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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of:

LONG ISLAND LIGHTING COMPANY

Location: Bethesda, Maryland

Pages: 2,969 - 3,114

Date: August 16, 1984

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION  
3 BEFORE THE ATOMIC SAFETY & LICENSING BOARD  
4

5 4350 East West Highway  
6 Bethesda, Maryland

7 Thursday, August 16, 1984

8 Hearing in the above-entitled matter  
9 reconvened at 9:40 a.m., pursuant to adjournment.

10 BEFORE:

11 JUDGE MARSHALL E. MILLER

12 JUDGE ELIZABETH B. JOHNSON

13 JUDGE GLEN O. BRIGHT

14 APPEARANCES:

15 On behalf of LILCO

16 ROBERT M. ROLFE  
17 ANTHONY F. EARLEY, JR.

18 On behalf of Office of Executive Legal  
19 Director

20 ROBERT PERLIS

21 On behalf of the NRC Division of Licensing

22 RALPH CARUSO

23 On behalf of Suffolk County

24 KARLA J. LETSCHE  
25 HERBERT H. BROWN  
Kirkpatrick, Lockhart, Hill, Christopher,  
Phillips Law firm.

On behalf of the State of New York

FABIAN PALAMINO

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P R O C E E D I N G S

1  
2 JUDGE MILLER: This session of our conference  
3 is with the parties and counsel. As you know, the first  
4 portion is to be devoted to the closing arguments of  
5 counsel following the close of the evidentiary hearings  
6 held in Long Island, New York on all issues except the  
7 safeguard security matter I have just alluded to you  
8 which is being handled as a separate discrete matter.

9 I suppose that counsel for the petitioner  
10 will go, wishes to go first?

11 MR. ROLFE: Yes, your honor.

12 JUDGE MILLER: You may proceed.

13 MR. ROLFE: Thank you, your honor. For the  
14 record, my name is Robert M. Rolfe.

15 JUDGE MILLER: I'm sorry. I should have done  
16 that. Let's go around and have counsel identify  
17 themselves and their associates for the record please.  
18 We will start with LILCO.

19 MR. ROLFE: On behalf of LILCO, I am Robert M.  
20 Rolfe, and with me is Anthony F. Earley, Jr.

21 JUDGE MILLER: Staff.

22 MR. PERLIS: My name is Robert Perlis. I am  
23 with the Office of the Executive Legal director. On my  
24 left is Ralph Caruso, with the NRC division of  
25 licensing.

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1 JUDGE MILLER: Suffolk County, and the State  
2 of New York.

3 MS. LETSCHE: On behalf of Suffolk County, I  
4 am Karla J. Letsche from the lawfirm Kirkpatrick,  
5 Lockhart, Hill, Christopher, and Phillips, and with me  
6 is Mr. Herbert H. Brown of the same firm.

7 MR. PALOMINO: Fabian Palomino representing  
8 the State of New York.

9 JUDGE MILLER: Thank you, you may proceed.

10 MR. ROLFE: Judge Miller, with the Board's  
11 permission, Tony Earley and I plan to split the opening  
12 argument.

13 JUDGE MILLER: Okay. What areas, roughly are  
14 you speaking?

15 MR. ROLFE: I am going to do the introduction  
16 and talk about the time necessary to restore AC power.  
17 Mr. Earley will then address the capability of LILCO to  
18 restore power within that timeframe. Then, I will  
19 address the exigent circumstances in the public  
20 interest area.

21 JUDGE MILLER: Do you have any rebuttal?

22 MR. ROLFE: Your honor, we request that  
23 rebuttal be allowed, obviously to the extent that would  
24 depend on the county's argument.

25 JUDGE MILLER: Very well. It will be limited

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1 both in scope and time, very well. Can we go ahead. Do  
2 you wish to split your argument?

3 MS. LETSCHE: No. I will do the entire  
4 argument.

5 JUDGE MILLER: You will be permitted if you  
6 wish.

7 MS. LETSCHE: Judge Miller, maybe just for the  
8 record I should state that on the, before the judges  
9 was an envelope which we left and we had served all of  
10 the other parties with, these are exhibits, copies of  
11 exhibits that were left over that we needed to  
12 supplement. I can state for the record what they are if  
13 you would like.

14 JUDGE MILLER: Alright, we might as well do  
15 that right now then, counsel.

16 MS. LETSCHE: First is the supplementary pages  
17 of Suffolk county LP26, which was the March 31, 1984  
18 form 10Q. The original copy that was submitted as an  
19 exhibit did not have all the appendices, and as we have  
20 indicated we would obtain those for the record. Also  
21 enclosed in the package is a copy of Suffolk County  
22 Exhibit LP60, which was a drawing which we did not have  
23 sufficient copies of during the hearing. In addition,  
24 we have included a copy of Suffolk County LP49,  
25 entitled Emergency Diesel Generator Number 2. That was

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1 a hand written document that we had agreed that we  
2 would get typed so that it was more legible.

3 JUDGE MILLER: Thank you. The record will  
4 reflect the furnishing of the copies.

5 MR. ROLFE: May it please the board, after 9  
6 days of evidentiary hearings in this case, the evidence  
7 shows without contradiction, that the performance of  
8 low power testing as proposed by LILCO would be safe.  
9 There was no contradiction of that fact, no Suffolk  
10 County witness or New York State witness ever address  
11 the safety of operation of the plant in the proposed  
12 configuration by LILCO as an absolute principal. At  
13 most, Suffolk county's case tried to address the safety  
14 standard by saying that the proposed mode of  
15 configuration might not have been as safe as with a  
16 qualified on-site power source.

17 I think that is an important point to keep in  
18 mind as we address the Shoreham rule contained in the  
19 Commission's May 16th order. That is, again, the safety  
20 of operation is uncontradicted. Now, in the May 16  
21 order, the commission required that LILCO address its  
22 basis for stating that at the power levels for which it  
23 seeks authorization to operate, operation would be as  
24 safe under the conditions proposed by it, as operation  
25 would have been with the qualified, on site, ac power

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1 source. The order also requires LILCO to address the  
2 exigent circumstances that favor the granting of an  
3 exemption under 10CFR Section 5012A. The evidence  
4 presented by LILCO, the staff, and that of the county  
5 shows that during phases 1-4 of low power testing,  
6 LILCO's operation will be as safe as at a plant with  
7 qualified on site diesels.

8 Further, given that safety, there are a  
9 number of reasons why the requested exemption should be  
10 granted.

11 The evidence shows that operation of the  
12 plant as proposed by LILCO would be as safe as with a  
13 plant with qualified diesels because the consequences  
14 or effects of operation, with respect to public health  
15 and safety would be the same. LILCO has employed a  
16 deterministic approach. The staff has also employed a  
17 deterministic approach, and it proved that under this  
18 approach operation of the plant will be within the  
19 operational limits established by the NRC's  
20 regulations. I think it is important to keep in mind  
21 that the evidence is that these limits are set  
22 conservatively to begin with.

23 Both the Rao, Eckert, Daive, Kasack panel  
24 transcript page 309, and also Mr. Hodges of the staff,  
25 the transcript pages 1786 through 87 testified that

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1 those peak cladding temperature and core wide oxidation  
2 limits are very conservative in that even if you got  
3 above those limits, it is unlikely that any drastic  
4 safety consequences would occur.

5 But, they made clear, and again it was  
6 uncontradicted on this record, that as long as a plant  
7 is within those conservative limits, operation is  
8 condoned by the NRC and operations would be safe. Any  
9 plant operating within those limits, whether they have  
10 qualified on-site diesels, or whether they don't is  
11 considered a safe plant.

12 Since LILCO has proved the four phases of low  
13 power testing, will be performed within those  
14 operational limits, even assuming postulated accidents  
15 and transients, then LILCO has proved that the  
16 operation is as safe as it would have been with  
17 qualified on-site AC power sources, which also would  
18 have to operate within those same limits. I think Mr.  
19 Hodges of the staff put this in the best perspective  
20 when, this is at transcript pages 1751, he said, in  
21 response to one of Suffolk County's cross examination  
22 questions, it is kind of like driving on a four-lane  
23 bridge, being in the outside lane near the edge as  
24 opposed to the inside lane. Is there less margin of  
25 safety. That bridge is designed to withstand traffic on

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1 the inside and the outside lanes without any failure.

2 Similarly, the NRC regulations are set to  
3 allow operation of the plant within its set limits in  
4 Section 10CFR5046, without any failures. That, is how  
5 LILCO and the staff have both shown that this proposed  
6 mode of operation will be as safe as a plant with  
7 qualified diesels.

8 Now, how has LILCO shown that it meets this  
9 standard? It is really a two step approach. First, you  
10 ask if you lose AC power, how much time do you have  
11 available to restore AC power, so that you can remain  
12 within those limits.

13 Secondly, LILCO demonstrates that it has the  
14 capability to restore power within the time frames that  
15 the first part of the equation give it.

16 Now, for phase I which is fuel load  
17 criticality testing, we are talking about placing fuel  
18 in the vessel and conducting various tests of reactor  
19 systems and support systems. This activity was  
20 described in transcript pages 162, 164, and 201-202.  
21 The material facts concerning the safety of operation  
22 during phase I have already been found by this board in  
23 its July 24 order granting in part, and denying in part  
24 LILCO's summary disposition motion for Phases I and II.  
25 I won't repeat that. I think it is sufficient to say

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1 that the board has already found that no AC power is  
2 necessary during phase I to cool the core, regardless  
3 of any of the postulated Chapter 15 accidents or  
4 transients.

5 So, by definition, you don't need AC power.  
6 So, regardless of whether you have a qualified on-site  
7 power source, or whether you have got the power sources  
8 that LILCO proposes to use during low power testing,  
9 the plant will be equally as safe, because you just  
10 don't need any AC power.

11 Similarly, for phase II, which is cold  
12 criticality testing, and is described in transcript  
13 page 204, the board has found in its July 24 order that  
14 no AC power is needed.

15 So, again, if you don't need AC power, there  
16 is no change in the safety of the plant by virtue of  
17 change to your power sources. You simply don't need the  
18 power sources to begin with.

19 So, the beginning of our focus, really should  
20 be phases III and IV. Phase III involves reactor heatup  
21 and pressurization at power levels taken in progressive  
22 steps up to 1% of rate of power, as described in  
23 transcript pages 207 and 220. Phase IV involves low  
24 power testing from 1% to 5% of rated power. This is  
25 described in transcript pages 209-210, and 224-226. For

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1 expedience, we can talk about those two phases  
2 together, even though they are a separate and distinct  
3 phases of operation, and the risks at 1% power, and the  
4 time available to act at 1% power, are less limiting  
5 than they would be at 5% power. In any event, we will  
6 consider them together.

7 In order to determine how much time is  
8 available to act during these phases, LILCO and the  
9 staff showed the board an analysis based on the Chapter  
10 15 safety analysis in the FSAR. For each event, each  
11 action, each transient postulated in chapter 15, the  
12 question was asked can it happen during phases III and  
13 IV. If it does happen, how long do you have to restore  
14 AC power, so that you can stay within the limits in  
15 10CFR Section 5046.

16 Two witness panels addressed this, and two  
17 witness panels only. LILCO presented the panel on Rao  
18 Eckert, and the staff presented Mr. Hodges and Quay to  
19 discuss these matters.

20 Basically, they testified that Chapter 15 of  
21 the Shoreham FSAR provides the results of analysis for  
22 the spectrum of accident and transient events.

23 The Shoreham FSAR has been approved by the  
24 staff, and therefore it is the proper framework for  
25 analyzing the safety of the plant. That is in

1 transcript pages 275-276. The results of their analysis  
2 show that the most significant or limiting transient  
3 or accidents would be the loss of coolant accident or  
4 LILCO. In using very conservative regulatory  
5 assumptions, it has been determined that there would be  
6 a substantial amount of time available to restore core  
7 cooling following the worst case major break of the  
8 LILCO, using conservative models and methods required  
9 by the regulations, the amount of time available for  
10 restoring power after the most serious LILCO would be  
11 on the order of 370 minutes for Phase III, 86 minutes  
12 for Phase IV. That was found in the Rao, et. all  
13 testimony at pages 252 and 298.

14 Based on more realistic assumptions, the  
15 calculation showed that the operators would have 24  
16 hours during phase III, and three hours during phase IV  
17 to restore power even in the event of a LILCO. That is  
18 in transcript pages 252 and 298. If you didn't have a  
19 LILCO, assuming that all AC power was lost, the reactor  
20 would immediately isolate, and the high pressure  
21 coolant injection system, and the reactor core  
22 isolation cooling system would be available to provide  
23 reactor coolant makeup.

24 Either of these systems have adequate coolant  
25 makeup capability to provide any required core cooling.

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1 Since both the HPCI and the RCIC systems are  
2 seismically qualified, and would operate to assure core  
3 cooling, and since they are steam driven, and utilize  
4 dc power supplies, in those cases you wouldn't need any  
5 ac power if you didn't have the LILCO. In that event,  
6 the only need for restoration of ac power, according to  
7 the testimony, would be for containment cooling. The  
8 containment and suppression pool limits would not be  
9 exceeded for approximately 30 days without ac power.  
10 All of that is found in transcript pages 309 through  
11 311 in the testimony of the Rao et. all witness panel.  
12 So, what you have is a situation where you have got 86  
13 minutes as the most limiting event using conservative  
14 assumptions to the identical LILCO.

15 If you don't have a LILCO, you have got 30  
16 days or more to restore ac power. Mr. Hodges and Mr.  
17 Quay of the staff supported this analysis. Without a  
18 LILCO, Mr. Hodges testified in transcript page 1785 that  
19 you have a very slow boil off of the water in the  
20 vessel. As long as the RCIC or the HPCI system operated  
21 at least one time in the first four days after a loss  
22 of off site power, the boil off would cease and the  
23 transfer of heat through the reactor vessel walls would  
24 tend to depressurize the reactor vessel very slowly.

25 The peak cladding temperature of 2200 degrees

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1 Fahrenheit would never be reached. So, according to Mr.  
2 Hodges, you would have an indefinite amount of time to  
3 restore AC power without a LILCO. As to the LILCO  
4 analysis, Mr. Hodges agreed with LILCO's analysis, and  
5 called LILCO's calculations bounding calculations,  
6 pages 1786 of the record. The only difference in Mr.  
7 Hodges testimony and that of the LILCO panel was that  
8 Mr. Hodges referred to a 55 minute limit in the event  
9 of a LILCO as the conservative LILCO calculation,  
10 rather than the 86 minutes. You will recall in the  
11 testimony of the Rao et al panel that the difference  
12 in the 86 minutes and the 55 minutes was attributable  
13 to the peaking factor that one used in performing the  
14 calculations. The 55 minutes was calculated by using a  
15 peaking factor based on a very high peaking factor  
16 supposed rod withdrawal pattern whereas the 86 minutes  
17 was calculated by using the actual rod withdrawal plan  
18 for Shoreham.

19 The difference is insignificant, however,  
20 because LILCO has shown its ability to operate within  
21 either of those limits, the 55 or the 86 minutes as the  
22 most conservative analysis. Again, I emphasize that all  
23 the witnesses agree that a more realistic analysis  
24 would give you three hours even in phase IV to provide  
25 ac power even in the event of a LILCO.

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1           As long as AC power was restored during the  
2 55 or the 86 minutes, using the conservative analysis,  
3 or three hours using a more realistic analysis, no fuel  
4 failures would be predicted, as Mr. Hodges said in  
5 transcript pages 1786. Indeed, Mr. Hodges said in  
6 transcript page 1787, that even if you reached the 2200  
7 degree Fahrenheit cladding temperature, no large  
8 release of radioactivity would occur, because the  
9 cladding would retain to the fission products.

