no place to go I think everybody will realize that I'm just gonna have to move along if I can - as far as just a plan for doing it - ...if anybody would even consider it or pay attention to it.

-Okay, where would you go? Say there is a possibility that there can be an evacuation and a few people can be saved which would be better than none - where would be a feasible place to go?

-As far as possible.

You'd have to give the points to somebody - you couldn't just say go as far as possible.

-This says the plant is located 30 miles outside of town so you want your evacuation going in opposite directions

-There's people on the other side..

-That's what I'm saying, but we're on this side.

-You really need a more intelligent thing of which way to go, because you need to know which way that prevailing wind is blowing in case that radiation gets airborne.

-We know where it's at- let's all go in the opposite direction.

The (plant) is east so we're gonna go west.

-I'd go south.

-Go down Highway [number] to [city].

Well, I think it goes into the next question, where does it come from and then from there we will have to draw a very simple illustration of an atom with nucleus and electrons and protons- basic to report but there's a lot more and you show that and ask for the picture - show little particles - heat would be one of them- There'll be particles that zip on through everything. We'll have to have some real basic illustrations of how nuclear radiation is produced.

What you're really talking about is radiation.

-There's different forms of radiation. That's radiation right there. You're getting a gas that has an electrical charge to it that radiates the light that you can see. The radiation that you see in the light spectrum and there's radiation that you cannot see.

-So radiation is in everyday life, huh?

1 MR. McMURRAY: I have no further questions,
2 Judge Laurenson.

3 JUDGE LAURENSEN: Mr. Zahnleuter?

4 MR. ZAHNLEUTER: I have no new questions.

5 JUDGE LAURENSEN: Mr. Bordenick?

6 CROSS EXAMINATION

7 BY MR. BORDENICK:

8 Q Doctor Barnett, I would like to follow up on a
9 few questions, or a few responses, rather, that you gave
10 to questions put to you by Mr. McMurray.

11 First, I believe in one of your answers you
12 indicated that as to fourteen out of fifteen utilities,
13 that your firm investigated, vis a vis, credibility or
14 lack thereof, that fourteen out of fifteen suffered from
15 a lack or credibility? Was that your answer?

16 A I believe I said thirteen out of fifteen.

17 Q Well, that is what I thought you said originally,
18 and then I thought you said fourteen out of fifteen. But
19 in either event, whether it is thirteen or fourteen, without
20 necessarily identifying the utilities, could you tell us
21 what factors were involved with the one or two, as the
22 case may be, utilities that did not suffer from a lack
23 of credibility, or put another way, what is it about those
24 utilities that cause them to have credibility?

1 A There are a number of factors. The first is
2 that in one of the nuclear plants coming on line, it is
3 a believe it or not relatively on budget and relatively
4 on time, much of the financing is internal. In fact,
5 this nuclear power plant, you could probably guess which
6 one it is, is becoming a model that the industry looks to.

7 In the second case -- I know you are trying
8 to think, is such a thing possible. In the second case,
9 the actual site of the plant is in a part of the southwest
10 that only has sagebrush and small rodents. It is far
11 enough away from any center of population, if one can
12 even be said to exist there at all, so that there isn't
13 a lot of concern. Also the mindset of many people out
14 there is very anti-Federal Government, very much wanting
15 their utility to be modern. They think in that part
16 of the country that a nuclear plant is an indication of
17 modernization, and so they are relatively for it.

18 Again, it is a plant that is not causing a
19 great rate shock in that particular area.

20 Q The second reponse that I wanted to follow up
21 on was where you indicated that the NRC/DOE is --
22 I think the word you used was "inextricably" linked as
23 one in people's minds. Is hat a fair summary of what
24 you said?

25 A Yes.

1 Q Is that strictly a judgment on your part, or
2 do you have any quantitative data for that proposition?

3 A It is a judgment I suppose bolstered by negative
4 quantitative data. When we did our group interviews,
5 we discovered that people were talking about DOE and NRC
6 interchangeably. Someone would say the NRC and then
7 someone else would say, yes, that's just like the DOE.
8 Nobody would really come out and challenge that. Or if
9 somebody would, it would be a weak challenge.

10 When we then developed survey questions to
11 follow up on those interviews, we pre-tested those and
12 initially we tried to separate DOE and NRC out. That is,
13 do you trust -- how much do you trust DOE. And then we
14 would ask a little bit later, how much do you trust NRC.
15 And people said, But you have already asked that.

16 It turned out not feasible quantitatively to ask
17 the question. So I suppose in a negative quantitative
18 sense, I would call that corroboration.

19 Q Is there anything further that contributes
20 to your judgment or opinion regarding NRC/DOE being
21 inextricably linked as one entity in people's minds?

22 A Nothing beyond what I have said.

23 Q You couldn't give us a quantitative number as
24 to how many people in this country -- or percentage, stated
25 in terms of percentage --

1 A No, I couldn't, because we found we couldn't
2 even ask the question in a meaningful way, so we couldn't
3 get out to that kind of quantitative data. But the answer
4 to your question is no, I can't give you hard numbers on
5 that.

6 MR. BORDENICK: Thank you. I have nothing
7 further.

8 JUDGE LAURENSEN: Any redirect examination?

9 MR. CHRISTMAN: Yes, sir.

XXXXXX

10 REDIRECT EXAMINATION

11 BY MR. CHRISTMAN:

12 Q Dr. Barnett, if you go back to page 19 of your
13 written testimony, up at the top of the page there is a
14 clause in there that says, "then no utility could be
15 expected to develop a reasonable emergency plan" at the
16 end of the sentence.

17 This morning you said, "The reason that clause
18 is in there, however," and were not permitted to finish
19 that answer.

20 Would you go ahead and make whatever explanation
21 you were going to?

22 MR. MC MURRAY: Objection, Judge Laurenson.
23 That is outside the scope of my cross-examination.
24 I didn't ask why it was in there.

25 MR. CHRISTMAN: That clause was cross-examined on

1 and the reason for that was explored in some depth, but
2 the witness was not allowed to finish one of his answers.

3 MR. MC MURRAY: That is not the way I recall.

4 MR. CHRISTMAN: Well, I wrote down what he
5 said verbatim: "The reason that clause is in there,
6 however." And you cut him off.

7 JUDGE LAURENSEN: The objection is overruled.

8 THE WITNESS: Well, the reason that clause
9 exists or that I put it in my testimony is that since
10 we discovered that although people would talk about firemen
11 and policemen and some other interviews they would just
12 talk about local citizens, people did not make assumptions
13 that there would be a county level or a state level
14 emergency plan. And so we -- it is a judgment call on
15 my part, but I think that the most important thing in
16 people's minds is not whether a utility or a government
17 creates a reasonable emergency plan, but the most important
18 thing, I would guess, is that people receive information
19 in a situation in which they have to act. That is, in an
20 emergency situation.

21 And it is that kind of information that will be
22 most critical in their acting.

23 BY MR. CHRISTMAN:

24 Q Dr. Barnett, if you go to page 26, which is
25 table 2, counsel for the county led you through a number of

1 questions about, asking you to compare certain numbers
2 and asking if there was a significant plurality in a
3 particular case. And I think utility B in that table
4 was addressed specifically.

5 Is utility B distinct in a significant way from
6 LILCO as revealed by this table and those questions you
7 were asked about it?

8 A Well, utility B is distinct as far as I understand
9 the LILCO situation in that there is more trust of it
10 directly in terms of nuclear information; where it is not
11 especially distinct is, if you look at the whole of table
12 2. the rank order -- that is, who is most believed, who
13 is least believed -- from scientists down to local TV
14 and newspapers, that rank order is pretty well consistent
15 across the board, suggesting to me that it is somehow
16 scientists that are most believable, I would say, on the
17 basis of qualitative data that we have, that the
18 affiliation of a scientist with a utility is not as
19 important as the academic affiliation of the scientist.

20 If the scientist has an academic affiliation,
21 that tends to override a utility affiliation, firstly.

22 Secondly, we have the word "scientists" there
23 in plural for a reason. And that is that people are much
24 more likely to believe what they call a panel of
25 scientists than they are to believe any one individual

1 scientist. So the rank order is pretty well consistent,
2 but we didn't ask anything about local government, about
3 local newspapers and TV news, which might be considered,
4 from a local standpoint, a reasonably objective source
5 of information.

6 They don't have great credibility. And in part,
7 I think that is the case with nuclear information even
8 by opponents of nuclear plants, is believed to be a technical
9 subject that one has to listen to scientists or people
10 like that about.

11 Q While we are talking about scientists, you said
12 this morning in response to a question that you do have
13 data on scientists associated with a utility. Counsel
14 chose not to ask you about those data.

15 What are those data?

16 MR. MC MURRAY: Judge Laurenson, again, that
17 is outside the scope of my cross-examination. I object.

18 MR. CHRISTMAN: Not at all. I think there is
19 a specific question about data on scientists. He asked
20 a question about scientists associated with a utility and
21 whether the witness knew a particular thing about such
22 scientists. And the witness said, Well, I do have data
23 on scientists associated with a utility. Counsel chose
24 not to follow up on that. I am following up on it.

25 MR. MC MURRAY: My question was not about scientists

1 associated with utilities. It was about scientists in
2 general. And also, I focused my question on the Suffolk
3 County Exhibit EP 56 which dealt with the decline of
4 credibility of scientists in general.

5 MR. CHRISTMAN: You asked a question about
6 scientists associated with a utility, I am sure. And I
7 guess we will have to rely on the Board's memory as to --

8 JUDGE LAURENSEN: I recall that also, that
9 that area was inquired into. Now, exactly what the
10 context was, I am not sure. But I believe on redirect
11 this would be a proper area of inquiry.

12 The objection is overruled.

13 BY MR. CHRISTMAN:

14 Q The question was, you said this morning that
15 you do have some data of some kind on scientists associated
16 with utilities. What are those data?

17 A In for two utilities, as it happens, utility A
18 and B in these tables, we explored what kinds of public
19 communication would be most reasonable for these utilities
20 on nuclear matters. And by testing advertising or
21 message copy in fairly standard ways that these things get
22 tested, we discovered that most people assume that a
23 scientist speaking on behalf of a utility would receive
24 some compensation or be linked to the utility in some way,
25 but if the scientist also had an academic affiliation, we

1 found most of the people at least who were responding to
2 the pretesting of the advertisement were inclined to
3 accept the scientist as a reasonably objective stater
4 of facts. So that is the data that bears on that.

5 In terms of this EP -- I forget the number of
6 this exhibit, but it is the October 1983 survey where
7 we have documented a decline in trust in nuclear scientists,
8 the key sentence there is that this decrease in trust
9 will make it increasingly difficult for the company,
10 for the utility company, to utilize outside authorities
11 to bolster its position.

12 I should point out, this was a study made for
13 a particular client and a particular situation. What we
14 meant by position there had nothing to do with nuclear
15 emergency or evacuation. It had to do with a judgment
16 about from an energy demand standpoint, the need for the
17 plant.

18 And we found that outside authorities were no
19 longer able to create good arguments for the need of that
20 plant. I just want to make that clear because the word
21 position is ambiguous in the document you have.

22 Q Fair enough.

23 Let me ask you about those anthropologically
24 based group interviews. How are the participants of
25 those interviews selected?

1 A We presented what are called screening criteria
2 to local marketing research groups. By screening criteria,
3 I mean out of the ten people, we want approximately
4 half men, half women. If there are Hispanics or Blacks
5 in the area, we want that kind of representation. We
6 want this income spread. We want an age spread.

7 We give those screening criteria to local groups.
8 They recruit for us, and we check on the -- if, in fact,
9 they meet our criteria.

10 In every case before you, we tried to replicate
11 broadly, even though this is not statistically significant,
12 but broadly the demographics of the area in which we did
13 the interview.

14 Q You said that people who tend to be more
15 opposed to nuclear power, nuclear plants, might be more
16 inclined to act in a nuclear emergency. Could act include
17 seeking more information?

18 A To me act could include anything. Speaking
19 very strictly out of my data base, I have no reason to
20 include or exclude anything from my notion of act.

21 The reason I say they are more inclined to
22 act is that they are more concerned about radiation. If
23 a distrusted source brings them that information, they will
24 have no reason to believe it is not true at least to the
25 level that the distrusted source brings it to them.

1 And so given their concern about radiation, my
2 inference is, they will feel impelled to do something.
3 What that is from a social science research standpoint,
4 from the way I look at social science, is extremely difficult
5 to gauge.

6 We don't have the -- Three Mile Island isn't
7 enough of an experimental test. We don't have other tests.
8 My stance is that I simply don't know what will happen.

9 MR. CHRISTMAN: Thank you. That is all I have.

10 JUDGE LAURENSEN: Any further questions,
11 Mr. McMurray.

12 MR. MC MURRAY: Yes, Judge Laurenson, just a
13 couple.

XXXXXXX

RE-CROSS-EXAMINATION

15 BY MR. MC MURRAY:

16 Q With respect to Mr. Christman's questions about
17 the credibility of scientists affiliated with the utilities,
18 what were the results of the figures associated with the
19 credibility for utility scientists at utilities A and B
20 where those scientists were not identified as having
21 academic affiliation?

22 A Their credibility was not distinct from the
23 credibility of any other management person in the utility.

24 Q And can you tell me how much quantitatively
25 credibility rose when they were affiliated, when the

1 scientists were identified as having a university
2 affiliation?

3 A No. I can't tell you quantitatively because
4 the way ads are pretested, they are presented to small
5 groups of people who then talk about them and their
6 believability. And it was our judgment that when a
7 scientist had academic credentials, it resulted in the
8 messages being believable to most of the participants.
9 We didn't take it beyond that.

10 Q So it was a qualitative judgment; not a quantitative
11 judgment?

12 A Yes.

13 Q Are you aware of how many members of the LERO
14 organization who would be communicating with the public
15 have academic credentials?

16 A No. In fact, I must tell you, I don't know
17 what LERO stands for.

18 Q Let me rephrase the question just so everybody
19 is clear. With respect to the LILCO personnel who are
20 going to be communicating to the public during a
21 radiological emergency at Shoreham, do you know how many
22 or what proportion of those individuals have academic
23 affiliations?

24 A No.

25 MR. MC MURRAY: I have no further questions,

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JUDGE LAURENSEN: Anything else for Dr. Barnett?

(No response.)

All right. At this time you are excused as a witness. Thank you, Dr. Barnett.

(The witness stood down.)

We will take our luncheon recess and reconvene in an hour and 15 minutes.

(Whereupon, at 12:07 p.m., the hearing was recessed, to reconvene at 1:22 p.m., this same day.)

END 10

#11-1-SueT 1

(1:24 p.m.)

2 JUDGE LAURENSEN: Are we ready to proceed? All
3 right. Back on the record.

4 MR. MC MURRAY: Judge Laurenson, it appears
5 that there was some confusion in our minds as to whether
6 or not we had moved Suffolk County Exhibit SC-55 and 56
7 into evidence. I think we have.

8 I would just like the Board to confirm that
9 if it would.

10 JUDGE LAURENSEN: I show all three of them
11 being admitted without objection, 55 through 57.

12 MR. MC MURRAY: Thank you.

13 MR. CHRISTMAN: That's our recollection, too.

14 JUDGE LAURENSEN: I believe by the scheduling
15 agreement that we are now prepared for the County's testi-
16 mony of Dr. Harris and Dr. Mayer.

17 Mr. McMurray?

18 MR. MC MURRAY: Judge Laurenson, at this time
19 the County will present its panel on Contentions 24.J,
20 24.N, 60, 63 and 72.

21 Whereupon,

22 DAVID HARRIS

23 -and-

24 MARTIN MAYER

25 were called as witnesses on behalf of Suffolk County and,

#11-2-SueT 1

2 having previously been duly sworn, were examined and
3 testified as follows:

DIRECT EXAMINATION

BY MR. MC MURRAY:

4 Q Gentlemen, would you please state your names
5 for the record?
6

7 A (Witness Harris) My name is David Harris.

8 (Witness Mayer) My name is Martin Mayer.

9 MR. MC MURRAY: Judge Laurenson, I believe that
10 these witnesses have previously been sworn.

11 JUDGE LAURENSEN: That's correct. You are still
12 under oath.

BY MR. MC MURRAY: (Continuing)

13 Q Gentlemen, do you have in front of you a docu-
14 ment entitled "Direct Testimony of David Harris and Martin
15 Mayer on Behalf of Suffolk County Regarding Contentions
16 24.J, 24.N, 60, 63 and 72?"
17

18 A (Witness Harris) Yes.

19 (Witness Mayer) Yes.

20 Q Was this testimony prepared by you or under your
21 direct supervision?

22 A (Witness Mayer) Yes.

23 (Witness Harris) Yes.

24 Q And to the best of your knowledge, is it accurate?

25 A (Witness Harris) It is with one correction.

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1 Q Would you please tell us what that correction
2 is?

3 A On Page 36, a short phrase has evidently been
4 left out in the typing. At the bottom of the page, the
5 last paragraph on Page 36, there is a sentence which is
6 the second sentence in that paragraph which reads: An
7 ambulette -- which is a description of that -- is a van
8 that is equipped to accommodate people in wheelchairs. It
9 goes on to say: Such a vehicle has a lift for loading
10 and unloading.

11 There should be inserted either -- well, let's
12 insert it after "lift," a vehicle has a lift or a ramp
13 for loading and unloading. That should be added to the
14 testimony to make it quite accurate.

15 Q Just to make that clear, after the word "lift"
16 the words "or a ramp" should be inserted?

17 A Yes.

18 Q And with this correction, is this testimony true
19 and accurate to the best of your knowledge and belief?

20 A Yes.

21 (Witness Mayer) Yes.

22 MR. MC MURRAY: Judge Laurenson, at this time
23 I would like to move into evidence the direct testimony
24 of David Harris and Martin Mayer on behalf of Suffolk County
25 regarding Contentions 24.J, 24.N, 60, 63 and 72.

#11-4-SueT

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JUDGE LAURENSEN: Are there any objections to
this?

MS. MC CLESKEY: No objection.

MR. ZAHNLEUTER: No objection.

MR. BORDENICK: No objection.

JUDGE LAURENSEN: The testimony will be received
in evidence and bound in the transcript following this
page, as if read.

(The testimony of David Harris and Martin
Mayer follows.)

Suffolk County Regarding Contentions 24.G, 24.K, 24.P, 73 and 75.

Q. What are the purposes of this testimony?

A. The purposes of this testimony are to address Suffolk County Contentions 24.J, 24.N, 60, 63, and 72, and to express our concurrence with those contentions. We both have been involved in planning for and providing health services to persons in Suffolk County for many years. This experience has provided us with considerable familiarity with the health facilities available in Suffolk County, including their capabilities to respond to emergency situations. This experience has also provided us with familiarity with the types of persons who might require emergency assistance if there were an emergency at Shoreham, and what would be involved in providing such assistance. All the testimony which follows is jointly sponsored by both of us.

Q. Have you reviewed the LILCO Transition Plan?

A. We have reviewed, among others, those portions of the Plan that contain proposed protective actions for special facilities.

Q. What is your opinion of those provisions?

A. In our opinion, those provisions are unworkable for the reasons set forth in the contentions addressed by this testimony. An attempt to implement LILCO's proposals would likely result in increased morbidity and mortality; that is, some people would become more ill or disabled than they were before, and others might die as a direct result of an attempt to implement LILCO's proposals.

II

CONTENTIONS 24.J AND 24.N - LACK OF AGREEMENTS

Q. Are you familiar with Contentions 24.J and 24.N?

A. Yes. The LILCO Plan relies on the services of numerous non-LILCO organizations and individuals for implementation of its protective action proposals for patients and residents of special and health care facilities in and near the EPZ. Without the services and cooperation of such individuals and organizations, LILCO's proposals for special facilities could not be implemented.

Because to our knowledge there is no requirement that special facilities, health care facilities or their staffs cooperate with LILCO in the event of a Shoreham accident, the best,

and possibly the only way to assure their participation is through agreements of the proper scope and detail. Despite their importance, however, LILCO does not have the agreements necessary to assure implementation of these essential aspects of the Plan.

Q. Please state Contention 24.J.

A. Contention 24.J is as follows:

Contention 24. LILCO has failed to obtain agreements from several of the organizations, entities and individuals for performance of services required as part of the offsite response to an emergency pursuant to NUREG 0654, as follows:

Contention 24.J. The LILCO Plan relies upon special facilities, nursery schools, and their employees to perform several functions necessary to a successful evacuation of such facilities according to the LILCO Plan. (See Appendix A II-28 to II-29, IV-166 to IV-178.) (The facilities involved are the nursing and adult homes and the nursery schools in and near the EPZ, Association for the Help of Retarded Children (AHC) facilities, United Cerebral Palsy facilities, John T. Mather Memorial Hospital, St. Charles hospital, Central Suffolk Hospital, Maryhaven Center or Hope facilities, and the BOCES Learning Center.) However, the Plan does not include agreements with the special facilities in the EPZ to implement the evacuation procedures set forth in the Plan, and thus the proposed evacuation of such facilities cannot and will not be implemented.

Q. Does LILCO have agreements with any of the special facilities named in Contention 24.J?

A. To our knowledge, LILCO has no such agreements. As a result there is no assurance that LILCO's evacuation proposals for such facilities would be implemented.

Q. Why?

A. If an evacuation were ordered, the staffs of special facilities are expected by LILCO to implement unworkable proposals about which they have inadequate information. LILCO's proposals for evacuating health care facilities are unworkable, because they ignore the medical problems involved in caring for the ill and disabled. In our opinion, because LILCO has no agreements with special facilities concerning the implementation of LILCO's proposals, it is highly unlikely that in the event of a Shoreham emergency the staffs of these facilities would attempt to implement LILCO's proposals. Instead, if they took any actions, they would be likely to take the steps which seemed most beneficial to them at the time. Thus, it is very likely that instead of the coordinated set of actions and results which LILCO's Plan sets forth on paper, each facility would choose and implement in its own way whatever course(s) or action it deemed appropriate. There is no

assurance that such an uncoordinated series of actions would protect the patients of the special facilities, and indeed it might interfere with the implementation of other aspects of the LILCO Plan.

Q. Please state Contention 24.N.

A. That contention reads as follows:

Contention 24. LILCO has failed to obtain agreements from several of the organizations, entities and individuals for performance of services required as part of the offsite response to an emergency pursuant to NUREG 0654, as follows:

Contention 24.N. The LILCO Plan relies on the availability of non-LILCO facilities and medical institutions as relocation and reception centers for evacuees. (See Plan at 4.2-1; OPIP 4.2.1; Appendix A at IV-166 to IV-174.) However, LILCO has no agreements with the owners of the proposed identified facilities which provide that the facilities will be available as relocation centers in the event of a radiological emergency at Shoreham. See FEMA Report at 10 (noncompliance with NUREG 0654 Section II.J.10.h). In addition, the Plan does not even identify, much less include agreements with, the facilities to be used as relocation or reception centers for school children, patients in hospitals, handicapped individuals, or residents of any special facilities other than United Cerebral Palsy or Greater Suffolk, Inc. (Appendix A at IV-166 -- IV-174). In the absence of such agreements, the protective action of evacuation cannot and will not be implemented.

Q. Does LILCO have agreements with any reception centers?

A. No. We believe this is one of the most serious deficiencies in LILCO's Plan, and we discuss it further below with respect to Contention 72.C.1/ Special facility administrators are unlikely to agree to evacuate their facilities if there is no assurance that an identified and adequately staffed and equipped facility is available and has agreed to receive the evacuating patients. Consequently, without prearranged and agreed upon reception centers, LILCO's evacuation proposals could not be implemented.

Q. Does LILCO have agreements with the relocation centers it has identified in the Plan for use by the general public?

A. No. Although the Plan asserts that three facilities, the State University of New York ("SUNY") at Stony Brook, the BOCES facility in Islip, and the Ammerman Campus of Suffolk

^{1/} Indeed, David Glaser, a LILCO consultant on the subject of nursing and adult homes, has testified that in order for an emergency plan for a nursing or adult home to succeed it is necessary to have agreements with facilities that will receive patients being relocated from nursing or adult homes. (See Deposition of David Glaser, March 17, 1984. ("Glaser Deposition") at 40, 42.)

County Community College ("SCCC") in Seiden, are primary relocation centers (Plan at 4.2-1) and two facilities, SUNY at Farmingdale and St. Joseph's College in Patchogue are backup relocation centers (Plan at 4.2-1), to our knowledge LILCO has no agreements with the owners of any of those facilities for their use by LILCO in the event of an emergency at Shoreham. (See also Testimony of Robert Kreiling on Contention 24.0.) Use of those facilities as relocation centers would necessitate the disruption of their normal activities. Consequently, one just cannot assume that they would respond as envisioned by LILCO's Plan unless they have agreed to do so.

iii

CONTENTIONS 60 AND 63 - SELECTIVE SHELTERING
AND SELECTIVE EVACUATION

Q. Are you familiar with Contentions 60 and 63?

A. Yes. Contention 60 states:

At page 3.6-5 of the LILCO Plan, LILCO states:

Th[e] protective action [of selective sheltering] may be ordered at projected doses below the accepted PAGs to minimize radioactive exposure, particularly to pregnant women and children....

The Sheltering option may be recommended as an effective option for individuals who

could not be safely evacuated. This would include individuals who have been designated medically unable to withstand the physical stress of an evacuation, as well as those individuals who require constant, sophisticated medical attention.

The Plan fails to set forth guidelines to be used by command and control personnel: (a) in choosing to recommend the protective action of selective sheltering; or (b) in determining the individuals who should or would be subject to such a recommendation. Rather, as quoted above, the Plan contains only generalized statements which, in fact, provide no guidance at all. In addition, there are no procedures which indicate the means by which such a recommendation would or could be implemented. The Plan thus fails to comply with 10 CFR Sections 50.47(a)(1), 50.47(b)(10) and NUREG 0654, Sections 11.J.9 and J.10.

Contention 63 reads as follows:

The LILCO Plan states at page 3.6-6:

Selective Evacuation may be implemented to evacuate from the affected area or the plume exposure EPZ members of the general public who might have a low tolerance to radiation exposure. Specifically, this would include pregnant women and children 12 years and under.

The Plan fails to set forth guidelines to be used by command and control personnel: (a) in choosing to recommend the protective action of selective evacuation; or (b) in determining, identifying and locating the individuals who should be subject to such a recommendation. In addition, there are no procedures which indicate the means by which such a recommendation could or would be implemented. The Plan thus fails to comply with 10 CFR Section 50.47(a)(1), 50.47(b)(10), and NUREG 0654 Sections 11.J.9 and J.10.

Q. Do you agree with Contentions 60 and 63?

A. Yes. The LILCO Plan does not contain adequate planning for either selective sheltering or selective evacuation. First, there are no real standards in the Plan by which command and control personnel could decide to recommend either of these protective actions. The Plan contains no standards for recommending selective sheltering. And although the Plan states that selective evacuation "may be implemented for projected dose levels of 1 to 5 rems whole body or 5 to 25 rems to the thyroid, but not without consultation with the N.Y. State Commissioner of Health" (Plan at 3.6-6), this vague statement does not indicate the projected dose levels at which selective evacuation would be recommended.

Further, the assertions contained in the LILCO Plan that selective sheltering and selective evacuation have been adopted from the radiological emergency plan of the State of New York, and that neither would be recommended without consultation with the Commissioner of Health (Plan at 3.6-5, 3.6-6) are not standards. The statement that the New York Plan mentions these options contains no guidance whatsoever for LILCO's command and control personnel, and the assertion that neither would be recommended without prior consultation with the State is

meaningless. Whether it means that LILCO would not recommend selective sheltering or evacuation unless the State told it to, or that LILCO would merely inform the State of its decision, it does nothing to remedy the deficiency in LILCO's Plan. The assertion is not a substitute for adequate guidelines or standards to be used by the LILCO personnel who are responsible for making the decisions to recommend selective sheltering or selective evacuation.