10           Mr. Hodges also agreed that during a LILCO  
11 core wide oxidation levels will be bounded by the  
12 temperature limits as previously discussed. That was in  
13 pages 1788 and 1795 of the transcript. The last bit of  
14 testimony bearing on this was that of Mr. Quay from the  
15 staff. You will remember he discussed the standby gas  
16 treatment system.

17           Mr. Quay testified in transcript page 1797  
18 that the loss of off site power would not cause any  
19 radiological release of any consequence, even though  
20 the standby gas treatment system would not be  
21 available. In the LILCO, you wouldn't have any fuel  
22 failures, and therefore you wouldn't need the standby  
23 gas treatment system, and in the event of a fuel  
24 handling accident, Mr. Quay testified that the reduction  
25 of fission products in the fuel cladding gap alone

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1 compensates for a loss of the standby gas treatment  
2 system, due to the unavailability of the on-site  
3 diesels.

4 Indeed, in transcript page 3.2, Mr. Daive,  
5 one of LILCO's witnesses testified that there wouldn't  
6 be any reason to assume loss of off site power  
7 coincident with the fuel handling accident. As I said a  
8 moment ago, the intervenors have presented no evidence  
9 in this area, so the testimony of the qualified LILCO  
10 and staff witnesses must be taken as fact. So, the  
11 plant operation will be within the 5046 limits so long  
12 as ac power can be restored within either 55 minutes or  
13 86 minutes in the event of a LILCO. If there is no  
14 LILCO, then assuredly, you don't need ac power for at  
15 least 30 days, and maybe for an indefinite period.

16 Now, I will ask Mr. Earley to address the  
17 testimony as to how LILCO will ensure that the AC power  
18 can be provided during the time limit.

19 MR. EARLEY: The evidence presented in this  
20 case does demonstrate that LILCO can restore ac power  
21 to Shoreham if necessary within minutes, certainly well  
22 within any of the time limits that have been discussed  
23 here for loss of coolant accidents and well within the  
24 almost unlimited time period that would be available  
25 for any other event that would occur at the plant.

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1           The almost unlimited time period that would  
2 be available for any other event that would occur at  
3 the plant. At the outset, let me discuss LILCO's  
4 testimony with respect to the loss of off site power.  
5 Although that loss of off site power assumption was  
6 made for analysis purposes, the record reflects that a  
7 loss of offsite power is an extremely unlikely event on  
8 the Shoreham grid. It, in fact, is more unlikely than a  
9 plant that meets the regulations and would be  
10 performing low power testing according to regulations.  
11 Mr. Schiffmacher, LILCO's manager of electrical  
12 engineering who had substantial experience in the  
13 design and operation of the LILCO system presented  
14 testimony on these matters.

15           The LILCO system, as you recall has four  
16 major steam generating systems with Blackstart gas  
17 turbines that are available to supply power. That is in  
18 transcript page 489 and 524. I might note to the board  
19 that the transcript references, I will give with  
20 respect to the LILCO grid in Mr. Schiffmacher's  
21 testimony are the transcript references where the pages  
22 of the testimony are mixed up. We have not received  
23 renumbered pages, so if you go back to look for these  
24 references, it will be the original page numbers as the  
25 transcript was bound.

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1           In addition to the major steam generating  
2 stations, you recall LILCO has 10 gas turbines at the  
3 Holtsville station, including 5 blackstart gas  
4 turbines, two of which are deadline blackstart gas  
5 turbines. That is in transcript 488 and 489.

6           LILCO also has deadline Blackstart gas  
7 turbines in the Southhold, East Hampton and Port  
8 Jefferson. Significantly, these gas turbines, the  
9 Southhold East Hampton, Port Jefferson, and Holtzville  
10 gas turbines essentially surround the site  
11 geographically. They are on the east, south and west.  
12 To help insure that no single event could disable all  
13 of the power feeds to the plant.

14           These sources are discussed in transcript  
15 pages 501 through 508. The record also reflects that  
16 the restoration from these sources has in fact been  
17 tested. In addition, LILCO has three interties with the  
18 New York Power pool and one innerties with the New  
19 England Power Exchange, to further ensure that power  
20 will be available to Shoreham grid. That is transcript  
21 pages 5.2, and 5.4.

22           Mr. Schiffmacher also discussed the excellent  
23 history that the LILCO grid has with respect to loss of  
24 offsite power. The grid has only been lost once, in the  
25 famous Northeast blackout. That is discussed in

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1 transcript pages 520-522. That blackout occurred prior  
2 to many of the improvements that have been made in the  
3 LILCO grid that include the blackstart gas turbines  
4 located around the Shoreham grid.

5 Since that 1965, I believe, blackout, there  
6 has only been one partial loss of the LILCO grid. That  
7 was restored within one hour. Remember, that one hour  
8 restoration time didn't take into account the fact that  
9 now you would have a nuclear plant on the grid, and  
10 operators are instructed to expedite restoring power to  
11 the Shoreham plant. So, that under normal  
12 circumstances, restoration was achieved within one  
13 hour, certainly could be achieved much less than that  
14 given the improvements on the grid, and given the  
15 priority that has been given to Shoreham.

16 The discussion of the grid capabilities is  
17 contained in transcript pages 501-513 of Mr.  
18 Schiffmacher's testimony. In addition to having  
19 reliable power sources and multiple power sources on  
20 the grid, LILCO has taken steps to ensure that that  
21 power can in fact be routed to Shoreham through  
22 multiple independent paths.

23 Shoreham has four separate 138 KV lines,  
24 leading to the 138 KV switch yard. A switch yard that  
25 is only 1300 feet from the plant. Those lines come to

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1 the Shoreham area on two separate rights of way. The  
2 plant also has three 69 KV circuits meeting the  
3 Wildwood substation. Again, that is only one mile from  
4 the plant on the LILCO property itself. There is a  
5 circuit from that Wildwood switchyard to the 69 KV  
6 switchyard which is adjacent to the plant. That feed  
7 has a number of special features.

8 The line is underground whenever it is near  
9 the 138 KV circuit, to give an added independence.  
10 There is a bypass line directly from the 69 KV circuits  
11 at Wildwood to, the RSST so that the 69 KV switch yard  
12 could be bypassed.

13 In short, as demonstrated by Mr.  
14 Schiffmacher, transcript pages 514-519, the offsite  
15 power system at Shoreham exceeds the requirements of  
16 GDC17. In other words, it exceeds the power that would  
17 be available to any other plant that meets the  
18 regulations and would be conducting low power testing.  
19 To recap there are multiple rights of way where GDC17  
20 only requires one. There are two switch yards, GDC17  
21 would permit a common switchyard.

22 It has a buried line from the 69 KV  
23 switchyard to give additive. It has the 69 KV bypass  
24 feature. Also, the testimony reflects the 138 KV  
25 switchyard is in effect, two separate switchyards in

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1 that it has two isolatable sections to give added  
2 assurance.

3 In addition to the highly reliable grid and  
4 multiple ways to get power to Shoreham from the sources  
5 of power on the grid, LILCO has made additional  
6 committments to reduce the likelihood that a loss of  
7 offsite power would occur during low power testing.  
8 These are committments beyond what another plant during  
9 doing low power testing would have. These committments  
10 were made by Mr. Muesler who formerly was the director  
11 of Nuclear for LILCO and now is Assistant Vice  
12 President of Operations in transcript pages 554 and  
13 555, and the committments were given in transcript page  
14 561. These committments included initiating a plant  
15 shutdown to cold shutdown with hurricane warnings,  
16 tornado watches, winter storm warnings, coastal flood  
17 warnings, the loss of two of four interconnections or  
18 interties to other power systems, and also low  
19 frequency on the LILCO grid system.

20 This would further ensure that a loss of  
21 offsite power would not occur during low power  
22 operations. In addition, at transcript pages 577 and  
23 578, Mr. Muesler indicated that surveillance testing  
24 will be conducted on these AC power sources to ensure  
25 that they will, in fact, be available.

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1           There is also a substantial amount of  
2 testimony on the record concerning the enhanced  
3 capabilities to restore AC power at Shoreham. These  
4 sources of power consist of four 2.5 megawatt diesel  
5 generators called EMD diesel generators. That is how I  
6 will refer to them in this argument, as well as a 20  
7 megawatt gas turbine. Both of these power sources are  
8 physically located on the Shoreham side.

9           As LILCO pointed out in its testimony, all of  
10 these sources should be considered as an integrated  
11 system. It doesn't make sense to view each of the  
12 sources in isolation as the county has suggested. By  
13 viewing these sources as an integrated system, LILCO  
14 has demonstrated that it can restore power if it is  
15 lost at Shoreham in an unlikely event. It can restore  
16 power in a very short period of time.

17           Let me address, first, the capability and  
18 reliability of the 20 megawatt gas turbine. That is  
19 discussed in transcript pages 495-500, and also there  
20 is some discussion in transcript pages 400-401. The 20  
21 megawatt turbine is an automatic blackstart gas  
22 turbine. By blackstart, we mean it doesn't require any  
23 outside power in order to start. It is dedicated to  
24 Shoreham operation, will not be used to supply power to  
25 the grid normally, to be kept isolated. So, it is

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1 independent from the grid. It will isolate when it  
2 comes on, it will isolate from the rest of grid. So,  
3 it can not be affected by the affected by the grid in  
4 supplying power to Shoreham. It is located in the 69  
5 KV switchyard, which is on the Shoreham side.

6 As several witnesses indicated it can restore  
7 power to the emergency buses at Shoreham in  
8 approximately 3 to 4 minutes. The testimony also  
9 demonstrates that this 20 megawatt gas turbine is a  
10 very reliable power source. The gas turbine was  
11 completely overhauled after its installation at  
12 Shoreham to improve its reliability. In transcript page  
13 1873, one of the staff's witnesses discusses the  
14 improved reliability when you overhaul a source of  
15 power. I believe he was discussing about the EMD's, but  
16 the same principal applies.

17 This gas turbine that is now installed at  
18 Shoreham is virtually identical to a gas turbine that  
19 LILCO has on its grid in East Hampton. That gas turbine  
20 has an operating reliability of approximately 98% and  
21 starting reliabilty of 100%. That testimony was given  
22 by Mr. Shiffmacher, transcript page 497. That is well  
23 within the reliability range of 92-99% reliability for  
24 existing qualified on site power sources. That  
25 information is found in SER supplement number 6 at page

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1 8-8. That, in fact is at the high end of the range of  
2 operability of all on my site power sources.

3 This gas turbine, when it was installed was  
4 subjected to a testing program described by Mr. Gunther  
5 in transcript pages 856-857. And, an actual  
6 demonstration in addition to the testing there is an  
7 actual demonstration of the capabilities performed  
8 under the observation of the NRC and Suffolk county. It  
9 is described in transcript pages 857 and 860, and  
10 transcript page 852 of the staff's testimony. During  
11 that demonstration, the gas turbine restored power and  
12 was supplying in plant emergency equipment within 4  
13 minutes.

14 LILCO will also conduct periodic surveillance  
15 testing as reflected in transcript page 498. That  
16 surveillance testing will include bi-weekly start  
17 tests. It would include monthly tests of the  
18 procedures to supply 4KV in plant circuits, and will  
19 also include semi-annual load tests. Those tests will  
20 be conducted in accordance with written procedures  
21 stated in transcript pages 854 by Mr. Gunther, and also  
22 858 and 860.

23 Turning now to the other enhancement to the  
24 off site power at Shoreham, the 4-2.5 megawatts EMD  
25 diesel generators. These generators are dead line black

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1 start diesel generators. They will start without, they  
2 will start automatically without any outside power  
3 supply. That is discussed in transcript pages 491-494  
4 of Mr. Shiffmacher's testimony.

5 They are connected directly to the plant four  
6 KV network, bypassing the RSST and the NSST to make the  
7 EMD's independent of the 69 KV off site circuit, the  
8 138 off site circuit, and the 20 megawatt gas turbine.  
9 The transcript pages 493 and 494. The testimony  
10 concerning the reliability of these EMD diesels was  
11 presented by three witnesses who are very familiar with  
12 EMD diesels, and in particular the EMD diesels at  
13 Shoreham.

14 Mr. Shiffmacher, LILCO manager of engineering  
15 discussed the installation and some of the reliability  
16 history of these EMD diesels, as reflected in  
17 transcript pages 326 and 327. His organization is  
18 responsible for electric generating equipment for the  
19 LILCO system.

20 It was his organization that researched the  
21 reliability of the diesels prior to their purchase.  
22 Testimony was also presented by Mr. Iannuzzi, the  
23 manager of engineering for Morrison and Knudsen. As you  
24 will recall, Morrison and Knudsen has extensive  
25 experience with EMD diesels, in transcript pages 116,

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1 and 68. Mr. Iannuzzi is responsible for the direct  
2 supervision of project engineers, designers, document  
3 control personnel involved in the design and building  
4 of diesel generator systems for both nuclear and non  
5 nuclear applications. Testimony was also presented by  
6 Mr. Lewis, technical service manager for Morrison and  
7 Knudsen. He is responsible for all of Morrison and  
8 Knudsen in service activities on both nuclear and non  
9 nuclear diesels. Mr. Lewis not only is familiar with  
10 EMD diesels in general, but as reflected in transcript  
11 pages 1043 and 44 and 1164 and 1165. He has specific  
12 knowledge of these particular EMD diesels when they  
13 were installed with Northeast Power Company, as peaking  
14 units. That is transcript page 1169.

15 So, he has been intimately involved with  
16 these diesels since 1981. The EMD diesels installed at  
17 Shoreham, are EMD 645 E4 engines as reflected in  
18 transcript pages 1170-1172, and also at transcript  
19 pages 1151, 1152, 1180. These engines are widely used,  
20 and well accepted in the industry as being reliable  
21 power sources. These same engines, are same engine  
22 generator set combinations are in use at many nuclear  
23 plants. Suffolk county attempted to highlight  
24 differences between the EMD's and the EMD's at Shoreham  
25 and qualified diesel generators. But, those differences

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1 don't effect the conclusions that these machines will  
2 be reliable. In fact, Mr. Iannuzzi and Lewis in their  
3 direct testimony describe some of the differences. They  
4 explain that the principle difference in transcript  
5 page 1181 and 1183 is in the auxilliary package.

6 But, they also testified the Shoreham type  
7 auxiliary package has been reliable in operation and  
8 commercial service. It is also noted that the Shoreham  
9 engines have electric start motors rather than  
10 pneumatic start motors. That is in transcript pages  
11 1177, also 1151 and 1154, and elsewhere. The witnesses  
12 indicated in although most nuclear diesels do have  
13 pneumatic start engines, there are at least two EMD  
14 diesels in nuclear service with electric start engines,  
15 which were essentially identical to the Shoreham ones.

16 In addition, they testified that in their  
17 experience, which is extensive, with electric start EMD  
18 engines, they have proven themselves to be very  
19 reliable, transcript 1177.

20 Mr. Iannuzzi acknowledged see transcript page  
21 1158 and 59, that the added features that might be  
22 installed for a fast start qualified nuclear diesel  
23 might tend to improve the starting reliability. But, to  
24 reiterate, they testified that the EMD diesel engine  
25 with the electric start motors, and with the features

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1 that Shoreham has, are reliable, regardless of the  
2 type of starting motor or auxiliary pack.