Similarly, there is insufficient guidance in the LILCO Plan to permit the LILCO employees responsible for making protective action decisions to determine which people in the EPZ are sufficiently radiosensitive to warrant advice to shelter or evacuate. The Plan mentions pregnant women, children ages 12 and under, and individuals medically unable to withstand the stress of evacuation (Plan 3.6-5, 3.6-6). But it does not mention other radiosensitive groups, such as women of childbearing age who are not pregnant, or women who are in the early stages of pregnancy but do not yet realize their condition. And, it does not indicate whether the groups mentioned in the Plan are the only groups to be considered by LILCO's command and control personnel. Moreover, the Plan does not define those persons who could not withstand the stress of an evacuation. Because the LILCO Plan contains such incomplete

information, command and control personnel have no basis for making informed decisions about who should be advised to shelter or evacuate, should selective sheltering or selective evacuation be the chosen protective action.

Finally, the Plan includes no procedures by which such recommendations could be implemented. LILCO in effect has done nothing more than state that selective sheltering and selective evacuation are options; it has failed to plan for implementing those options. LILCO's proposal to recommend selective sheltering to protect those persons medically unable to evacuate is especially flawed. LILCO has not developed plans for implementing a recommendation that special facilities shelter patients unable to evacuate. Sheltering is not a viable alternative for many such persons in special facilities for several reasons.

First, the LILCO Plan contains some sketchy provisions about how the Health Facilities Coordinator would contact special facilities to inform them of a selective sheltering recommendation. (OPIP 3.6.5 at 8; Appendix A at II-18, IV-166, IV-173, IV-174.) Appendix A and OPIP 3.6.5 contain general statements that sheltering would be the primary protective action for hospitals (OPIP 3.6.5 at 1; Appendix A at II-28,

IV-172 to 173.), and that sheltering might be the preferred protective action for nursing and adult homes. (Appendix A at II-29.) But the closest LILCO's Plan comes to proposing how special facilities would implement such a recommendation are the following statements in Appendix A:

The hospitals will be directed to implement their sheltering plans which include having patients either remain in place or relocate within the hospital....

If sheltering is recommended, [nursing and adult homes] will be advised by the EBS message to institute standard sheltering procedures.

(Appendix A at IV-173, IV-174.) Thus, LILCO's selective sheltering proposal for special facility patients who could not be safely evacuated rests on the assumption that the hospitals and adult and nursing homes in or near the EPZ have developed sheltering plans which they could implement on notification from LILCO. This assumption is incorrect.

Our staff has contacted the special facilities included in the LILCO Plan to determine the status of their planning for sheltering. We have learned that LILCO representatives have visited the special facilities, toured the buildings, indicated that sheltering would be the preferred protective action because of the difficulties involved in implementing an

evacuation of patients, and given the facility administrators advice about how to shelter their patients. The administrators have been told by LILCO representatives what portions of their buildings LILCO believes would be the most suited to sheltering, and have been given instructions about the need to pull down window shades, and isolate ventilation and air conditioning systems in order to make sheltering effective. Despite LILCO's visits and advice, however, the special facilities have not developed "plans" for implementing a sheltering recommendation during a radiological emergency.

Indeed, all the administrators we have contacted have expressed doubt about the feasibility of sheltering their patients, and many have stated outright that they believe sheltering to be impossible. To begin with, in most institutions the areas with sufficient shielding characteristics are not large enough to hold the entire or even a large proportion of the patient population. For example, the administrator of the Sunrest Nursing and Health Related Facilities told us that of the 104 patients of his nursing facility, he could fit no more than 20 of them in the portions of his building LILCO representatives identified as the places where the patients should be sheltered. Similarly, the administrator of the Suffolk County Home and Infirmary believes that no more than 70 to 90 of his

215 patients could be accommodated in the basement areas LILCO representatives advised him to use for sheltering. The administrator of the Woodhaven Nursing Homes and Home for Adults also expressed the opinion that it would be impossible to fit all her patients in the basement areas designated by LILCO. Similar concerns were expressed by administrators of the three hospitals included in the LILCO Plan. Thus if sheltering were attempted at the special facilities in or near the EPZ, the staffs of many of those facilities could not fit all their patients into sheltering areas. Some patients would have to be left in unshielded areas, where they would not be effectively sheltered from radiation.

Second, LILCO employees have advised the administrators of nursing and adult homes to shelter their patients in areas such as hallways, chapels, kitchens and boiler rooms which, in many instances are not equipped for the proper care of ill people. LILCO seems not to have appreciated these practical difficulties.

For example, the Suffolk County Home and Infirmary has undersized doorways into its patient rooms, and therefore beds cannot be rolled out of the rooms. Because the facility does not have enough gurneys to accommodate all its patients, there

would not be enough beds available to accommodate all the patients in shielded areas, even if there were enough room in those areas for all the patients. Similarly, the Sunrest Nursing Facility could not implement LILCO's recommendation that it shelter its patients in its boiler room. Patients could not be cared for adequately in a room with heavy equipment. This problem would be even worse for a hospital, because many hospital patients are dependent on equipment, such as monitoring devices and outlets for oxygen, suction, and electricity, all of which are absent from common areas like hallways or basements. For example, in Central Suffolk Hospital oxygen and suction are provided through a central system. There are no outlets in the hallways or other common areas. Thus, those patients of Central Suffolk dependent on oxygen or suction could not be moved out of their rooms, unless the hospital had enough portable equipment to meet their needs. Central Suffolk Hospital does not have enough portable oxygen or suction equipment to move its patients out of their rooms, and the administrator of the hospital has no plans to obtain the extra equipment.

Third, LILCO's sheltering proposals could not be implemented at many special facilities where it is impossible to keep outside air out of the buildings. For example, the

Suffolk County Home and Infirmary is an old building, which, in the opinion of its administrator, simply could not be sealed up adequately. The air conditioning units at the Riverhead Nursing Home and Health Related Facility cannot be isolated from outside air, and therefore would have to be turned off. Furthermore, this building has many vents and windows, all of which, according to the administrator, could not possibly be sealed. Oak Hollow Nursing Center and Crest Hall Health Related Facility also rely on outside air for their air conditioning. To cut off outside air, their air conditioning systems would have to be shut off.

The air conditioning system for a special facility simply cannot be turned off at certain times of year. In hot weather, people would die if that were done. It is unrealistic to suggest that elderly people should be expected to stay for several hours in a stuffy, hot basement with no circulation. Those conditions would be unbearable. Indeed, anyone who has been involved in the nursing home industry long enough to remember the days before air conditioning was widely used, also remembers that in those days nursing home patients frequently died prematurely in hot weather directly because of the heat. And those deaths occurred when the patients were in rooms with open windows and when every effort was being made to maximize

the circulation of outside air. By contrast, if sheltering were attempted, every effort would be made to minimize outside circulation. The elderly are especially vulnerable to heat stroke and heat exhaustion. In addition, many nursing home patients are prescribed drugs that reduce the ability of their bodies to handle heat. Thus the health threat involved in LILCO's sheltering proposal is very real for nursing home patients.

Fourth, LILCO's selective sheltering proposal also ignores the need for adequate staff. Preparing and moving all the patients in an institution, with necessary equipment, to sheltering areas requires a large number of staff. In addition, personnel grow tired and need to be relieved. If an emergency occurred during the night shift, there would not be enough staff on hand to handle the emergency. They would need reinforcements. ~~Indeed, the staffing problem would be made even more serious by the fact that many staff members would not report for duty because of role conflict. (See Direct Testimony of David Harris Concerning Contention 25 - Role Conflict ff. Tr. 1218.)~~ Despite these needs, however, LILCO's Plan contains nothing about the need for reinforcing the staffs of special facilities.

Even if people could be found who would be willing to report for work during a Shoreham accident, the reinforcements may be contaminated on their trip to the special facility. If contaminated workers were allowed into the sheltering area, contamination would be spread throughout it. However, at most special facilities there would not be any equipment for determining whether or not newly arrived staff members were contaminated, and the staff would not be trained in decontamination techniques. As a result of these problems, staff would become ineffective through fatigue, and the patients would suffer.

Fifth, even if sheltering were possible for special facilities, OPIP 3.6.1 does not contain shielding information or sheltering capabilities relating to any special facilities. Consequently, LILCO's command and control personnel would not have enough information with which to make an informed decisions as to whether selective sheltering would provide adequate protection for special facilities patients. The situation would be even worse for the administrators of the special facilities, because they would know nothing about the situation except what LILCO revealed to them. OPIP 3.6.5 says that a hospital would be evacuated if the administrator desires it. (OPIP 3.6.5 at 1.) But an administrator could not really

choose between sheltering and evacuation, if LILCO were the only source of information, and if the administrator had received no detailed plans or standards ahead of time.

LILCO's proposal to selectively shelter persons unable to evacuate is equally inadequate with respect to handicapped individuals at home. It is likely that many of these individuals would be unable to withstand the stress of an evacuation, but many of these individuals probably could not be sheltered as an alternative to evacuation. First, the Plan does not provide for qualified personnel to determine whether an invalid who resides at home could or could not be evacuated. LILCO command and control personnel could not do that, nor could LILCO expect that an EMT or AEMT could examine a homebound individual about whose medical history he knows nothing and make such a determination. EMTs and AEMTs are not trained to make that sort of evaluation.

Furthermore, even if a correct decision were made that the person could not be evacuated, such an individual who is so sick that he could not be moved could not close the fire place flue, pull the drapes, or move to the basement. Furthermore, there is no assurance that the home of any given homebound individual would be suited for sheltering. The physical jobs

involved in sheltering would be impossible for people who were too disabled to be able to withstand an evacuation. As a result, regardless of the protective action recommendation, professional assistance would be necessary at the residences of severely disabled individuals. And, elderly people who reside at home are just as vulnerable to heat stroke and heat exhaustion as elderly people in nursing homes. Therefore, in hot weather elderly homebound persons in many cases could not turn off their air conditioning or cut off their circulation of outside air. LILCO's Plan ignores these practical difficulties.

CONTENTION 72 - EVACUATION OF SPECIAL FACILITIES

Q. Please state Contention 72.

A. Contention 72, as admitted by the Board, states:

Contention 72. The LILCO Plan proposes to evacuate all hospitals, nursing homes and other special health care facilities in the EPZ, using buses, ambulances, and ambulettes. (Plan, Appendix A at II-28 to 29; IV-166 to 168; IV-172 to 178; OPIP 3.6.5). This aspect of the Plan cannot be implemented; accordingly, people in special facilities will not be adequately protected in the event of an emergency and the LILCO Plan fails to comply with 10 CFR Sections 50.47(a)(1), 50.47(b)(3), 50.47(b)(8), 50.47(b)(10) and NUREG 0654, Sections II.A.3, C and J for the following reasons:

Contention 72.A. Assuming the necessary vehicles were available to LILCO and were mobilized, the time necessary, following mobilization, to accomplish the proposed evacuation of special facilities will be too long to provide adequate protection from health-threatening radiation doses. Evacuation will take too long as a result of: the large number of trips necessary to transport persons individually to relocation centers; the other mobilization and evacuation traffic congestion which the evacuation vehicles will encounter; and the time necessary to load and unload passengers from ambulances. Thus, the Plan fails to comply with 10 CFR Sections 50.47(a)(1) and 50.47(b)(10).

Contention 72.C. The Plan fails to identify any relocation or reception centers for persons evacuated from any

hospitals, nursing homes, or other special health care facilities other than the United Cerebral Palsy of Greater Suffolk Inc.

Contention 72.D. The LILCO Plan recognizes that under certain circumstances the evacuation of John T. Mather Memorial, St. Charles and Central Suffolk Hospitals might be necessary, and that LILCO may recommend such an evacuation. (Appendix A at II-28, IV-172; OPIP 3.6.5 at 8). However, the Plan fails to specify adequately or accurately the circumstances that would necessitate an evacuation of the hospitals, and does not include adequate procedures to permit the person in command and control to make an accurate determination as to whether or not such an evacuation is needed. Thus, the Plan fails to comply with NUREG 0654 Section II.J.10.m and 10 CFR Section 50.47(b)(10).

Contention 72.E. Instead of planning to provide adequate protection to hospital patients in the event of such an evacuation, the LILCO Plan simply provides that "LERO will evacuate these facilities using an ad hoc expansion of transportation resources that are presently committed to other aspects of evacuation." (Appendix A at II-28, IV-172). Apparently, this ad hoc plan will not be developed until an emergency actually occurs. (See Appendix A at II-28; II-172, 173). The ad hoc plan will utilize the vehicles assigned to implement the evacuation of other segments of the population, but such vehicles will be supplied for the purpose of evacuating hospital patients only "on an as available basis," and only "as the rest of the affected population evacuation nears completion." (Appendix A at IV-173). Thus, there is no assurance that adequate protective measures could or would be taken for hospital patients and LILCO has thus failed to satisfy the requirements of 10 CFR Sections 50.47(a)(1) and 50.47(b)(10), and NUREG 0654, Section II.J.10.d.

Q. Do you agree with Contention 72?

A. Yes, we do. LILCO's proposed evacuation plans for special facilities would not work for several reasons. Indeed, any attempt to implement them probably would result in increased incidences of morbidity and mortality. The two most important reasons that LILCO's proposals could not work are those identified in subparts C and E of Contention 72.

First, as we noted above with respect to Contention 24.N, the LILCO Plan does not identify reception centers for any special facilities except the United Cerebral Palsey facilities. Apparently, these reception centers have yet to be determined. (See OPIP 3.6.5, Attachment 2.) In our opinion, given this crucial defect in LILCO's Plan, its proposed evacuation of the special facilities could not be implemented.

Q. Why?

A. We do not believe that physicians, nurses or administrators would consent to the movement of patients committed to their care if there were no adequately staffed and equipped facility waiting to receive them. Similarly, ambulance or ambulette crews would be unlikely to assume responsibility for patients if there were no health care facility to which to take

them. Indeed, command and control personnel probably could not even recommend evacuation if there were not a sufficient number of hospitals or other facilities able to receive the evacuees. Without identified and available reception centers, all the provisions of LILCO's Plan concerning evacuation are words on paper and nothing more.

Moreover, regardless of whether or not LILCO has tried to make adequate arrangements and obtain agreements with reception facilities, it would be very difficult for LILCO to find an adequate number of facilities within a sufficiently reasonable distance of the EPZ to make their use practical, which could handle the numbers of evacuating patients expected under LILCO's proposals. According to LILCO's estimates, the handicapped institutions in or near the EPZ have approximately 74 non-ambulatory residents. (Appendix A at II-18). The nursing homes which will receive evacuation help from LILCO have about 900 residents. (Appendix A at IV-175.) And, the three hospitals covered by the LILCO Plan on average have approximately 630 patients. That is, a total of over 1500 individuals might have to be evacuated from these facilities. Although a few patients in handicapped facilities, hospitals, and nursing homes might be able to go to regular relocation centers, most of the census of such facilities would require

special relocation centers providing a level of medical care comparable to the institutions from which they came.

In earlier versions of the Plan, LILCO proposed to utilize Kings Park State, Pilgrim State, St. Johns, Northport V.A., Eastern Long Island and Southampton hospitals, as well as the Central Islip Psychiatric Center and the Suffolk Developmental Center as reception centers. Conversations our staff had with the administrators of these facilities confirmed that these facilities together could not handle 1500 evacuees or, indeed, anywhere near that number. Although most hospitals have casualty influx plans, a hospital with a total bed capacity of approximately 200 to 400 beds, which is typical of hospitals in Suffolk County, probably could free up only about 50 to 60 beds in order to handle a sudden influx of new patients. The absence of receiving facilities makes LILCO's Plan unworkable.

Second, as stated in Contention 72.E, although LILCO admits that an evacuation of hospitals might be necessary under some circumstances, LILCO does not have a detailed plan which can readily be implemented to cover such a possibility. Instead LILCO intends to evacuate the three hospitals included in its Plan "using an ad hoc expansion of transportation resources that are presently committed to other aspects of evacuation."

(Appendix A at IV-172). Concerning this expansion, the Plan states:

The sources of [the] vehicles [to be used to evacuate hospitals] will be the companies who are supplying vehicles for the evacuation of other segments of the population. Those vehicles will be supplied on an as available basis as the rest of the affected population evacuation nears completion.

(Appendix A at IV-173.) LILCO thus virtually admits that under its Plan hospital patients will be ignored unless and until everyone else in the EPZ has been evacuated. Then, if resources are "available," LILCO will turn to the hospital patients. This aspect of LILCO's Plan is unacceptable, since there is no assurance at all that a timely evacuation of hospital patients, if required by the seriousness of an accident at Shoreham, could ever be accomplished.

These two reasons set forth in Contentions 72.C and 72.E alone render LILCO's evacuation proposals for special facilities unacceptable. In the following testimony, we will address additional deficiencies in LILCO's proposals for evacuation of special facilities.

As asserted in Contention 72.A, one of the fundamental reasons why the proposed evacuation of special facilities is

unlikely to work as expected by LILCO is that it would take too long. LILCO's time estimates assume that in normal weather the last evacuation vehicle carrying special facility patients would leave the EPZ seven hours and fifty minutes after the start of an evacuation. (Appendix A at IV-177, IV-178). LILCO's time estimates, however, are too optimistic, and in fact, the patients of special facilities probably could not be evacuated in that amount of time.

Other witnesses have addressed the fact that serious traffic congestion is likely to occur throughout the EPZ once an accident at Shoreham reaches the point that an evacuation is ordered, and the effect that such congestion would have on the time necessary to complete an evacuation. Our testimony will not address traffic conditions, but instead will focus on the time necessary to begin the evacuation process and to prepare, load and unload the patients. The point concerning traffic that one must bear in mind is that the aspects of an evacuation that we will examine by themselves probably would take too long, even without considering the effects of traffic congestion on actual travel time. With crowded conditions on the roadways, the total time necessary to complete an evacuation would be even longer.

Q. Why will LILCO's evacuation plans for special facilities take too long?

A. The reasons fall into two categories. First, the process by which LILCO employees at the EOC would attempt to "coordinate" the evacuation would take too much time and would in fact cause further delay by creating confusion. In addition, the tasks that would have to be performed at special facilities in order to accomplish an evacuation would take a very long time.

Q. Why would LILCO's plans for coordinating the evacuation take too long?

A. First, because accomplishing the tasks specified by the LILCO Plan as necessary to coordinate the evacuation would require a substantial amount of time. If an evacuation were ordered, under OPIP 3.6.5, Section 5.2.2., the Health Facilities Coordinator is given a very difficult task. He is expected to telephone the four organizations that operate facilities for the handicapped, the ten nursing or adult homes, and the three hospitals included in the LILCO Plan. He is supposed to inform each facility of the need to evacuate, and then collect from each institution information about transportation and special medical care needs. Then he is supposed to relay

the transportation information to the LILCO Ambulance and Bus Coordinators. In addition, he is supposed to contact an unspecified number of reception centers (that are not identified in the Plan), inform their staffs of the pending evacuation, and relay to them the information from the evacuation facilities about special care needs. Obtaining and relaying that much information to and from that many facilities would take the one person LILCO has assigned the job a long time. Even if other persons assisted the Health Facilities Coordinator (and no such assistance is set forth in the Plan) it is quite likely that the necessary communications could not be accomplished prior to the predicted arrival of ambulances and ambulances at special facilities, a little more than two hours after an evacuation order.

In addition, the information that must be transmitted through LILCO's coordination process must to be relayed a number of times to several different parties. That information might very well become garbled as it was transmitted from person to person. Consequently, when received by the last recipient, it could be inaccurate. The people who had to act in reliance on this inaccurate information might unknowingly act inappropriately and cause delays.

Q. Are the flaws in LILCO's provisions for coordinating the evacuation the only reason that LILCO's evacuation plans for special facilities would take too long?

A. No. The second major problem, as asserted in Contention 72.A, is that performing the tasks necessary to implement an evacuation of special facility patients also would take a long time.

Q. But why would the special facilities not be able to perform these tasks in a timely manner by implementing the disaster plans they already have?

A. It is true that hospitals and nursing homes have "disaster" plans of some sort. However, those plans are for situations such as fires and storms, and are inapplicable to the actions LILCO expects special facilities to perform in a Shoreham emergency. Existing plans generally do not envision relocating all or most of the patients in a hospital or nursing home to another facility miles away, and they do not include details for how to accomplish such a total relocation. The existence of these plans does not, therefore, eliminate the problems involved in implementing LILCO's evacuation proposals in a timely manner.

Q. Please explain the reasons why the evacuation process would take too long.

A. First, the LILCO Plan appears to ignore completely the amount of time that would be necessary to prepare patients for evacuation. Preparing the occupants of a health care facility for evacuation and relocation is not simply a matter of giving the patients their clothing and an extra blanket. Each patient's records and medication would have to be collected and brought to the patient for use at the reception center. Moreover, the condition of each patient would have to be individually assessed by professional personnel. This would be necessary in order to allow the staff both to determine the order in which patients would be moved, and to allocate scarce equipment.

Q. Why must there be a predetermined order?

A. Because some patients, inevitably, would be in worse condition than others. Indeed, some patients would be too ill to be moved. These individuals would have to be identified, and arrangements would have to be made for their care, including the assignment of staff to remain behind. Of those patients who could be moved, the most seriously ill assigned to any one vehicle would have to be loaded last and unloaded

first, so that they would spend less time outside the hospital or nursing home rooms. It would be unacceptable simply to load patients in any convenient order without considering their relative conditions. The process of evaluating patients would be time consuming.

In addition, many patients depend on special equipment such as traction, suction and respirators. Provisions would have to be made to have the right equipment available for each patient during the move. Because special facilities have a limited amount of portable equipment and therefore probably could not provide such equipment to all patients who needed it, the staff of a health care facility would have to wait until the conditions of all the patients had been evaluated and the order of evacuation determined, before they could allocate limited pieces of equipment. Patients could not be moved near outside doors and away from permanently installed equipment in their rooms until this preparatory work had been completed. And, because most nursing homes do not have a gurney or wheelchair for every patient, some patients could not be moved from their rooms ahead of time. That is, in some facilities the staff could not create a little staging area near the outside door for all the patients, but instead would have to move many patients from their rooms after vehicles arrive. This would lengthen the loading process significantly.

Second, LILCO has not considered the problem of staffing. The work that would have to be performed by the staffs of special facilities to evacuate their patients would be overwhelming. If the patients of these facilities were to be evacuated, it would require the efforts of nearly everyone on the staffs, including physicians, nurses, orderlies, laboratory staff, office personnel, administrators, and maintenance personnel. However, even without considering the reduction in available staff that will be caused by role conflict (see Direct Testimony of David Harris Concerning Contention 25), it is possible that enough workers would not be available to assist in these efforts on a timely basis. At a typical health care facility, after normal business hours there are almost no clerical personnel or laboratory personnel, very few administrative or maintenance personnel and few doctors on duty. Even the nursing staffs are reduced by about 50 percent in a typical hospital at night. The staffing reductions at night at nursing homes and other special facilities are even greater than at hospitals. Consequently, if an evacuation were ordered at night, special facilities would have to contact many additional employees and request that they report to work. It could easily be hours before a facility had a relatively full staff on hand, assuming that all the staff would attempt to report.

Although the limited nighttime staff could begin evacuation preparation tasks, until off-duty personnel reported, only a limited amount of work could be performed.

In addition, many of the health care personnel at any given facility would not be available to assist in the evacuation efforts. At the time an evacuation were ordered, some professionals might be involved in surgical operations that could not be interrupted once they have begun. Consequently some professional staff could be unavailable in the early stages of an evacuation. And, as LILCO itself recognizes, some patients are so critical that they could not be moved at all. (Plan at 3.6-5.) If patients were to be left behind, medical personnel would have to stay with them in order to minister to their needs. Because the patients to be left behind would be the most critical, they would require intensive care. Consequently, a portion of the health care personnel would be tied up providing care to seriously ill patients and would not be available to help in the evacuation.

In sum, LILCO's evacuation proposals would take too long because there would be too much work to be done. LILCO's Plan contains no recognition of the awesome amount of work that would be necessary to evacuate the special facilities. Moving

ill and injured human beings is not like moving merchandise, and, for a host of reasons, this task could not be accomplished in a few hours, as LILCO expects.

All the problems we have described so far have involved the problems of the special facility staffs attempting to prepare, move and care for their patients. The time necessary to evacuate the special facilities will be increased because LILCO has underestimated the number of vehicles needed to conduct the evacuation.

Q. Why do you say that?

A. LILCO explains its assumptions about the number of vehicles and the amount of time needed to evacuate the EPZ at pages IV-175 to IV-178 of Appendix A. It is apparent from these pages that LILCO has made some serious errors.

One flaw in LILCO's estimates of the number of necessary vehicles is its reliance on ambulettes. An ambulette is a van that is equipped to accommodate people in wheelchairs. Such a vehicle has a lift ^{or a ramp} for loading and unloading wheelchairs, and it has space to accommodate perhaps four wheelchairs. But, as LILCO has been informed by its own contractors, ambulettes do not provide their own wheelchairs. (See Plan at Appendix B-48,

49.) Thus, in an evacuation, LILCO apparently expects the special facilities to provide enough wheelchairs for all the patients whom LILCO expects to evacuate in ambulettes. Moreover, LILCO's estimates assume that almost all the non-ambulatory patients of nursing homes (with the exception of the Suffolk County Home and Infirmary), would be evacuated by ambulette. (Appendix A at IV-175.) It is unlikely that a nursing home or hospital would possess enough wheelchairs to accommodate almost all its non-ambulatory patients. Particularly in the early stages of an evacuation a special facility could not let many wheelchairs leave the facility with evacuating patients, because most of the wheelchairs are likely to be needed to move patients within the facility and to vehicles. Therefore, if an attempt were made to implement LILCO's proposals, a large number of ambulettes would be of no use, because of a lack of wheelchairs. As a result, ambulances would have to make many additional runs to pick up the slack. A great amount of time would be lost in the process.

In addition, LILCO assumes in its Plan that six ambulettes could be loaded simultaneously in fifteen minutes, and that six ambulances could be loaded simultaneously in twenty minutes. (Appendix A at IV-175.) However, if LILCO means that six vehicles could be loaded at a time at any one special facility, as

opposed to six throughout the EPZ, LILCO is probably wrong. Although six ambulances could be lined up in a parking lot, at many facilities, six vehicles could not park simultaneously immediately outside the doors suited for loading patients.

More importantly, however, LILCO's fifteen and twenty minute time estimates are too short. Perhaps they would be reasonable if the patients all could be bundled up and waiting by the outside doors. But as we discussed above, the patients of some facilities would not be near entrances to the buildings. Instead, they would have to be moved from their rooms to entrances and then out to vehicles. That process, with the constraints of available personnel, elevators, gurneys, and wheelchairs, would take longer than fifteen or twenty minutes per vehicle.

Q. Other than the reasons you have already discussed with respect to nursing homes and handicapped facilities, are there any additional reasons why LILCO's refusal to plan for an evacuation of hospitals makes such an evacuation impossible?

A. First, as asserted in Contention 72.D, the LILCO Plan contains inadequate standards to be used by LILCO command and control personnel who are assigned the responsibility of determining whether to recommend evacuation. And, if LILCO

intends to leave the decision up to the hospital administrators, without necessary factual information about the shielding characteristics of the hospitals, and evacuation procedures that could provide an estimate of how long it would take to evacuate the hospitals, an administrator would have no basis upon which to determine whether an evacuation of his patients was necessary, desirable, or possible.

Moreover, as asserted in Contention 72.E, LILCO's proposal to evacuate the hospitals if necessary on an ad hoc basis is unlikely to succeed. First, because LILCO plans to assign vehicles to the hospitals only as they finish their other assignments, it would be several hours before the evacuation of the hospitals could even begin. According to LILCO's estimates, 3 hours and 25 minutes after the start of an evacuation one ambulance and one ambulette would be leaving the EPZ. (Appendix A at IV-177.) After these two vehicles drove to reception centers and were unloaded, they could then proceed to the hospitals in order to help in the evacuation of those facilities, assuming that they were not needed for additional trips to the other special facilities. According to LILCO's numbers, it would be almost eight hours before the last of the ambulances and ambulettes involved in the remainder of the evacuation of special facilities left the EPZ. (Id.) And

these time estimates assume normal weather conditions. In reality, it would take even longer than LILCO estimates to begin the evacuation of the hospitals, because, as we discuss above with respect to Contention 72.A, LILCO has seriously underestimated the time that would be needed to evacuate the other special facilities. Since, under the LILCO Plan, evacuating hospital patients would not begin until the vehicles involved in evacuating the rest of the population had completed that task, hospital patients would be exposed to greater risk of exposure to radiation than everyone else in the EPZ because their evacuation could not even begin until several hours after an evacuation order.

~~Second, because of the long delay at the start of the evacuation, the degree of confusion involved in attempting to implement an evacuation would be even greater at hospitals than at the other facilities. Immediately after the evacuation recommendation, staff and patients would anxiously attempt to prepare. The urgency of the situation would be apparent to everyone. But people in the hospitals would know they were to be the last evacuated, and several hours would pass before the first vehicles arrived to begin to transport patients out of the danger zone. Under those circumstances people almost certainly would become even more anxious and frightened. In~~

~~addition, the situation at Central Suffolk Hospital could be particularly bad, since it is expected to care for contaminated injured persons in the event of a Shoreham emergency. The arrival of a contaminated patient at the hospital, while the staff is attempting to evacuate its other patients to avoid being exposed to contamination, is likely to heighten anxiety levels even more.~~

Q. Please summarize your testimony concerning the evacuation of the special facilities in the EPZ.

A. LILCO's proposals for evacuating special facilities could not and would not be implemented for a number of reasons. First, the coordinating procedures that LILCO has developed to oversee the whole evacuation would be too time consuming. In particular, the Health Facilities Coordinator could not do his or her job fast enough for the evacuation to get underway quickly or to proceed smoothly. In addition, LILCO's proposals would take too much time to implement, and the patients of special facilities therefore might not receive adequate protection. LILCO has made unwarranted assumptions about the amount of work involved in such an evacuation. LILCO has not estimated conservatively needs or resources, such as the numbers of necessary vehicles, wheelchairs, or portable medical

equipment. LILCO has not addressed major contingencies such as the possibility of an evacuation recommendation at night when staffing is low. LILCO has not been realistic in its expectations of human behavior, for example the likely reactions of hospital staffs and patients.

Despite all the problems that are likely to render an attempted evacuation of the other special facilities unworkable, however, the situation is much worse with respect to hospitals. LILCO has failed to plan at all for an evacuation of the three hospitals covered by the LILCO Plan, notwithstanding LILCO's acknowledgement that such an evacuation could become necessary. The result is that any attempt to evacuate the hospitals would suffer not only from all the flaws involved in LILCO's proposals for evacuating the other special facilities, but also from a complete lack of planning.

Finally, LILCO's plan for special facilities evacuation could not be implemented, because LILCO has not arranged for reception centers for the patients of those facilities. There is not enough available space at health care facilities near the EPZ to accommodate the likely number of evacuating patients, and no evacuation could or would be implemented in the absence of identified facilities with the capacity and capabilities of caring for the evacuees.

Q. Does that conclude your testimony?

A. Yes.

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1 MR. MC MURRAY: The panel is ready for cross-
2 examination, Judge Laurenson.

3 JUDGE LAURENSEN: Ms. McCleskey?

4 CROSS-EXAMINATION

5 BY MR. MC CLESKEY:

6 Q Gentlemen, good afternoon.

7 A (Witness Harris) Good afternoon.

8 Q Thank you. Have you reviewed the LILCO testimony
9 on special facilities?

10 A (Witness Mayer) Yes.

11 (Witness Harris) And yes.

12 Q And have you reviewed the correspondence attach-
13 ed to the special facilities' testimony?

14 A (Witness Harris) Yes.

15 (Witness Mayer) Yes.

16 Q Have either of you read EPA's Manual of
17 Protective Action Guides and Protective Actions for Nuclear
18 Incidents?

19 A (Witness Harris) A while ago. I know I went
20 through those. I have read them quite a while ago.

21 (Witness Mayer) Some time ago. Not recently.

22 Q Okay. Have either of you read FEMA's Guidance
23 on Off-Site Emergency Radiation Measurement Systems?

24 A (Witness Harris) The document is unfamiliar to
25 me. I may know something of its contents because my staff

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1 reports to me from time to time on this. I may have a
2 discussion on it in which I read part of it. But I don't
3 recall.

4 (Witness Mayer) I don't recall the title. I
5 would have to see the document. If I did, it was some
6 time ago.

7 (Ms. McCleskey hands the witnesses a document.)

8 Q Dr. Mayer, I just handed you a copy of FEMA's
9 Guidance on Off-Site Emergency Radiation Measurement Systems.
10 Does it look familiar to you?

11 A (Witness Mayer) I may have seen it some time
12 in the past. I can honestly say it does not look familiar
13 to me at the moment, but I have seen a lot of things,
14 you know. I honestly can't say whether I've seen it before
15 or not.

16 Q Have either of you read NUREG 0654 -- excuse me,
17 0396, I beg your pardon?

18 A (Witness Harris) My familiarity with these
19 regulations is not so great. I know I went over many of
20 the NUREGs that bear on the testimony that we have submit-
21 ted. But I can't recall that one by number. Perhaps if I
22 were to see it, it might refresh my memory. Or perhaps
23 not.

24 (Witness Mayer) I have pretty much the same
25 feelings.

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1 (Ms. McCleskey hands the witnesses a document.)

2 Q Gentlemen, I have just handed you a copy of
3 NUREG 0396, which is entitled "Planning Basis for the
4 Development of State and Local Government, Radiological
5 Emergency Response Plans in Support of Light Water Nuclear
6 Power Plants."

7 Have you read it before?

8 A (Witness Mayer) I may have seen this some time
9 in the past. I honestly don't remember.

10 (Witness Harris) Likewise. It contains material
11 which I believe were discussed with me, some materials that
12 were discussed with me by my Staff engineers. The topics.
13 But I cannot recall specifically.

14 Q Could you identify for us what material was
15 discussed with you?

16 A Oh, my Staff discussed with me in times now gone
17 by how one measures radiation levels, how one monitors them,
18 something general about the levels associated with various
19 forms of adverse health conditions, sampling to some extent.

20 But, although I'm not a radiation physicist or
21 engineer, this was given to me by my engineers as background.
22 I can recall that. And it covers some of the same topics.

23 Q When you say that you recall some of the material,
24 you mean that people discussed the topics that are covered
25 in 0396 with you?

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1 A That's as fine a point as I can put on it now.
2 That is, I see -- in trying to recollect whether I saw
3 that document, I do what any reasonable man or woman would
4 do. I looked at the document and what was there.

5 And there are topics covered in this which remind
6 me of material gone over with my staff although I could not
7 say for the record that I saw the document itself.

8 Q Fine. Thank you. And have either of you read
9 NUREG 0696?

10 It's in that book. It is right after the orange
11 divider page which is about two-thirds into it.

12 And that's entitled "Functional Criteria for
13 Emergency Response Facilities."

14 A The material, at least in looking through the
15 index to get the topics covered, I'm less sure that I have
16 seen this one, although I may have. Some of the material
17 seems unfamiliar, even the topics.

18 Q Gentlemen, is it fair to say that you don't work
19 on a day-to-day basis in your position in the County with
20 these documents?

21 A (Witness Mayer) Yes, I would say that is fair.

22 (Witness Harris) That is a fair statement.

23 Q Dr. Harris, on Page 2 of your testimony, you
24 state that you have been involved in planning for health
25 services to persons in Suffolk County for many years and

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1 that you have familiarity with the capabilities of health
2 facilities to respond to emergency situations.

3 Could you please list the kinds of emergency
4 situations for which you have planned with the health
5 facilities in Suffolk County?

6 A Well, our Department has taken part in the
7 County-wide planning for such emergencies as hurricanes.
8 We have planned for the occasional very heavy snowfalls
9 that have created small, isolated problems. I can recall
10 that kind of planning in which we took our part as one of
11 the departments in Suffolk County government.

12 I think that answers your question specifically.
13 Dr. Mayer may have more, since Dr. Mayer acts as my re-
14 presentative to the emergency planning.

15 (Witness Mayer) Pretty much the same situation.

16 Q During your planning for hurricanes and snowfalls,
17 have you planned to shelter persons within the facilities
18 during those emergencies?

19 A It depends on what you mean -- I don't understand
20 what you mean by shelter. Persons -- if a person is within
21 a facility and is trapped by a snowstorm, ipso facto, he is
22 in the facility. He is not being moved out of his bed.
23 I don't understand what you mean by sheltering during a
24 snowstorm.

25 Q By sheltering, I mean staying inside the building

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1 and taking whatever other actions are necessary given the
2 emergency to keep the residents of the facility comfortable
3 and safe.

4 A (Witness Harris) To answer that question, I will
5 have to recall something anecdotal but it would bear on it
6 quite clearly. I can recall in one -- two emergencies. One
7 was a very severe ice storm that we had here on the northern
8 shore of Long Island, especially in Suffolk County, several
9 years ago which disrupted electrical service for many hours
10 for many people, and there was need for special sheltering.

11 And I recall again also a very severe snow-
12 storm that created some ice related problems. In those
13 cases, the Department of Health Services never provided the
14 shelter insofar as we don't provide the shelter. Shelters
15 were designated, and they were designated by the Director
16 of Emergency Planning. And I think some schools were used,
17 and I think -- I don't recall if an armory was used, but
18 some schools were used.

19 And we participated in the public health aspect,
20 namely to see that when people were in temporary facilities
21 that they were kept in a healthful condition, there was
22 sufficient means of disposal of human waste, and people were
23 properly fed and so forth. We didn't provide it but we acted
24 as monitors for this.

25 Q And was all this activity pursuant to written

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plans?

2 A There were written plans, and there are written
3 plans. I don't recall precisely if we went according to
4 plan at those times. I would have to refresh my memory.
5 I can't do that right now.

6 Q Whose plans are the written plans?

7 A (Witness Mayer) The Department of Emergency
8 Preparedness is the lead agency in Suffolk County for the
9 handling of disasters like ice storms and hurricanes, and
10 they are the persons who would have the plans.

11 Q Do specific facilities have written plans as
12 well?

13 A (Witness Harris) Yes. Some of the facilities
14 have written plans. And, by the way, the paragraph that
15 you cited on Page 2 in which you cite my statement that I
16 have experience in and familiarity with health facilities
17 including the capabilities to respond to emergency situations,
18 by that was meant also that I have some familiarity with
19 how hospitals and nursing homes prepare and plan for
20 emergencies of various sorts.

21 And they do have plans, especially for the
22 receipt -- for the reception rather of casualties. Hospitals
23 all have plans for that. There are plans, especially
24 elaborate plans, for how to deal with a man-made problem
25 such as a union action, you know, in which the strike

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1 occurs. They have plans for dealing with hurricane, fire.
2 I'm familiar with some of those, yes.

3 Q Now, in the planning that you mentioned that
4 you have been involved with for hurricanes and snowfalls,
5 have you planned to evacuate persons within the special
6 facilities or the health facilities in those emergencies?

7 A I may need some help from Dr. Mayer, but I do
8 believe -- I'm quite sure -- that the County plan for
9 handling hurricanes, which is upgraded from time to time,
10 does include the evacuation of special facilities that
11 would be considered in danger of being included in a flood
12 plain. And I think, Marty, perhaps you would --

13 (Witness Mayer) That is not the Health Depart-
14 ment's responsibility within the plan. So, I am not
15 familiar in detail with that planning. Our responsibility
16 is not involved in the evacuation of the hospitals or the
17 nursing homes or any other facility in a flood plain.

18 Q But there are plans --

19 A (Witness Harris) I believe there are.

20 Q Excuse me. There are plans to evacuate nursing
21 homes, adult homes and hospitals in hurricanes?

22 A (Witness Mayer) If the hospital or nursing home
23 or adult home were in danger by the ingress of water there
24 are such plans.

25 Q Do you know what transportation is used to

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evacuate those facilities?

2 A As I've said, since the Health Department is
3 not the agency involved in that I am not familiar with
4 details of those plans.

5 Q Do you know where the facility residents are
6 taken?

7 A I'm not familiar with the details of the plan.

8 (Witness Harris) I do know that they are
9 removed north of the presumed flood plain which is -- just
10 precisely where I don't know, because the flood plain --
11 the extent of the flood plain in a hurricane is determined
12 at the time of the hurricane based on the force of the
13 hurricane and other meteorological things that I'm not
14 familiar with.

15 But I do know that the plans would, of course,
16 require evacuation north of the flood plain on a broad
17 front.

18 Q And are these evacuation plans also written?

19 A (Witness Mayer) I have not seen a copy. I
20 presume there is one, but I have not seen it because it's
21 not my responsibility to have such. I've never seen one.

22 Q So you don't know if they are written or not?

23 A I don't know if there is a written one.

24 Q Have either of you planned for or given advice
25 to the health facilities in Suffolk County about caring for

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2 residents during the loss of air conditioning in the summer
3 if there were a power outage or a loss of a heating system
4 due to a power outage in the winter?

5 A I have never personally given such advice. I
6 know what advice I would give but I have never personally
7 given such advice to a facility.

8 (Witness Harris) I can't even recall having such
9 advice solicited from me.

10 Q Okay. Dr. Mayer, you said you would know what
11 advice you would give. What would be the advice you would
12 give about a loss of air conditioning?

13 A (Witness Mayer) I would do pretty much the
14 exact opposite of what the sheltering plan of LILCO re-
15 quires. I would open all the windows. I would maximize
16 the amount of ventilation in the operation. I would pro-
17 vide each patient staff sufficient to provide them with
18 fluids and cooling materials. And if the loss of air
19 conditioning was not the loss of power, I would plug in
20 fans and that sort of thing.

21 I would maximize ventilation in the building. I
22 would bring in the maximum amount of outside air.

23 Q And what would your advice be regarding loss of
24 the heating system if there were a power outage?

25 A Well, this is an offhand situation obviously.
I would attempt to keep the patient as comfortable and as

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2 warm as possible, blankets, various kinds of things,
3 portable heaters if possible. It's, you know, the -- it
4 would depend upon the situation.

5 (Witness Harris) With great caution on --

6 (Witness Mayer) With great caution --

7 (Witness Harris) -- the portable --

8 COURT REPORTER: Excuse me.

9 WITNESS HARRIS: Excuse me. It's my fault.

10 With great caution when dealing with portable heaters.

11 BY MS. MC CLESKEY: (Continuing)

12 Q Gentlemen, we will all have to be real careful
13 not to talk over each other.

14 A (Witness Harris) I apologize.

15 Q That's all right. Would you consider evacuation
16 if there was a loss of power and it were in the winter?

17 A (Witness Mayer) It's not the responsibility of
18 the -- these are private operations, these nursing homes.
19 The responsibility, of course, lies with the administrators
20 of the nursing homes. If they felt they could not handle --
21 you know, if they felt it was a danger to their patients
22 in that situation, they might consider evacuating some of
23 the patients or all of the patients to other places where
24 they could be kept warm or cold.

25 (Witness Harris) I would like to answer that.

It is something I would consider along with any number of

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2 options to preserve the health of, let us say, the elderly
3 and the frail in the adult homes or nursing -- skilled
4 nursing facilities. But I would be very circumspect and
5 look for many other options before I would consider
6 implementing an evacuation insofar as if there is a heating
7 problem it's undoubtedly happening, or very often may be
8 happening, in bad weather when transportation is difficult
9 and the transportation itself might incur certain risks to
10 the people.

11 So I would look at a whole array of options
12 short of evacuation.

13 Q Well, the Suffolk Infirmary isn't a private
14 institution, is it?

15 A It is not.

16 Q And what advice would you give to them?

17 A It would depend, of course, on the outside
18 circumstances, the staffing. But, as I say, we would take
19 all -- you are talking about a situation in very cold weather
20 when the heating plant is out of operation.

21 Is that the -- it has been so long since the
22 original question, I think it's on cold weather and loss
23 of heating capacity.

24 Q Right.

25 A All right. I would do those things. Among the
things that Dr. Mayer mentioned, all of them are reasonable

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1 and would preserve physiological integrity and, of course,
2 would depend on the length of time a heating system was
3 disruptive, too.

4 Q Are all the health care facilities in Suffolk
5 County air conditioned?

6 A (Witness Mayer) I believe Dr. Harris made a
7 survey --

8 (Witness Harris) I wouldn't say it's a -- not
9 a survey. But I did refresh my memory. The answer is no.

10 Q Thank you. Are all of the parts of the Suffolk
11 Infirmary air conditioned?

12 A No.

13 Q Have you, either of you, given any advice about
14 day-to-day care in the summer months for residents in those
15 facilities that aren't air conditioned?

16 A The only advice that I can recall giving is,
17 of course, to my own facility. You see, Suffolk County
18 Infirmary, as I mentioned, is only partially air conditioned.
19 We are doing our very best to have it converted to total
20 air conditioning. We may have some special rooms air
21 conditioned now, and then the unit in which we deal with
22 those who require high intensity care they have an air
23 conditioned room.

24 And so in the summers we've had all sorts of
25

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2 problems. And I've advised the staff there to take the
3 kind of measures that Dr. Mayer has mentioned, which
4 includes a wide opening of windows, making the best
5 available use of cross ventilation, properly clothing and
6 bedding the patients or making sure there are adequate
7 fluids and a variety of other things, and also taking care
8 about certain drugs which may or may not adversely in-
9 fluence the patient's ability to withstand extremes, in
10 this case, of the heat or in other cases of the cold.

11 Q And those are the sorts of things that staffs
12 at the facilities would be expected to be able to do as
13 part of their professional responsibilities to their
14 residents or patients, right?

15 A They would. And, of course, I have to say that
16 the staff is very unhappy that we have an unair-conditioned
17 place or only partially air-conditioned when so many of
18 the other centers are air-conditioned and have central
19 air conditioning which draws on outside air and all the
20 good things that we would like to have and hope we have
21 some day.

22 Q Well, I hope you get it, too. When you use
23 the term "health facilities" on Page 2 of your testimony,
24 which facilities within Suffolk County are you referring to?

25 A It's a general phrase. I meant that in health
facilities, types of health facilities. I am familiar with

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health facilities such as ambulatory care facilities, most
of them my own, hospitals, nursing homes, skilled nursing
facilities and health related facilities. These are
the kinds of facilities I am familiar with.

1 Q Are you including in nursing homes what the LILCO
2 testimony calls adult homes?

3 A I have less familiarity with adult homes, insofar
4 as adult homes are supervised by social services, and not
5 health. And I just have less familiarity with them, although,
6 perhaps -- Doctor Mayer has more.

7 A (Witness Mayer) I have been in a number of
8 adult homes for the purpose of giving influenza shots, so
9 that adult homes are basically large rooming houses.

10 Q So you distinguish between nursing and adult
11 homes.

12 A The law does. Administration does.

13 Q Dr. Harris, am I correct that you are a Suffolk
14 County employee?

15 A (Witness Harris) Yes.

16 Q You are appointed to your position as Commissioner
17 of Health Services for Suffolk County, aren't you?

18 A Yes, I am, Ms. McCleskey.

19 Q And you are appointed by the Suffolk County
20 Executive, isn't that right?

21 A I am -- under the Charter, I am appointed by the
22 Suffolk County Executive, and must be approved or confirmed
23 in that appointment by a majority of the Suffolk County
24 legislature. His mere appointment is not sufficient.

25 Q Doctor Mayer, you are a Suffolk County employee,

1 too, aren't you?

2 A (Witness Mayer) Yes, I am.

3 Q Are you appointed in the same fashion --

4 A I am a civil service employee --

5 COURT REPORTER: Excuse me. Could you wait
6 please for her to finish the question before you answer?

7 BY MS. McCLESKEY: (Continuing)

8 Q Are you appointed in the same fashion as Doctor
9 Harris?

10 A No, I am not. I am a civil service employee.
11 I took a test for my position. I am a permanent civil
12 service employee.

13 Q You report to Dr. Harris?

14 A I certainly do.

15 Q Is that a direct reporting relationship?

16 A No, I am the Deputy Director of Public Health.

17 I report to the Director of Public Health, who then reports
18 to Doctor Harris.

19 A (Witness Harris) I would like to amend that
20 slightly. Except as directed by me, and sometimes Dr. Mayer,
21 for certain special assignments, is designated to report
22 directly to me, such as quality control, in our Department.
23 He does report directly to me in respect to professional
24 activity standards.

25 Q And Dr. Harris, you serve at the pleasure of the

1 Suffolk County Executive, isn't that right?

2 A No, it is not correct.

3 Q You serve for a term?

4 A I serve for a term established by the public health
5 law which is six years, and confirmed in the County Charter
6 which conforms with the public health law.

7 Q Now, gentlemen, part of your duty as Suffolk
8 County employees in the positions you hold involves supervision
9 of hospitals, nursing homes, and adult homes, on certain
10 health related matters, such as sanitation, isn't that right?

11 A Not clearly. I would have to ask my County
12 Attorney just what authority is. You see, years ago before
13 Article 28, we did have such authority in the early years
14 of Article 28, we did have the authority to go into nursing
15 homes and hospitals, and collect data and make inspections
16 which we used to enforce Article 28 and the State Hospital
17 Code.

18 Several years ago -- quite a few years ago now --
19 I believe in 1978, that function was withdrawn from Suffolk
20 County and the remaining counties of Nassau, and I believe
21 Erie, and was taken back by the State Health Department.

22 So, that at present my staff does not enforce
23 the hospital code in Article 28 facilities. Whether I can
24 go in there under my powers to abate a public health nuisance
25 may be something else, but I would like to talk with Counsel

1 before I would state categorically that I do or don't.

2 Q Well, what about nursing homes?

3 A Ditto. They are Article 28 facilities, and
4 their compliance with all state regulations and laws is
5 now the responsibility of the State Health Department and
6 its employees.

7 Q So, you two gentlemen in your jobs don't deal
8 with the public at large regarding sanitation matters?

9 A The answer is not only no, but I don't see how
10 you could construe that based on my previous answer.

11 Q Maybe I misunderstood then. Are you, as part
12 of your work, looking into sanitation matters at nursing
13 homes, adult homes, hospitals?

14 A On a regular basis, no. Because the conduct of
15 those health facilities are regulated by State law and the
16 State Hospital Code, which covers nursing homes, and state
17 officials do that.

18 I only said that under my general powers I don't
19 know whether or not I could on an emergency go into a state
20 regulated facility and enforce some general powers that I have
21 to abate a public health nuisance. As I said, I would have
22 to have counsel. But, I do have the responsibility, the
23 definite obligation to enforce for Suffolk County those
24 provisions of the public health law and the state sanitary
25 code and our local sanitary code, and any local laws enacted

1 by the legislature, which are not inconsistent with state
2 purposes.

3 Q On page 5 of your testimony, you state that
4 special facilities, 'are expected by LILCO to implement
5 unworkable proposals about which they have inadequate
6 information '

7 Is sheltering the unworkable proposal that you
8 are referring to in that sentence?

9 A I believe the unworkable refers in that sentence
10 to proposals for evacuation, not sheltering. I would have
11 to read those, our whole statement, but I am pretty sure
12 that is what we meant.

13 A (Witness Mayer) The sentence, if you read the
14 sentence: If an evacuation were ordered, the ----
15 So it refers to evacuation.

16 Q Not sheltering.

17 A That sentence refers to evacuation.

18 A (Witness Harris) That passage refers. That is
19 separate from our opinion as to the unworkability of
20 sheltering. There we are only talking about evacuation.

21 Q Okay. We are really all going to have to try
22 to talk one at a time. What information are the special
23 facilities missing, in your opinion, making the information
24 given to them inadequate?

25 A (Witness Mayer) Well, at the present state

1 of planning, the facilities do not know where their patients
2 are going to, if they are to be evacuated. They do not
3 know the number of ambulances that are going to come. The
4 amount of vehicles that will come for their evacuation. They
5 don't know when they are going to be ordered to evacuate,
6 and what criteria they will be ordered to evacuate.

7 A (Witness Harris) I would like to add another
8 consideration that has concerned us and has prompted that
9 kind of a statement in our testimony, that is the problem
10 of coordination, as we understand the LERO Plan, there is
11 considerable emphasis placed on independent action by
12 hospitals, for example.

13 And while independent action has a nice ring
14 to it, and sounds good, our concern is that in this case
15 that independent action, which is carrying out whatever the
16 plans may be at the individual hospital for evacuation based
17 on their plan, is really, as I say, independent action in
18 this case is really a prescription for chaos. That is one
19 of the reasons we think it is unworkable.

20 Q On page 5 of your testimony, you say that it is
21 likely that, 'instead of the coordinated set of actions
22 and results which LILCO's Plan sets forth on paper, each
23 facility would choose and implement in its own way whatever
24 courses of action it deemed appropriate.'

25 Do you see that?

1 A Yes, I do.

2 Q You are referring, aren't you, when you say,
3 'LILCO's Plan,' to the LILCO Transition Plan, the five
4 volume set?

5 A Yes.

6 Q How much time do you estimate it would take to
7 prepare patients of a hospital to evacuate, if you were
8 evacuating the entire hospital?

9 A That is a very difficult question. It is not
10 easy to answer. I don't know anyone who has ever -- I have
11 never evacuated or have participated in the evacuation of
12 an entire facility.

13 It may be that somewhere this has been done, but
14 I have no personal experience with it. But the time involved
15 to prepare and remove from the premises of a hospital would
16 depend; one, on the size of the hospital; two, on the number
17 of staff available at the time of the evacuation; three, the
18 nature of the danger from which people were being evacuated.

19 For example, if one were dealing with a radio-
20 logical emergency, there would have to be some concern about
21 which way the plume was going, and which way you would drive
22 and so forth, meteorological conditions. It would depend
23 on the weather. It would depend on the kind of patients you
24 have.

25 Now, the mix of patients in the hospital would

1 vary not only from institution to institution, but might
2 vary to some extent from time to time during the year.

3 One would expect in the fall and winter, there
4 would be more patients with acute respiratory problems
5 than they would at other times of the year and so forth,
6 but I would have a difficult time giving you a number.

7 Q How would the nature of the emergency that was
8 causing you to choose to evacuate the hospital change the
9 time it would take to prepare patients to evacuate?

10 A Well, for example, if one were dealing with a
11 hurricane, and the hurricane itself had not hit, but there
12 was inclimate weather. A terrible rainstorm had begun to
13 some extent. There were high winds. One would obviously
14 have to provide people in transit with heat and protective
15 clothing different from that which one would have to provide
16 in the heat of mid-summer.

17 Most patients in the hospital are basically in
18 a tropical climate. They are in their beds. They wear
19 very loose and light clothing. In the mid-summer it is
20 not impossible, even with due consideration for individual
21 modesty, to have people moved out of an institution in very
22 bad weather which may occur with a hurricane, and I use that
23 as an example, one would have to wrap the patients up, one
24 would have to make sure that they are protected against the
25 bad weather. That is one example. I probably could think

1 of others. I did give the example of the amount of time it
2 might take if the danger were perceived -- for example, what
3 if the danger were perceived to be one in which the staff
4 themselves felt in danger? They might be loathe to leave
5 the institution. They might be scared. A radioactive plume
6 might elicit fear on the part of the staff. Some would say
7 I would prefer to stay here in the hospital; some would
8 say, no, let's go. That could interfere with the timing.

9 But I am being very speculative.

10 Q So I take it neither of you have ever attempted
11 to determine how long it would take in your planning efforts
12 to prepare a facility for evacuation?

13 A I have never participated in the planning for
14 this kind of total evacuation.

15 Q What about you, Doctor Mayer?

16 A (Witness Mayer) Likewise. I have never participated
17 in the planning for a total evacuation of a hospital.

18 Q All right. What do hospitals do in a fire to
19 evacuate their patients?

20 A Well, it depends upon the extent of the problem.
21 If a fire --

22 Q The building is on fire?

23 A The entire building is on fire.

24 Q The fire starts in one place and spreads, but the
25 building is on fire? That is your problem, okay? Now, you

1 want to evacuate the hospital patients. How is that done?

2 A Rapidly. It is a function of the extent of the
3 fire and the extent to which it is going to spread. Sometimes
4 you move patients within the hospital if you feel you can
5 prevent them from being in danger by moving them within the
6 hospital. Sometimes you may have to move a wing, maybe move
7 a room sometimes only. If you can't confine the fire to an area
8 of the hospital, you would have to evacuate the hospital.
9 Just move the people who are in danger of life and limb.