3 In fact, they testified that the fast start  
4 feature may cause excessive wear and strain on the  
5 auxilliary package. That is in transcript page 1183. As  
6 Mr. Rolfe indicated, there is no need for fast start  
7 for these engines, because they are not needed for a  
8 significant period of time. By fast start, we are  
9 talking about a matter of 10-20 seconds, opposed to the  
10 55 or 86 minutes that might be required in the  
11 application at Shoreham.

12 In addition to looking at the successful  
13 operating history of EMD engines in general, Mr.  
14 Iannuzzi and Lewis had also looked at whether the  
15 proper manufacturing processes had been applied. They  
16 reviewed whether the application was consistent with  
17 the design of these engines, the inspection and  
18 maintenance history, and their review of these engines  
19 supported their conclusion that the machines would be  
20 reliable in service at Shoreham.

21 On cross examination of Mr. Iannuzzi and  
22 Lewis, Suffolk county failed to contradict the basic  
23 conclusion that the machines would be reliable. The  
24 cross examination really focused in two areas. First,  
25 it focused on the witnesses conclusion that the

1 Shoreham machines had not experienced any shutdowns  
2 during operation as peaking units.

3 The problems that the witnesses were asked  
4 about, however, as indicated in the transcript pages  
5 1124 and 1125 in transcript page 1118, would not  
6 necessarily have required shutdown before the service  
7 of the peaking unit was completed.

8 Also note that those instances were in the  
9 1978 time period. Prior to Mr. Lewis's personal  
10 involvement, Mr. Lewis reiterated that from his  
11 personal knowledge of these machines, they had not  
12 failed to operate when they were required to operate.

13 There are also some questions about the  
14 service history records. That cross examination  
15 established at best, some of the service history  
16 records might not be perfect. As we recall, Mr. Lewis  
17 and Mr. Iannuzzi were testifying not only from the  
18 record, but also their personal knowledge of the EMD  
19 machines, and the EMD diesel generators in general. The  
20 service records that the witnesses were asked about,  
21 were prior to Mr. Lewis's personal involvement, and  
22 involved some, a small number of matters, in fact, I  
23 recall one cross examination it was apparent that it  
24 was just a matter of the dates might not have been,  
25 might not have corresponded from one service record to

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1 another.

2 Finally, with respect to the Shoreham EMD  
3 engines, Mr. Shiffmacher described the excellent  
4 starting reliability of the four machines at Shoreham.  
5 That is described in the transcript page 463. Out of  
6 279 attempts to start, there were 279 successful  
7 starts. One of those attempts, one of the machines  
8 tripped and restarted, three of those attempts, the  
9 machines were manually shut down voluntarily to repair  
10 minor difficulties. Remember, these figures were  
11 compiled by the machines at Shoreham, in the same type  
12 of configuration that we have at Shoreham.

13 Those figures indicate a 98-100% reliability  
14 for the machines. This, again, is well within the high  
15 end of the range of the 92-99% reliability that has  
16 been experienced with qualified diesels at the nuclear  
17 plants.

18 As discussed in transcript page 492, if you  
19 consider that only one of the machines is needed, which  
20 is in fact the case, it almost ensures that you will  
21 have one of the EMD machines available for operation in  
22 the event that they are needed.

23 LILCO's testimony concerning the reliability  
24 of the EMD diesels was confirmed by the NRC testimony.  
25 In Mr. Tomlinson's experience, reflected in the

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1 transcript pages 1891 and 1897 to 1900. The reliability  
2 numbers cited by LILCO were consistent with his  
3 extensive experience with the EMD. Indeed, in  
4 transcript page 1897 he testified that the same model  
5 of EMD'S have logged over a hundred thousand hours with  
6 no known failures in his experience. In short, the EMD  
7 diesels installed at Shoreham are extremely reliable  
8 machines. Demonstrated by the overall EMD assurance of  
9 quality, their maintenance history, and the operating  
10 history of these particular machines in the  
11 configuraition they are being used at Shoreham. It is  
12 well within the reliability range for qualified Nuclear  
13 Diesel generators.

14 Let me address briefly, Suffolk County's  
15 testimony on the EMD's, because that testimony does  
16 nothing to change the conclusion that the EMD diesel  
17 generators can operate reliably, and that Shoreham  
18 will be able to restore power within minutes, in the  
19 event of a loss of all such power.

20 First of all, compare the witnesses, the  
21 county testimony was offered by Meseres Eley, Smith,  
22 Minor, and Bridenbaugh. Neither Messers Minor or  
23 Bridenbaugh had any diesel generator experience, as  
24 reflected in transcript pages 2424-29. Neither Mr.  
25 Smith or Mr. Elley had any experience with EMD diesels,

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1 in particular with TDI diesels or any diesel in nuclear  
2 service. That is discussed in transcript 2418-2420, and  
3 2420-2423. The witnesses have no personal knowledge of  
4 these particular EMD machines.

5 In fact, Mr. Smith, who has presented some of  
6 the testimony, said that he had not even started to  
7 work on anything with respect to LILCO until June 20th,  
8 As late as June 7th, Mr. Eley had no opinions on  
9 whether EMD diesels were reliable. That was reflected  
10 in transcript page 2423. I ask you to compare these  
11 witnesses with the LILCO witnesses who knew EMD  
12 machines, they know nuclear diesels, and they know the  
13 actual operating history of the machine.

14 The substance of the county testimony was to  
15 try and treat the EMD diesels and the 20 megawatt gas  
16 turbans in isolation, and by isolating them, attempting  
17 to show that there were some deficiencies in the power  
18 sources. For example, Suffolk county listed a number of  
19 ways in which the EMD diesels allegedly didn't meet the  
20 single failure criteria. But, they were applying the  
21 single failure criteria to the EMD's in isolation.

22 The discussion, that is indicated in  
23 transcript page 2460, where Mr. Eley indicated they  
24 were looking at the diesels in isolation.

25 On cross examination, the witnesses testified



1 that alleged deficiencies in the EMD's would not effect  
2 the 20 megawatt gas turbine. They were not common  
3 failures that would prevent using both sources of  
4 power.

5 Examples include transcript 2462, where Mr.  
6 Eley testified that EMD controlled cubicle failures  
7 wouldn't effect the gas turbine. 2466, discussing  
8 output cables, and there are several other examples.

9 The witnesses admitted that in giving their  
10 testimonies, they were postulating in effect, double  
11 failure. That is in transcript page 2482, and again Mr.  
12 Smith at 2484.

13 So, what the county testimony, in effect was  
14 doing was setting a standard even higher than what  
15 would be required of a qualified on-site power source.  
16 The on-site power source are not required to meet a  
17 double failure standard.

18 In addition, the witnesses of Suffolk county  
19 witnesses testimony ignored other power sources that  
20 were discussed on the record such as Holtsville, Port  
21 Jefferson, and the other gas turbans. It is reflected  
22 in transcript 2451 and 2452.

23 One other area that those witnesses  
24 emphasized was the fire protection are. In fire  
25 protection, the witnesses admitted that fires in the

1 EMD diesels would not have any effect on the gas  
2 turbine. So, again, they are postulating a double  
3 failure criteria that is indicated in transcript 2493.  
4 In short, the criticism of the EMD diesel engines,  
5 given by the Suffolk county witnesses who are not  
6 familiar with EMD diesels, and were not familiar with  
7 the particular engines at Shoreham, do nothing to take  
8 away from the demonstrated reliability of those  
9 machines as reflected in LILCO and the staff testimony.

10 I would also like to address at this point,  
11 the seismic capabilities of the EMD diesel engine.  
12 There was a fair amount of testimony on the seismic  
13 capabilities of the diesel engines. Let me remind the  
14 board that, according to the testimony of staff  
15 witness, page 1794, it is not necessary to postulate a  
16 loss of coolant accident happening simultaneously with  
17 a seismic event. The probability is simply too low, as  
18 indicated at 1794 and 1763. The piping in the plant is  
19 seismically qualified. An earthquake would not cause,  
20 so an earthquake would not cause a loss of coolant  
21 action

22 So, the independent occurrence of two very  
23 unlikely events is simply incredible and unnecessary to  
24 postulate. Therefore, the supplemental power sources  
25 don't need to be seismically qualified, because as the

1 record reflects in the absence of the LILCO, you have  
2 at least 30 days, and in fact, in Mr. Hodges opinion,  
3 an indefinite amount of time if you take into account  
4 the loses to ambient, to restore power in any other  
5 event besides a LILCO.

6 Although seismic qualification of these  
7 machines is not provided, LILCO provided additional  
8 assurance that power would be available by  
9 demonstrating the EMD's have significant seismic  
10 capabilities. In transcript pages 974-987, Mr. Maligi  
11 of Sargeant & Lundy describe the analysis that his  
12 organization performed to show that the machines will  
13 withstand the safe shutdown earthquake. In transcript  
14 pages 989-991, Stone and Webster described their  
15 analyses concerning the diesel generator foundation  
16 that will withstand the safe shutdown earthquake. In  
17 transcript pages 991-995, the Stone and Webster  
18 discussed their analysis of the switch gear cubicle,  
19 and the soils under the diesel, which indicated that  
20 they too could withstand earthquakes up to .13G'S.

21 I would like to point out that this .13G  
22 capability, first of all, the witnesses did not testify  
23 that above .13G'S there would be damage. Just given the  
24 state of the art, they couldn't predict beyond that  
25 point, and they may well have capabilities beyond that

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1 point.

2 But, it is also significant, because as Dr.  
3 Christian testified, in transcript page 955, if you use  
4 the current standard method for determining a safe  
5 shutdown earthquake for a plant at Shoreham, that would  
6 yield .13G earthquake. So, that means .13G's is a  
7 significant capability for Shoreham.

8 Suffolk county's testimony on the seismic  
9 front doesn't contradict the LILCO witnesses  
10 conclusion. in fact, the Suffolk county witnesses  
11 specifically testified in transcript pages 2792 and  
12 2793 that they agreed with the Sargent Lundy and Stone  
13 and Webster calculations, and that they appeared  
14 correct. The Stone and Webster, or the Suffolk County  
15 testimony focused on the seismic capabilities of the  
16 switch yards and transmission systems, which as the  
17 testimony reflects, is not needed for more than 30  
18 days. There is testimony on the record concerning  
19 LILCO'S capabilities to repair these repair switch  
20 yards, replace transformers. Also, there is testimony  
21 given by the staff witnesses that other power sources  
22 from the Army Corp. of engineers or elsewhere could be  
23 available well within 30 day time period.

24 So, LILCO demonstrated that it has reliable  
25 power sources. LILCO has demonstrated that there are

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1 ways to get power into SHOREHAM. The final piece of  
2 LILCO's evidence, was demonstrating that LILCO has  
3 taken steps to ensure that these supplemental power  
4 sources that routed to the plant, will in fact get  
5 power to the emergency buses.

6 This was done through discussing LILCO's  
7 written procedures and testing the actual demonstration  
8 of the ability of these power sources. The written  
9 procedures that cover the supplemental power sources,  
10 including emergency operating procedures, normal  
11 procedures and testing procedures, are discussed in  
12 transcript pages 853 and 854. There is a very good  
13 summary of how power will be returned to Shoreham if it  
14 is lost given by Mr. Gunther at the end of the  
15 proceedings in transcript page 2926 and 2927. You will  
16 recall, it was discussed by Mr. Gunther, and also as  
17 discussed by staff witness Clifford.

18 The procedures involved in the event of a  
19 loss off site power, the procedures involved, checking  
20 to see whether the TDI diesels would start  
21 automatically. If they don't start the operator in the  
22 plant will check with the system operator to check on  
23 the availability of off-site power, including  
24 Holtsville, East Hampton, Southhold, and others. That  
25 is transcript page 1850, Mr. Clifford testified to

1 that.

2 In transcript page 1856, Mr. Gunther also  
3 indicated there are availability lights in the control  
4 room for the 20 megawatt turbine, so the operator can  
5 tell whether that is available.

6 These procedures have been reviewed by the  
7 NRC staff, and Mr. Clifford testified, for example in  
8 transcripts pages 1849 and 52 that these procedures are  
9 in fact feasible. SSER number 6, at pages 13-1, to 13-3  
10 also address the staff's review of procedures. As a  
11 result of the staff's review, they have required some  
12 modifications to the procedures discussed in SER 13-2  
13 and 3. The staff has testified at 1838 and 1839. They  
14 will verify that those necessary changes will be made.  
15 When those changes have been made, that they also will  
16 be satisfied by these procedures will ensure that power  
17 will be quickly routed back to Shoram in the event that  
18 it is lost.

19 LILCO has also insured that power will be  
20 available by training its personnel in the use of the  
21 supplemental power sources, in transcript 855. Mr.  
22 Gunther described that the training provided to all six  
23 operating crews at Shoreham, the descriptions of the  
24 power sources, the training included, training on the  
25 procedures and actual walk thoughts of the machines.

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1 In training at Shoreham is a continuous process. Mr.  
2 Gunther indicated in transcript 831, there is one crew  
3 always in training, and that any changes that might  
4 occur in the future to the power sources or the  
5 procedures would be included in the routine training  
6 program that occurs continuously.

7 Finally, as discussed earlier, these power  
8 sources were tested. Some of the testing is discussed  
9 in transcript 856 and 857, and as I also indicated  
10 earlier, there was an actual demonstration of  
11 capabilities discussed in transcript 857 and 60. Actual  
12 demonstration confirmed that the 20 megawatt gas  
13 turbine can supply power to Shoreham within 4 minutes,  
14 and the EMD diesels using the worst case assumptions  
15 which require the operator to perform all of the manual  
16 actions that you could possibly operate, isolation of  
17 the transformer, and also only used one operator.

18 That procedure only required 8 minutes to  
19 restore power back to Shoreham.

20 Mr. Clifford indicated that the time would be  
21 substantially less if more operators were available,  
22 and Mr. Gunther indicated that a substantial number of  
23 operators would, in fact be available during testing.

24 So, in summary, LILCO has demonstrated that  
25 there is ample assurance that power can be restored

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1 well within the time power is needed in the event of a  
2 loss of coolant accident, and certainly well within the  
3 time that would be available if any other event  
4 occurred at Shoreham. Since, by restoring power within  
5 those times, section 50.46, safety standards that Mr.  
6 Rolfe discussed, will be met by Shoreham in the same  
7 way that they would be met by a plant with a qualified  
8 onsite power source. This board can conclude that  
9 Shoreham is in fact, as safe, with the power sources  
10 LILCO has as the plant would be with qualified onsite  
11 power sources.

12 Now that the safety has been demonstrated,  
13 the second part of the equation, which is the condition  
14 in it's May 16 order to be addressed was the exigent in  
15 circumstances. This goes hand in hand with the public  
16 interest requirement that is in section 5012A, and I  
17 will discuss those together. There are a number of  
18 areas both by virtue of public interest, and by virtue  
19 of the commission's definition of exigent  
20 circumstances in its footnote 3 of it's May 16 order  
21 that ought to be addressed. The first one is an area  
22 that ought to be noted, but that doesn't even arise  
23 from the evidence presented here, and that is the  
24 internal inconsistencies in the commission's  
25 regulations themselves. That is an area that the

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1 commission specifically noted that should be balanced  
2 and balanced in the equities. I won't go into any  
3 detail. The board will recall the discussion about the  
4 need to harmonize the commission's regulations on low  
5 or the power in part of 10CFR 5057C, that allows the  
6 granting of low power licenses with the general design  
7 criteria themselves, which don't specifically say  
8 whether they are to be interpreted in light of the  
9 activity being performed. This board will recall that  
10 in its April 6 order, it said that there should be a  
11 harmonizing of those two regulations, because there was  
12 some ambiguity, and it seemed that by virtue of  
13 allowing low power licenses, the commission was saying  
14 that the nature of operation to be engaged in ought to  
15 be considered in interpreting the general design  
16 criteria.