10 Q And how much time do you estimate it would take
11 to load hospital patients onto ambulances?

12 A (Witness Harris) Again, that would depend on the
13 type of patients one had, and the number of staff that one
14 had to perform the operation.

15 I have never seen it done. When you asked about
16 fire, I did have an opportunity to answer for the panel, too,
17 but the only experience I have had with a fire, I can recall
18 one year, and I believe it was in the early 1970s, the Mt.
19 Saini Hospital, there was what we thought was a fire, or
20 starting fire -- the bells went off, the smoke detectors
21 went off -- in one of the pavillions -- I think it was
22 Cunnyinstein Clinical Center, and I do recall that what we
23 did was we started to move patients out of that one -- the
24 way it is laid out -- there is a lobby with elevators in the
25 middle and then wings of patients on either side. We moved

1 them out of one of those wings on one floor into the lobby
2 and into the other wing on the same floor.

3 But we never took them out of the hospital
4 itself. And that seemed to take a long time. Of course,
5 in an emergency everything seems to take longer and last
6 longer than it really does, but it seemed to take a long
7 time.

8 Q So you don't have any estimate of how long it
9 takes to get a patient onto an ambulance?

10 MR. McMURRAY: Objection. Asked and answered.

11 JUDGE LAURENSEN: Overruled.

12 WITNESS MAYER: Each patient is different.

13 Is the patient in a wheelchair? Is the patient on a gurney?
14 Is the patient being accompanied by respirator or? Is the
15 person on oxygen? Each patient is different. It would
16 take a different amount of time to load an ambulatory --
17 a patient who is coming in a stretcher, as a person who
18 is in a wheelchair. It depends on what kind of ambulance
19 you are talking about, too. Is it an ambulance for stretchers,
20 or an ambulette for wheelchairs. It would depend upon the
21 nature of the vehicle, the number of personnel you had to help
22 move the patients, and the nature of the patient, and the
23 kind of equipment that goes with the patients.

24 WITNESS HARRIS: I haven't much more to add, except
25 what Doctor Mayer said sounds very reasonable to me.

1 WITNESS MAYER: There is no one patient and
2 one ambulance. There -- it is different.

3 BY MS. McCLESKEY: (Continuing)

4 Q Well, let's assume we have a patient on a gurney
5 who is being moved from the second floor of a hospital
6 building to an ambulance waiting downstairs, and there are
7 two staff members to do this. How long does it take to move
8 that person.

9 A (Witness Mayer) They would have to wait for
10 the elevator.

11 (Laughter)

12 Q I am sorry. I missed you.

13 MR. McMURRAY: The question is vague. I don't
14 think there is enough in this hypothetical to even let the
15 witnesses give a coherent answer. Not only that, I don't
16 see the relevance of this question.

17 JUDGE LAURENSEN: Overruled.

18 WITNESS HARRIS: I just don't know I could answer
19 the question. First of all --

20 BY MS. McCLESKEY: (Continuing)

21 Q Doctor Harris, do you know how long it takes to
22 move a patient onto an ambulance?

23 A (Witness Harris) Not only don't I know, but I
24 don't think anyone would be able to answer your question.

25 Q Doctor Mayer, do you know?

1 A (Witness Mayer) I tend to agree with that. There
2 is not enough information in the question to make an
3 intelligent answer. How big is the hospital? How many
4 steps do you go down? Is there an elevator?

5 There is a lot of other information. How long
6 is the distance between the elevator and the door? What
7 is the distance involved? Is it a big hospital, a small
8 hospital?

9 Q Doctor Harris, you assert on pages 10 through 11
10 of your testimony that LILCO's statement in the plan that,
11 'neither selective sheltering nor selective evacuation would
12 be recommended without prior consultation with the State,'
13 is meaningless.

14 A (Witness Harris) I believe that is --

15 JUDGE LAURENSEN: You have to keep your voice
16 up, Dr. Harris, if you are answering.

17 WITNESS HARRIS: No, I am not answering. I am
18 mumbling. I am sorry, Your Honor.

19 Could you direct me quickly to that portion of
20 the page.

21 End 12
22 Reb fols.

23

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1 A (Witness Harris) Even though it is my
2 testimony, I can't always find it that rapidly.

3 Q It is the next-to-the-last line on page 10 and
4 following over to the first word on page 11.

5 A I see it and I understand it, yes.

6 Q Have you reviewed the training that would be
7 given to LILCO personnel about making selective sheltering
8 and selective evacuation recommendations?

9 A No.

10 Q I take it, gentlemen, you both answered no.
11 Could you say no if you meant no? /

12 A Would you repeat the question?

13 Q Have you reviewed the training that would be
14 given to LILCO personnel about making selective sheltering
15 and selective evacuation recommendations?

16 A No.

17 A (Witness Mayer) No.

18 Q Have you reviewed OPIP 3.6.1 which is
19 entitled Plume Exposure Pathway Protective Action
20 Recommendations?

21 MR. MC MURRAY: Objection. Before the witnesses
22 answer that question, they should be allowed to see that
23 OPIP. Ms. McCleskey has a copy.

24 MS. MC CLESKEY: They should know if they have
25 reviewed it.

1 MR. MC MURRAY: I don't think there is
2 any basis for that.

3 JUDGE LAURENSEN: The objection is overruled.

4 BY MS. MC CLESKEY:

5 Q Have you reviewed OPIP 3.6.1?

6 A (Witness Harris) I am not sure.

7 A (Witness Mayer) I am not sure. I reviewed a
8 lot of material, numbers of which I really cannot remember.

9 Q There is a book in front of you which is a volume
10 of the implementing procedures of LILCO's plan. Could
11 you please turn to the divider in front of that yellow
12 paper that is marked. It is -- the divider is labeled
13 OPIP 3.6.1.

14 Do you have the first page of the procedure,
15 or are you at the last page?

16 A (Witness Harris) I am at the yellow divider.

17 Q The yellow divider is the last page of the
18 procedure. Could you go to the first page of it which
19 goes up to the divider that says OPIP 3.6.1?

20 A Yes.

21 Q You have it. Can you look it over quickly and
22 tell me whether you have read it before?

23 A I don't recall reading the entire document.

24 I do recall seeing or being shown the EPA table on
25 -- guidance table on the dosages and the protective action

1 guidelines and the recommended actions, that is familiar,
2 seems to be familiar.

3 A (Witness Mayer) I have seen that table before.

4 Q When did you see that table?

5 A (Witness Harris) I can't recall.

6 Q Was it today?

7 A I have seen it today, and I think I have seen it
8 before.

9 Q You have seen it before today?

10 A Yes.

11 A (Witness Mayer) I think I have.

12 Q But the rest of the OPIP doesn't really ring
13 any bells with you?

14 A I may have seen it before. I just don't recall
15 it.

16 Q All right.

17 A (Witness Harris) As I recollect even better
18 now, I think this was one of the things which one of my
19 staff had shown me awhile back, quite awhile back. Because
20 I do know we discussed what radiation doses would be
21 associated with what kinds of actions.

22 Q Now, when you made the statement that I pointed
23 out to you in your testimony at the bottom of page 10 and
24 the top of page 11 about the selective evacuation and
25 sheltering recommendations statement is "meaningless" in the

1 LILCO plan, you meant that it was meaningless to you,
2 didn't you?

3 MR. MC MURRAY: Objection to the characterization
4 of what is in the testimony. The testimony says, "The
5 assertion that neither would be recommended without
6 prior consultation with the state is meaningless." I don't
7 think that Ms. McCleskey has properly characterized the
8 testimony.

9 JUDGE LAURENSEN: The objection is overruled.

10 WITNESS HARRIS: This gets to be a fine semantic
11 question. It is meaningless --

12 BY MS. MC CLESKEY:

13 Q Let me repeat the question so you understand it
14 and I would like a yes or no answer.

15 MR. MC MURRAY: Objection. Dr. Harris was about
16 to give his answer. Ms. McCleskey obviously didn't like
17 what she was getting from him and cut him off. He has
18 a right to respond to the question.

19 JUDGE LAURENSEN: She has withdrawn that question
20 and she is now presenting another one.

21 BY MS. MC CLESKEY:

22 Q Did you mean by that statement that it was
23 meaningless that the statement is meaningless to you, yes
24 or no?

25 A That question can be answered yes.

1 Q Are you answering it yes?

2 A I am answering it yes, but I would like to
3 qualify it.

4 Q Go ahead.

5 A In that sentence, the word "meaningless" in
6 the joint testimony was not meant to be construed as
7 meaningless to us alone. What I mean to say is, what is
8 implied or meant in that statement is that it is meaningless.

9 It is meaningless to us. If it were meaningless
10 to other reasonable people, we would be included in that
11 category. So when you ask me the question, is it
12 meaningless to me, I have to answer yes, just as much as
13 I would if you asked me, you know, do you have two legs.
14 The answer is yes, but a lot of other people do, too.

15 Q Do you think it is meaningless to LERO
16 personnel who are making selective sheltering and
17 selective evacuation recommendations?

18 A I don't know. It might be. I don't know.

19 Q Throughout your testimony you refer to pages
20 of the plan in talking about selective evacuation and
21 selective sheltering.

22 Is it your understanding that the people who
23 are going to be making protective action recommendations
24 from LERO would be using the plan and the guidance on
25 the pages that you cite in your testimony in making their

1 recommendations?

2 A They would, plus there would also be some leeway
3 and some flexibility which would make it far from a rote
4 or push-button kind of decision.

5 Q So it is your understanding that in addition
6 to the plan, they are using other materials.

7 A They are using other considerations. The
8 plan itself calls for other considerations. For example,
9 in the protective action guidelines themselves, it says
10 things such as, If constraints exist, then seeking
11 shelter would be an alternative, if evacuation were not
12 immediately possible. There are so many qualifiers in
13 that and the range given and the consultation with the
14 commissioner of health -- in this case now, Dr. Axelrod
15 -- that I am not quite sure if it is specific or
16 clear enough just when they would and would not recommend
17 evacuation over sheltering.

18 There was some concern on our part. That is
19 why we used it.

20 Q Would you please turn to page 44 of OPIP 3.6.1.
21 I believe you may be there. That is the page with the
22 yellow marker on it.

23 A That is the guideline page.

24 Q For the record, the table that they are looking
25 at has already been entered into the record as part of the

1 emergency plan, and also as attachment 5 to LILCO's
2 testimony on contention 60, 61, 63, and 64.

3 Now, you see in the left-hand column in that
4 table that there are whole-body and thyroid projected
5 doses to the population listed; isn't that right?

6 A Yes.

7 Q And in the middle column there are protective
8 action recommendations described; isn't that right?

9 A Yes.

10 Q And in the right-hand column, there are comments
11 regarding certain constraints that may result in taking
12 additional or different actions than those described in the
13 middle column, if conditions warrant it; isn't that right?

14 A Yes. I referred to them before, qualifiers.

15 Q Right.

16 Now, on page of your testimony, you state
17 that "The plan's statement that selective evacuation
18 'may be implemented for projected dose levels of 1 to 5 rem
19 whole body or 5 to 25 rem thyroid, but not without
20 consultation with the New York State Commissioner of
21 Health' is vague and that the statement doesn't indicate
22 the projected dose levels at which selective evacuation
23 would be recommended."

24 Do you see that in your testimony at page 10?

25 A I do.

1 Q It is true, isn't it, that what you mean by
2 that statement in your testimony is that you would like
3 to see more specific projected dose levels than the range
4 of 1 to 5 rem whole body and 5 to 25 rem thyroid that is
5 described for recommending protective actions in that table;
6 isn't that right?

7 A That plus other things such as a clearer
8 understanding of when the constraints make sheltering
9 impractical and so forth. Because there are things other
10 than a range.

11 Our concern on the vagueness of this is not
12 based only on the range but on these other qualifying
13 words as well.

14 Q Well, are you aware of any plans for other
15 nuclear plants that set a single, specific number that
16 would trigger selective sheltering or selective evacuation?

17 A No, I am not. But I am not --

18 Q Are you aware --

19 A My full answer was, I am not, but I am not aware
20 of any other plans in the detail that I know this plan.

21 Q I see.

22 Are you aware of any NRC regulations or guidelines
23 that require a plan to include a single, specific number
24 that would trigger selective sheltering or evacuation?

25 A I am not aware, though there may be some. I am

1 not aware of them.

2 Q Okay.

3 Could you look at footnote A on the chart that
4 we have been looking at, page 44 of OPIP 3.6.1.

5 Gentlemen, you agree with that footnote that
6 says, "Protective action decisions at the time of the
7 incident must take existing conditions into consideration,"
8 don't you?

9 A (Witness Mayer) That is a God and motherhood
10 statement. I mean, it is certainly a very reasonable
11 statement to make. It is rather vague, but reasonable.

12 Q So you agree with it?

13 A Obviously, people would take into consideration
14 the existing conditions at the time of the incident.

15 A (Witness Harris) I would certainly not want
16 them to do otherwise.

17 Q On page 11 in the first full paragraph of your
18 testimony -- that is the first full paragraph on page 11.
19 I am not sure that came out quite right.

20 You state that, "There is insufficient
21 guidance in the LILCO plan to permit LILCO employees
22 responsible for making protective action decision to determine
23 which people in the EPZ are sufficiently radiosensitive
24 to warrant advice to shelter or evacuate."

25 When you are talking about the guidance in the

1 LILCO plan there in that portion of your testimony, do
2 you mean in the first volume of the plan entitled
3 LILCO Off-Site Radiological Emergency Response Plan?

4 A I can't remember. I would have to refresh my
5 memory and go through what I was citing. In doing many
6 of these citations, I was, of course, assisted by members
7 of my staff and our attorneys. It is difficult for me
8 to know where I found this offhand.

9 Q Well, when you used the term "plan" in this
10 context, do you mean the plan itself, the first volume,
11 or are you including the OPIPs, the implementing procedures,
12 in the word "plan"?

13 A I believe that when we wrote the testimony,
14 we meant it in a general way, meaning plan counting the
15 plan and all other things that we had seen, such as the
16 implementing procedures and so forth.

17 Q I see.

18 A I think so. I am pretty sure that is what we
19 meant.

20 Q Now, referring back to page 11, the statement
21 that I had quoted out of your testimony, what specific
22 guidance do you think is lacking in the LILCO plan?

23 A Well, we give some examples in the testimony
24 itself, and I don't know if I can go much beyond them.
25 For example, we go on to point out that the plan mentions, for

1 guidance, that pregnant women are radiosensitive and
2 children ages 12 and younger are radiosensitive.

3 And individuals that are medically unable to
4 withstand the stress of evacuation. But as the testimony
5 goes on to say -- and that is an example I think we have
6 used; I know we have used -- it doesn't mention other
7 radiosensitive groups, for example, individual women who
8 may be in very early stages of pregnancy and not even
9 aware that they are pregnant, possibility.

10 Q Excuse me. I am sorry. Finish your sentence.

11 A And that would sort of mean -- well, you are
12 talking about women of child-bearing age, because you
13 never can tell. Sexually active ones, certainly.
14 I can't think of any other ones offhand. Perhaps
15 Dr. Mayer can help me give you a good answer to that.

16 A (Witness Mayer) Maybe neonates.

17 Q In your opinion as physicians, do you think that
18 LERO command and control personnel are the people who
19 should determine which people in special facilities cannot
20 withstand the physical stress of an evacuation?

21 A (Witness Harris) I think it would be very difficult
22 for them to do it. I think that they would have to have,
23 you know, a lot of data which would not be available to them.
24 And individuals on site would certainly have more information.

25 It would take a coordination of effort to make the

1 right decision.

2 Q Between LERO personnel and people, staff at
3 the facilities?

4 A Yes. In this sense: the staff at the facilities
5 might not have a very good estimate of the levels of
6 radiation that are expected. The people at the LERO
7 central command would certainly have a very limited concept
8 of the up-to-date condition of the individuals involved
9 at the facility distant from the LILCO command post.

10 It would take a coordination of data to make
11 the best informed decision.

12 Q Maybe I wasn't clear on my question. I wanted
13 to know whether you thought the LERO command and control
14 personnel could determine which people in the special
15 facilities could not withstand the stress of evacuation?

16 A I think, Ms. McCleskey, and I may not have, but
17 I think I did respond that they would have a very poor
18 chance of doing that with any precision because they wouldn't
19 know the up-to-date condition, for example, of patients.
20 How would they know that. People on the site would know
21 that which would presuppose a very good interdigitation,
22 a very fine interdigitation of, you know -- it would be
23 a joint kind of a decision making process, I would think.

24 They would know what levels of radiation are to
25 be expected. People at the hospital wouldn't know that very

1 well, but they would know the condition of the patients.
2 The LILCO command post would know something about the
3 traffic conditions.

4 I don't know if I have made myself clear. They
5 couldn't do a good job alone. It would require both.

6 Q Dr. Mayer, do you agree with Dr. Harris'
7 statement?

8 A (Witness Mayer) I think that is essentially right.

9 Q You state at pages 12 and 13 of your testimony
10 that hospitals and adult nursing homes in the EPZ have
11 not developed their own plans for a radiological emergency.

12 Have you reviewed the radiological plans,
13 emergency plans, for facilities around other nuclear power
14 plants?

15 A No.

16 A (Witness Harris) No.

17 Q Are you aware that any even exist?

18 A If you are asking me, do I think they exist,
19 I think they probably exist. They may exist. I don't
20 know for sure.

21 Q Have you ever seen -- you have never seen one?

22 A No, I haven't. I have only seen some of the plans
23 from those facilities here in the EPZ here.

24 Q Can you cite any NRC regulations or guidelines
25 that require facility-specific plans?

1 A For radiological emergencies?

2 Q Yes.

3 A I couldn't cite them offhand, and I don't know
4 if -- there may be some -- there may be some state
5 hospital code regulations which generally direct facilities
6 to develop plans in case of, A, a radiological emergency
7 within the institution since institutions do use radioisotopes
8 and some of them have considerable quantities, there is
9 the possibility of an in-house radiological emergency.

10 I believe there must be a plan for that.

11 There may be a requirement to have a plan --
12 there may be one -- to have one in case of a general
13 nuclear war.

14 I am not aware of a specific requirement, although
15 I think there may be one that requires hospitals to do
16 some sort of planning for radiological emergencies. I am
17 unclear in short.

18 Q It is true, isn't it, that at the time you filed
19 your testimony in March of this year, you had not reviewed
20 any sheltering or evacuation plans for radiological
21 emergencies for the facilities in the Shoreham EPZ?

22 A I believe that is correct. I think we received
23 some and reviewed some subsequent to March. But Dr. Mayer
24 may have reviewed some before March.

25 A (Witness Mayer) It depends upon definition. We

1 reviewed some material that was sent by LILCO to the
2 hospitals. That material does not constitute a plan of the
3 hospital. The material constitutes a draft sent by
4 LILCO to the hospital or to the nursing home.

5 When the hospital or nursing home has accepted
6 that draft and incorporated it within their own plans, I
7 am not sure.

8 Q Then can you recall which draft plans for
9 which facilities you reviewed?

10 A I personally have seen a draft for St. Charles
11 Hospital, a draft for Mather Hospital, and a draft for
12 one of the nursing homes. I believe it was Sunrest.
13 I think it was Sunrest. That was given to me, I believe,
14 by the lawyers from the state, I believe.

15 I got some material that I did review on those
16 two hospitals and one of the nursing homes. It was a
17 draft sent by LILCO to the hospital.

END 13

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1 Q I understand that. When did you review those
2 plans, before or after your testimony was filed?

3 A (Witness Mayer) This was definitely after the
4 testimony was filed.

5 Q All right. But you still stand by the statements
6 in your testimony that plans for the specific facilities
7 do not exist?

8 A As far as I know, the specific facilities that
9 do not have plans incorporated within their, you know, plan
10 for sheltering, actual formally accepted plan by the
11 facility for sheltering, even though they may be consider-
12 ing drafts that have been sent to them by LILCO they have
13 not formally accepted, as far as I know, those drafts.

14 I may -- that's my own personal knowledge. I
15 haven't surveyed these hospitals and asked them if they
16 have accepted these drafts.

17 Q Gentlemen, I have handed out eleven documents
18 that should be in front of each person's chair, collectively
19 marked LILCO EP blank.

20 MS. MC CLESKEY: And, Judge Laurenson, I ask that
21 we mark these eleven documents now, collectively as LILCO
22 EP, I believe it's 38.

23 JUDGE LAURENSEN: Do you want them to all bear
24 one document number?

25 MS. MC CLESKEY: Unless you would rather give

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1 each document a separate number, I'm happy to do it that
2 way.

3 JUDGE LAURENSEN: I'm not sure whether you are
4 going to be questioning the witnesses on them individually
5 and, if so, perhaps they ought to have different numbers.

6 I just don't know the purpose for which you are
7 going to use them. Ordinarily if they are separate docu-
8 ments they each have a separate number, but if you are not
9 going to question about each document individually then
10 perhaps for the purpose for which you wish to use them,
11 one number would be sufficient.

12 MS. MC CLESKEY: Well, I do plan on questioning
13 about three of the individual plans, but not all of them.

14 MR. MC MURRAY: Judge Laurenson, I think that
15 it really does make more sense to number them individually,
16 especially if some of them are going to be addressed in-
17 dividually and just for the clarity of the record. This is
18 a pile of material over two inches thick with many separate
19 parts. Some are over-sized. I just think it makes more
20 sense to number them individually.

21 MS. MC CLESKEY: That's fine. I will go ahead
22 and number them individually.

23 The document that is a letter dated March 27,
24 1984 to the Administrator of the Sunrest Health Facilities,
25 Incorporated, I ask be marked LILCO EP-38.

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2 The document, the first page of which is a
3 letter dated May 29, 1984, to a Sister at Our Lady of
4 Perpetual Help Convent, I ask be marked EP-39, LILCO EP-39.

5 The document, the first page of which is a
6 letter dated April 9, 1984, addressed to an Administrator
7 of the Ridge Rest Home, I ask be marked LILCO EP-40.

8 The document, the first page of which is a
9 letter addressed to an Administrator of the Millcrest
10 Rest Home, dated April 6th, 1984, I ask be marked EP-41.

11 The document, the first page of which is a
12 letter dated March 26th, 1984, to the Administrator for
13 Woodhaven Home for Adults, I ask be marked LILCO EP-42.

14 The document, the first page of which is a
15 letter dated April 18, 1984 to an Administrator at the
16 Oak Hollow Nursing Center, I ask be marked EP-43.

17 And I will note for the record that that letter
18 has two attachments. One is a Draft Plan of the Oak
19 Hollow Nursing Center and the second is a Draft Plan for
20 the Crest Hall Health Related Facility.

21 The document, the first page of which is a
22 letter dated April 12, 1984 to the Administrator of the
23 Woodhaven Nursing Home, I ask be marked LILCO EP-44.

24 The document, the first page of which is a
25 letter dated May 17, 1984 to an Administrator of Mather
Memorial Hospital, I ask be marked EP-45.

#14-4-SueT

1 The document, the first page of which is a
2 letter addressed to the Executive Vice-President of
3 Central Suffolk Hospital, I ask be marked LILCO EP-46.
4 That letter is dated May 31, 1984.

5 The document, the first page of which is a
6 letter addressed to an Assistant Vice President at St.
7 Charles Hospital, dated May 30, 1984, I ask be marked
8 LILCO EP-47.

9 WITNESS MAYER: 47 was for St. Charles?

10 MS. MC CLESKEY: Yes, that's right.

INDEXXXX

11 (The above-referred to documents
12 are marked as LILCO Exhibits
13 EP-38, 39, 40, 41, 42, 43, 44,
14 45, 46, and 47, for identification.)

15 BY MS. MC CLESKEY: (Continuing)

16 Q Now, gentlemen, on Page 14 of your testimony you
17 state that "All the administrators we have contacted have
18 expressed doubt about the feasibility of sheltering their
19 patients and many have stated outright that they believe
20 sheltering to be impossible."

21 Which facilities had you contacted when this
22 testimony was written?

23 A (Witness Mayer) I contacted the administrators
24 of the nursing homes, all the nursing homes in the EPZ.
25 This was done around February of this year, and the statement

#14-5-SueT

1 refers to statements made to me in February of this year.

2 Q I understand it was in February. It was just
3 the nursing homes or also the hospitals?

4 A I spoke to the people in the hospitals, yes.
5 The administrators of St. Charles and of Mather.

6 Q Not Central Suffolk?

7 A I don't recall speaking to the administrator on
8 this topic at Central Suffolk.

9 Q And could you list the nursing homes, please,
10 just so that we are clear?

11 A I did speak to the people at Crest Hall and Oak
12 Hollow, they are a combined facility. They are two physical
13 buildings but the same person I spoke to about both
14 facilities. It was a doctor, I forget his name.

15 I spoke to the person at Sunrest, at Woodhaven.
16 And I believe I spoke to the person at Riverhead.

17 I would have to look at my notes to tell you.
18 I think in some cases -- Mr. Stroly was the one I spoke to
19 at Sunrest.

20 Q Well, could you look at your notes and tell me --

21 A I don't have my notes with me.

22 Q You do not have your notes with you?

23 A I don't have my notes.

24 MS. MC CLESKEY: Does counsel have his notes with
25 you so that he can refer to them and refresh his memory?

#14-6-SueT 1

MR. MC MURRAY: No.

2

WITNESS MAYER: I'm looking at some of these names to see if they are the same people.

3

4

BY MS. MC CLESKEY: (Continuing)

5

Q Dr. Mayer, which notes is it that you would like to be referring to?

6

7

A I have -- when I spoke to the people back in February, I believe I wrote their names and phone numbers down on a piece of paper. I don't even know if I still have the piece of paper.

8

9

10

11

But that would help refresh my memory as to what persons I spoke to.

12

13

Q You don't have any memoranda or anything that has this information in it?

14

15

A I believe I did write a memorandum, at least a memorandum for the record which I believe was sent to the lawyers for the preparation of this testimony, to help prepare, you know, the testimony. That's how they wrote this thing.

16

17

18

19

20

Q But you don't have that document with you today?

21

A I don't.

22

Q And I'm sorry, you weren't quite clear in your memory on whether you had spoken to Riverhead or not at the time you filed your testimony?

23

24

25

A I'm not clear in my mind. I think I may have.

#14-7-SueT

1 But I'm not really clear.

2 Q So when you say all the administrators you have
3 contacted, you meant the administrators of St. Charles,
4 Mather, Crest Hall and Oak Hollow which was one administra-
5 tor, Sunrest, Woodhaven and perhaps Riverhead?

6 A Yes.

7 Q And which of those administrators stated that
8 they didn't think sheltering was feasible?

9 A All of them expressed doubts to me at that point
10 whether sheltering would be feasible in their institutions.

11 Q How were those doubts expressed? What kind of
12 doubts?

13 A They -- the doubts were essentially -- I don't
14 recall the exact words from each person, but in the form
15 that the areas that LILCO had -- LILCO personnel had come
16 and visited their operations and designated certain areas
17 in their operations as places where they felt sheltering
18 for the -- where the patients could be sheltered.

19 They had some doubts as to whether all their
20 patients could be fitted into those areas and whether, even
21 if the patients could be fitted into those areas, they could
22 be properly handled from the standpoint of medical care and
23 their comfort, especially in weather, very hot weather be-
24 cause sheltering required the turning off of air-conditioning
25 and the sealing of the building.

#14-8-SueT

1 I don't recall the exact words of each person
2 but that was the tenor of most of their remarks.

3 Q Okay. You state on Page 13 of your testimony
4 that "Our staff has contacted the special facilities
5 included in the LILCO plan to determine the status of their
6 planning for sheltering."

7 Were those the same contacts --

8 A I --

9 Q -- in February?

10 A I am our staff. That's what that is.

11 Q And that was also in February? It was the same
12 set of contacts?

13 A Exactly.

14 Q All right. You also state in your testimony
15 that Sunrest Nursing and Health Related Facilities says
16 that of a hundred and four patients they could fit no
17 more than twenty of them in the portions of the building
18 representatives places where the patients should be
19 sheltered.

20 A This was the statement made to me by the
21 administrator of Sunrest in February. His name is Mr.
22 Stroly. That was the statement made to me at that point.

23 Q What area was it that was your understanding
24 that he was trying to fit the one hundred four patients
25 into?

#14-9-SueT 1

2 A I don't recall the exact area, whatever area
3 it was it was the area he felt was not sufficient to hold
4 those patients. I don't remember the exact designation
5 of the area. I asked him what -- I said to him: They
6 designated certain areas in your operation. Can you fit
7 the patients in? And he made that statement.

8 Q Were these contacts all made by telephone?

9 A Yes, they were.

10 Q Have you ever toured these facilities?

11 A No, I have not.

12 Q You say on Page 15 of your testimony that the
13 beds cannot be rolled out of the rooms of the Suffolk
14 Infirmary due to a problem with the size of the doors.

15 Suffolk County Home and Infirmary would be able
16 to move the patients out of the rooms if there were a fire,
17 wouldn't it?

18 A (Witness Harris) With difficulty we could do
19 it. It can be done. But --

20 Q In fact, you are required to be able to do it --

21 A Absolutely, yes.

22 Q -- by law?

23 A Yes, we can.

24 MR. MC MURRAY: Excuse me. Dr. Harris has not
25 finished his question -- or his response.

BY MS. MC CLESKEY: (Continuing)

#14-10-SueT 1

Q Did you have a further --

2

A We could do it with difficulty. We would have

3

to press -- in some of the places where the doors are

4

inadequate we would have to use gurneys. Some people would

5

be using wheelchairs. But we could get them out. Yes.

6

Q Well, are all of the doors out of the rooms the

7

same size?

8

A No. It's a very old building.

9

Q So parts of it you can move beds out of the

10

doors?

11

A Yes.

12

Q And parts you can't?

13

A Yes.

14

Q About what percentage of the building can you

15

not move the patients out?

16

A I don't know that offhand. I would have to

17

consult with the Administrator of the facility.

18

Q Do you think it's more than half?

19

A I -- if I offered an opinion with a percentage,

20

I don't have any confidence in my ability to give a

21

percentage figure. I'm sorry.

22

Q And I believe when Mr. McMurray objected and

23

stated that you hadn't finished your question, I had

24

asked and you had answered another which was, they would

25

be able to move the patients out of the rooms if there were

#14-11-SueT 1

a fire, and they would be required to by law, right?

2

A We are required, if necessary, to evacuate patients. And one time patients were evacuated to just outside the facility one evening I believe.

3

4

5

Q It's your view, isn't it, that the staff of hospitals and nursing and adult homes are capable of choosing areas in their buildings in which their residents could be cared for properly?

6

7

8

9

A (Witness Mayer) Yes. Those areas are the beds in which they are in. You know, they are -- obviously people in hospitals are kept in those areas where they can be treated properly. They are kept in beds in their rooms.

10

11

12

13

Q That's part of the professional judgment that the staff of each facility makes, right?

14

15

A Yes.

16

17

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22

23

Q But the staff has the professional capability of determining what other places in the building patients could still be properly cared for; isn't that right?

24

25

#14-12-SueT 1

2 A Could be cared for in an emergency not as well,
3 but if all other things were considered on a temporary basis,
4 maybe some of them could be cared for in certain places.
5 That's inherent in my answer when I described a smoke
6 alarm with a potential fire where patients were moved out
7 of a wing at Mt. Sinai Hospital, not that they felt the
8 place they were putting to them was the place they would
9 prefer to care for them but they were evacuated from where
10 there was a danger of fire to a place that was safe from
11 fire.

12 This was done at the Infirmary one night when
13 people were evacuated out on to the lawn of the facility
14 and then, of course, returned when it was safe. It wasn't
15 chosen as a place to care for people; it was chosen as a
16 place to escape a danger.

17 Q Is it your view that the LERO plan must include
18 copies of the specific radiological emergency plans from
19 nursing homes, hospitals and adult homes within the EPZ?

20 A (Witness Mayer) It's our feeling that in order
21 to be confident that the patients in -- the persons in
22 special facilities will be properly cared for and will
23 have the protection they require in the event of a problem
24 at the plant, we must be confident that such plans exist
25 and such plans are implementable and doable , and our
confidence would be greatly increased if copies of those

#14-13-SueT

1 plans were part of the actual LILCO plan, a plan approved
2 by the hospital not written by LILCO.

3 Q Dr. Harris, in the partial evacuation you were
4 just speaking of, how many patients were moved; do you
5 recall?

6 A (Witness Harris) I'm not quite sure, because
7 it has been a while. I'm trying to think how many were
8 on a unit at Clinginstein Clinical Center (phonetic), forty
9 patients may have been moved. About forty might have been
10 moved. I don't know what the census was. And I wasn't
11 actually on the site, because in fire emergency my station
12 as the Associate Director of the Hospital was not to go to
13 the scene of the fire; it was only reported to me, and
14 that's why I was guessing how many people were moved out.

15 Q Do you know how long it took?

16 A I don't remember. I really don't.

17 Q More than two hours?

18 A No. I don't believe it took more than two
19 hours. It was a period of time less than two hours.

20 Q Less than an hour?

21 A I believe it was less than an hour.

22 Q Less than half an hour?

23 A Now, I'm getting a little hazy. I have to say,
24 you know, when one remembers an event so far past, one has
25 certain vivid remembrances and others less so. The exact

#14-14-SueT

1 time is less -- I know it wasn't two hours. I'm pretty
2 sure it wasn't one hour. When you start getting to a
3 half an hour, I can't believe it took a half an hour but
4 it might have. We are getting to the point where I'm not
5 sure.

6 Q And was the evacuation done pursuant to written
7 plans?

8 A Oh, there is a plan which includes a bell
9 signal to alert people as to the place of the emergency.
10 There are plans which state what different personnel must
11 do during that emergency. And how they are to behave, how
12 they are to treat electrical equipment.

13 I can recall all these things in the plan for
14 a fire in the part of a building, yeah.

15 Q You state on Page 16 of your testimony that
16 the residents in the Sunrest Nursing Facility could not
17 implement LILCO's recommendation that it shelter its
18 patients in its boiler room because the patients could not
19 be cared for adequately in a room with heavy equipment.

20 Is it your understanding that the plan for the
21 Sunrest Nursing Facility calls for residents being sheltered
22 in a boiler room?

23 A (Witness Mayer) At the time this testimony was
24 written and at the time I spoke to the Administrator at
25 Sunrest, that was what he told me was the proposal from

#14-15-SueT 1

2 LILCO. That's why this was written in this form. I don't
3 know what the present state of the situation is, but at
4 that time that is what was told to me.

5 Q You don't know what they are doing now?

6 A I believe I have been given a copy -- I saw a
7 copy of a Sunrest -- draft material sent to Sunrest by
8 LILCO. I believe -- this is it, right here.

9 Q Yeah. And we will --

10 A It's EP-38.

11 Q -- talk about it in a minute.

12 A In this material, as I read it -- I read it
13 previous to coming here, this is one of the things I was
14 given previously, there is a statement here about shelter-
15 ing and there are references to attachments which define
16 where the patients are to be taken. And it says Attachment
17 3, and I look back for Attachment 3 and it says to be
18 supplied.

19 So, I don't know where the patients are to be
20 taken in Sunrest, sheltering.

21 Q Well, you have got then what has been marked
22 LILCO EP-38?

23 A Yes.

24 Q All right. And the first page is a cover letter
25 to the Administrator, and the second page is marked Draft,
isn't it, and it is entitled "Sunrest Health Facilities,

#14-16-SueT 1

Protective Action Implementation Plan in the Event of a
Radiological Emergency at the Shoreham Nuclear Power
Station," right?

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A That's what it says.

end #14 5

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Q All right. There is a draft implementing procedure discussing protective actions?

A Right, that is what it says.

Q All right. Will you turn to part 6.0 of the procedure? I apologize. These documents don't yet have page numbers, some of them, so I can't give you a page number, but it is part 6.0

A Right.

Q 6.0's heading is: Upon notification of sheltering, do the following: And then under Part B, it states: The residents will be moved to the sheltering area in the west section of the building on the ground floor, and then refers to attachment two as the floor plan, right?

A That is what it says.

Q And you read this before you came to the hearings today, right?

A Yes, I did.

Q But you still swore that your testimony that says that residents of the Sunrest health facilities are going to be sheltered in the boiler room was accurate, isn't that right?

A It was accurate at the time this testimony was written.

Q Was it accurate today when you swore to it?

MR. McMURRAY: Judge Laurenson, I object. It

1 appears that counsel has confused the witness.

2 JUDGE LAURENSEN: Overruled.

3 BY MS. McCLESKEY: (Continuing)

4 Q Did you know?

5 A The testimony was written some time ago, as I
6 understand it. We wrote this testimony some time ago. It
7 was based upon what the administrator of Sunrest told me
8 in February.

9 Q I understand that, Dr. Mayer, and you have also
10 said that between the time the testimony was filed and today,
11 when you came to the hearings, you read the draft Sunrest
12 health facilities plan, which is marked LILCO EP-38, that
13 is right, isn't it?

14 A (Witness Mayer) That is right.

15 Q And your counsel asked you if your testimony
16 was true and correct to the best of your knowledge, and you
17 said that it was, didn't you?

18 A Yes, I did.

19 MR. McMURRAY: Judge Laurenson, I object. Let
20 me make this statement here. It is my understanding --

21 MS. McCLESKEY: There is no question to object to.

22 MR. McMURRAY: It is my understanding that Doctor
23 Mayer, has in fact, reviewed a document from Sunrest health
24 facilities, its regular disaster plan. Whether or not he has
25 -- and I advise him to look at this draft, which is the

1 radiological emergency plan for Sunrest, and see whether it
2 is the same document that he was referring to when he was
3 responding to Ms. McCleskey's questions, because it is quite
4 clear that there is confusion here.

5 MS. McCLESKEY: I don't think there is any
6 confusion. There is no question on the floor, and I don't
7 understand Mr. McMurray's objection.

8 MR. McMURRAY : The record is confused. I happen
9 to know what Ms. McCleskey is asking about, and what Dr.
10 Mayer is responding about, are two different documents.

11 WITNESS MAYER: I was given by the --

12 JUDGE LAUREONSON: There isn't any question at
13 this point, Doctor Mayer.

14 BY MS. McCLESKEY: (Continuing)

15 Q Doctor Mayer, you reviewed a draft plan for the
16 Sunrest health facilities, isn't that right?

17 MR. McMURRAY: I object, unless Ms. McCleskey
18 defines what sort of plan she is referring to.

19 MS. McCLESKEY: I am talking about LILCO EP-38.
20 Did you review LILCO EP-38 before you came here today?

21 WITNESS MAYER: May I speak with Counsel?
22 Am I allowed to?

23 JUDGE LAURENSEN: Do you have any objection
24 to him conferring with his attorney?

25 MR. McMURRAY: It is clear there is confusion.

1 JUDGE LAURENSEN: Just a minute. Let me find
2 out what their position is.

3 MS. McCLESKEY: Well, before he does so, if this
4 will help you out, I provided at a request of Suffolk
5 County as an untimely discovery request on May 7th copies
6 of certain draft plans, including this one. Is that where
7 you got your plan from that you reviewed ?

8 MR. McMURRAY: Judge Laurenson, again I renew
9 my request that there is some confusion here. I think that
10 perhaps it might be a good time to take the break -- our
11 first of two breaks -- there is an awful lot of paper here.
12 There are a couple of Sunrest documents. I think we ought
13 to show them both to Dr. Mayer and Ms. McCleskey so we can
14 clear up this confusion.

15 MS. McCLESKEY : Well, I think that the witness
16 can answer whether he has reviewed LILCO EP-38 or not prior
17 to today without talking to his counsel, and I would like
18 an answer from him.

19 JUDGE LAURENSEN: That wasn't the question that
20 you asked him. The question was the origin of that document.
21 Whether that was the one that was supplied by you on May 7th,
22 or something along that regard.

23 MS. McCLESKEY: No. I stated for the record that
24 I supplied LILCO EP-38 on May 7th to Suffolk County, and
25 asked Dr. Mayer if LILCO EP-38 was the document he is talking

1 about when he says he reviewed a draft plan.

2 MR. McMURRAY: No. She asked whether or not the
3 one that we received from her was the one that Dr. Mayer
4 reviewed.

5 MS. McCLESKEY: I will withdraw whatever the
6 prior question was, and now ask whether Dr. Mayer has ever
7 seen LILCO EP-38.

8 MR. McMURRAY: And I am saying, Judge Laurenson,
9 that I object because it is quite clear there is a great
10 deal of confusion here and on the record. We should take
11 a break and let all the parties, let everybody look at the
12 documents that are involved. They have Sunrests name on
13 them, so that we can all be clear.

14 MS. McCLESKEY: Doctor Mayer has LILCO EP-38,
15 and I am happy to give him time to look at it, and determine
16 whether that is the document he has recalled that he saw.

17 JUDGE LAURENSEN: This is a clear enough
18 question. Whether or not he reviewed this particular
19 document. I don't think he has to confer with a lawyer
20 to determine whether he did or not. So I think he can
21 answer that.

22 BY MS. McCLESKEY: (Continuing)

23 Q Doctor Mayer, did you see this document?

24 I saw a document referring to a nursing home.
25 I am not sure whether it was Sunrest or one of the other

1 nursing homes.

2 Q And where did that document come from?

3 A It was sent to me by my lawyers. By the lawyers.

Q But you don't know whether it was this document?

5 A It was a nursing home document. It was one of
6 the nursing homes. I don't remember which one it was.

7 Q But you are sure it said that LILCO was sheltering
8 people in the boiler room?

9 MR. McMURRAY: Objection. That is a mischaracter-
10 ization of the witness' testimony.

11 WITNESS MAYER: Absolutely not. The statement
12 of the boiler room comes from a telephone conversation made
13 in February with the administrator of the nursing home.
14 Sunrest Nursing Home.

15 MR. McMURRAY: Judge Laurenson, I would like
16 to renew my suggestion that we take our afternoon break.

17 JUDGE LAURENSEN: Now, is this an appropriate
18 time? Is there any objection to that?

19 MS. McCLESKEY: We take a break every afternoon.
20 I am happy to take it whenever the group wants to. I don't
21 think it is necessary to take a break so that Dr. Mayer can
22 confer with his lawyers.

23 JUDGE LAURENSEN: Well, we have been at it for
24 about an hour and forty minutes now. I guess it is an
25 appropriate time. Let me inquire how much longer LILCO

1 plans to question this panel so that we can make some
2 estimates.

3 MS. McCLESKEY: I would say probably less than
4 an hour.

5 JUDGE LAURENSON : I would say probably less
6 than an hour.

7 JUDGE LAURENSON: We will take a ten minute
8 recess.

9 (Short recess taken)

10 JUDGE LAURENSON: We are back on the record.
11 Ms. McCleskey?

12 BY MS. McCLESKEY: (Continuing)

13 Q Now, Dr. Mayer, before the break I believe
14 we were left with the question of whether you had ever seen
15 LILCO EP-38 prior to today. And do you now have an answer?

16 A (Witness Mayer) I saw one document, very similar
17 to this one, to a nursing home from LILCO. I do not remember
18 which nursing home it was.

19 Q So you don't know if it was Sunrest health
20 facilities or not?

21 A I do not know.

22 Q Okay. Will you turn to -- I believe we were speaking
23 of Part 6.0 of the LILCO EP-38. Now, between the time you
24 filed your testimony and you came here today, did you make
25 any other effort to ascertain whether the Sunrest health

1 facility since February had in some way received other
2 recommendations from LILCO or done any additional planning
3 about radiological emergencies and sheltering in its
4 facility?

5 A No, I had not.

6 Q Okay, look at Part 6.0 of the procedures there
7 for Sunrest health facility. Part B says that the residents
8 will be moved to the shelter area in the west section of the
9 building on the ground floor, isn't that right?

10 A That is what it says.

11 Q And it doesn't say a thing about the boiler room,
12 does it?

13 A It does not say the boiler room. This is a draft
14 plan sent by LILCO to the Sunrest Nursing Home. There is
15 absolutely no indication that the Sunrest Nursing Home has
16 accepted this plan, or that there has been any change in the
17 statement the administrator made for me in February. I
18 have no knowledge in any change in his statement.

19 Q And you also haven't called to ascertain whether
20 he is doing any planning, have you?

21 A I have not.

22 Q On page 16 of your testimony, you state that
23 the administrator of Central Suffolk has no plans to obtain
24 portable oxygen or suction equipment to move its patients
25 out of their rooms.

1 When did that administrator tell you that?

2 A In February.

3 Q It is true, isn't it, that LILCO is obtaining
4 that equipment for him?

5 A I have no knowledge of that.

6 Q Central Suffolk's Hospital Administrator didn't
7 indicate to you that LILCO had offered to buy that equipment
8 for his hospital?

9 A He did not mention that to me in the conversation
10 at the time I spoke to him.

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1 Q In any of the plans that you have reviewed since
2 your testimony was filed, were any of those plans
3 involving Central Suffolk Hospital?

4 A No. I do not recall reviewing any LILCO plan for
5 Central Suffolk Hospital.

6 Q Earlier when I asked you which administrators
7 you had called, you said that you had called the administra-
8 tors of St. Charles and Mather but not Central Suffolk;
9 is that correct?

10 A I did call the administrator of Central
11 Suffolk. I did call the administrator of Central Suffolk.

12 Q So in addition to St. Charles and Mather, you
13 also spoke with Central Suffolk?

14 A Yes.

15 Q During that February round of contacts?

16 A Yes.

17 Q All right.

18 A And that was the origin of this statement in
19 the testimony.

20 Q Could you please look at the Central Suffolk
21 draft plan?

22 A Which one is that?

23 Q It is No. 46.

24 Now, the cover letter to that plan states that
25 this is revision two to the plan and that the changes

1 suggested by the Central Suffolk staff at a meeting with
2 LILCO had been incorporated into the procedure; isn't that
3 right?

4 A That is what the statement is made.

5 Q Would you please turn to page 7 of that plan.

6 On page 7, in the second full paragraph, there
7 are instructions given to move portable life support
8 equipment and medication to sheltering areas; isn't that
9 right?

10 A The statement is, "Hospital staff should be
11 instructed to move portable life support equipment and
12 medication to sheltering areas." That is the LILCO draft
13 statement.

14 Q In light of the cover letter to this procedure
15 which states that changes had been made as a result of
16 meetings between LILCO and the hospital staff and the
17 statement on page 7 that suggests, among other things,
18 that hospital staff move portable life support equipment
19 and medication to sheltering areas, is your opinion
20 regarding whether the hospital has portable -- sufficient
21 portable equipment changed from the testimony that you filed?

22 MR. MC MURRAY: Objection, Judge Laurenson.

23 It asks the witness to assume a fact not in evidence which
24 is, first of all, that this plan has been adopted by
25 Central Suffolk Hospital and that portable life support

1 equipment has, in fact, been obtained.

2 JUDGE LAURENSEN: The only question is whether
3 his opinion has changed.

4 MR. MC MURRAY: Well, it asks him to -- excuse
5 me, Judge Laurenson. It asks him to assume that this is,
6 in fact, Central Suffolk's plan when, in fact, it is just
7 a LILCO proposal.

8 WITNESS MAYER: This is not a matter of opinion.
9 This is a matter of whether there actually is such
10 portable equipment. That is a matter of, I presume, fact.
11 At the time I spoke back in February with the administrator
12 he said such equipment did not exist. The bald statement
13 in a draft plan about moving of equipment doesn't
14 necessarily mean the equipment actually exists or will
15 exist. And the fact that this plan was written based
16 on changes initiated by the staff for Central Suffolk
17 doesn't mean those changes have any relevance to that
18 paragraph over here.

19 They don't say which changes there were. So I
20 have no reason to believe that because this plan has
21 incorporated changes from Central Suffolk that it had
22 anything to do with the portable equipment.

23 BY MS. MC CLESKEY:

24 Q I take it from all that the opinion in your
25 testimony hasn't changed?

1 A It has not changed.

2 Q Have you made any attempt to contact Central
3 Suffolk since your testimony was filed to determine whether
4 the statements made to you were correct?

5 A I put a phone call in last week to the
6 administrator. He did not return my phone call. So I
7 have made no contact.

8 Q Is the administrator of the Suffolk County Home
9 and Infirmary a health physicist?

10 A No.

11 A (Witness Harris) No.

12 Q And you say in your testimony that the windows
13 and vents could not possibly be sealed according to him
14 in that facility; isn't that right?

15 A (Witness Mayer) Can you give us a reference
16 to that testimony? What page?

17 Q Yes. Hang on a minute.

18 (Pause.)

19 On page 17, about mid way in the first block
20 of printing. It is not a full paragraph. You state that --
21 I am sorry. It was the Riverhead Nursing Home and Health
22 Related Facility. I beg your pardon.

23 Is the director of the Riverhead Nursing Home
24 and Health Related Facility a health physicist?

25 A I do not know what his qualifications are.

1 A (Witness Harris) I don't know.

2 Q Okay.

3 On page 19 of your testimony you state that
4 the staff would become ineffective through fatigue because
5 they would not have reinforcements for a variety of
6 reasons that you list in your testimony.

7 When you wrote that paragraph of your testimony
8 regarding fatigue and reinforcements of staff, what
9 assumption were you making about the length of time that
10 people in special facilities would be asked to shelter?

11 A We assumed that the length of time that
12 sheltering would be necessary would be greater than that
13 -- would transcend that of the ordinary shift. So that
14 individuals would be working more than eight, ten, twelve
15 hours at a time.

16 Q Are you assuming it would be 24 hours?

17 A Twenty-four hours is certainly more than an
18 ordinary shift. I don't know if we thought that, but that
19 was possible, possible.

20 Q Were you assuming it might be longer than 24 hours?

21 A How much longer? Anywhere from a very small
22 period of time, a milisecond, to a very long period of time
23 such as days?

24 We didn't have any precise time in mind. We felt
25 that individuals -- the basis for the statement is that if

1 sheltering were to take place and would have to take place
2 for a period longer than the usual shift, individuals would
3 begin to be fatigued. And I might also add, they would
4 probably be concerned about people in their own families
5 outside the thing which would add to their tension and
6 perhaps increase the fatigue.

7 But we didn't have any specific time in mind
8 other than it would be longer than the usual shift. Two
9 shifts' worth, three shifts.

10 It all depended on the nature of the release
11 of radioactive materials, the weather conditions. We
12 assumed, as one should in planning, I suppose, worst case
13 rather than best case.

14 A (Witness Mayer) Certainly agree with that.

15 Q Well, when you stated your concerns about
16 reinforcements and fatigue, would that include a 12-hour
17 period of sheltering?

18 A (Witness Harris) Probably we had in mind
19 something longer, I should think. It might be longer.

20 Q Now, would it include up to 24 hours sheltering?
21 Would those concerns arise at 24 hours?

22 A Well, that is a very interesting question, and
23 the best way to respond to it is, how many hours of
24 continuous service during an emergency one can go without
25 evidence of fatigue.

1 This, of course, varies. I am well aware that
2 under times of stress people can perform nobly and well
3 for periods of time which they might not ordinarily do so,
4 but there are limits to human endurance. And certainly for
5 some people, depending on their state of health -- and
6 I am talking about staff state of health -- depending on
7 their fears about the outside or the nature of the work
8 they must do, they could be fatigued in 24 hours.

9 We are all aware, even in making this statement,
10 we were well aware that nurses, aids, sometimes do
11 turnaround shifts in which they will work two shifts
12 back to back. I have never been happy with that. I
13 know it occurs at some hospitals sometimes. I believe that
14 people under those circumstances are not exercising
15 good judgment. And I know that as a physician myself,
16 when I was a resident in pediatrics, I would sometimes work
17 -- they don't do it much anymore -- I would sometimes work
18 a whole weekend with just a scant few hours or sleep.

19 I found at the end of that period I was certainly
20 -- or in the middle of it -- I was certainly, my judgment
21 was not nearly as good as it was in the beginning.

22 But that is the kind of thinking we had in
23 mind in making that statement.

24 A (Witness Mayer) Also, the people might be
25 working under more adverse conditions. In sheltering they

1 are not working under normal conditions. They are working
2 under crowding, in areas where they are ordinarily not
3 taking care of patients in the normal run of things.
4 It makes it a little hard to operate.

5 There would be more fatigue just on the basis
6 of having greater difficulty in their activities. They
7 may be understaffed. If the staff was called in --
8 let's say it was a night situation -- the night staff
9 would be held on and people didn't come in to relieve them,
10 they would be understaffed the same number of patients.
11 It would be even a worse situation.

12 Q On page 18 of your testimony you state that
13 the LILCO plan for sheltering doesn't think about the
14 need for reinforcing the staffs of special facilities.

15 Could you please turn to LILCO EP40 which is
16 the draft Ridge Rest Home plan.

17 Dr. Mayer, have you ever seen this plan before?

18 A I do not recall ever seeing this plan.

19 Q Dr. Harris?

20 A (Witness Harris) Let me look at it carefully.

21 Q All right. Why don't you do that while I
22 ask Dr. Mayer some questions.

23 A (Witness Mayer) I must say, I saw a rest home
24 plan. I do not recall which one I saw. I don't know which
25 one I saw.

1 Q Was it a draft radiological emergency response
2 plan?

3 A Yes, it was.

4 A (Witness Harris) I can answer now. This
5 attachment does not look familiar to me.

6 Q Okay.

7 Could you turn in the Ridge Rest Home plan to
8 part 5.1.2, please.

9 Now, that is under section 5.0 which is
10 headed Actions. Do you see it?

11 A Yes.

12 A (Witness Mayer) Yes. 5.1.2?

13 Q Yes.

14 And 5.1.2 says, "Call any additional staff
15 that may be required for the implementation of
16 protective actions specified in the EBS message."

17 Isn't that right?

18 A By using attachment 2.

19 Q Right.

20 A Let us look at attachment 2. I don't see
21 anything under attachment 2. It says, "To be provided."

22 Q That's right. It's a draft plan.

23 A Well, then the whole statement is not complete.
24 I don't know what I am answering then.

25 It says, "By using attachment 2." If I don't

1 know what attachment 2 is, how can I know what is being
2 said here.

3 Q Well, let's ignore attachment 2 for a moment
4 and just focus on 5.1.2. This is under a heading of
5 Ridge Rest Home Protective Action Implementation Procedure
6 in the Event of a Radiological Emergency at the Shoreham
7 Nuclear Power Station; isn't that right?

8 A That's what it says.

9 Q And the draft procedure indicates that one of
10 the actions listed at the beginning of the procedure is
11 to call any additional staff that may be required for
12 the implementation of protective action; isn't that right?

13 A That's what it says.

14 Q All right.

15 In light of this procedure, is your opinion in
16 your testimony still the same, that the LILCO plan for
17 sheltering does not include a concern about reinforcing
18 staffs of special facilities?

19 MR. MC MURRAY: Objection, Judge Laurenson.
20 Again, it assumes a fact not in evidence, that this is,
21 in fact, a plan for the Ridge Rest Home when it, in fact,
22 does not appear to be that.

23 There is no evidence in this record that this
24 is, in fact a plan for the Ridge Rest Home.

25 MS. MC CLESKEY: Well, do you want me to respond

1 to that, Judge Laurenson?

2 JUDGE LAURENSEN: Well, it seems that
3 Mr. McMurray is correct, that you are putting this in
4 through cross-examination and yet there really has been
5 no foundation established for any of these documents.
6 They indicate -- the two witnesses indicate they have
7 not seen these are can't identify them specifically. And
8 now you are asking whether this changes their testimony
9 and the assumption, I guess, that these are in effect.

10 The objection is sustained.

11 BY MS. MC CLESKEY:

12 Q Dr. Mayer, is it your understanding that the
13 LILCO plan provides for selective sheltering of handicapped
14 individuals at home?

15 A There is a section of the LILCO plan that
16 speaks to that area.

17 Q What part of the plan says that?

18 A I don't remember the exact citation at the
19 moment.

20 Q But it is your understanding that the plan says
21 that LILCO is going to make a protective action that there
22 will be selective sheltering of handicapped individuals
23 who live at home?