17 The commission ultimately disagreed with that  
18 in its May 16 order which said that LILCO had to seek  
19 the exemption. But, nevertheless, obviously the  
20 commission thought that that ambiguity or inconsistency  
21 was something to be taken into account in weighing the  
22 equities here, because it specifically addressed that  
23 in its footnote.

24 Another of the items that the commission  
25 asked to be addressed was the public interest in

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1 adherence to the regulations and the safety significant  
2 of the issues involved.

3 I think, by virtue of the health and safety  
4 evidence, which has already been summarized, the board  
5 can see that there is no public interest in adherence  
6 to the regulation. The public will be protected in the  
7 mode LILCO proposes for low power operation. There is  
8 little doubt of that and the evidence shows that  
9 adequately.

10 For that reason, there is no safety  
11 significance, indeed, the remainder of the factors,  
12 which I will address show that the public has an  
13 interest in granting the exemption, not in adhering to  
14 the regulation.

15 Another factor the commission said should be  
16 balanced was the stage in the facility's life. The  
17 testimony here by Mr. Gunther, at transcript page 866,  
18 is that the plant is complete. LILCO could be ready for  
19 fuel load at Shoreham within 2 to 3 weeks. The only  
20 testimony concerning any incomplete items concerns  
21 matters not needed until phases 3 and 4 when AC power  
22 was needed, for example, there was some discussion  
23 about this alternate routing of the cable from the  
24 EMD's to the emergency switch gear room in the event  
25 that one needed to bypass the normal switch gear room.

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1 The testimony of Mr. Schiffmacher was that that could  
2 be accomplished within 4 weeks, and it would be done by  
3 the time Phase III low power testing was reached. So,  
4 there was no evidence that the plant was not within two  
5 weeks of fuel load, or that the necessary items will  
6 not be finished. So, this another factor that the  
7 commission said should be weighed.

8 The plant is ready to go. Another public  
9 interest factor is the training benefits which would  
10 accrue from early low power testing. As described in  
11 Mr. Gunther's testimony, beginning in transcript page  
12 845, important training experience will be gained  
13 during low power testing.

14 Mr. Gunther testified that beyond the normal  
15 training benefits gained during low power testing,  
16 LILCO intends to give the operators additional training  
17 during this low power test program. For example, in  
18 transcript page 849, he described how LILCO will repeat  
19 operations during Phase II of Low power testing to  
20 allow each shift to perform the various manipulations.  
21 It will also provide extra time so that reactor  
22 operators can perform their 10 annual reactivity  
23 control manipulations during the low power testing.  
24 That was in transcript pages 849, 765, and 733. All the  
25 crews would be given the opportunity to take the

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1 reactor critical in low power testings, something that  
2 might not ordinarily be done.

3 Additionally, Mr. Gunther testified that  
4 LILCO would have added flexibility by virtue of not  
5 having the low power testing included within the normal  
6 power ascension program, at least from a timing  
7 standpoint.

8 Therefore, if there were additional training  
9 that needed to be done, it can be done without throwing  
10 off the scheduled leading to commercial operation.

11 Finally, Mr. Gunther testified in transcript  
12 pages 852, and 775, that additional reactor heat ups  
13 would be performed at the conclusion on Phase 4. So, in  
14 weighing the equities, and looking at the public  
15 interest, this is another thing that ought to be  
16 weighed in LILCO's favor, or in favor of granting the  
17 exemption. Mr. Gunther also testified in transcript  
18 pages 852, and 853 to the predicate for a number of  
19 other public interest benefits that would accrue from  
20 granting this exemption. He testified that if you  
21 accelerate this low power testing, don't wait for the  
22 TDI's to be licensed, that you might accelerate the  
23 commercial operation of the plant by taking this 2-3  
24 months of low power testing out of the power ascension  
25 program which would have to be accomplished once a full

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1 power license was granted.

2 If that is the case, then the board heard  
3 testimony as to how the public would be benefitted by  
4 reducing LILCO'S dependence on foreign oil at an  
5 earlier stage.

6 As you recall Mr. Szabo's testimony, that  
7 LILCO is, all of LILCO'S plants now in operation are  
8 oil fired, even though there are a couple of plants  
9 which use natural gas when available. You will recall  
10 Mr. Szabo's testimony in transcript pages 1222, 1231,  
11 and 1335. 99% of the oil burned by LILCO is residual  
12 oil with the remainder being middle distillates, and  
13 how there has been a trend of accelerating since the  
14 beginning of this decade to convert residual oil to  
15 other high value products such as gasoline and diesel  
16 oil.

17 Overall, LILCO has estimated dependence on  
18 foreign oil is 90%. Mr. Szabo testified how the United  
19 States has no leverage over world oil supply or prices,  
20 and that it is the national policy to reduce dependence  
21 on foreign oil.

22 In fact, Mr. Szabo testified, and the  
23 county's witnesses, Mr. Madan, and Mr. Dirmeier  
24 admitted that the law precludes the building of oil  
25 fired base load plants. So, there is no question that

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1       there is an evil to being dependent on foreign oil, and  
2       that by allowing Shoreham to come on line and reach  
3       commercial operation in 2 to 3 months earlier, which  
4       might be accomplished if this exemption is granted,  
5       that the public would benefit.  Indeed, Mr. Kessel, who  
6       is the head of the Consumer Protection Board of New  
7       York state, in that portion of his testimony that was  
8       allowed to stand, agreed with the importance of  
9       reducing oil dependance.  He stated that that was the  
10      goal of the New York State Energy master plan in pages  
11      2886 and 2887.  Then, on redirect examination, Mr.  
12      Kessel went to some length in pages 2889-2891 to  
13      describe all of the measure New York state was taking  
14      to reduce the state's dependence on oil.

15               There is no question that if Shoreham could  
16      reach commercial operations sooner, because of the  
17      granting of this exemption, that Shoreham will  
18      contribute significantly to the reduction of New York's  
19      and LILCO's dependence on foreign oil.  Another benefit  
20      which would occur to the public is an economic factor.  
21      As you will recall Mr. Nozolillo's testimony where he  
22      looked at the effect on LILCO's rate payers if Shoreham  
23      goes into operation 3 months earlier.

24               You will recall that he used various  
25      financial models used by LILCO in its planning, and

1 accepted by the public service commission in other  
2 instances, and he looked at three different scenarios,  
3 commercial operation in July of 1985, with a 1984  
4 synchronization, and a 1985 synchronization. He  
5 compared both of those with commercial operation in  
6 October 1, 1985. What his analysis showed was that if  
7 the plant were synchronized in 1984, a \$45 million  
8 benefit would accrue to the rate payers, in terms of  
9 present worth.

10 If the plant were synchronized in 1985, an \$8  
11 million benefit would accrue to the rate payers in  
12 terms of present Worth vs. a three month delay of  
13 commercial operation.

14 That savings, Mr. Nozollilo has testified in  
15 this transcript pages 1409, 1490-1491, and 1393-1394,  
16 resulted largely from the displacement of fuel by  
17 Shoreham coming on line earlier. There would be a \$50  
18 million savings in fuel in the first three months.  
19 Also, by lower total investment costs, a lower book  
20 cost.

21 Mr. Nozollilo further testified that if you  
22 change the dates, in other words, if you didn't look  
23 strictly at July 1 vs. October 1, 1985, commercial  
24 operation date, that you would still have a benefit to  
25 the public in the same order of magnitude. That was in

1 transcript pages 1392-1407.

2 Now, the board will recall, I am sure, that  
3 Mr. Maden and Mr. Dirmeier, the county's economic  
4 consultants came in and said in fact there would be a  
5 detriment in their opinion from early low power  
6 testing, and early commercial operations. However, you  
7 will also recall that these gentlemen did not perform  
8 their own analysis. What they did was they purported to  
9 take Mr. Nozolillo's analysis on behalf of LILCO, and  
10 they purported to say there are mistakes in it. You  
11 will recall how at the beginning of their testimony,  
12 their counsel asked them. If you look at Mr.  
13 Nozolillo's testimony, and you will recall that Mr.  
14 Nazalillo had made some changes in his computer run.  
15 They were specifically asked by Suffolk County's  
16 counsel to look at the new computer runs, and do they  
17 affect your analysis.

18 Mr. Madan and Mr. Diameier said yes, we have  
19 looked at the new computuer runs, they had no effect on  
20 our analysis.

21 Yet, when we went through the cross  
22 examinations, it turned out that they hadn't looked  
23 very carefully at those computer runs. In fact, their  
24 testimony did not show any mistakes in LILCO's  
25 analysis. In fact, their testimony didn't address the

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1 computer runs and yet those gentlemen testified that  
2 they didn't have any independent knowledge of the input  
3 that went into that economic analysis. They testified  
4 that they were relying wholly on the input LILCO used,  
5 and yet it turned out they didn't use the input LILCO.  
6 You will recall, first of all, that they postulated  
7 this \$28 million mismatch, which they said would reduce  
8 the benefit.

9 Yet, it turned out that when we looked at  
10 that mismatch, they had left out a significant portion.  
11 They were trying to compare the pre commercial  
12 operation capitalization costs, which included capital  
13 in the sense of an investment and capital items, and,  
14 operation and maintenance expenditures, with post  
15 commercial operation, operation and maintenance  
16 expenditures. You will recall Mr. Dirmeir admitting  
17 that he didn't consider the post commercial operation,  
18 I think he called it bricks and mortar.

19 So, the \$28 million mismatch that they found  
20 really didn't exist. They just made a mistake, and I  
21 think that was obvious from their testimony.

22 Moreover, they testified they didn't have any  
23 knowledge of the actual expenses. Mr. Maden tried to  
24 sit up here and say in his opinion, there shouldn't be  
25 any difference in pre commercial operation, and post

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1 commercial operation expenses, and you will recall when  
2 I asked him, Well, Mr. Maden, wouldn't it be true that  
3 at least the licensing costs if the licensing  
4 proceedings went on three months longer would be  
5 greater.

6 He gave, what I think you would have to agree  
7 was an incredible answer. He said, no, it doesn't  
8 matter how long the licensing proceedings go on. They  
9 are going to cost the same thing whether they last 3  
10 months longer or end 3 months sooner.

11 That is incredible. These gentlemen also said  
12 that they disagree with LILCO'S analysis, because they  
13 didnt think a 1984 synchronization of the plant was  
14 possible, and yet when they were cross examined, they  
15 admitted that there were a number of uncertainties as  
16 to when a full power license might be issued. The best  
17 that they could really say was that it was unlikely  
18 that a full power license for the synchronization would  
19 occur in 1984.

20 In the third part of their disagreement,  
21 with Mr. Nozolillo's analysis, was that they said Mr.  
22 Nozolillo shouldn't have cut his analysis off at the  
23 year 2000. He should have looked at the years 2000  
24 through 2015. You have got transcript pages 2055-2056.  
25 They said, if you look at the first, at the years 2000,

1 through 2015, what you would find is for those years  
2 alone, you have a \$14 million benefit in terms of  
3 present worth and revenue requirements.

4 Now, they said that extra benefit, which of  
5 course LILCO didn't take credit for, would be offset by  
6 fuel costs at the end of the plant, when the plant went  
7 off line. You will recall that these gentlemen in the  
8 first place, didn't know what the practices were for  
9 taking plants out of service.

10 So, they didn't know, in fact, that by  
11 starting the plant 3 months earlier, you ended up  
12 taking it out of service three months earlier to the  
13 day.

14 Secondly, you will recall that Mr. Madan  
15 admitted that you would only have that fuel offset at  
16 the end if you were going to replace Shoreham with  
17 another oil fired plant, because there would have to be  
18 the same difference in fuel cost between oil and  
19 nuclear at the end that you saved up front. Yet, he  
20 admitted that you can't build new oil fired plants, so  
21 you really don't know what you will replace Shoreham  
22 with when it goes out of service.

23 So, you can't postulate that fuel loss to  
24 begin with. Thirdly, you will remember that Mr. Maden  
25 admitted that when he looked at the amount of the fuel

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1 cost, to offset that \$14 million benefit from  
2 considering the years 2,000-2015. He didn't escalate  
3 the costs at the same rate that LILCO escalated all of  
4 its other operating and maintenance costs in its  
5 analysis.

6 Remember, LILCO increased all of those costs  
7 over the time at approximately 6.5 percent. Mr. Maden,  
8 instead tried to escalate oil costs at 13 percent. In  
9 other words, he is trying to look at LILCO's analysis,  
10 and yet he is plugging in his own figures. He admitted,  
11 or Mr. Dirmeier admitted to the formula that was the  
12 proper use, used the 6.5 percent figure, and I won't go  
13 through that calculation now, but if you look at the  
14 transcript page 2,069-2,070, you will see the formula.  
15 If you work out that formula, you come out with a fuel  
16 cost, even assuming that it exists, a 7.8 million  
17 dollars. If you take that 7.8 million dollar offset,  
18 and you compare it with a \$14 million benefit that you  
19 get from considering the years 2,000-2,015, what you  
20 come up with is an extra \$6 million in benefits that  
21 LILCO didn't even take credit for.

22 So, if you throw out this \$28 million  
23 mismatch, which they virtually conceded was a mistake,  
24 and then you add the \$6 million that they would like to  
25 get by extending the analysis to the year 2,015, you

1 really come up with a public benefit in terms of rate  
2 savings and present worth of 14,000,000 to \$61 million.  
3 Now, another benefit came out in the testimony in the  
4 cross examinbation of Mr. Nozolillo.

5 The commision, in its footnote said that any  
6 financial or economic hardship would be considered.  
7 And, you will recall in the cross examination of Mr.  
8 Nozolillo, that he was cross examined rather  
9 extensively about the assumptions that he used in his  
10 analysis. He admitted, on cross examination, beginning  
11 at about transcript page 1377, that LILCO faces a  
12 number of financial problems, that there are  
13 uncertainties in its financial future. For example, he  
14 said that he didn't know if LILCO could borrow \$378  
15 million today. That was one of the assumptions that he  
16 had used in his analysis. He didn't know if LILCO would  
17 pay dividends on its common stock in 1985. He admitted  
18 that the rating services have decreased LILCO's bond  
19 rate.

20 He admitted that LILCO has stated that it has  
21 no access to external funds, and that there might be a  
22 cash short fall where the September 1 bond payment is  
23 due. He admitted that LILCO had ceased making the  
24 payments on 9 MILE 2, and that the ability to raise  
25 additional cash is dependent on LILCO somehow getting

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1 access to outside margins.

2 This was all in pages 1379 through 1895. Yet,  
3 Mr. Nozolillo said that all of this was dependent on  
4 the resolution of the Shoreham initiative. And, I am  
5 quoting from 1395 of the transcript, he said,  
6 "Obviously, the sooner the financial market gets a  
7 signal that the Shoreham issue has been resolved, the  
8 sooner the company would gain access to the capital  
9 markets in my opinion." So, it would be a positive  
10 signal to the markets out there that the Shoreham issue  
11 has been resolved. The sooner we get it, the better it  
12 is financially. Just to be sure that what he was  
13 focusing on was the granting of this exemption as  
14 opposed to the ultimate commercial operation, license,  
15 I asked him again will you relate that specifically to  
16 the granting of this exemption, and Mr. Nozolillo gave  
17 a similar reply that the granting of this exemption  
18 might help to lessen the financial hardship of not  
19 being able to engage in low power testing. It might  
20 send a signal to the capital markets, which might  
21 alleviate LILCO'S financial hardship.