24 A That is an option in the LILCO plan.

25 Q Okay.

1 On page 42 of your testimony, gentlemen --

2 A 42?

3 Q 42, right. You say there is not enough space
4 available at health facilities near the EPZ to accommodate
5 the likely number of evacuating patients.

6 How many hospitals are there in Suffolk
7 County outside the ten-mile EPZ?

8 A (Witness Harris) Thirteen hospitals, three
9 within; I suppose that is ten outside Suffolk County.

10 (Witnesses conferring.)

11 A (Witness Mayer) It depends how you define
12 hospital.

13 A (Witness Harris) Right.

14 Q Let's try it again. How many hospitals are there
15 in Suffolk County outside the ten-mile EPZ?

16 A (Witness Mayer) It depends how your define
17 hospital. There are mental hospitals in Suffolk County.
18 There is a VA hospital. And then there are a number of
19 general care hospitals. There are ten general care
20 hospitals outside the EPZ in Suffolk County. There are
21 three very large state mental institutions. And there is
22 one VA hospital.

23 Q And how many hospitals are there is Nassau
24 County?

25 A I honestly don't know.

1 Q Does 16 sound about right, Dr. Harris?

2 A (Witness Harris) I think that is in the right
3 order of magnitude.

4 Q It is true, isn't it, that the Suffolk
5 Infirmary is currently posted as a civil defense shelter?

6 A I am not -- I don't know that to be a fact.
7 If you say so, I would accept it. Till I look further,
8 I am not sure. I certainly wouldn't want a civil defense
9 based on it.

10 Q When you discuss on page 19 contamination of
11 workers driving through a portion of the EPZ to reinforce
12 staff when a sheltering recommendation is given, are
13 you assuming that there has been a general emergency at
14 Shoreham?

END 16

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A (Witness Harris) Yes.

Q When was the emergency declared?

MR. MC MURRAY: Objection, Judge Laurenson.
That question is vague. Is Ms. McCleskey asking for a
time of day?

MS. MC CLESKEY: No. I will be glad to clarify
the question.

What I mean is, prior to the worker who is going
to be driving through the contamination to go and reinforce
the facility staff, how many hours previously was the
emergency declared.

MR. MC MURRAY: Again, I will object, Judge
Laurenson. There are not enough facts for the witnesses
to be able to answer this hypothetical. Is this the first
shift coming or the second shift?

MS. MC CLESKEY: It's not a hypothetical. I'm
asking him what they assumed when they wrote this para-
graph on Page 19 about a worker coming to a special
facility to reinforce and driving through contamination.

JUDGE LAURENSEN: The objection is overruled.

WITNESS HARRIS: Judge Laurenson, can I consult
with my colleague prior to a direct answer?

JUDGE LAURENSEN: Unless there is some
objection.

MS. MC CLESKEY: No. I will take an answer from

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1 either one of you, that's fine.

2 (The witnesses are conferring.)

3 BY MS. MC CLESKEY: (Continuing)

4 Q Yes.

5 A (Witness Harris) After conferring with my
6 colleague, our understanding of what we envisioned was
7 pretty similar. While I couldn't give it to you in
8 precise hours, we assumed that under the worst case cir-
9 cumstances with a very large release of radioactive materials
10 and stagnant meteorological conditions, it was conceivable
11 that in order to resupply or to restaff or to try to re-
12 staff such, under those circumstances, individuals might
13 have to go back through areas subject to contamination.

14 Q Just to clarify and make sure I understand what
15 you said, then you were assuming that the staff had been
16 at the special facilities for some time, there had been a
17 sheltering recommendation because of a large release, there
18 were stagnant weather conditions, and that later on during
19 the sheltering recommendation additional staff were called
20 in?

21 A I believe that's what we both had in mind.
22 That was certainly one of the scenarios that led me to this
23 testimony.

24 Q Were you assuming that sheltering had already
25 been in effect for in excess of twelve hours?

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A I don't believe our thinking progressed to that fine distinction, whether it was twelve hours versus eleven or twelve or more. But we made the assumption that at one point, depending on when it happened and what the staffing levels were, and how prolonged the sheltering had to be, there would come a time at which people would maybe need relief, and that if there were still danger from radioactive materials in the ambient environment at that time, this would pose a risk to individuals reentering the EPZ from outside the EPZ to bring in help.

That's what we had in mind.

Q So --

A But we didn't say ten hours or twelve hours or --

Q So you are assuming that the reinforcements would come from outside the EPZ?

A Yes. That seemed to us the most logical place restaffing would come from.

Q Would that --

A We assumed that medical personnel would have their hands full within the EPZ if they were sheltering and taking care of patients, you know, health -- I didn't mean medical in the strict sense of physicians. I meant general health personnel.

Q So, you think contamination is likely based on

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1 the releases that were seen at TMI?

2 A We have addressed ourselves to not a minor
3 release such as TMI but we addressed this to the plan
4 in case there was a very large release and circumstances,
5 for one reason or another, even made evacuation impossible,
6 say roads were clogged and you had to do it, or it was bad
7 weather, those constraints that are talked about in the
8 PAG, so we just assumed there would be -- we always figure
9 worst case.

10 We figured in worst cases this might occur,
11 yes.

12 Q Okay. Now, what measures could be taken to
13 remove contamination from these reinforcements?

14 A Well, I'm not a radiation physicist, and my
15 knowledge of this is not perhaps as great as theirs would
16 be, obviously not as great as theirs would be. But I
17 assume it would consist of, number one, if they knew they
18 were going to a contaminated area to wear protective
19 clothing; two, upon arriving at a facility, the protective
20 clothing would have to be doffed in separate chambers.
21 There would be shower, there would be separation rooms,
22 and at the end individuals would emerge free of contamina-
23 tion by virtue of having removed the protective clothing
24 properly, donned other clothing after showering and so
25 forth, and then entering the facility.

#17-5-SueT 1

2 I assume those procedures in general would have
3 to be followed. Yes.

4 Q So, basically you could take precautions just
5 like you would for keeping dirt out of a facility to be
6 sure that it didn't become contaminated?

7 A One can take precautions. I'm sure that one
8 could take precautions. Yes. Provided the training and
9 the equipment was all provided.

10 Q Okay. Now, if you had a bad snow and the roads
11 were blocked, the staff of special facilities would remain
12 at the facilities, wouldn't they?

13 A That is generally what happens, yes.

14 Q Yes. And, haven't you, on Long Island had a
15 snowstorm of that sort as recently as February of 1983?

16 A We did have a snowstorm in '83. I couldn't
17 get out of my driveway. I remember it clearly because of
18 that.

19 Q Dr. Harris, you participated in planning and
20 drills for emergencies as part of your work as Associate
21 Director of Mt. Sinai Hospital, I believe you said; is
22 that right?

23 A I participated, yes, in drills.

24 Q And you were also involved in emergency planning
25 in your capacity as Deputy Commissioner of Health in the
City of New York, weren't you?

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2 A I did not have that responsibility. My
3 responsibilities were primarily for the speciality areas,
4 maternal, and child health, chronic disease services,
5 communicable diseases, epidemiology. And I don't recall
6 being involved with any emergency planning for facilities
7 that I was involved in directly. I assisted to some
8 extent, yes.

9 Q You assisted in emergency planning?

10 A I can recall most of the emergencies that I
11 assisted in during my tenure turned out to be man-made
12 problems, job actions, strikes of garbage collection, strikes
13 in fuel oil delivery, strikes for grave diggers, those I
14 can recall very clearly that I was involved in those.

15 Q And people working under your supervision took
16 part in the development of what is sometimes called the
17 Suffolk County Working Papers, the effort when Suffolk
18 County was developing an emergency plan in cooperation with
19 LILCO, right?

20 A It was some fragmentary work done. No plan I
21 believe was ever finally developed or approved --

22 Q Right.

23 A -- but ther was some staff involved in preliminary
24 work.

25 Q And you also did some work on the draft, Suffolk
County Radiological Emergency Response Plan, developed in

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1982, correct?

2 A I don't recall if I actually did any of the
3 writing of the document. There was some staff work, and
4 some of my staff were involved in making initial inquiries
5 and meeting with people from the County Executive's Office,
6 in a very preliminary way.

7 Q Okay. Now, on Page 3 of your testimony you
8 state that, "An attempt to implement LILCO's proposals would
9 likely result in increased morbidity and mortality. That
10 is, some people would become more ill or disabled than
11 they were before and others might die as a direct result of
12 an attempt to implement LILCO's proposals."

13 Now I would like a yes or no answer to this
14 question, Dr. Harris. During your work on emergency plan-
15 ning at Mt. Sinai as Deputy Commissioner of Health and in
16 the LILCO/Suffolk County joint effort, the threat of, as you
17 put it in your testimony, increased morbidity and mortality
18 did not preclude you from planning, did it?

19 MR. MC MURRAY: Objection to the form of the
20 question. It's a multiple question.

21 JUDGE LAURENSEN: Sustained.

22 MS. MC CLESKEY: I'm sorry. I missed the
23 objection. I didn't understand the words you said.

24 JUDGE LAURENSEN: I understood -- I'm sorry,
25 you didn't --

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MS. MC CLESKEY: I simply didn't hear; they were slurred. I didn't hear the words.

3 What did you say?

4 MR. MC MURRAY: It's late in the day. It was
5 a multiple question.

6 MS. MC CLESKEY: Well, I will repeat the
7 question. I don't believe it is a multiple question, but
8 I will be glad to break it down and ask it three times for
9 the three different places he worked.

10 BY MS. MC CLESKEY: (Continuing)

11 Q During your work on emergency planning at Mt.
12 Sinai as Deputy Commissioner of Health and in the LILCO/
13 Suffolk County joint planning effort, the threat of, as you
14 put in your testimony, increased morbidity and mortality
15 did not preclude you from planning, did it?

16 MR. MC MURRAY: Same objection, Judge Laurenson.

17 JUDGE LAURENSEN: I sustained the objection
18 before to that question.

19 MS. MC CLESKEY: All right.

20 BY MS. MC CLESKEY: (Continuing)

21 Q Dr. Harris, during your work on emergency planning
22 at Mt. Sinai, did the threat of increased morbidity and
23 mortality preclude you from planning?

24 Yes or no?

25 A No.

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2 Q Now, during your work as Deputy Commissioner of
3 Health for the State of New York, did the threat of
4 increased morbidity and mortality preclude you from
5 planning?

6 Yes or no?

7 A I was never Deputy Commissioner of Health for
8 the State of New York. You probably meant the City of
9 New York.

10 Q I'm sorry. I --

11 A I will construe it that way and answer it if
12 it's all right.

13 Q Yes or no?

14 A No. But I would like to give an explanation if
15 I could.

16 Q Well, perhaps you can talk about that later.
17 And in the LILCO/Suffolk County joint effort which your
18 staff took part in, did the threat of increased morbidity
19 and mortality preclude you from planning?

20 A No.

21 Q Now, Dr. Harris, which proposals of LILCO's
22 were you referring to when you made this statement about
23 increased morbidity and mortality in your testimony?

24 A I'm glad to be able to clarify that. When we
25 viewed the plan in totality and when we measured our
concerns which were that, in our opinion, the plan

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2 underestimated the difficulties, underestimated the need
3 for people and equipment, did not take into account human
4 nature as it ought to, when we also took into account
5 the frailty of individuals who would have to be moved
6 under presumably some of the worst circumstances, depending
7 on weather and other things, we came to the conclusion
8 that the move itself, either a move of evacuation or the
9 operation of sheltering, would entail necessarily some
10 increased morbidity and mortality.

11 When one thinks of the enormity of moving people
12 from a hospital, that's one of the reasons why, even though
13 there are supposed to be evacuation plans, no hospital that
14 I know of -- there may be some, but none that I know of --
15 ever drill to evacuate. The very drilling of the pro-
16 cedure is not done because it would entail possibly some
17 mortality, surely some additional morbidity, and that is
18 to just tear up the operation and move people outside.

19 That's one reason why people drill so carefully
20 in schools, because you can take youngsters and move them
21 out in a fire drill without excess morbidity and mortality.
22 So the benefit of drilling carefully is there and there
23 is no risk of increased morbidity and mortality in getting
24 children out of a school unless they slip on a banana peel
25 or down a stairway.

But the threat, the conceivable occurrence of

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2 increased morbidity and mortality is one of the reasons --
3 there are others -- but is one of the reasons no one ever
4 realistically drills the evacuation of a hospital. The
5 very stirring up of this is going to cause problems.

6 Now, the whole point is you have to balance
7 the risk of mortality and morbidity of the accident with
8 the risk of mortality and morbidity of action taken to
9 avoid or to ameliorate -- in other words, the risk of
10 mortality and morbidity from a Shoreham incident and the
11 risk of mortality and morbidity in meeting it by sheltering
12 or evacuation. And that's what we meant.

13 And when we looked at the plan itself we were
14 convinced, taken in toto, that there was a very real risk
15 that the plan would occasion and increase morbidity and
16 possibly mortality. I don't know if that is what my
17 colleague had in mind when we put that concept together.

18 I would yield to him if he has something
19 additional to add to the answer.

20 (Witness Mayer) I'm especially -- I agree with
21 everything that Dr. Harris said. It was especially, in
22 my mind, the situation in sheltering in situations of
23 extremely high temperatures which is very common in
24 Suffolk County in the summer. I really felt that would
25 definitely increase morbidity and may increase mortality.

That was an area which I was very strongly

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concerned, the background was very strong for this.

2 Q Well, Dr. Mayer, when you say that the
3 proposal for sheltering would be likely to result in
4 increased morbidity and mortality, under that circumstance,
5 you mean there would be an increase, or there might be
6 an increase, compared to staying in place under normal
7 conditions, don't you?

8 A Well, there is a certain rate of morbidity and
9 mortality in health facilities. What I'm saying is that
10 sheltering patients under certain conditions, especially
11 under great heat, might increase the normal rate of
12 morbidity and mortality.

13 Q Increase, as compared to normal everyday
14 conditions?

15 A Well, obviously you have to have a base line
16 to compare your rates of mortality, yes.

17 Q Is that your base line?

18 A Yes. Well, actually, no. My base line is heat,
19 a hot day with the air conditioning running and the normal
20 operations going. That's my base line.

21 Q Dr. Harris, can you cite any examples of increased
22 morbidity and mortality at specific facilities caused by
23 evacuation of a hospital or a nursing home or an adult
24 home?

25 A (Witness Harris) No, because I'm not aware of

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2 total long term, far distant evacuation of hospitals. I
3 don't have that.

4 But I do know that in morbidity and mortality
5 increase is, for example, during adverse conditions.
6 Morbidity and mortality in nursing homes go up during heat
7 waves. And that's happened in the southwest not long ago
8 when there was no air conditioning.

9 Now, one of the possibilities in the plan calls
10 for sheltering. And one of our concerns about sheltering,
11 especially in the facilities involved in the EPZ during
12 hot weather, is that the temperatures would go up, and
13 the very measures that one might embark upon to reduce this
14 would not be possible in a sheltering situation. That's
15 one example where I can have corroborative evidence.

16 But I'm not aware of large scale -- I'm not
17 aware of an acute hospital sending three -- three acute
18 hospitals sending all of their patients away, a distance,
19 to other facilities. I just can't imagine, just as a
20 practical man, that one could do this, could stir all this
21 up without incurring some problems, even under the best
22 circumstances.

23 And a plan, to be a worthy plan, has to reduce
24 to as small an amount as possible the uncertainty and the
25 logistical difficulties, et cetera. We just didn't believe
the plan did that. That's why, Ms. Mc Cleskey, we made that

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statement.

2 Q As a result of the planning that the County
3 does for hurricanes or other emergencies, do the special
4 facilities in Suffolk County have formal written
5 agreements with the County to protect their patients
6 during emergencies?

7 MR. MC MURRAY: Objection, Judge Laurenson.
8 I don't see the relevance of that question.

9 MS. MC CLESKEY: Well, Judge Laurenson, these
10 witnesses claim that the -- that LILCO should have formal
11 written agreements with each of the facilities that say
12 that the facilities will protect their patients during an
13 emergency.

14 And I would like to know if Suffolk County has
15 those sorts of agreements. They do emergency planning.

16 JUDGE LAURENSEN: I'm still not sure of the
17 relevance of that to any of the conditions we are talking
18 about here in connection with the LILCO plan.

19 I don't understand where you are drawing the
20 similarity between County planning for emergencies and this
21 plan.

22 MS. MC CLESKEY: I will withdraw the question.

23 BY MS. MC CLESKEY: (Continuing)

24 Q Do the special facilities within the EPZ have
25 formal written agreements with reception facilities to

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receive patients during hurricanes and other emergencies?

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A As I testified previously, as did my colleague, we don't prepare the plan. And so my knowledge of it is not as complete as it would be if I did.

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But it's my understanding that the facilities in the EPZ are not at great risk in a hurricane because of the geology and geography of the Island, the Island being a glacier moraine. The higher portions happen to be north and central with the low lying areas being in the south. So I don't think -- I don't believe any of the facilities in the EPZ would be flooded out -- I could be wrong. But I don't believe they would be evacuable during a hurricane.

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I could be wrong about that.

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Q My question was, or if it wasn't it is now, do the special facilities within the EPZ have formal written agreements with any reception facilities to receive patients during emergencies?

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MR. MC MURRAY: Objection, Judge Laurenson. Asked and answered.

JUDGE LAURENSEN: Overruled.

WITNESS MAYER: I'm not clear what the question is. Are you saying that -- do the facilities within the EPZ have agreements with other facilities to take their patients to emergencies, is that --

BY MS. MC CLESKEY: (Continuing)

1 Q Right. Right.

2 A I don't know.

3 Q Do you know, Dr. Harris?

4 A (Witness Harris) I don't know.

5 Q Now, Dr. Harris, you are not suggesting that
6 health care facility residents shouldn't be evacuated in
7 an emergency to avoid injury to them that you think might
8 result from moving them, are you?

9 A Oh, not at all. I am only saying that one
10 has to weigh the degree of risk involved in taking an action
11 against a danger versus the degree of risk of the danger
12 itself. That is always in the equation. All reasonable
13 men and women would do that.

14 Q Dr. Harris, during your tenure as Commissioner of
15 Health Services for Suffolk County, the Suffolk County
16 Infirmary has been evacuated, isn't that right?

17 A I believe I alluded to that. One night, although
18 I didn't participate -- I think you asked me if I participated,
19 and I didn't -- but then later on I did mention that there
20 was some sort of an evacuation of it in an evening.

21 Q And that was at night in the summer, right?

22 A It was on the fairest night of the year. It was
23 a beautiful night. Unseasonably warm. I don't recall when
24 it was, but I believe it was -- I am going to be wrong if
25 I say this -- but I think it was the early fall. Watch,

1 it is going to be spring I am sure when I look it up, but
2 I think it was the early fall, because my staff said to me
3 in reporting it over the phone that we were very lucky the
4 weather was unseasonably warm and good.

5 Q It was hot, wasn't it?

6 A It was warm. Unseasonably warm. I don't think
7 it was hot.

8 Q But it wasn't in the summer.

9 A It was in the fall. I think it was in the
10 fall. If I had known you were going to ask me that question,
11 I would have refreshed my memory before coming, but I
12 believe it was the fall, but I am not sure, though.

13 Q And the entire resident population of the infirmary
14 was moved, isn't that right, yes or no?

15 A Yes.

16 Q Thank you. And you evacuated on short notice,
17 right? Yes or no.

18 A Yes.

19 Q And there were no deaths as a result of that
20 evacuation were there, yes or not?

21 A No.

22 Q There weren't any injuries either, were there?

23 A No.

24 Q And the residents were not taken to hospitals,
25 were they?

1 A I am not sure. We may have moved a couple of
2 the very serious ones to a hospital, but I am not sure.
3 There was a question of that. But I don't think they did.

4 Because we have a unit of some people that we
5 might have. I am not sure. I don't think they did.

6 Q So your answer is, no.

7 A My answer is I don't think they did. To the
8 best of my knowledge, no.

9 Q They weren't taken to nursing homes either, were
10 they?

11 A No. They were out on the lawn and -- there was
12 an influx of ambulances that came. We were served --
13 a number of corps came, and they were removed to the lawn,
14 as I remember, and some to ambulances in Yaphank, you know,
15 in the Yaphank area, and then restored to their beds that
16 evening.

17 MS. McCLESKEY: Judge Laurenson, at this time
18 I would like to move LILCO EP-38 through 47 into evidence.

19 MR. McMURRAY: Judge Laurenson, we would object.
20 First of all, there has been absolutely no foundation laid
21 for the admission into evidence of these documents. They
22 are letters that appeared today, some of them dated yesterday,
23 from LILCO. Apparently to some nursing homes, but we don't
24 know that. No foundation has been laid for that as the
25 Board noted earlier, so we would object.

1 Let me also state that the witnesses have already
2 stated -- well, they have only been asked questions about
3 a few of these documents, but even to the ones that they
4 have been asked questions about, they stated they haven't
5 seen them and don't recognize them.

6 MS. McCLESKEY: All of these plans were developed
7 after the testimony was filed, with the exception of the
8 three hospital plans which were given in a Rev. 1 form
9 rather than a Rev. 2 form, and Our Lady of Perpetual Help
10 Convent plan, which did not exist on May 7th, all of these
11 plans were provided to the County on May 7th.

12 These witnesses have stated that they have
13 reviewed some plans, although they are -- they continue to
14 be unclear about which plans those are, or where they came
15 from.

16 The record is unclear. Our testimony states that
17 we are developing plans. The Suffolk County witnesses
18 testimony states that there are no plans. By admitting
19 these draft plans into evidence, we can clear up an
20 ambiguity in the record. The County had these plans and
21 chose not to examine the LILCO witness panel, after
22 requesting the plans in preparation for cross examination
23 on the plans, and the plans directly contradict, as I think
24 I showed with a couple of points, and could continue to show
25 with others, statements made in Dr. Mayer's and Dr. Harris'

1 testimony regarding what the planning is for the special
2 facilities in the EPZ.

3 And I think the plans are relevant. If Mr.
4 McMurray's question goes to authentication, I am sure LILCO
5 would be happy to certify that these letters are authentic,
6 that the plans have been sent out as the letters state, and
7 that the statements in the letters are accurate.

8 MR. McMURRAY: Judge Laurenson, our problem is
9 not just with authentication, but with foundation for it.
10 There has just been no foundation made for these documents.

11 I can't speak to the accuracy of what Ms. McCleskey
12 has said about cross examination of LILCO's witnesses.
13 I didn't do the cross examination. But the fact is, LILCO
14 is just trying to supplement its testimony through our
15 witnesses. Our witnesses have stated that they do not
16 recognize these documents; therefore, no foundation has
17 been made.

18 MS. McCLESKEY: This isn't supplemental testimony
19 gotten in on cross examination. If--it is rebuttal testimony
20 to these witnesses testimony that based on phone calls in
21 February, all kinds of things are being done for planning
22 at the facilities that just simply are not true, and are
23 directly rebutted by these statements in these draft plans.

24 JUDGE LAURENSEN: The County's objection is
25 sustained. There is no foundation for these documents.

1 MR. McCLESKEY: I have no further questions,
2 Judge Laurenson.

3 JUDGE LAURENSEN: Mr. Zahnleuter?

4 CROSS EXAMINATION

5 BY MR. ZAHNLEUTER:

6 Q In your testimony, and in your -- in your written
7 testimony and in your oral testimony, you have used a lot of
8 terms, and I would appreciate it if we could get a short,
9 concise definition of some of these terms first.

10 Let's start with the term skilled nursing
11 facility, or an SNF, as I think you referred to it once.
12 Could you give a brief definition of what that term means?

13 A (Witness Harris) A skilled nursing facility
14 is a facility designed and licensed to care for individuals
15 whose need for health care, medical care, nursing care, is
16 less of an intense nature than that required in acute
17 general hospital, yet sufficiently great so that they are
18 unable to be cared for in their own homes, or in a facility
19 that doesn't have round the clock nursing care, and so forth.

20 Now, that doesn't mean that everybody in a skilled
21 nursing home is in that category. Sometimes there are changes
22 and problems of locating people home. It doesn't mean that
23 everyone in the hospital needs acute care, but these are
24 general designations.

25 Q Could you please define health related facility,

1 or sometimes it is known as an HRF.

2 A It is a facility for people who could be frail
3 and ill. They do not require round the clock skilled
4 nursing care, but they do require some health care. The
5 people who are in health related facilities often border
6 very nearly on those who are able to go home if conditions
7 are right and supplementary services were added.

8 It is the contention of many that home services
9 could be developed so that people in skilled nursing home
10 facilities and in health related facilities might be just
11 as well off at home. So the distinctions are not hard and
12 fast, but they are general.

13 Q Do you consider these two types of facilities
14 to be nursing homes?

15 A Yes. Nursing homes. But many people when they
16 talk about a nursing home, they really mean a SNF, a skilled
17 nursing facility.

18 Q As you have used the term nursing home, have you
19 included anything else besides these two types of facilities?

20 A I don't believe so.

21 Q Could you please define what you mean by,
22 'hospital?'

23 A A hospital is a complex social organization, which
24 may be proprietary, voluntary, or run by government auspices,
25 in which a variety of health professionals and supporting

1 staff render diagnostic treatment and rehabilitative
2 services to individuals with acute and chronic disease.

3 Q As you use the term, 'hospital,' have you
4 included the term nursing home at some times?

5 A If I did, it was inadvertent. I don't confuse
6 the two, and I didn't mean to in my testimony.

7 Q I would like to clarify that. You use the term,
8 'hospital' in the sense of an acute care facility, and that
9 is distinct from a nursing home as you have defined just
10 now.

11 A An acute care facility or a hospital could also
12 be used for those that are chronically ill, but who have
13 an acute problem, or those who are so chronically ill that
14 they are cared for in a hospital. For example, the chronically
15 mentally ill. We could call that a hospital. That is
16 certainly a hospital.

17 Q You did make a brief reference to Article 28
18 of the Public Health Law -- that is the Public Health Law
19 of New York.

20 A Yes, sir.

21 Q The term, 'hospital,' in the public health law
22 is used -- what is your understanding of the way the term
23 'hospital' is used in the New York Public Health Law?

24 A If you mean the hospital code, it covers nursing
25 homes and hospitals as well. In that sense, it is almost

1 the latin derivative of 'hospice.' It could mean guest or
2 host, or hotel. Same derivative. Word, 'hospital,' yeah.

3 Q Well, am I correct that you are not using the
4 Article 28 of the public health law definition. You are
5 distinguishing between a hospital and a nursing home.

6 A In the testimony, we were using it in the first
7 sense, that is, very high intensity care for the ill,
8 that is hospital; the skilled nursing home facility for
9 those who don't require such intense care; and health
10 related facility for the others.

11 So, hospital was defined as the most acutely
12 ill -- facility for the most acutely ill, yeah.

13 Q And there was one more term, and that was, 'adult
14 home.' How do you define that?

15 A Well, adult home is a place for individuals
16 who are maybe frail or elderly, but do not require any
17 medical care and indeed, -- any special medical or health
18 care. They are run, licensed rather by the Department of
19 Social Services. They are not considered health facilities,
20 and I don't believe they are covered under the public health
21 law as such.

22 Q The Department of Social Services that you
23 refer to, is that a County department or a State department?

24 A State department. It licenses them, and also sets
25 the standards for them, and I believe inspects them to see

1 that the standards are carried out.

2 Q And what State department is that regulates nursing
3 homes and hospitals?

4 A State Health Department.

5 Q Okay. I am referring to your testimony now.
6 Could you please explain the basis for two similar statements
7 that you make. One is on page 7, in which you say special
8 facility administrators are unlikely to agree to evacuate
9 their facilities if there is no assurance that an identified
10 and adequately staffed and equipped facility is available
11 and has agreed to receive the evacuating patients.

12 And the other statement is on page 24. You say:
13 We do not believe that physicians, nurses, or administrators,
14 could consent to the movement of patients committed to their
15 care if there were no adequately staffed and equipped
16 facilities waiting to receive them.

17 A Both of these express a concern which we believe
18 would be in the minds of such people, such as administrators,
19 nurses, physicians, and others who care for patients.

20 People who do this kind of work have a deep
21 commitment to the care of the people they serve, and they
22 do recognize the difficulty in transporting, caring, and
23 continuing to care for them. So, it would be unlikely --
24 they would be reluctant, very reluctant, to ship their
25 patients out into a void, as it were.

1 For example, it is one thing for an administrator
2 to evacuate a hospital that is on fire. There, the danger
3 of the fire is so great, so present, so pressing, that just
4 to move them out of the reach of the flames and the smoke
5 is sufficient. No one would ever wonder then, you know:
6 Get them out on the sidewalk, get them out on the street.

7 Just, get them out of the burning building.

8 But here, we have individuals who would be
9 transported to another facility at some distance for prolonged
10 periods of time. The Plan does not call for people to go
11 right back to their original hospitals.

12 So, physicians, nurses, administrators would be
13 very loathe to make -- to take this action unless they could
14 be reasonably sure that the people they are caring for would
15 be cared for not only enroute, but they would have some place
16 for them to go where the level of service they were receiving
17 could be continued.

18 That is what we meant by that. Dr. Mayer, did
19 you mean anything different?

20 A (Witness Mayer) I certainly concur in that.
21 People have a moral and a legal responsibility to make sure
22 their patients are provided with the level of care which they
23 had before they evacuated them.

24 Q On page 17, you identify several facilities that
25 have air conditioning units that rely on outside air.

1 To the best of your knowledge, is this a comprehensive list,
2 or are there other facilities?

3 A (Witness Harris) Let's see. I have to look
4 at my testimony. We mentioned the Suffolk County Home
5 and Infirmary, known commonly as the Infirmary. Riverhead
6 is mentioned in our testimony, and Oak Hollow and Crest
7 Hall. But there are other facilities that have -- that
8 we know about. The Sunrest health facilities. They have
9 air conditioning in their health related facilities, but
10 they have, according to the staff work done for me, they
11 have air conditioning only in the main dining room of the
12 nursing home itself. The skilled nursing facility, SNF,
13 to get back to the original question.

14 There is the Woodhaven Nursing Home, and they,
15 according to the staff work done for me, have air conditioning.
16 Those are all that I have ascertained, but my guess is that
17 throughout the County there are facilities -- nursing home
18 facilities that have air conditioning.

19 I don't know if I answered your question. I have
20 gotten lost in my own verbiage, as I often do.

End 18. 21
Reb fols.

22

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24

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1 Q To the best of your knowledge, are there any
2 that do not have air conditioning?

3 MS. MC CLESKEY: Objection, asked and answered.

4 JUDGE LAURENSEN: I think we have been through
5 this before, but if you are asking for the specific
6 identification of them, I think that is maybe an area
7 that has not been --

8 MR. ZAHNLEUTER: I was asking about the specific
9 ones.

10 JUDGE LAURENSEN: The objection is overruled.

11 WITNESS HARRIS: The list of facilities that
12 I did have surveyed as follows: Crest Hall Health
13 Related Facility, yes, does have air conditioning;
14 Oak Hollow Nursing Center, yes, does have air conditioning;
15 the Riverhead Nursing Home and Health Related Facility,
16 yes, does have air conditioning; our own Suffolk Infirmary,
17 as I mentioned before, has partial air conditioning. We
18 have some air conditioning but we do not have the building
19 entirely air conditioned; the Sunrest Health Facility,
20 the nursing home is air conditioned only in the main
21 dining room, and there is air conditioning in the health
22 related facility; Woodhaven Nursing Home does have
23 air conditioning.

24 That is the total of my survey.

25 BY MR. ZAHNLEUTER:

1 Q Turning now to page 32 of your testimony, are
2 there any special precautions that would have to be taken
3 in order to transport a patient's medication from the
4 hospital to a reception center?

5 A You are probably referring to the statement
6 somewhat in the middle of the answer on that page where
7 it says, "Each patient's records and medication would have
8 to be collected and brought to the patient for use at
9 the reception center."

10 Q That's correct.

11 A Well, as I see that -- what perhaps would have
12 been better said would be, during the trip. It depends.
13 If a person were being sent to another hospital, let's
14 say, certainly there would be sufficient medications there,
15 and it would be rare, indeed, if they didn't have the
16 right kind. But certainly they would need some for the
17 duration of the trip, howsoever long that might be.

18 If the patient required certain medications,
19 IVs, supplements to the IVs during the trip, if it were a
20 long trip, that is what we had in mind.

21 And, of course, there would have to be medications
22 necessary on the trip to handle emergencies that could
23 conceivably arise during the trip -- cardiac arrhythmias.
24 And these things would be on ambulances, but they might
25 not be there in sufficient quantity. And it is also best

1 in transferring people to be prepared for what you don't
2 expect.

3 Q Were both of you present during the cross-
4 examination of LILCO's witnesses on these contentions?

5 A These contentions being the 24.J, 24.N, 60, 63,
6 and 72?

7 Q Yes, I believe Mr. Yedvab was on the panel and
8 Mr. Glaser.

9 A I was there for some of them.

10 A (Witness Mayer) I was there for some of them,
11 too.

12 Q Do you recall Mr. Weismantle's testimony
13 that the wheelchair patients in nursing homes are
14 assigned to be transported from the EPZ by ambulettes?

15 A (Witness Harris) I remember that very clearly
16 because it was the subject, as I recall, of some cross-
17 examination.

18 Q Do you recall Mr. Lieberman's testimony that
19 some wheelchair-bound patients would be expected to
20 ride on a bench in those ambulettes?

21 A Yes. I not only recall that, but I recall
22 being puzzled as to if that could be possible. Because
23 as I heard the testimony and thought, I said to myself,
24 the plan that was presented, the LERO plan, and the reliance
25 on ambulettes presumed some things which didn't ring true --

1 namely, that they are more or less uniform, that they
2 could take seven people, if you use the bench. But that
3 presumes a homogeneous kind of a population.

4 What I meant by that is as follows: The wheelchair
5 slots in an ambuletter are certainly suitable for people
6 who could be considered wheelchair-bound. That is, they
7 are unable to get around in any way, shape, or form except
8 in a wheelchair -- paraplegics, those with fresh
9 hemiplegia, and a variety of other patients.

10 The bench could not conceivably be used for
11 that type of patient. The only way one could safely
12 transport someone on a bench is if that were the kind
13 of person who, with only a lap restraint, could --
14 I mean transport them safely -- if they could maintain their
15 balance.

16 The kind of person then I began to realize would
17 be envisioned for the bench would be an individual who
18 would be more mobile and in better shape than an individual
19 in a wheelchair, yet not quite able to use a bus or a
20 taxi or whatever. And that is one of the reasons that my
21 staff and I took a closer look at some of the ambulettes
22 that are used, to refresh our memory as to what they were
23 actually like.

24 And my concerns on hearing the testimony were
25 not shaken at all. I still have them, after carefully

1 looking at the ambulettes and talking to the, at least
2 one of the drivers who said to me -- I said, What do you
3 use the bench for? And this driver said, They are
4 usually used for people who are either ambulatory, who
5 are going along on a recreation run or it is used for --
6 they are used occasionally for individuals who are not
7 wheelchair-bound but are in a wheelchair some of the time
8 but can shuffle up the ramp or can get into the chair,
9 the bench with some assistance.

10 In other words, my concern is that an ambulette --
11 the wheelchair slots and the seat benches, places in them,
12 they are not interchangeable, they are not fungible.
13 One, the wheelchair slots are suitable for wheelchair-bound
14 people; the bench is not suitable for truly wheelchair-
15 bound people, but presumes a grade of patient more mobile
16 than a wheelchair and less mobile than ambulatory.

17 That was the concern with the testimony.

18 Q Dr. Mayer, do you recall Mr. Lieberman's
19 testimony where he assumed that all patients at a special
20 facility would be ready and waiting to be loaded by
21 ambulettes?

22 A (Witness Mayer) Yes.

23 Q Do you agree with his assumption?

24 A I find it hard to believe that all the patients
25 would be lined up in the halls, like a group of -- I think

1 the patients would probably be kept as long as possible
2 in the places that they can be best handled until the
3 staff was sure then could be moved from those places
4 conveniently down to the loading areas.

5 It would be very difficult to line them all up
6 in the halls and handle them there when they could be
7 kept in their rooms for longer periods of time and best
8 handled there.

9 It may be easier to calculate how fast you
10 can move people as an engineering problem by assuming .
11 they are all lined up and then they move them out like
12 a queuing problem in engineering, but in a real facility,
13 the staff would probably want to keep the patients in
14 areas where they could be best handled before they are
15 lined up in hallways and lobbies waiting for -- maybe the
16 weather is bad -- waiting for the ambulances to pull up
17 and take them out.

18 I don't think they will all be -- if you have
19 200 people, I don't think you can have 200 people
20 in the halls waiting for the ambulances at the same time.

21 A (Witness Harris) I would like to add
22 something to that. In theory, it is very nice to believe
23 that people will be prepared and that they can be moved
24 in accordance with a time table. But my concern is that
25 what makes sense for a materials-handling solution doesn't

1 quite run off when you are dealing with human beings,
2 with all the problems they may have. They are not barrels
3 or crates, obviously, and their state of mind, their
4 ability to cooperate, all these things have to be taken
5 into consideration. And the time table of evacuation,
6 using the ambulances and the ambulettes, for example, is
7 a very strict one which does not adequately take into account
8 the practical difficulties.

9 Q On a different subject, do you think that the
10 special facilities could be expected to comply with
11 LILCO's recommendations during an emergency if there were
12 no agreements between LILCO and those special facilities?

13 A There would be grave doubt. And in an
14 emergency plan, you try to eliminate doubt and uncertainty
15 as best you can. And our evaluation, as carried in your
16 testimony, and all of it points toward it, is that we
17 have some grave doubts that the plan is detailed and
18 realistic enough for people to be sure.

19 And the more you do to make yourself sure,
20 the more arrangements there are, the more detailed it is,
21 the more secure the agreements are, that brings you closer
22 to a feeling of confidence that if it ever has to be used,
23 it will run off smoothly, without undue injury to the people
24 involved.

25 A (Witness Mayer) I agree.

1 MR. ZAHNLEUTER: Thank you, gentlemen, I
2 have no other questions.

3 JUDGE LAURENSEN: Mr. Bordenick?

4 CROSS-EXAMINATION

5 BY MR. BORDENICK:

6 Q Dr. Harris, are you familiar with the
7 situation in Mississauga, Ontario, Canada around three
8 or four years ago where three hospitals were evacuated?

9 A (Witness Harris) No, I am not.

10 Q Dr. Mayer, are you?

11 A (Witness Mayer) No, I am not.

12 Q Dr. Harris, are you familiar with an evacuation
13 of a hospital for crippled children in Dwight, Illinois
14 in 1976?

15 A No, I am not.

16 A (Witness Harris) No, I am not.

17 Q On page 25 of the testimony, in the first full
18 paragraph, it states in part, "It would be very difficult
19 for LILCO to find an adequate number of facilities within
20 a sufficiently reasonable distance of the EPZ."

21 Can either of you state in terms of a number
22 what you mean by a sufficiently reasonable distance?

23 In other words, how far or how close would
24 something have to be for it to be sufficiently reasonable?

25 A That would depend. And I will try to be as

1 quantitative as I can with this. And it is like anything,
2 how many hairs make a beard? How many miles would be
3 unreasonably far.

4 Surely, there are enough hospitals in the
5 United States and in this metropolitan area surely to
6 find enough beds to do this, but I would think if beds
7 were to be sought as far westward as Queens, this would
8 create great problems. This would be perhaps considered,
9 at least by us, unreasonable because we would be dealing
10 with a time and distance factor which -- and maybe a
11 traffic factor which would make it difficult.

12 When one moves into Nassau, the western portion
13 of Nassau, again, it might become very congested and
14 difficult. I suppose I would be thinking of Suffolk and
15 maybe some of the hospitals very close to the Suffolk and
16 Nassau border as being reasonable.

17 Beyond that, we might be dealing with an
18 unreasonable distance to transport people. Not unreasonable
19 in the sense of not being worthwhile. I didn't mean it
20 in that sense of unreasonable as one talks about something
21 is reasonable in terms of cost. I didn't mean that.
22 But might be fraught with such time and distance difficulties
23 as to make it more of a risk to the patients.

24 See, I believe the longer the patients are on
25 the road, the longer the patients are in transition between

1 a definitive, caring institution from which they originated
2 and the one to which they are destined increases the risk
3 of a problem.

4 That is what I meant. Maybe Dr. Mayer has
5 another rendering.

6 A (Witness Mayer) No.

7 Q In a similar vein, on page 27 of your testimony,
8 this is about half way down the page, you say, "This
9 aspect of LILCO's plan is unacceptable since there is
10 no assurance at all that a timely evacuation of hospital
11 patients, if required by the seriousness of an accident
12 at Shoreham, could ever be accomplished."

13 Are you able to quantify, again in terms of
14 time, what you mean by a "timely evacuation," or is
15 your answer that it would depend on the circumstances?

16 A I think it would depend upon the -- actually,
17 apparently the hospitals take -- according to the plan
18 as we have read it, the ambulances involved in evacuating
19 the hospitals would be sent after they do other tasks.
20 And apparently that means that hospital patients will wait
21 till other person are evacuated before the ambulances
22 arrive to remove them.

23 I don't see the distinction. Why should
24 hospital patients be placed at the end of the line and
25 other people be evacuated before them? Obviously, if

1 evacuation is necessary, if the plan requires evacuation,
2 why should hospital patients be not evacuated simultaneously
3 with all the other patients who need -- people who need
4 evacuation?

5 If evacuation is necessary, why not do everyone
6 at once?

7 Q That is what you meant when you used the phrase
8 "timely"?

9 A Yes. If evacuation is necessary for some people,
10 it should be necessary for all people, especially
11 debilitated people in hospitals.

12 Q On pages 32 and 33 of the testimony, you talk
13 about the need to evaluate patients, generally speaking.
14 When you speak in terms of evaluating patients, are
15 you talking about evaluating their charts and records, or
16 physically evaluating the patient himself?

17 A (Witness Harris) I would prefer all three
18 methods -- charts, records, and the patient. A good look
19 at the patient, I think that is important before starting
20 out. Not because charts aren't useful, but they don't give
21 you the most up-to-date view. You have to take a look
22 at the patient. I think that's very helpful.

23 Q On page 36 where you -- towards the bottom
24 where you make the statement, after you modified the
25 testimony earlier, "Such a vehicle" -- talking about

1 ambulettes -- "Such a vehicle has a lift or a ramp for
2 loading and unloading wheelchairs, and it has space to
3 accommodate perhaps four wheelchairs."

4 When you used the figure four, is that based
5 on purely a physical limitation?

6 In other words, are you saying it would be
7 impossible under any circumstances to accommodate more
8 than four wheelchairs in an ambulette?

9 A What I meant by that was -- and perhaps if I
10 were to rewrite my testimony again, I would have amplified
11 -- ambulettes are not uniform. Some of them can take
12 more and some can take less people. There are ambulettes
13 designed for a capacity of maybe eight or nine. There
14 are some for a capacity of seven.

15 Some have a capacity as low as four. I have
16 seen one ambulette which was custom designed which didn't
17 have any bench at all and just had wells and fastening
18 devices for wheelchairs.

19 If one wanted to put an extra wheelchair into
20 that ambulette, there would be no well in which to put
21 the ruts, in which to put the wheel to prevent sideways
22 movement, which would be unsafe for rolling.

END 19

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24
25

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1 But some ambulettes you can have more. I saw
2 one in which they could put more than four. But it was
3 usually four that seemed to be the limit. Four plus the
4 bench, sometimes four alone.

5 (Witness Mayer) It would not be considered
6 good practice to put a wheelchair in an ambulette absent
7 the proper restraints necessary for holding the wheelchair,
8 the wells and the belting restraints that they use for
9 holding the wheelchairs. We don't put them in like a truck
10 and stick them in.

11 Q Okay. So your testimony essentially is there
12 are physical limitations but there are different types and
13 sizes of ambulettes; is that correct?

14 A Oh, yes, there are.

15 MR. BORDENICK: Excuse me one second.

16 (Pause.)

17 Judge Laurenson, I have no further questions.

18 JUDGE LAURENSEN: Any redirect, Mr. McMurray?

19 MR. MC MURRAY: Yes, Judge Laurenson. I would
20 like to suggest, we have been going for over an hour and
21 a half right now, it might be a good time to take our
22 second break for the afternoon.

23 JUDGE LAURENSEN: All right. Let's limit it
24 to ten minutes this time, though.

25 (Whereupon, the hearing is recessed at 4:37 p.m.,

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to reconvene at 4:47 p.m., this same day.)

2

JUDGE LAURENSEN: All right. We are back on

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the record.

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4

REDIRECT EXAMINATION

5

BY MR. MC MURRAY:

6

Q Do you recall some questions from Ms. McCleskey

7

which pertained to whether or not you had derived any

8

estimates of the time it would take to prepare patients

9

for the evacuation of an entire facility?

10

A (Witness Harris) Yes, I remember that line of

11

questioning.

12

Q Do you recall your response that you felt that

13

such an estimate would be difficult to make because of

14

a whole series of factors that you enumerated?

15

A Yes, to give a numeric response would require

16

knowing all sorts of data of circumstances before I can do

17

so.

18

Q In your opinion, does the LILCO plan or any

19

materials you have seen related to the LILCO plan take

20

those factors into account?

21

A No, they do not. And, as our testimony goes

22

on to say in many places, that that's one of the concerns

23

that we have about it, that it seems to underestimate the

24

detail necessary to work out time tables and other related

25

planning procedures.

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1 Q Do you recall a similar line of questioning
2 by Ms. McCleskey regarding how much time it would take
3 to load patients into a vehicle?

4 A I'm a little hazy. Dr. Mayer, do you remember?
5 (Witness Mayer) I think that question was
6 asked.

7 Q Well, just to make it clear, do you recall
8 questions by Ms. McCleskey regarding whether or not you
9 had attempted to develop an estimate for the amount of time
10 it would take to load patients into vehicles?

11 A (Witness Harris) Now I remember it.

12 Q Okay. And do you recall your response, Dr.
13 Harris, that such an estimate would depend on a number of
14 factors, including the type of patients, the amount of
15 staff, et cetera?

16 A Yes, I do now. Yes.

17 Q And, to the best of your knowledge, does the
18 LILCO plan, or do any associated documents, take into
19 account those factors that you enumerated?

20 A Not adequately. Not adequately.

21 Q Dr. Mayer, do you recall some questions from
22 Ms. McCleskey and Mr. Zahnleuter regarding which facilities
23 in the EPZ are air conditioned?

24 A (Witness Mayer) Yes.

25 Q For those facilities that are not air conditioned,

20-4-SueT

1 how is it that they stay cool, or what measures are taken
2 to keep them as cool as possible in the summer?

3 A Well, I can best speak for our own facility,
4 the one we have responsibility for, which is the Infirmary
5 which is only partially air conditioned. In that situation,
6 they make every effort to increase air circulation.

7 They open the windows, they provide fans. They
8 dress the patients in lightweight clothing so that you
9 can increase the amount of air circulation around the
10 patient. They place the patients in areas where the best
11 circulation is found. They provide them with fluids and
12 cooling foods and fluids and compresses if they need them.

13 And they make every effort to keep the patients
14 as cool as possible. It may involve extra attention to
15 the patient with extra staff to do that.

16 Q And, to your knowledge, would that option of
17 keeping the windows open be available during a radiological
18 emergency where sheltering was called for?

19 A It is my understanding that under sheltering
20 the windows are to be closed, shades are to be drawn, and
21 all outside air -- any method by which outside air could
22 come into the building is to be blocked, either by the air
23 conditioning ducts or through any other holes or other
24 vents in the building.

25 The patients are to be moved to areas in the

#20-5-SueT

1 building, internal areas of the building, and air circula-
2 tion is obviously minimized in that area in that situation.

3 That's the whole idea, is to minimize the amount
4 of outside air coming into the facility.

5 Q Dr. Harris, do you recall some questions regarding
6 an evacuation of patients from part of the Mt. Sinai
7 Hospital?

8 A (Witness Harris) Yes, I do.

9 Q Just -- I just want to make clear -- I just want
10 to make sure the record is clear on what your response was.

11 Is it true that the patients that were evacuated
12 were only taken from one corridor to another?

13 A They were just removed from the unit for a
14 short period of time, because what was thought to be a
15 real big fire didn't turn out to be that. So that they
16 were moved for a period of time into -- taken off the
17 unit and then put back. They didn't go very far.

18 Q They were not taken outside the building,
19 correct?

20 A No, they were not. I don't even believe they
21 left -- by the time the thing was over, I don't believe
22 they left the floor. I could be wrong about that. But
23 they did not leave the building.

24 MR. MC MURRAY: Judge Laurenson, I have no
25 further questions.

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JUDGE LAURENSEN: Any other questions for

this panel?

MS. MC CLESKEY: I have a couple of questions,
Judge Laurenson.

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RE-CROSS EXAMINATION

BY MS. MC CLESKEY:

Q Gentlemen, and I don't remember which one of
you responded, but -- and I apologize for that, but Mr.
Zahnleuter asked a question that elicited the response
that you can't ship people into a void, that you have to
have some place to send them, is it your understanding
that the LILCO plan asks facilities to ship people into
a void?

A (Witness Harris) I'm the one that is
responsible for such purple response. I did say that.
And at the time it was, I think, a very appropriate
response to the question.

Now you are asking me another question, do I
think the LILCO people are shipping people into a void.
No, I don't believe it's a void. But they do rely in
an evacuation on individual and independent action on
the part of the hospitals. As I recall the testimony
given by some of the LILCO witnesses, there seemed to be
on their part some degree of assurance that a hospital,
a director would merely pick up the telephone and be able

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1 to make arrangements ad hoc. My concern is that they
2 could not do it, and if they couldn't do it there would
3 be no way for them to ship the patients out and then the
4 doctors, the nurses, the administrators would not want the
5 patients to go unless they were sure that there would be
6 a receiving facility on the end.

7 Q All right. Now, does your answer about getting
8 on the phone ad hoc go to hospitals and nursing homes or
9 just to hospitals?

10 A Well, I think I made it in respect of hospitals
11 just now.

12 Q All right. Is it your understanding that
13 special facility relocation centers will be established at
14 the time of an accident for nursing homes under the LILCO
15 plan?

16 A Special facility relocation centers? I believe
17 that may be the goal but I don't believe I have seen any-
18 thing that assures that that would happen, that there are
19 specific places to go to.

20 Q All right. I believe it was Dr. Mayer who
21 responded to Mr. Zahnleuter's questions about lining up
22 patients in the hospital. What you are talking about is
23 a plan for staging areas and moving out people in a planned,
24 staged manner; isn't that right?

25 A (Witness Mayer) What you are saying is you are

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1 moving the patients from where they are ordinarily kept,
2 [redacted] lly in their beds, you know, in rooms into the
3 [redacted] or into the lobby near the doors where they
4 [redacted] them out. I don't believe they would crowd the
5 entire -- you know, take the entire population of nursing
6 home out of their rooms at the same time and line them all
7 up in these various staging areas. I don't think they
8 would want to do that. It would complicate the way they
9 handle the patients.

10 Q And is it your understanding that that is what
11 the LILCO plan asks these special facilities to do?

12 A I am not clear that the LILCO plan goes into
13 that --

14 (Witness Harris) Since this is a co-sponsored
15 testimony, it's my understanding that the LILCO plan
16 assumes such split second -- well, maybe I shouldn't use
17 the word "split second," that's hyperbole, but such close
18 timing of a transport and it has a very large table showing,
19 you know, in the testimony just where and how this could be
20 done, it presumes or assumes that individuals would be
21 sort of waiting when vehicles came.

22 And our concern was that in an emergency, never
23 having drilled this fully, because I could not imagine how
24 they would, being -- the hospitals I was talking about
25 especially -- being at the end of the receiving line for

#20-9-SueT

1 vehicles, might not -- indeed, I think would not, move
2 their patients to a staging area away from their usual
3 bed and support services because they couldn't be confident
4 that if the vehicles were supposed to be there in five
5 minutes, ten minutes, fifteen minutes, twenty minutes,
6 they would indeed be there. And our concern was that they
7 might hold them back in the beds, and that would throw
8 the time table off.

9 Q Mr. Zahnleuter also had a discussion with you
10 about Article 28 hospitals. Do Article 28 hospitals have
11 an obligation to accept patients sent to them in an
12 emergency?

13 A They have an obligation to accept emergency
14 cases. They also have in real life -- and we've had a
15 problem of this in Suffolk County, and we've even had a
16 problem in the City of New York which has not been satis-
17 factorily solved in either place -- of hospitals saying:
18 I can't take the patient. I will treat and release. Or
19 they will say to the ambulance: I know we are the nearest
20 hospital but don't come to us. We can't take you. We
21 can't take the patient, that is.

22 And this has been done sometimes because of abuse,
23 administrative abuse, administrators say, you know: I have
24 not got room. I haven't got a bed.

25 And this has concerned a number of people in the

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1 emergency medical services field and public health
2 administrators like myself, because a misuse of that,
3 even though they are supposed to take the patient could
4 mean that an individual would have to travel to a further
5 hospital without good care enroute and so definitive care
6 would be delayed.

7 Now, it is true, according to law you must take
8 them. There are some times when they feel they cannot,
9 and there may be some times when they really cannot take
10 them.

11 Q Well, are you saying that on Long Island that
12 hospitals have refused to take patients in an emergency?

13 A (Witness Mayer) Yes.

14 MR. ZAHNLEUTER: Objection. I think that this
15 is going beyond the scope of my cross examination. I
16 only referred to Article 28 in the definitional sense of
17 what a hospital and a nursing home is. Now we are asking
18 for the ramifications -- to what end I don't know, but
19 I think we are in much more detail than my cross examination
20 of that point.

21 JUDGE LAURENSEN: I think she is just following
22 up on the last answer by Dr. Harris.

23 The objection is overruled.

24 BY MS. MC CLESKEY: (Continuing)

25 Q Now, Dr. Mayer, I saw that you said yes to my

#20-11-SueT 1

2 question. Could you please list the emergencies for me
3 where hospitals refuse patients?

4 A (Witness Mayer) I cannot at the moment. I
5 could if I went back to my office and discussed with my
6 emergency medical services people that I know of, of
7 incidences where hospitals have refused the acceptance of
8 patients. I can't at the moment give you that list off-
9 hand. I know it has occurred. It has occurred several
10 times in Suffolk County.

11 Q Excuse me. I'm not asking for incidents where --
12 isolated incidents where a hospital has refused a patient.
13 I'm asking for hospitals refusing to accept injured people
14 as the result of an emergency, a large scale emergency.

15 A (Witness Harris) By the addition of the word
16 "large scale" you have changed the context of that
17 question.

18 Q Well --

19 A Large scale -- no, Ms. McCleskey, there has not
20 been -- when I discussed this problem of saying that
21 treat and release, what we had there were individuals
22 coming in ambulances from their homes or from the road-
23 side. They may be potential or actual patients with coronary
24 attacks, they may have been injured by some traumatic in-
25 jury. They would start out for the hospital and the
hospital would let the ambulance people know that they

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2 couldn't take them. They could look at them quickly
3 but they had to go on to another facility which would
4 prolong the amount of time in transient. That was a
5 real problem. It was reported in the local newspapers
6 as a matter of fact. Newsday carried some of the problems,
7 I recall.

8 And the Emergency Medical Services Council of
9 Nassau and Suffolk actually had to meet with the Nassau/
10 Suffolk Hospital Council to work out ways to minimize that.

11 Q What ways did they work out?

12 A They worked out a number of ways in which no
13 hospital -- for example, first step is that no one but the
14 director of a hospital could put a hospital on a treat and
15 release status. That was to avoid the possibility of junior
16 members of administration doing so when it indeed was not
17 a real problem.

18 And the hospitals were very cooperative, I might
19 add. Another safeguard was that if a hospital would be
20 on some sort of a temporary status where they could not
21 receive patients, they would let the central dispatching
22 know that so that rather than make a run toward a hospital
23 that was having a real problem they wouldn't even start out
24 toward that hospital.