22 Now, another matter that the commission asked  
23 to be addressed was the applicant's good faith efforts  
24 to comply with the regulations in which an exemption  
25 sought. I am not going to detail the testimony. The

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1 board will recall the testimony of Mr. McCaffrey, I  
2 think almost by definition, if you look at what LILCO  
3 has done and try and tell it is ludicrous to think that  
4 they have not made an attempt to comply with GDC 17.  
5 The original design of Shoreham was intended to meet  
6 GDC 17. These were purchased from Trans America  
7 Delaval Incorporated. The specs were written so that  
8 those diesels would comply with GDC 17. When problems  
9 were discovered with those diesel generators, extensive  
10 efforts were undertaken by LILCO to ensure that the  
11 machines would operate reliably. You will recall the  
12 testimony about the program's LILCO set up, and then  
13 after the crank shafts broke in 1983, the DRQR program  
14 that was set up by LILCO. All of this was beginning,  
15 approximately page 1707 of the transcript.

16 You will recall how LILCO has taken a lead  
17 role in the owners group of owners who have TDI  
18 diesels, how LILCO has expended considerable sums of  
19 money by hiring failure analysis associates to do a  
20 comprehensive disassembly and study of the diesels.

21 You will recall Mr. McCaffrey's testimony of  
22 LILCO has provided for procuring additional diesel  
23 generators, a whole set from Colt industries, at a cost  
24 of \$93 million to it, and you will recall Mr.  
25 McCaffrey's testimony and all the other evidence of the

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1 extent to which LILCO has gone in its efforts to ensure  
2 that even during low power testing, it has AC power  
3 sources, that they went out and bought the EMD diesels,  
4 and a 20 megawatt gas turbine at Shoreham.

5 So, it's virtually beyond challenge that  
6 LILCO has attempted to comply with the GDC-17. Clearly,  
7 LILCO is not asking for an exemption, because it has  
8 simply thumbed its nose at the regulation, and said we  
9 don't need it. LILCO has gone through extensive, and I  
10 might add expensive efforts to comply with GDC-17.  
11 Indeed, it thinks it will comply, and that compliance  
12 will be shown as soon as the TDI licensing proceedings  
13 are over.

14 Finally, there was some testimony by Mr.  
15 McCaffrey concerning the length of this proceeding, the  
16 expense of this proceeding to all of the parties. I  
17 won't go through that. It is found in transcript pages  
18 5041-1675 and 1750-1730 suffice it to say that this  
19 licensing proceeding has been extremely lengthy. It has  
20 been extremely expensive, it has been extremely  
21 burdensome, and that fairness to LILCO dictates that if  
22 proposed operation in this mode is safe, then a license  
23 for a low power license with the exemption ought to be  
24 granted.

25 In conclusion, LILCO asked this board to

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1 grant the low power license to issue a decision  
2 authorizing the issuance of the license for Phase I and  
3 II immediately, because security issues can't have any  
4 impact on Phase I & II as much as no AC power is needed  
5 during Phases I & II. So, any security issues with  
6 respect to the 20 megawatt gas turbine, or the EMD  
7 diesels, obviously, wouldn't have any impact on the  
8 health and safety issues present during phases I and  
9 II. We further ask this board to issue a partial  
10 initial decision approving the granting of the  
11 exemption, and the issuance of the low power license in  
12 Phases III and IV contingent upon the outcome of the  
13 security issues which will be taken up later today.

14 JUDGE MILLER: we'll take a ten minute recess,  
15 and then we will hear from the staff, followed then by,  
16 I suppose...

17 (Brief recess.)

18 JUDGE MILLER: Alright. I guess the staff is  
19 next, please.

20 MR. PERLIS: The critical task facing this  
21 board and the parties before it is to flesh out the  
22 meaning of the two terms used by the commission in  
23 CLl-84-8 and to apply the factual record developed in  
24 Long Island back in April and earlier this month, to  
25 those two terms.

1           Those terms, of course, are as safe as and  
2 exigent circumstances. Without belaboring the point, I  
3 think it is important to keep in mind that we are  
4 really dealing with a case of first impression here.  
5 There has been no published decision applying the terms  
6 and it is no secret that the staff has already been to  
7 the commission once, seeking additional guidance on the  
8 meaning of the commission's decision. I think that it  
9 is safe to say that the parties here today have  
10 somewhat different views on the meaning of the terms.

11           Ultimately, the commission itself, will have  
12 to resolve the definitional questions. Under the  
13 circumstances, it is important that the commission and  
14 the board be provided with a clear factual record,  
15 against which the terms, however they are finally  
16 defined, be applied.

17           The first term that I would like to address,  
18 is as safe as. I think a couple of preliminary points  
19 are in order here. First, although there was some  
20 confusion on this point in the hearing, the staff's  
21 position is quite clear. The ultimate comparison is  
22 between Shoreham at 5% power with the augmented power  
23 system proposed by LILCO, and Shoreham at 5%, with an  
24 onsite power system in compliance with GDC 17.

25           This does not mean that all comparisons

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1 between 5% and 100% power are irrelevant to the board's  
2 decision. Such comparisons can and are helpful to place  
3 various matters in perspective. But, the actual  
4 comparison that must be ultimately made is between two  
5 systems at 5% power operation.

6 Second, the staff applied a concept somewhat  
7 similar to a rule of reason to the as safe as contact.

8 Specifically, the staff focused on whether  
9 the augmented system proposed for Shoreham would  
10 provide a comparable level of safety as a system in  
11 compliance with GD17. This is not to say that the  
12 systems must be identical. If they were, there would be  
13 no need for an exemption. The staff review focused on  
14 whether any differences were significant from the  
15 safety standpoint. The staff's conclusion was on page  
16 23-1, supplement 6 to the Shoreham SER. Supplement 6  
17 was incorporated into the transcript after page 721.

18 The staff's conclusion was as follows. The  
19 staff considered the effect of loss of all AC power on  
20 transients and accidents. For those events, that could  
21 be postulated to occur, the staff has reasonable  
22 assurance that sufficient time exists so that AC power  
23 could be made available to those systems required to  
24 maintain core cooling, prior to release of any  
25 radioactive fission products from the fuel.

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1                   Therefore, there is no fission product  
2 release that could be postulated during operation up to  
3 5% of rated power, without TDI diesel's available.

4                   Since operation at power levels up to 5% of  
5 rated power with the TDI diesels available also results  
6 in no fission products release, we conclude that  
7 operation without TDI diesels is as safe as the  
8 operation with TDI diesels available for power levels  
9 up to 5%.

10                   We, therefore conclude that the applicant has  
11 provided adequate technical justification to support  
12 the granting of an exemption from the requirements in  
13 GDC17. To provide the basis for this conclusion, the  
14 staff presented testimony from 5 witnesses at the  
15 hearing. Mr. Hodges and Mr. Quay, and their testimony  
16 is found in the transcript pages 1782-1800, provided  
17 testimony concerning the vulnerability of the core at  
18 5% power. As a benchmark, Mr. Hodges focused on the  
19 2200 degree peak cladding temperature limit set forth  
20 in 10 CFR part 5046, although his testimony indicated  
21 at transcript 1786-1787, that exceeding the limit,  
22 would not necessarily have any safety consequences. Mr.  
23 Hodges testified that if any accident or transient  
24 other than a loss of coolant accident were to occur,  
25 again at 5% power, and provided the reactor core

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1 isolation cooling system, RCIC, or the high pressure  
2 coolant injection system, HPCI, were to operate at  
3 least once within four days. The core would never reach  
4 the temperature of 2200 degrees, whether AC power were  
5 restored or not. That is in the transcript 1785.

6 A loss of coolant accident would be the most  
7 severe accident that could occur at 5% power. If the  
8 LILCO were to occur, simultaneous with the loss of off  
9 site power, and applying conservative assumptions,  
10 there are approximately 55 minutes before the peak  
11 cladding temperature would exceed the 2200 degree  
12 limit. If we use more realistic assumptions, it would  
13 take at least twice that long before the 2200 limit  
14 would be exceeded. That is in the transcript 1786.

15 I think it is important to keep in mind that  
16 that aspect of Mr. Hodges testimony went unchallenged.  
17 Suffolk County, presented no contrary evidence as part  
18 of it's direct case. It is uncontroverted in this  
19 record, that in worst case analysis for low power  
20 operation, the plant could survive without AC power for  
21 a minimum of 55 minutes.

22 One other aspect of Mr. Hodges testimony  
23 should be mentioned. Both LILCO and Suffolk county  
24 presented evidence on the Seismic capabilities of the  
25 augmented power system.

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1           The staff does not rely on this system  
2 surviving a seismic event. That is on transcript page  
3 2343. It must be kept in mind that for all scenarios  
4 other than the LILCO, the plant could survive without  
5 AC power indefinitely. Mr. Hodges testified that  
6 because of the low combined probability of the LILCO  
7 and seismic event, and one has to keep in mind that  
8 those events must be considered independent, because  
9 the plant is designed so that the the seismic event  
10 will not cause a LOCA. The staff in its review has not  
11 seen the need to assume simultaneous occurrence of a  
12 LOCA and a seismic event. That can be found in  
13 transcript 1763-1794.

14           The gist of Mr. Hodges testimony was that if,  
15 AC power can be restored within 55 minutes, 5%  
16 operation with the augmented power sources would be as  
17 safe as 5% operation with a power source in compliance  
18 with GDC17.

19           This is not to say that power would be  
20 restored as quickly as if the TDI'S were used. Mr.  
21 Hodges testified that the backup power source relied  
22 upon during full power operation is assumed to restore  
23 power in 15 seconds. Restoring power, using LILCO's  
24 augmented system, will take a longer period of time.  
25 Mr. Hodges made it quite clear, however, that so long

1 as power is restored in 55 minutes, the core would  
2 remain adequately protected during low power operation.  
3 That can be found in the transcript page 1749-1753, and  
4 1788.

5 Mr. Quay's testimony, addressed the need for  
6 the standby gas treatment system at low power. The  
7 purpose of this system is to reduce the quantity of  
8 radioiodine that could be released to the public in the  
9 event of an accident. This system requires AC power in  
10 order to operate. The system is only used to mitigate  
11 two accidents, a loca, and a fuel handling accident.

12 As we have just discussed, if AC power is  
13 restored within 55 minutes, a LILCO will not result in  
14 any fuel failures. As for a fuel handling accident, it  
15 is not expected that fuel will be moved at low power.  
16 Even if the fuel is moved and the handling accident  
17 were to occur, the fission products that could be  
18 released after operation at 5%, are substantially less  
19 than those that could be released after full power  
20 operation. It was therefore Mr. Quay's professional  
21 conclusion that there is no need for the standby gas  
22 treatment system during low power operation. That can  
23 be found in transcript 1772, and 1797-1798. Mr. Quay's  
24 evidence in this regard was not controverted by Suffolk  
25 County.

1           The third staff witness was James Clifford.  
2           Use of the augmented power system for Shoreham will  
3           require certain operator actions. Mr. Clifford reviewed  
4           the procedures to be followed by the operators, and  
5           observed a demonstration of the operator actions needed  
6           to restore power from both the gas turbent and the  
7           EMD's. During those demonstrations, power was restored  
8           from the gas turbine in approximately 4 minutes, it  
9           took the EMD'S 9 minutes. This is in transcript  
10          1850-1852. Mr. Clifford found that certain changes were  
11          needed before the staff could determine that the  
12          procedural and operational aspects of the augmented  
13          configuration were acceptable. Those changes are all  
14          detailed in pages 13-2 and 13-3 & supplement SAX to the  
15          SER. With those changes, Mr. Clifford testified that  
16          there is reasonable assurance that the operators will  
17          be capable of implementing the necesary actions well  
18          within 55 minutes. That can be found in the transcript  
19          1838-1852.

20                 On cross-examination, Mr. Clifford made it  
21          clear that only one field operator was needed to  
22          perform the required actions outside of the control  
23          room. That is in transcript 1837 and 1833.

24                 In their direct case, Suffolk county made an  
25          assertion that reliance on operator actions in and of



1 itself makes the augmented power system less safe. That  
2 can be found in transcript 2579, 2607.

3 Yet, Suffolk County presented no reason to  
4 believe that operators would not be capable of  
5 performing the actions called for. Although Suffolk  
6 county's witnesses alleged that operator actions could  
7 not be taken in a timely manner, cross examination  
8 revealed that the witnesses had no idea how much time  
9 would be available to the operators. They did not  
10 explain the basis for their view that actions could not  
11 be performed in a timely manner. That can be found in  
12 the transcript 2524-2528.

13 The staff submits that here too, the evidence  
14 is uncontroverted that the operators will be able to  
15 take the actions needed to start up the augmented  
16 power sources, in the time available to them.

17 Finally, the staff presented testimony from  
18 John Knox and Ed Tomlinson concerning the adequacy of  
19 the augmented power sources themselves. The summary of  
20 their review was in page 8-9, supplement 6 to the SER.  
21 The basis for their conclusion was as follows. The  
22 review of the alternate AC power sources proposed by  
23 the applicant for low power operation at Shoreham  
24 covered single line diagrams, station layout drawings,  
25 schematic diagrams, descriptive information, and a

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1 confirmatory site inspection. The staff concludes that  
2 the alternate AC power sources have a the required  
3 redundancy, meet the single failure criterion, and have  
4 the capacity, capability, and reliability to supply  
5 power to all required safety loads for low power  
6 operation. The design thus, provides reasonable  
7 assurance that AC power will be available within 55  
8 minutes following a design basis event LILCO, and  
9 therefore is acceptable.

10 The basis for this conclusion is set out in  
11 the SER, and in the direct testimony of Messrs Knoxs  
12 and Tomlinson, starting with transcript 2337.

13 I won't repeat that testimony here. I think  
14 the reliability and capacity of the augmented sources  
15 essentially went unchallenged. Indeed, the focus of the  
16 county's direct case was on the ability of the  
17 augmented system to meet the single failure criterion.  
18 I would refer the board to pages 2578-2796, of the  
19 county's direct testimony.

20 It was clear from the county's direct case  
21 and from the cross examination of its witnesses, that  
22 the county misapprehended the import of single failure.  
23 The county focused on the EMD as a single unit, and the  
24 gas turbine as a single unit, and asserted that each  
25 unit separately failed to meet the single failure

1 criterion.

2 It is clear, however, that the augmented  
3 power sources must be viewed as a system. It is that  
4 system, composed of both the EMD's and the gas turbine,  
5 that the staff found satisfied the single failure  
6 criterion. The county's testimony does not challenge  
7 that finding.

8 In conclusion, the testimony of the staff  
9 addressing the technical adequacy of the augmented  
10 power sources, essentially went unchallenged. That  
11 testimony indicated that even in the worst case  
12 situation at low power, a loss of coolant accident, AC  
13 power will not be needed for 55 minutes, that the  
14 operators are fully capable of taking the action  
15 required of them well within in the available time  
16 period, and that the augmented system itself is  
17 sufficiently redundant, reliable and capable to make  
18 sure that AC power would, in fact, be available in  
19 time.

20 Under the circumstances, the augmented power  
21 sources are sufficient to provide adequate assurance  
22 that fuel fission products will not be released to the  
23 public as a result of low power operation, and  
24 therefore, those sources provide a comparable level of  
25 safety as would a source in full compliance with GDC17.

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1           The staff did not present any direct evidence  
2 on the second aspect of the proceedings, that of  
3 exigent circumstances.

4           Briefly, I would like to explain here why  
5 that was the case. First of all, the facts on the  
6 exigent circumstances are largely matters of which the  
7 staff has little direct knowledge. More importantly,  
8 this falls outside the traditional scope of staff  
9 review, and of staff expertise. Thus, in the area of  
10 exigent circumstances, the staff was in a position  
11 similar to the board. After having conducted our safety  
12 review, the staff was put in a position of analyzing  
13 the evidence offered by the other parties and applying  
14 that evidence as best we could to the commission order.

15           In determining whether exigent circumstances  
16 exist, the commission dictated that the equities of the  
17 situation would be taken into account, and particularly  
18 that the following be considered: the stage of the  
19 facility's life, any financial hardships, any internal  
20 inconsistencies in the regulations, the applicant's  
21 good faith effort to comply with the regulation for  
22 which an exemption is sought, the public interest in  
23 the adherence to the regulations and the safety  
24 significance of the issues involved.

25           As a preliminary matter, it must be stressed,

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1 exigent circumstances come into play only after the as  
2 safe as determination is made.

3 The question then becomes, assuming that  
4 there is no adverse safety effect associated with the  
5 proposed exemption, and the staff submits that there is  
6 no adverse safety effect shown here, what showing of  
7 exigent circumstances is none the less necessary for  
8 the exemption to be authorized.

9 Looking first at the evidence submitted by  
10 the other parties, LILCO presented essentially 5  
11 portions of testimony directed towards exigent  
12 circumstances. Messers Gunther and Shiiffmocker, said  
13 that the plant could be ready to load fuel in two to  
14 three weeks. That is transcript page 866. These  
15 gentlemen also described the testing that will take  
16 place at low power, and indicated that additional  
17 testing could take place if the extension were granted.  
18 That is in transcript page 829-830.

19 Mr. Szabo testified that Shoreham would  
20 reduce LILCO's consumption of foreign oil. I don't  
21 think that there is any question that Federal policy  
22 favors such a reduction. The reduction attritubable to  
23 the exemption would be for a three month period only,  
24 however, and the testimony indicated that the benefits  
25 from a three month earlier reduction were somewhat

1 questionable. That could be found in the transcript on  
2 page 1268-1284.

3 Mr. Nozzollula testified that the Shoreham  
4 rate powers would receive a net benefit of \$8-\$45  
5 million dollars if Shoreham achieved commercial  
6 operation three months earlier.

7 Thirty seven million dollars of this benefit  
8 are attributable to tax savings if Shoreham is  
9 synchronized on or before December 31, of this year.  
10 That is in transcript page 1361-1362. The remaining \$8  
11 million in benefits was challenged by the county's  
12 witnesses Messres Diemeier and Maden.

13 The staff has no expertise in evaluating the  
14 conflicting claims such as are presented here, and with  
15 thus is left in a position where we cannot and did not  
16 rely on either the claims of a benefit or a detriment  
17 in our ultimate findings.

18 Finally, Mr. McCaffrey offered testimony on  
19 two subjects. First, he described LILCO's efforts to  
20 comply with GDC 17. Those efforts are described in the  
21 direct testimony transcripts 1703-1715. The county has  
22 asserted that various of those efforts could have been  
23 more thorough or productive. I think that misses the  
24 point. What is relevant here is that a number of steps  
25 were taken which if successful, would have resulted in

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1 a power system in full compliance with GDC 17. It was  
2 always LILCO's intention to comply with GDC 17, and  
3 indeed the exemption that they are seeking here is for  
4 a limited period of time, prior to full power operation  
5 they intend, they will have to demonstrate compliance  
6 with GDC 17, either based upon the TDI's or the colt  
7 diesels they are currently installing at the site.

8 Second, Mr. McCaffrey offered testimony  
9 providing his views that the Shoreham licensing process  
10 has worked a financial, and in a sense, an equitable  
11 hardship on LILCO and that the company now deserves a  
12 break from the commission. The staff supported a motion  
13 to strike this portion of Mr. McCaffrey's testimony.  
14 That was in transcript 1693, without disputing any of  
15 the history as Mr. McCaffrey sees it, we continue to  
16 believe that this testimony is just not relevant to the  
17 issues before the board.

18 I have already addressed the county's  
19 testimony on the subject of exigent circumstances. The  
20 state of New York presented testimony by Mr. Kessel,  
21 indicating that the state does not believe issuance of  
22 an exemption would be in the public interest. That  
23 undoubtedly reflects the state's, and I think the  
24 county's position. Ultimately, however, it is for the  
25 board and the commission to determine whether an

1 exemption should be made, taking all factors into  
2 consideration.

3 I think CLI-84-8, in particular, footnote 3,  
4 indicates the commission's view that a balancing of the  
5 equities involved in exigent circumstances resolves the  
6 public interest consideration. I would ask the board to  
7 note that the commission says in footnote 3 that after  
8 considering the equities involved in exigent  
9 circumstances, that those equities do not apply to the  
10 requisite findings on public health and safety, and  
11 common defense and security. No mention is then made of  
12 the public interest.

13 In applying testimony on exigent  
14 circumstances, to footnote three, once again has to  
15 keep in mind we have already determined the exemption  
16 would not adversely affect health and safety. Looking  
17 at the footnote, the staff reaches the following  
18 conclusions.

19 As to the stage of the facility's life, it  
20 is substantially complete. As to financial or economic  
21 hardships, as I stated earlier, the staff lacks the  
22 expertise to resolve conflicting claims in this area,  
23 and we haven't relied on any findings in that area.

24 Internal inconsistencies in the regulation.  
25 We believe GDCl7 is reasonably clear on its face. The

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1 commission has made it clear how it is to be applied.  
2 We don't see any internal inconsistencies. As to a good  
3 faith effort to comply with the regulation, the staff  
4 does believe that LILCO, has made a good faith effort  
5 to achieve compliance with GDC-17, and they have  
6 indicated that in the future they will meet the  
7 regulation. Again, we are talking about a limited  
8 exemption.

9 Public interest in adherence to the  
10 Commission's regulations. The staff does believe, as a  
11 general rule that regulations should be followed.  
12 Again, we are faced here with a request for a temporary  
13 exemption. We don't believe the regulatory structure  
14 would be adversely affected by the granting of an  
15 exemption.

16 Finally, as to the safety significance of the  
17 issues, as I said previously, the staff sees no safety  
18 significance to the exemption. The level of safety  
19 provided to the public will be comparable to that  
20 provided by a Power System in full compliance with  
21 GDC17. Indeed, if that were not the case, one would  
22 never look at exigent circumstances.

23 Balancing the equities just set forth, and  
24 again keeping in mind that we only get to this stage  
25 after it is determined that there are no adverse safety

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1 effects. The staff believes the exemption request meets  
2 the test set out in 84-8.

3 JUDGE MILLER: I have a few questions. I would  
4 like to get the staff position. As counsel has  
5 mentioned, there has been some discussion by the  
6 commissioners. I think it was probably at a public  
7 hearing, regarding the so-called as safe as rule. What  
8 is the present status of the as safe as rule as a  
9 matter of interpretation?

10 MR. PERLIS: As it affects Shoreham, CLI-84-8  
11 continues to be in effect. As it applies to plants  
12 other than Shoreham, the staff in concert with the  
13 general counsel's office is preparing a statement for  
14 the commission as to how future exemptions should be  
15 treated. At present, other exemptions are not being  
16 treated according to 84-8, who will be treated  
17 according to traditional staff practice.

18 JUDGE MILLER: They are not being treated  
19 according to what?

20 MR. PERLIS: The standard set by the  
21 commission 84-8.

22 JUDGE MILLER: That is to say that they had an  
23 as safe as standard?

24 MR. PERLIS: And the exigent circumstances.

25 JUDGE MILLER: And the exigent circumstances.

1 Well, it is either the staff position or  
2 recommendations or commission action going to come down  
3 and be of assistance to this board in interpreting the  
4 May 16th order.

5 MR. PERLIS: I don't believe so, but I believe  
6 the commission has made it clear as to this exemption  
7 request, that the May 16th order should be taken at its  
8 face value.

9 JUDGE MILLER: But, I am inquiring now, what  
10 is its face value. That is why I am asking these  
11 questions. It isn't entirely clear to me what its face  
12 value is, and that is why I want the staff to enlighten  
13 us, please.

14 MR. PERLIS: As I tried to point out earlier,  
15 in terms of as safe as, the staff believes that the as  
16 safe as is a comparable level of safety. If there are  
17 no significant safety differences, one could find a  
18 comparable level of safety and make an as safe as  
19 finding. We are not requiring an exact equivalence.

20 JUDGE MILLER: Well, I think that in your  
21 discussion, you considered a comparable level of safety  
22 as being some kind of a rule of reason, did you not?

23 MR. PERLIS: That's correct.

24 JUDGE MILLER: Well, what is the rule of  
25 reason then?

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1 MR. PERLIS: I think the rule of reason is as  
2 just stated. If there is a comparable level of safety,  
3 if there is a difference, not significant from the  
4 safety standpoint, one should find that the as safe as  
5 standards could be met.

6 JUDGE MILLER: Is that the same as saying  
7 substantially as safe as? That was discussed also  
8 before the commission though.

9 MR. PERLIS: I think that is correct. I  
10 wouldn't myself see the difference between...

11 JUDGE MILLER: You would, wait a minute, you  
12 are going too fast. You would what?

13 MR. PERLIS: I would not see the difference  
14 between the substantially as safe, and a comparable  
15 level of safety.

16 JUDGE MILLER: I see. Does the commission, so  
17 far as you know, see a distinction? By commission, now,  
18 I am talking about commissioners of course.

19 MR. PERLIS: I don't believe so. I think it  
20 also should be pointed out that the commission has  
21 already made it clear that before the decision  
22 authorizing any grant of an exemption will become  
23 effective, the commission intends to conduct a review  
24 of that decision.

25 JUDGE MILLER: I understand, but that is

1 really not relevant either in interpreting the order  
2 that we are operating under. The fact that they are  
3 going to review us and they could and would anyway, it  
4 doesn't make one little preferable to another, does it?

5 MR. PERLIS: No. That is correct, but I think  
6 it does mean that one doesn't have to guess what the  
7 commission has meant.

8 JUDGE MILLER: I don't want to guess. I want  
9 you to tell me what your understanding is as a staff  
10 lawyer.

11 MR. PERLIS: My understanding, unfortunately,  
12 my understanding is a guess. My understanding is that  
13 it is a comparable level of safety, and that is what  
14 the staff recommended to the commission. I also  
15 recommended though, I believe it is important that the  
16 facts be carefully presented before the commission,  
17 because the commission may well decide the standard is  
18 not as I have set it out, or not as any of the other  
19 parties may set it out. The facts should be presented  
20 very carefully to the commission and to the board by  
21 the parties and the staff to apply to whatever standard  
22 we finally use.

23 JUDGE MILLER: Well, we want to apply the  
24 facts very carefully, as you say, but we would also  
25 like to have some enlightening as to what standards to

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1 be used. Now, if I understand you correctly, I'm trying  
2 to use these words with precision, as I know you are.  
3 The staff and its argument in position here in this  
4 Shoreham low power exemption proceeding is urging upon  
5 the board that some kind of rule or reason be used in  
6 applying the commission's order through May 16,  
7 whatever it is, whereby a comparable level of safety  
8 will be the test or standard which may be equated with  
9 the term substantially "as safe as", right?

10 MR. PERLIS: That's correct.

11 JUDGE MILLER: Does that staff have any  
12 indication whether or not the substantially as safe as  
13 was the rule that was enunciated in this very clear  
14 order of the commission that you have been telling us  
15 about?

16 MR. PERLIS: Are you talking about CLI-84-8?

17 JUDGE MILLER: I am indeed.

18 MR. PERLIS: No. We don't

19 JUDGE MILLER: It wasn't that clear then, in  
20 that respect. Is that your view?

21 MR. PERLIS: I think the commission  
22 subsequently made it plain that they intended as safe  
23 as to be right out of substantially safe...

24 JUDGE MILLER: Alright. Hold it. I am very  
25 intersted in that.

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1 MR. PERLIS: That is not stated in the order  
2 of May 16th.

3 JUDGE MILLER: Alright, but the staff counsel  
4 and your office, OELD has some view on what the  
5 commission meant by its order that perhaps isn't  
6 apparent from the four corners rule, such as you have  
7 just now indicated. I wish you would explicate that a  
8 little bit.

9 MR. PERLIS: I do want to make clear that the  
10 staff position was not taken as a result of the  
11 commission's public meeting a few weeks ago.

12 JUDGE MILLER: Yes.

13 MR. PERLIS: The staff's position was taken  
14 because in our view, the common sense way of applying  
15 as safe as was to see whether any safety differences,  
16 if in fact there are any at all, and it's not clear  
17 that there are here, have any significance.

18 JUDGE MILLER: So then, you the staff, OELD,  
19 then believe that in interpreting the commission's  
20 order in this case of what the standard that should be  
21 used by this board would be substantially as safe as in  
22 making the comparison of 5% level of power that you  
23 have discussed.

24 MR. PERLIS: I think that is substantially  
25 true.

1 JUDGE MILLER: Okay, now we have got two  
2 substantials. Okay, now, I don't want one to nullify  
3 the other. Now, let's back up.

4 MR. PERLIS: The thing that I suggested is one  
5 of a comparable level of safety.

6 JUDGE MILLER: I asked you what you meant by  
7 that?

8 MR. PERLIS: I don't see any difference  
9 between that and substantially as safe if you interpret  
10 them the same way, then yes, I would agree with your  
11 position.

12 JUDGE MILLER: In other words, if I agree with  
13 you that a comparable level of safety, semantics aside  
14 now, the staff is really telling us in a mechanical  
15 way, means the same thing, in this case, at any rate,  
16 as substantially as safe as?

17 MR. PERLIS: That's correct.

18 JUDGE MILLER: Okay. I see. You've discussed,  
19 I think and said that you didn't see much inconsistency  
20 in the regulations aside from that initial question  
21 where the commission overruled both the staff and the  
22 board as to the concern to consideration of the two  
23 rules. Is that the staff's position here in this  
24 proceeding?

25 MR. PERLIS: Yes it is. I would like to

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1 explain that if I could.

2 JUDGE MILLER: I wish you would.

3 MR. PERLIS: The regulation that we are  
4 focusing on here is GDC-17.

5 JUDGE MILLER: Correct.

6 MR. PERLIS: That's the regulation that the  
7 applicants seek an exemption from.

8 JUDGE MILLER: Correct.

9 MR. PERLIS: We believe, GDC-17, taken by  
10 itself is fairly clear on its face as to what one needs  
11 to meet it, and...

12 JUDGE MILLER: Wait a minute now, to mean  
13 what? So, you are going to get back now to this  
14 substantially as safe as, you can't elude it in  
15 applying GDC-17, I don't think.

16 MR. PERLIS: GDC-17 requires both an on site  
17 and an offsite power source. Sufficient to perform  
18 certain safety functions.

19 JUDGE MILLER: Go ahead. Make the comparison.

20 MR. PERLIS: The on site power source as  
21 proposed by the utility, in this case is the TDI  
22 diesels, there is a substantial question as to whether  
23 those diesels are sufficient to satisfy the safety  
24 requirements set forth in GDC-17. Therefore, they will  
25 seek an exemption based upon power sources which are

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1 considered offsite power sources. Therefore, there is  
2 no onsite power source, and I don't think the GDC-17 is  
3 unclear on that point. If there is no on-site power  
4 source, the clear requirements of GDC-17 are not met.