25 Now, the kind of circumstances we meant that
would overload a hospital would be, for example, if a fire

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broke out in a general hospital's emergency room and they were busy fighting that fire at the time that could be a valid reason why a hospital might not be able, on a temporary basis, until the fire was controlled to really receive emergency patients. Or if there were a flood or some burst pipe or something that would make the emergency room area or large parts of the hospital incapable on a temporary basis, Did it help? It helped some. But I understand that there are still problems.

Q Does Suffolk County intend to continue to work to solve those problems?

A We continually work to solve those problems.

Q There are eight thousand -- about eight thousand beds in hospitals in Suffolk and Nassau County, aren't there?

A A quick calculation. That's close. I mean, I don't have it exactly but that's in the right magnitude of order. I would have to look at a source book.

(Witness Mayer) Does that include the mental institutions, too?

(Witness Harris) No, you are talking about acute general hospitals.

1 Q I was saying hospitals as non-mental health
2 hospitals, using hospitals in the normal way that we have
3 been using it.

4 A That number -- I don't know a number off hand,
5 but it seems in the right magnitude.

6 Q Eight thousand sounds about right?

7 A Seems in that magnitude.

8 MS. McCLESKEY: That is all the questions I have,
9 Judge Laurenson.

10 JUDGE LAURENSEN: Anything else?

11 MR. McMURRAY: No further questions, Judge
12 Laurenson.

13 JUDGE LAURENSEN: All right. Thank you, Dr.
14 Mayer, Dr. Harris. You are excused.

15 (Panel stands aside.)

16 JUDGE LAURENSEN: This completes the scheduled
17 testimony on Cluster 12. Is there any rebuttal testimony?

18 MS. McCLESKEY: Yes, sir. LILCO would like to
19 offer rebuttal testimony on the issue of the registration
20 of the handicapped through mail cards, and we would also
21 like to offer rebuttal testimony on the special facilities
22 testimony. As to the mail card testimony, we would like to
23 offer Dr. Dennis Mileti and Ms. Carole Clawson to very
24 briefly rebut the statements that Dr. Saegert made during
25 cross examination regarding response rates of mail back

1 inquiries.

2 As to the special facilities testimony, we would
3 like to offer Mr. Yedvab and Ms. Robinson to offer into
4 rebuttal the emergency plans that have been marked LILCO
5 EP-38 through 47.

6 MR. MILLER : Judge Laurenson, we would like
7 to respond. I think we need to respond in the two different
8 contexts of the two different things LILCO is trying to do
9 here.

10 Looking first at the proposal to present rebuttal
11 testimony on Contention 73.A, there are three problems with
12 the proposal. There are three very specific, very important
13 problems. Number one, Dr. Miletic was not on the LILCO
14 Panel for Contention 73.A. It would clearly improper
15 to bring in a witness who was not on the original panel
16 and try to present him at this time, after the Contention
17 has been closed, to testify on things allegedly said by
18 witnesses for the County.

19 Ms. Clawson, I understand, was on LILCO's Panel,
20 so as to her we would not have that objection.

21 JUDGE LAURENSON: Excuse me. We allowed you to
22 do that with Dr. Tyree, didn't we, on the first time we had
23 the question of rebuttal testimony?

24 MR. MILLER: I am not really sure.

25 JUDGE LAURENSON: I don't think that is the test

1 we have ever used that you have to be on that panel in order
2 to present rebuttal testimony.

3 MR. MILLER: Judge Laurenson, I am informed in
4 that instance the County filed supplemental testimony. It
5 was not rebuttal testimony by the County. I maintain that
6 it would be improper to put a witness that was not on the
7 original panel to present rebuttal testimony.

8 MR. CHRISTMAN: I am certain the title of that
9 was rebuttal, because we called our surrebuttal.

10 JUDGE LAURENSON: I recall it as rebuttal also,
11 but go on.

12 MR. MILLER: I am speaking without knowledge then,
13 but that is my understanding.

14 The second point, Judge Laurenson, and the most
15 important point, is that the prime witness for the County
16 in this regard would be Ms. Saegert, as we have heard reference
17 by Ms. McCleskey. Ms. Saegert is not here either to advise
18 counsel or to listen to the proposed rebuttal testimony.

19 Thus, the County would clearly be prejudiced
20 unfairly by the presentation of rebuttal testimony at this
21 time.

22 Third, Judge Laurenson, we had this discussion
23 I believe off the record a little earlier, it is the County's
24 understanding that the practice in the past has been to present
25 rebuttal testimony at the end of the Contention. This has

1 had the obvious benefit of not having to keep witnesses
2 around and available after a Contention has closed, when
3 a cluster is followed by other contentions. To my understanding
4 and knowledge, the two instances where rebuttal testimony
5 has been presented, Contention 66 and Contention 67, in both
6 cases, the rebuttal testimony was presented at the end of the
7 Contention, not at the end of the cluster.

8 Therefore, there has been an established practice
9 as to how these matters have been handled. The County does
10 not have its witness available here today to listen to or
11 to advise counsel as to the proposed rebuttal testimony,
12 and we would be prejudiced by its presentation.

13 JUDGE LAURENSEN: Does that go to both offers
14 that LILCO made, or do you not want to address the other one?

15 MR. MILLER: I am sorry, Judge Laurenson. As
16 to the second proposal, regarding rebuttal testimony on
17 the Contention just completed, we would not have these
18 same objections as to that proposal.

19 JUDGE LAURENSEN: Does anyone else wish to be
20 heard on this?

21 MR. ZAHNLEUTER: Yes, I would like to be heard.
22 In addition to what the County has just said, I would
23 maintain that one of the basis that must be shown before
24 rebuttal testimony is offered is that there is good cause.
25 All LILCO has done at this point, all that LILCO has done

1 to this point has been to identify who the potential witnesses
2 will be, and to identify the subject matter that they will
3 present testimony on.

4 We have no reason or justification for hearing
5 any of that up to this point.

6 Also, there was a time in this proceeding when
7 the State sought to present rebuttal testimony. It consisted
8 of the maps and the photo logs about traffic testimony. That
9 testimony was not admitted for several reasons, among them,
10 as I recall, were claims of surprise by LILCO and tardiness.

11 I think that both of those reasons are applicable
12 in this case, since no one -- I should not say that -- since
13 the State was not provided with any of these documents except
14 for at the lunch time break, and there clearly is surprise
15 to every single one of those hospital plans that are LILCO's
16 exhibits.

17 MR. MILLER: Judge Laurenson, I am sorry to
18 interrupt the order of the proceeding. When I said that
19 I did not have the same objections to the second proposal,
20 there is the basic objection, which I guess we argued in
21 a sense earlier, that is, that what LILCO is trying to do
22 here is to supplement its testimony, not to file rebuttal
23 testimony.

24 There is nothing in the testimony of Dr. Harris
25 or Mayer to rebut in the sense that has been proffered by

1 Ms. McCleskey. What she is trying to do is to supplement the
2 LILCO testimony, and to put in some kind of evidence, I
3 suppose, regarding LILCO's proposed efforts to plan with the
4 hospitals. There is nothing to rebut. This would be
5 supplemental testimony, and I can say with assurance that
6 if these witnesses take the stand and try to talk about this
7 two inch pile of documents, some of which we have seen for
8 the first time today, we will be here for a long time.

9 As Mr. Zahnleuter just pointed out, we haven't
10 even seen some of these documents before. At least I haven't,
11 and I don't believe Mr. McMurray has, and therefore, we would
12 need time to study the documents. This is supplemental
13 testimony, or it should be offered by LILCO as supplemental
14 testimony, not as rebuttal testimony.

15 Also, I would point out that LILCO could have
16 amended its testimony, and they didn't in part because some
17 of these documents, as Mr. Zahnleuter pointed out, are under
18 cover letter dated as late as yesterday.

19 JUDGE LAURENSEN: Does the Staff have a position
20 on this?

21 MR. BORDENICK: We have no objection to the
22 Applicant's request. With respect to the situation where
23 -- involving Dr. Miletic, I think the solution is simply
24 to defer that until such time as the County can arrange
25 to have Dr. Saegert here. And on the question of whether or

1 not rebuttal should be offered or propped at the end of
2 the given contention, or at the end of the cluster, frankly,
3 I just don't have any recollection of what the Board has
4 done in that regard in the past, so I can't speak to that
5 particular matter, except to say that both parties --
6 probably all the parties -- have acquiesced in switching
7 around contentions.

8 We have taken one party's testimony on a
9 contention at one point, and another party's contention
10 at a later point. In my mind, it has been very confusing.

11 This week, for example we have been in more
12 than one cluster. So, I think that unless the Board has
13 previously addressed this matter, which frankly I have no
14 recollection of, LILCO ought to be given the benefit of the
15 doubt, at least at this particular juncture.

16 JUDGE LAURENSEN: Anything else from LILCO
17 on this?

18 (NOTE: No response.)

19 (Judges retire to chambers)

20 JUDGE LAURENSEN: We have considered the
21 request of LILCO to present rebuttal testimony at this time,
22 and the objections of the County and New York. And we have
23 never been called upon before to specifically define the
24 limits as to when the rebuttal testimony is properly offered,
25 insofar as to whether it should be offered after the particular

1 contention is concluded, or whether we are not into a cluster
2 situation.

3 But the general rule has been, or the understanding
4 was, that it would be cluster by cluster, but again, as Mr.
5 Bordenick said, we are very much out of order this week and
6 we have jumped around all over.

7 On the other hand, the purpose of the requirement
8 that rebuttal testimony be offered at the close of the
9 contention was so that the witnesses would be available,
10 both insofar as their assistance to counsel on cross
11 examination, and the possibility that they may offer
12 additional surrebuttal testimony.

13 On the other hand, we had a scheduling problem
14 yesterday that required us to complete the testimony of
15 Professor Saegert and her panel some time after six o'clock
16 p. m., so it would have been difficult I think at that time
17 to take additional testimony.

18 The upshot of all of this is, what we have
19 decided to do is to grant LILCO's request, but to postpone
20 the taking of this testimony until next Tuesday after the
21 testimony of the New York State witness, Charles Failla,
22 which has been specially scheduled for first thing in the
23 morning. This will give the parties the opportunity to
24 examine the documents in particular, because insofar as
25 these exhibits are offered by LILCO, it is certainly a very

1 fine line between what is rebuttal and what is supplemental
2 testimony.

3 But I don't think we should be putting the form
4 above substance here, and -- so the purpose of it is to give
5 people an opportunity to examine this, and to prepare whatever
6 cross examination that they have. If they do need additional
7 information before next Tuesday, they should ask for that
8 before we finish today.

9 So, in order that the record is hopefully clear
10 on this, we will grant LILCO's request to present the
11 two areas of rebuttal testimony outlined by Ms. McCleskey.
12 However, we will postpone that testimony until next Tuesday
13 after the testimony of the New York State witness.

14 MR. MILLER: Judge Laurenson, could I make
15 a couple of statements. First of all, I would like a
16 clarification. Has the Board decided, then, that LILCO,
17 based upon Ms. McCleskey's arguments, has demonstrated good
18 cause for offering these two pieces of rebuttal testimony?

19 JUDGE LAURENSEN: As I said, there is a question,
20 frankly, in our minds concerning whether or not this truly
21 is rebuttal testimony insofar as the documents are concerned.
22 That is the second part of her request.

23 On the other hand, whether we call it supplemental
24 testimony or rebuttal testimony, I don't think really makes
25 that much difference, since the documents have now been marked,

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1 have been identified, and unless there is some reason why
2 the County and State would not be prepared next Tuesday
3 to address and cross examine witnesses who would presumably
4 be sponsoring those documents, I don't see the reason why
5 we should go through the formality of requiring additional
6 testimony filed.

7 Perhaps there is some argument that I am overlooking
8 here.

9 MR. MILLER: I have another comment, but let
10 me just follow up on your statement. Whether it would
11 be characterized as rebuttal or supplemental testimony,
12 it would be my understanding that good cause has to be
13 demonstrated, and I would still like to know if the Board
14 has decided that LILCO has demonstrated good cause based
15 upon the arguments made by Ms. McCleskey for submitting
16 these two pieces of rebuttal and/or supplemental testimony.

17 JUDGE LAURENSEN: The point is that the
18 documents themselves seem to establish facts different than
19 what was in the testimony of Dr. Harris and Dr. Mayer, and
20 to that extent it could be construed as being rebuttal
21 testimony.

22 On the other hand, I am also aware of the fact
23 that many of these may not be -- may not fall under that
24 precise category.

25 nd 21.
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1 But rather than divide it up and prolong this
2 matter, I thought that -- the Board felt that this was
3 the best way to proceed with it, to address this evidence.

4 In the past we have allowed people to come into
5 this courtroom and notarize documents in the back and
6 walk up and hand them to the parties and we will accept
7 them. So I don't think that this is totally unprecedented
8 procedure, and especially considering the fact that we
9 are going to allow several days before you have to
10 cross-examine on those documents.

11 MR. MILLER: It is my understanding that the
12 practice in the past of coming into the courtroom and
13 notarizing documents a giving them to the Board was
14 instituted by LILCO over the county's objection. But in
15 any event, I still think you do need to demonstrate the
16 good cause before either supplemental or rebuttal
17 testimony is permitted to be given to the Board in the
18 oral fashion which we have now accepted in these proceedings.

19 And I am just wondering if the Board has
20 decided that the good cause standard has been met based
21 upon the argumen+s presented by counsel for LILCO today.

22 MR. ZAHNLEUTER: May I make a statement, since
23 it was I who raised the good cause argument.

24 I had not presented that argument so much in
25 terms of the timeliness, the procedure, when the panel

1 should be put up. I was concerned about the substantive
2 nature of the showing of good cause. And it is that
3 substance that I believe is lacking in LILCO's
4 argument. And it is because it was lacking that I could
5 not respond substantively.

6 So on that basis, I would ask the Board to
7 reconsider their determination that there has been good
8 cause shown because I don't believe there has been good
9 cause shown.

10 There has merely been a showing that the
11 witnesses are so and so and that they will present
12 testimony on such a subject. We do not know what it is
13 that they intend to rebut, nor do we know why it is that
14 there is a need to rebut some testimony.

15 It is those substantive things that I was
16 referring to when I spoke of good cause.

17 JUDGE LAURENSEN: I had assumed that we were
18 going to be hearing testimony this afternoon and, therefore,
19 it wasn't necessary to duplicate the testimony. But I
20 think in light of the fact that we have decided to
21 postpone it until next Tuesday, we should have a more
22 detailed showing by LILCO as to the specific testimony
23 that will be offered.

24 MS. MC CLESKEY: Judge Laurenson, as to both
25 issues or just the special facilities issue?

1 JUDGE LAURENSEN: I think it should be as to
2 both now.

3 MS. MC CLESKEY: As to the mailcard issue,
4 LILCO's witnesses will show that, contrary to Dr. Saegert's
5 statement at the transcript on 9720 and 9657 that, quote,
6 all forms of mailback inquiries have a low response rate,
7 unquote, that the consideration of a particular mailback
8 inquiry in the context of the information that is sent
9 out with it explaining what the purpose of the inquiry
10 is and what the person may or may not gain from sending
11 the card back will greatly affect the response rate and,
12 in addition, that in this particular case, where LILCO
13 is asking people to identify themselves so that they can
14 be given help and aid and can perhaps save themselves from
15 being hurt, that the response rate could be expected to be
16 much better than of an opinion poll where people are being
17 asked about breakfast cereal and their preferences and
18 that sort of thing.

19 That is the testimony that Dr. Miletic and
20 Ms. Clawson will be offering, I suppose, on Tuesday.

21 As to the special facilities question,
22 Drs. Harris and Mayer filed testimony based on contacts
23 apparently that they made in February and that they
24 did not update, asking about staffing for relocation
25 centers, what relocation centers have been identified for

1 special facilities, planning for special facilities,
2 the areas where special facilities may be sheltered within
3 a particular facility, that kinds of detailed plans that
4 may or may not have been developed regarding how to
5 move people, when they will be moved, who will tell them to
6 move, who will decide to move them.

7 There are a lot of inaccuracies, basically, in
8 Dr. Harris and Dr. Mayer's testimony that have not been
9 specifically addressed in the record.

10 There is also an insistence throughout, and
11 that insistence was not changed on the stand today, that
12 no plans for the special facilities exist. And LILCO
13 intends to offer LILCO EP38 through 47 to rebut in detail
14 the assertions that the kind of planning that Drs. Harris
15 and Mayer described in their testimony and said was
16 lacking is actually there.

17 JUDGE LAURENSEN: Does the state or county
18 wish to respond to that offer?

19 MR. MILLER: Yes, Judge Laurenson. Based on
20 what arguments were just made, in the county's opinion,
21 there is an insufficient showing of the good cause necessary.

22 Looking first at what has been called the
23 "mailcard" issue, what I hear from counsel for LILCO is that
24 if Dr. Mileti and Ms. Clawson are allowed to testify and
25 offer this rebuttal testimony, they will show that a response

1 rate could be greater than testified yesterday by
2 Ms. Saegert.

3 There is no indication in what Ms. McCleskey
4 says that what Ms. Saegert said on the stand will be
5 rebutted. Ms. Saegert made it very clear in her testimony
6 that she was giving her approximation and there is no
7 indication, based on arguments by counsel for LILCO,
8 that they have or disagree with what Ms. Saegert said,
9 it is just that they think maybe her estimate was a little
10 too low. That is inadequate grounds for the submittal
11 of rebuttal or supplemental testimony.

12 With respect to the hospital/special facility
13 issue, two points. Ms. McCleskey's characterization
14 of the testimony of Dr. Harris and Dr. Mayer as being
15 full of inaccuracies is a very, very unfortunate
16 mischaracterization, I think. There is no reason at all
17 to allow in any rebuttal or supplemental testimony based
18 upon arguments made by counsel.

19 It has been stated many times today, this
20 afternoon, that the papers or documents that were marked
21 for exhibits 38 to 47 by counsel for LILCO are nothing
22 more than LILCO's proposals to hospitals and other special
23 facilities.

24 There is no indication that these proposals
25 have become the plans of any special facilities.

1 Ms. McCleskey cannot and did not represent that these
2 documents have now become the plans of anyone other than
3 LILCO, and that in LILCO's own mind.

4 That being the case, there certainly have been
5 no -- there is no necessity to change the testimony which
6 has been offered by the county, and there are no
7 inaccuracies in that testimony.

8 The testimony was accurate when it was written;
9 the testimony seems to be accurate today.

10 MR. ZAHNLEUTER: I would just like to add
11 one more comment. That is that the proposed reason for
12 having rebuttal testimony on LILCO Exhibits 38 through 47
13 is to show that there are plans in existence for special
14 facilities, and I note that for the same reason that these
15 exhibits were not admitted into evidence, these exhibits
16 are just letters, one-way letters from LILCO to a facility.

17 And some of them, especially the ones that
18 were dated, for example, May 29, may not have even been
19 received by the facility yet.

20 MS. MC CLESKEY: I am sorry, but I find it
21 necessary to respond to the remarks that have been made.

22 As to the mailback survey, Dr. Saegert specifically
23 stated that all forms of mailback inquiries have low
24 response rates, and it is the "all forms of mailback
25 inquiries" that we are going to be talking about, not what

1 level of response rate is low and which is a low response
2 rate. And I don't understand Mr. Miller's comments in
3 terms of rebuttal for that. And I ask that the Board's
4 ruling that rebuttal testimony go forward for LILCO on
5 the mailcard issue stand.

6 As to the special facilities testimony --
7 well, let me just say that I will represent and I am
8 representing now that the plans, the draft plans that
9 are EP38 through 47 are not one-way letters mailed to these
10 facilities and that the testimony of Ms. Robinson and
11 Mr. Yedvab and Mr. Glaser, if we can get him here, will
12 show that these plans are being developed and are in the
13 process of being accepted and trained on and drilled and
14 implemented by the facilities themselves. They are being
15 revised in response to facility comments, and they are not
16 mere proposals.

17 As to the suggestion that there is nothing
18 inaccurate in the testimony of Drs. Mayer and Harris, I
19 would like to go through and make a further proffer of some
20 of the specific items that can be directly rebutted by
21 reading, looking at, and talking about LILCO EP38 through 47.

22 The first is that the Sunrest Nursing and
23 Health Related Facility cannot fit more than 20 of its
24 patients in the area that has been designated by LILCO
25 for sheltering patients.

1 The second is that the Sunrest Nursing Facility
2 is to shelter patients in the boiler room.

3 The third is that Central Suffolk Hospital does
4 not have and is not going to obtain portable oxygen or
5 suction equipment.

6 The fourth is that windows and vents at the
7 Riverhead Home cannot be sealed.

8 The fifth is that there is no plan for
9 reinforcing the staffs of special facilities.

10 The sixth is that patients' records and
11 medication have not been planned for to be collected and
12 brought for use at reception centers.

13 The seventh is that the individual plans don't
14 take into account any kind of staging problems, of loading
15 patients onto ambulances and ambulettes and that there
16 is no indication that special equipment and the order in
17 which patients should be evacuated has been considered at
18 all, according to LILCO plans.

19 And I believe there are others. I do not
20 want to represent that that is a complete list. But I do
21 think that the county is doing a disservice to the record
22 and to this proceeding by presenting witnesses who have
23 not looked beyond February phone calls, made representations
24 in their testimony, swore to that testimony today as being
25 true and correct, and then objects when LILCO says that they

1 will bring forward additional facts which will clear up
2 the record on the issues that have been raised.

3 MR. MILLER: Excuse me, Judge Laurenson. I
4 must respond now.

5 I think it is a disservice to this proceeding
6 that Ms. McCleskey feels compelled to make these kinds
7 of arguments. It is inappropriate. It is improper.

8 The county's testimony was accurate when it
9 was written. And as I said earlier, it would appear now
10 more than ever to remain accurate.

11 I asked for a representation as to whether
12 we have in proposed Exhibits 38 to 47 plans that have
13 been adopted or endorsed by the special facilities.
14 We do not, as Ms. McCleskey has just stated.

15 What we have are LILCO's proposals to these
16 facilities. She says they are not one-way letters. I
17 don't care if they are two-way or three-way letters.
18 They are not plans adopted by the facilities. Therefore,
19 the testimony is accurate as it was written.

20 As to my arguments regarding Professor Saegert
21 and the mailback card, I would appreciate the Board's
22 indulgence to let Mr. McMurray respond substantively. It
23 was not my issue, and I think he very quickly can add
24 something to the argument.

25 JUDGE LAURENSON: I think we have heard enough

1 argument. The Board finds that LILCO has established
2 good cause on both counts for the submission of rebuttal
3 testimony that will go forward next Tuesday, as we have
4 indicated.

5 The schedule next Tuesday will be that
6 beginning at around 10:00 o'clock, the New York State
7 witness, Charles V. Failla, will testify, followed by
8 the LILCO rebuttal testimony. And we can either begin
9 contention 18 right now, or we can hold that over until
10 next Tuesday after the rebuttal testimony.

11 MR. MILLER: I don't want to push the issue.
12 I do have one other problem with your schedule for Tuesday.
13 As far as I can ascertain, neither Dr. Harris nor Dr. Mayer
14 is available next Tuesday with respect to these second --
15 I guess this is the hospital proffer of rebuttal testimony.

16 JUDGE LAURENSEN: We just can only do so much
17 in terms of scheduling. We have bent the schedule backwards
18 and forwards. Unless you want to go forward now. We
19 can go forward now then.

20 New York State complains they haven't had a
21 chance to see the exhibit, so that is the reason we put it
22 over until Tuesday. Since Dr. Harris and Dr. Mayer are
23 here now and presumably the rebuttal witnesses are here,
24 do you want to go forward now?

25 MR. MILLER: We haven't had a chance to review

1 the documents either.

2 JUDGE LAURENSEN: But we can't continue to
3 keep rescheduling in this fashion.

4 MR. MILLER: As long as the Board understands
5 our problem, I guess what we would do is go forward
6 on Tuesday, if that is what the Board is going to order,
7 and reserve our rights to present surrebuttal testimony
8 at some time when we have to do that, depending on what
9 comes out next Tuesday.

10 MS. MC CLESKEY: Judge Laurenson, if it is
11 all right with the Board, LILCO would be willing to
12 engage in limited short discussions to attempt to find
13 a better scheduling date with two caveats: One, that
14 a decision will be reached Tuesday morning about when these
15 people will come on and give rebuttal testimony and, two,
16 that it will be sometime next week.

17 JUDGE LAURENSEN: Let's go off the record then
18 and why don't you talk to each other and see if you can
19 work out something.

END 22

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(5:50 p.m.)

1 JUDGE LAURENSEN: Let's go back on the record.
2 As I understand, the parties have conferred concerning the
3 schedule for next week, and perhaps Mr. Miller wants to
4 state the agreement of the parties?

5 MR. MILLER: I will try. It is the agreement
6 of the parties as of now that we will start Tuesday at
7 10:00 a.m., with Contention 24.F (2). We would then go
8 on to Contention 18, at 3:00, subject to a confirming
9 phone call by Dr. Harris as to his availability. LILCO
10 would put up its proposed rebuttal testimony regarding
11 special facilities. Following that rebuttal testimony
12 and cross examination of that, LILCO would put up its
13 proposed rebuttal testimony on the mail back survey
14 testified to by Professor Saegert.

15 If we do not finish -- or even get to the
16 rebuttal testimony regarding Professor Saegert on Tuesday,
17 we would then pick that up first thing Wednesday.

18 JUDGE LAURENSEN: And thereafter we would go
19 back to the regular schedule, which would pick up Cluster
20 15, which is credibility, and then conflict of interest,
21 is that correct?

22 MR. MILLER: Yes, sir.

23 JUDGE LAURENSEN: All right. Are all parties
24 in agreement with this schedule?

25 MS. McCLESKEY: Yes, sir, but I have one

1 clarifying question. If Dr. Harris' phone call, which I
2 understand can't be made until Monday, elicits information
3 such that three p.m., on Tuesday is not acceptable, are
4 we scheduling for later that week?

5 MR. MILLER: We will have to work that out.
6 If Dr. Harris is not available Tuesday at 3:00 p.m., I
7 would propose that we would just go ahead then with the
8 LILCO rebuttal testimony concerning Professor Saegert's
9 testimony, and we would have to work out some time during
10 the week for the hospital testimony.

11 MS. McCLESKEY: Okay, that is fine.

12 JUDGE LAURENSEN: There is one other item of
13 business that Mr. Zahnleuter raised. Perhaps you want
14 to put it on the record?

15 MR. ZAHNLEUTER: I would like to request that
16 I be permitted to submit the cross examination plan for
17 the State on Wednesday of next week for the reasons that
18 the testimony consists of hundreds of pages, and that I
19 have to submit cross-plans for both the County and LILCO's
20 testimony, and it appears the training won't be at issue
21 for at least until the end part of that week.

22 JUDGE LAURENSEN: You are requesting this
23 continuance solely for the purpose of the training testimony,
24 is that correct?

25 MR. ZAHNLEUTER: Yes. On Tuesday I will comply

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with the Order that you have issued before.

JUDGE LAURENSEN: Is there any objection to this request?

MS. McCLESKEY: LILCO has no objection.

JUDGE LAURENSEN: Request is granted. Anything else before we adjourn for the weekend.

We will reconvene at approximately ten o'clock on Tuesday.

(Whereupon, the hearing recessed at 5:58 p.m., to reconvene at 10:00 a.m., Tuesday, June 5, 1984.)

* * * * *

CERTIFICATE OF PROCEEDINGS

This is to certify that the attached proceedings before the
NRC COMMISSION

In the matter of: LONG ISLAND LIGHTING COMPANY

Date of Proceeding: Friday, June 1, 1984

Place of Proceeding: Hauppauge, New York

were held as herein appears, and that this is the original
transcript for the file of the Commission.

Rebecca Eyster

Official Reporter - Typed

Rebecca Eyster

Official Reporter - Signature

Myrtle Traylor

Official Reporter - Typed

Myrtle Traylor

Official Reporter - Signature

Garrett Walsh

Official Reporter - Typed

Garrett J. Walsh, Jr.

Official Reporter - Signature