5 JUDGE MILLER: Well, that isn't the issue as  
6 you posed it. The issue is whether the requirements of  
7 GD17 are met, are substantially as safe as under the  
8 system proposed for the exemption compared and  
9 contrasted with the requirements of GDC-17.

10 MR. PERLIS: If I understand your question,  
11 there we are talking about the safety functions set out  
12 in GDC-17.

13 JUDGE MILLER: Correct.

14 MR. PERLIS: Okay. As to the safety functions,  
15 LILCO's augmented power system, in the staff's view  
16 fulfills those safety functions.

17 JUDGE MILLER: Therefore, complies with  
18 GDC-17?

19 MR. PERLIS: No. It can't. Not with GDC-17,  
20 because GDC-17 also specifically requires that those  
21 systems be on site, and they are not on site systems.

22 JUDGE MILLER: Well, then, how do you equate  
23 your strict interpretation of GDC-17 as you have just  
24 stated it with the substantially as safe as issue?

25 MR. PERLIS: The systems are not less safe

1 merely because they are designated as off site as  
2 opposed to on site. There is still the capability of  
3 fulfilling the safety criteria set up in GDC-17.  
4 However, literally the regulation requires that those  
5 systems be on site. this is not considered an on site  
6 systems here. GDC-17 is not met.

7 JUDGE MILLER: So, therefore, you're  
8 recommending the staff sending in an exemption on that  
9 portion of GDC-17 on the grounds that the proposed  
10 alternative system is substantially as safe as, or  
11 reaches a comparable level of safety as the strict  
12 requireemnts or compliance with GDC-17.

13 MR. PERLIS: Correct. The power system under  
14 GDC-17 is designed with no fission fuel products will  
15 escape. The staff has sufficient assurance using the  
16 proffered system that no fuel fission products will  
17 escape under low power using that system. Therefore, it  
18 as safe as. Since GDC-17 specifically requires an  
19 on-site system an exemption is necessary from 6DC-17.

20 JUDGE MILLER: Okay. Now, I think that you  
21 have found, aside from the matter that we have just  
22 discussed that there were no inconsistent regulations  
23 under that portion of the footnote. Is that your  
24 position?

25 MR. PERLIS: Yes. Focusing there on GDC-17.

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1 JUDGE MILLER: Now, focusing there a little  
2 differently, if there are inconsisnt interpretations  
3 of regulations, should that not be considered under  
4 that part of the footnote?

5 Inconsistent interpretations of any  
6 regulations which might have some bearing. Would that  
7 not be something cognizable?

8 MR. PERLIS: I don't think it is necessary to  
9 take that into account.

10 JUDGE MILLER: No. Answer my question. Is  
11 that, or is that not cognizable under that section of  
12 the footnote? In other words, if you limited it to the  
13 barebones inconsistency of regulations or if you have  
14 some inconsistencies in interpretation or applications  
15 of the regulation, should that not be considered also  
16 under that footnote?

17 MR. PERLIS: I think the board could consider  
18 internal consistencies in other regulations.

19 JUDGE MILLER: Do you, does the staff consider  
20 that LILCO has been treated differently than other  
21 utilities similarly situated by the order, you remember  
22 the number better than I do, the commission's order of  
23 May 16 that we are operating under?

24 Treat it any different than any other  
25 utilities similarly situated.

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1 MR. PERLIS: In terms of 84A-8, it is  
2 difficult for me to guess what the commission had in  
3 mind. Certainly, it is true that exemptions coming in  
4 today would not have to meet, at least not right now  
5 the standard set by the commission in 84-8.

6 JUDGE MILLER: So, that would be a difference  
7 then in the interpretation or application of at least  
8 one regulation to look or either be similarly situated,  
9 isn't that correct?

10 MR. PERLIS: I think that is correct.

11 JUDGE MILLER: Okay.

12 (End of tape.)  
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1 JUDGE MILLER: What about exigent circumstances?  
2 Hasn't that requirement been applied solely or almost  
3 solely to section, subsection B, that is to say limited  
4 work authorizations for example, and not to A which we're  
5 operating under?

6 MR. PERLIS: My understanding is that that's  
7 correct.

8 JUDGE MILLER: Isn't that a different treatment,  
9 then, at least a new treatment or application of that to  
10 LILCO, distinguished from all other similarly situated?

11 MR. PERLIS: In so far as 84-8, it won't be  
12 applied, at least right now, to other --, that's correct.

13 JUDGE MILLER: Well, I'm talking now about  
14 exigent circumstances.

15 MR. PERLIS: Right now.

16 JUDGE MILLER: Okay, we're in agreement then, on  
17 that, in discussing it. I'm not saying how we're decid-  
18 ing, but we are discussing the results of a different  
19 interpretation or an inconsistent application, that's  
20 all I'm asking now.

21 MR. PERLIS: I might point out that the whole  
22 reason the Staff went to the Commission was because we did  
23 see 84-8 as substantially changing the manner in which the  
24 Staff processes exemptions. The Commission...

25 JUDGE MILLER: You might tell us a little bit  
about that then, so far as you have it.

MR. PERLIS: I think the Commission has recognized

1 that indeed they had worked a substantial change from past  
2 practice, and is now in the process of reconsidering whether  
3 it intends those changes to be permanent or not.

4 JUDGE MILLER: In the Staff's view, the legal  
5 Staff's view, is it possible that there may be some changes  
6 in the Commission's interpretation or application of exemp-  
7 tion requests which could or might have a bearing upon the  
8 decision in this portion of the Shoreham exemption request  
9 hearing.

10 MR. PERLIS: I hesitate to say it's impossible, but  
11 again I go back to what the Commission has stated earlier  
12 which is that at present, it wants the Shoreham exemption  
13 hearing to treat the standards set out in 84-8 and I don't  
14 believe that at this present time, the Commission wants to  
15 change that standard as it applies to Shoreham.

16 JUDGE MILLER: Does the Commission adopt your view  
17 that the Shoreham Rule, so called, is not as safe as, but is  
18 substantially as safe as?

19 MR. PERLIS: There was some talk at the public  
20 meeting as to what the Commission meant by as safe as and  
21 I'm not sure that the Commission has reached any final de-  
22 cision on it yet.

23 JUDGE MILLER: Are there any other implicit matters  
24 now in our interpretation of the Commission's Order or any  
25 other Rules of Reason that the Staff is aware of or has any  
comments concerning?

1 MR. PERLIS: No, I think the two problems the Staff  
2 has had in definition, in definitions are the as safe as and  
3 exigent circumstances.

4 JUDGE MILLER: Okay, thank you, very much. LILCO,  
5 I'm sorry. County, I take it the County prefers to go ahead  
6 of the State. Would it be, oh, I'm sorry, what?

7 I've got at least one hungry Administrative Judge.  
8 Everyone else want to knock off for lunch at this time?  
9 All right. Let's take about, say 1:15, we're a little closer  
10 to restaurants here. We'll resume at 1:15, remember now,  
11 we're gonna have to go into...

12 (Recess for lunch.)

13 MS. LETSCHE: Thank you, Judge Miller. In order to  
14 get the exemption which LILCO is requesting in this proceeding,  
15 the Board must make three findings, according to the Commis-  
16 sion's May 16th Order and the Regulation regarding exemptions.

17 First of all, as the Commission stated in its  
18 May 16th Order, LILCO must show that it meets the requirements  
19 set forth in Section 5012A. Section 5012A requires that the  
20 requested exemption be in the public interest. Therefore,  
21 this Board must find, based on evidence presented by LILCO, or  
22 anyone else in this proceeding, that the grant of the exemp-  
23 tion is in the public interest.

24 Secondly, according to the Commission's Order, in  
25 addition to addressing the determinations that must be made



1 under Section 5012A, the applicant must also establish that  
2 there are exigent circumstances that justify the granting of an  
3 exemption. And in the Commission's Order it is explained that  
4 the granting of an exemption is an extraordinary remedy and  
5 that extraordinary circumstances must be demonstrated in order  
6 to justify the extraordinary situation of operating a plant  
7 without being in compliance with the Regulations.

8 The third thing which LILCO must show in order to  
9 obtain an exemption, is that operation at 5% power with the  
10 alternate configuration which it proposes would be as safe  
11 as operation with 5% power given a configuration that would  
12 comply with the Regulations.

13 And it's the position of Suffolk County, based upon  
14 the evidence of record in this proceeding, that LILCO has  
15 failed to meet its burden of proof on all three of those ele-  
16 ments and that therefore the exemption should not be granted.

17 The first requirement which must be met, and which  
18 is set forth in Section 5012A and the first one I'm going to  
19 address here, is the showing that the exemption is in the  
20 public interest. And I believe that the evidence presented  
21 on the record of this proceeding does not demonstrate that and  
22 in fact demonstrates the contrary. That these proposed ex-  
23 emptions would not be in the public interest.

24 You have in this proceeding two parties who are  
25 representatives of the affected public that's involved here.

1 You have Suffolk County and you have the State of New York  
2 Both of those parties who represent the public oppose this  
3 exemption on behalf of the 1.2 million people who are the resi-  
4 dents of Suffolk County, and on behalf of the State of New  
5 York.

6 Those parties have stated that they oppose this  
7 exemption because it is not in the public interest. And that  
8 it is not in the public interest to permit this extraordinary  
9 situation of a plant operating without being in compliance  
10 with the Regulations, under the circumstances proposed by  
11 LILCO.

12 There has also been evidence presented to this  
13 Board by an employee of Long Island Lighting Company, a private  
14 utility, giving his opinion as to what is in the public in-  
15 terest.

16 The decision for this Board is whether or not to  
17 accept, as the basis for its determination of what's in the  
18 public interest, the opinions of an employee of a private  
19 utility concerning his perceptions of what may or may not be  
20 in the public interest. Or the considered judgments by the  
21 governments whose business and responsibility it is to pro-  
22 tect the interest of the public who would be affected by  
23 the grant of this exemption.

24 As the Staff has noted, the Staff did not present  
25 any evidence on the public interest issue, so the only

6  
1 evidence before the Board is that submitted by the employees  
2 of LILCO and the position and the evidence submitted by the  
3 two representatives of the public, Suffolk County and New  
4 York State.

5 And, based on the evidence presented, the position  
6 of the County that that evidence clearly supports the fact  
7 that LILCO has failed to meet its burden of showing that this  
8 exemption would be in the public interest.

9 The only evidence that LILCO did present on the  
10 question of public interest were two items of testimony, that  
11 by Mr. Szabo and that by Mr. Nozollilo. Both of which dis-  
12 cussed alleged benefits which they believed would accrue if  
13 the requested exemption were granted.

14 We going to discuss in a little more detail in a  
15 minute the fact that the testimony submitted by those two  
16 gentlemen was, number one, based solely on an assumption that  
17 the plant would eventually achieve full power commercial opera-  
18 tion. The benefits that they discussed, even assuming that  
19 they would accrue, and I think the other evidence established  
20 that in fact those benefits were speculative and in many cases  
21 in fact a detriment.

22 But even assuming that those benefits would accrue  
23 they would accrue as a result of the achievement of commercial  
24 operation, not as a result of the grant of the exemption. And  
25 that is a key point because the finding which must be made here

7  
1 is that the requested exemption will result in a benefit to  
2 the public. That the exemption is in the public interest, not  
3 that ultimate commercial operation, which is unrelated to the  
4 grant of the exemption, would result in a benefit.

5 I'd like to discuss, just briefly, the evidence that  
6 was submitted by LILCO and by the other parties on the question  
7 of the public interest. And on that finding which this Board  
8 must make.

9 Mr. Szabo's testimony, which consisted of a discus-  
10 sion of the consequences of dependence on foreign oil. As I  
11 noted before, and as Mr. Szabo himself admitted, is premised  
12 entirely on the ultimate commercial operation of the Shoreham  
13 plant. There is no benefit in terms of foreign oil savings  
14 or any other kind of savings that results from low power tes-  
15 ting or from the grant of the exemption.

16 Mr. Szabo also admitted, and I'm referring to the  
17 transcript pages 1236 and 37, that his concerns over dependence  
18 on foreign oil and his concerns about the possible results of  
19 the disruption in foreign oil availability, are not affected  
20 by whether or not the plant were to begin low power testing as  
21 opposed to beginning that testing at some later point. His  
22 testimony simply does not relate to the situation involved in  
23 this exemption request.

24 Secondly, Mr. Szabo's testimony as I believe the  
25 Board noted, in connection with the argument on the admissibility

8  
1 of that testimony, consisted of pure speculation. In fact,  
2 speculation upon speculation. There was testimony by Mr. Zabo  
3 that it might be possible that there would be a cut off of  
4 foreign oil. He could not testify as to the probabilities of  
5 that happening and in fact he said that such a cut off would  
6 be equally probable now or three months from now as it would  
7 be 10 years from now. There is no basis upon which, for this  
8 Board to find, that such a cut off would be possible or any-  
9 thing that would relate or form the basis for a decision on  
10 this exemption.

11 Furthermore, Mr. Szabo himself agreed that any such  
12 cut off, in order to have any effect and in order to result in  
13 any kind of benefit, assuming you have commercial operation of  
14 the plant, that that cut off would have to happen in a very  
15 small window of time. It would have to happen a month or two  
16 before commercial operation actually began in the Shoreham  
17 plant.

18 So not only are we talking speculation about whether  
19 or not a disruption would occur, in order for that disruption  
20 to have an effect, and in order for their to be a benefit,  
21 number one, there has to be commercial operation. And number  
22 two, that disruption would have to take place within a very  
23 very small window of time, within the next six months or so.

24 In addition, Mr. Szabo, I believe, conceded, and there  
25 was much discussion on the record, of the fact that his

9  
1 alleged benefit assumed that a cut off would result in an  
2 increase in foreign oil prices. And, as was discussed on the  
3 record, in fact there is a glut in the oil supply right now  
4 and in fact the price of oil has been going down. Therefore,  
5 again, for such a benefit to occur, not only would there have  
6 to be a cut off, not only would the cut off have to occur  
7 during a very small amount of time, not only would there have  
8 to be commercial operation of the plant, but that cut off  
9 also would have to result in a particular price impact. None  
10 of which, is there any evidence in this record, would occur.

11 I think the only conclusion that can be drawn on  
12 this item of testimony is that there is no probative or rele-  
13 vant reliable evidence that in fact there would be any  
14 benefit resulting from the grant of this exemption, relating  
15 to foreign oil.

16 And the key fact is that any such benefit, if it  
17 were to occur, and if we were to assume that it could be sig-  
18 nificant, would result from the commercial operation of the  
19 plant, not from the grant of the exemption.

20 The second item of testimony that LILCO presented  
21 supposedly in support of its argument that the exemption would  
22 be in the public interest was on the supposed economic benefit  
23 arising from earlier commercial operation of the plant.

24 You will recall that the testimony here by Mr.  
25 Nozollilo talked about a hypothetical benefit in the range

1 of 8 million to \$45 million. It was established, Mr. Nozol-  
2 lilo, in transcript 1359 to 62, that \$37 million of that  
3 hypothetical \$45 million benefit was dependent upon Shoreham's  
4 being in service for tax purposes, that is providing a net  
5 output on to the LILCO grid, by December 31, 1984.

6 Recall that in the testimony of Mr. Madan and Mr.  
7 Diemeier and in fact in the testimony of LILCO itself, it was  
8 stated that the Shoreham plant will not be hooked up to the  
9 LILCO grid at all during its low power testing program. That  
10 is uncontroverted in this record. There is no evidence in  
11 this record that synchronization could happen before the end  
12 of 1984. Mr. Nozollilo tells you what might happen in terms  
13 of economic benefit if synchronization did happen.

14 That is, if the Shoreham plant resulted in a net  
15 output to the grid before the end of 1984. But there was no  
16 evidence in this record that such a possibility could actually  
17 ever occur. In fact, because it is not going to be hooked  
18 up to the grid during low power testing, there is no reason-  
19 able possibility that it could occur.

20 Therefore, the only benefit that LILCO's own wit-  
21 nesses are talking about with respect to this exemption is  
22 the possibility of an \$8 million benefit.

23 You will recall that Mr. Szabo agreed on cross exami-  
24 nation, based on his calculations, that that 8 million hypo-  
25 thetical benefit would not be experienced by the rate payers

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1 until almost the year 2000. It was 1997 or 1998, was the  
2 first time that any individual living in Suffolk County or  
3 any individual who is a customer of LILCO would feel any of  
4 that \$8 million benefit.

5 And, in fact, the evidence showed, and Mr. Szabo  
6 agreed, that what would happen in 1985, if this exemption were  
7 granted and LILCO's commercial operation began three months  
8 earlier, that the rate payers would for sure feel in 1985,  
9 a \$165 million increase in their rates. That is the economic  
10 result, according to the evidence in this record, of granting  
11 this exemption and getting commercial operation, if you assume  
12 commercial operation would happen, three months earlier.

13 The economic impact is an increase of \$165 million  
14 dollars in the rate payers' rates during 1985. That is not  
15 an economic benefit. That is not something that's in the  
16 public interest.

17 In addition, the County's witnesses testified as to  
18 mismatches in the calculations performed by LILCO in coming  
19 up with the purported \$8 million benefit that would come into  
20 being close to the year 2000. Although there was much dis-  
21 cussion on the record about different computer print outs and  
22 different assumptions that were contained in different com-  
23 puter print outs, the fact remains that the conclusions of  
24 Messrs. Dirmeier and Madan, based upon the initial computer

25



1 print outs and based upon their review of the revised computer  
2 print outs was that those changed assumptions and their review  
3 of those changed assumptions, did not change thrie conclusions  
4 concerning the amount of benefit and, in their opinion, the  
5 amount of detriment that would result from the grant of this  
6 exemption.

7           They did agree that there were changes in those  
8 print outs, but it was unrebutted in this record that their  
9 conclusions remained the same, that there was not a benefit  
10 and there was, in fact, a detriment. The significance of this  
11 is that LILCO had several opportunities and was, in fact, in-  
12 vited to submit rebuttal testimony concerning those assump-  
13 tions concerning, what Mr. Rolfe has characterized as, mistake  
14 made by Messrs. Dirmeier and Madan in analyzing those com-  
15 puter print outs and analyzing the calculations by LILCO.

16           LILCO never submitted any such evidence. And the  
17 only evidence in this record is the testimoey by Messrs.  
18 Madan and Dirmeier and the arguments by Mr. Rolfe, but those  
19 are arguments, they're not facts in the record.

20           The only evidence is Messrs. Dirmeier and Madan's  
21 testimony concerning the, in their opinion, the detriment that  
22 would result economically from the grant of this exemption.

23           In addition to the testimony by Messrs. Diemeier  
24 and Madan, however, there was also testimony presented by Mr.  
25 Kessel, who is the Chairman of the Consumer Protection Board

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1 of the State of New York, and whose job it is to represent  
2 the consumers in the State of New York and to present to the  
3 state the interests to represent for the state the interests  
4 of the public. Mr. Kessel testified that it is not in the  
5 public interest to contaminate a nuclear power plant, such as  
6 Shoreham, in light of all the uncertainties concerning full  
7 power operation that are present with respect to this plant.

8 That's a particularly important fact which is not  
9 rebutted in this record, because all of LILCO's proposed or  
10 purported benefits assume that full power operation would be  
11 achieved. And as everyone has admitted, there are uncertain-  
12 ties about whether full power operation would be achieved.

13 And the representative of the public has testified,  
14 without controversy in this proceeding, that it is not in the  
15 public interest to contaminate this plant in light of those  
16 uncertainties. Mr. Kessel also testified that if the Shoreham  
17 plant were operated at low power and ultimately were abandoned  
18 the cost that the rate payers would ultimately bear would be  
19 increased. That is not in the public interest, Mr. Kessel  
20 testified. And that testimony by Mr. Kessel was uncontrover-  
21 ted in this record.

22 Mr. Kessel also testified that the rush to operate  
23 Shoreham which is already taken place, and which would be  
24 built upon by the grant of this exemption, has already caused  
25 a decline in the service to LILCO's customers. Again, that's

1 the public whose interest is supposedly being protected here  
2 and the public whose interest is supposed to be benefitted by  
3 the grant of this exemption.

4 They have already been penalized according to their  
5 representative, Mr. Kessel, and in his opinion, uncontroverted  
6 in this record, the grant of the exemption would result in an  
7 increase, decline in service to the customers, which is not  
8 in the public interest.

9 Finally Mr. Kessel testified, again not controverted  
10 in this record, that it is not in the public interest to have  
11 a company such as LILCO which is so close to bankruptcy, to  
12 begin to operate a nuclear power plant. That testimony not  
13 controverted in this record. Again supports the fact that  
14 LILCO has failed to meet its burden of proof set forth in  
15 Section 50.12 that the grant of the exemption it requests  
16 would be in the public interest.

17 The second item which must be found by this Board  
18 in order to grant this exemption, is that there exist excep-  
19 tional or extraordinary circumstances that justify the unusual  
20 situation of permitting the operation of a nuclear power plant  
21 when that plant is not in compliance with the Commission's  
22 Regulations.

23 On this element, also, the record shows that LILCO  
24 has failed to establish the existence of extraordinary cir-  
25 cumstances. Although LILCO did provide testimony saying that

1 they tried to comply with Regulations, presumably that is  
2 the case with every license applicant. Presumably everyone  
3 tries to comply with the Regulations, there is nothing extra-  
4 ordinary about that fact, assuming it's true.

5 LILCO also testified that this is a contested pro-  
6 ceeding and that it took a long time. There's nothing par-  
7 ticularly extraordinary about that. The Regulations provide  
8 for contested proceedings, the NRC conducts proceedings accor-  
9 ding to its Regulations in a manner which, based on its  
10 discretion, is necessary to enable the Commission to make the  
11 findings it must make under the Regulations. It is not extra-  
12 ordinary that those proceedings were held in this case pursuant  
13 to the Commission's Regulations.

14 The fact that it has been burdensome to LILCO to  
15 comply with the NRC requirements, there is no evidence here  
16 that that is anything extraordinary either. Presumably there  
17 are burdens on all applicants to comply with Regulations.  
18 Nothing extraordinary was shown on that score by LILCO.

19 LILCO did provide some testimony which purported  
20 to show that there were benefits that would arise from the  
21 grant of this exemption that would somehow overcome the extra-  
22 ordinary situation of granting the exemption. They talked  
23 about the benefit relating to foreign oil and, as I've already  
24 mentioned, the evidence on that is speculative and based on  
25 an assumption of commercial operation.

1           They talk about a benefit relating to the rates.  
2 Uncontroverted in this record, that's been shown in fact to be  
3 an economic detriment.

4           Finally, they talked about benefits accruing from  
5 training which would result from the low power testing program  
6 which they have suggested or proposed to conduct. The evi-  
7 dence shows, however, Mr. Gunther's testimony in particular  
8 at transcript 769 to 74 and in Suffolk County Exhibit 2, that  
9 number one, all the tests that are going to be performed by  
10 LILCO are required, are necessary and would be performed in  
11 any event whenever low power operation was conducted at this  
12 plant. The testing and the training that would result from  
13 the performance of those tests is not related to the grant of  
14 this exemption. That testing would take place. That is not  
15 a benefit that will be gained because of this exemption.

16           Number two, although Mr. Gunther did say that cer-  
17 tain additional criticalities would be performed during the  
18 low power testing program, on cross examination Mr. Gunther  
19 testified that that additional training would constitute 72  
20 hours. 72 hours was going to be added during phases 1 and 2  
21 to the 773 hours of operation that is involved during those  
22 phases.

23           So 72 hours of additional training, which is the  
24 sum total of the training benefit being talked about by LILCO  
25 here, is going to be spread over at least 42 people, operators,

1 supervisors, advisors and engineers. And, I believe that when  
2 you're talking about 72 hours of additional criticalities,  
3 when operators are required to perform 10 criticalities in any  
4 event, which means that if that training wasn't, that addi-  
5 tional 72 hours was not added, the additional criticalities  
6 would nonetheless have to be performed by the operators,  
7 that that 72 hour additional training is not a significant  
8 enough benefit to constitute an extraordinary circumstance  
9 that would justify the grant of this exemption.

10 LILCO did, Mr. Gunther did also mention in his  
11 testimony and it was discussed during cross examination, it's  
12 the transcript 777 and 778, that LILCO might also add three  
13 extra days for additional heat ups after phase 4. However,  
14 Mr. Gunther also noted that that would only be done if there  
15 was extra time available.

16 If, in fact, at the end of low power testing LILCO  
17 was in a position to go on with its power ascension program,  
18 they wouldn't bother with that additional three days of addi-  
19 tional heat ups. So that so-called benefit is not a real  
20 benefit. That's something they'll do if they have time, but  
21 they certainly won't do it if they don't have to.

22 I think that overall the evidence on the so-called  
23 benefits which is what LILCO discussed in terms of exigent  
24 circumstances, shows, the evidence shows that there is not  
25 going to be any significant additional training or any other

1 benefit that would not exist in any event, whenever LILCO  
2 began its low power operation. And, therefore, there is no  
3 benefit or exigent circumstance demonstrated by that evidence  
4 that relates to the grant of this exemption.

5 The only other evidence that LILCO submitted on the  
6 issue of exigent circumstances was that of Mr. McCaffrey. And  
7 Mr. McCaffrey's testimony, as I will discuss in some detail  
8 was conclusory by and large, without any factual basis, in  
9 large part irrelevant as the Staff had agreed. And, the  
10 bottom line, is that all the events and the efforts that were  
11 discussed in Mr. McCaffrey's testimony and which he described  
12 as being burdensome or extraordinary and therefore entitled  
13 to consideration by this Board, were the result of actions  
14 and conduct by LILCO itself. And, therefore, not entitled to  
15 any extraordinary weight in terms of weighing equities.

16 Mr. McCaffrey testified that LILCO attempted to  
17 comply with GDC 17 by various and sundry efforts that he  
18 described. And he testified that those efforts should be part  
19 of the equities that this Board should weigh in considering  
20 the existence or nonexistence of exigent circumstances.

21 Although the Board declined to consider the County's  
22 evidence on that same subject, whether or not the efforts  
23 discussed by Mr. McCaffrey were, in fact, directed towards  
24 compliance with GDC 17, and what those efforts should be  
25 weighed against in balancing the equities. There is nothing

1 in the record that is the testimony by Mr. McCaffrey, to show  
2 that LILCO's efforts constitute exigent circumstances, that  
3 those efforts were anything extraordinary, or that those  
4 efforts would justify an extraordinary relief of permitting  
5 operation without being in compliance with the Regulations.

6 In particular, Mr. McCaffrey didn't know what LILCO  
7 had or had not done to assure that the TDI diesels were manu-  
8 factured to the performance standards. Despite the existence  
9 of quality assurance programs and apparently some inspections  
10 that were performed, Mr. McCaffrey couldn't testify as to how  
11 Delaval tested those diesel generators or what LILCO did  
12 prior to the actual failure of a crankshaft in August of 1983  
13 to determine whether or not that crankshaft was adequately  
14 designed. Mr. McCaffrey didn't know, he couldn't testify  
15 as to whether LILCO had ever even reviewed the design of the  
16 crankshaft or whether or not LILCO had ever had discussions  
17 with other owners of Delaval diesels, concerning the design  
18 of the crankshaft, concerning the failure of that crankshaft  
19 to meet the American Bureau of Shipping Standards, or concer-  
20 ning the availability of larger crankshafts which were more  
21 suited for operation in those diesels.

22 Although Mr. McCaffrey testified at length about  
23 the so-called efforts of LILCO to comply with GDC 17, he  
24 couldn't, he was unable, to testify about the extent of those  
25 efforts. And there is no basis, based on his lack of ability



1 to so testify, on which to find that those efforts were in any  
2 way extraordinary or entitled to any special consideration or  
3 weight in terms of weighing equities in this proceeding.

4           Although Mr. McCaffrey discussed preoperational  
5 tests as part of LILCO's efforts relating to compliance with  
6 GDC 17, at least one of those preoperational tests, according  
7 to Suffolk County Exhibit LP 16, which was conducted in May  
8 of 1982, was conducted by LILCO improperly and it led to the  
9 levy of a fine and a notice of violation by the NRC. Mr.  
10 McCaffrey couldn't say whether or not if that test had been  
11 properly conducted, whether or not the crankshaft deficiency  
12 which, over a year and a half later, resulted in a crankshaft  
13 breaking in two would have been discovered. He couldn't  
14 testify to that.

15           He also didn't know whether or not LILCO's following  
16 of the industry's reports concerning diesels in nuclear power  
17 plants had resulted in LILCO's knowledge of problems with  
18 Delaval diesels in many other plants and in non-nuclear  
19 applications. Suffolk County Exhibit LP 18, and transcript  
20 at pages 1500 and 1521 to 28, describe the items of informa-  
21 tion concerning Delaval diesels that were available for  
22 knowledge by LILCO and for actions by LILCO and Mr. McCaffrey  
23 couldn't say whether or not LILCO knew about those things.  
24 There certainly is no evidence that LILCO took any action  
25 based on that information.

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1                   Finally, Suffolk County Exhibit LP 17 which was a  
2 March 1983 NRC report, demonstrated that as of that time,  
3 March, 1983, the NRC stated that the reliability for continu-  
4 ous operations of the TDI's was questionable. Following the  
5 NRC's review at that point of the documents and reports of  
6 tests that were in LILCO's own possession. The NRC found  
7 out in March of 1983, prior to that point, LILCO, according  
8 to the evidence, had not made any such finding and had not  
9 done anything to test the reliability beyond the normal pre-  
10 operational tests of those TDI's. And even following that  
11 March, 1983, Staff report, LILCO still did not disassemble  
12 any of the diesels until August of 1983, after one of the  
13 crankshafts actually broke in half.

14                   And, at that point, when they were finally disassem-  
15 bled, cracks in the other two diesel generators were discov-  
16 ered..

17                   I think the bottom line of the testimony of Mr.  
18 McCaffrey and the cross examination of Mr. McCaffrey, is that  
19 the efforts he talks about by LILCO cannot be relevant or  
20 deemed to be extraordinary in a vacuum. If they're going to  
21 be used to weigh the equities, at this point the Board only  
22 has one side of those equities. They only have Mr. McCaffrey's  
23 testimony. And if you're looking at just that one side, there  
24 isn't anything unusual or extraordinary about those efforts.  
25 And all the things that Mr. McCaffrey was unable to say that

1 LILCO in fact did, in connection with the TDI's, which the  
2 Suffolk County testimony would have demonstrated that LILCO  
3 did not do, would have, could have eliminated altogether the  
4 need for the exemption. And in weighing the equities, what  
5 Mr. McCaffrey does not say is much more significant than what  
6 he does say.

7           Mr. McCaffrey also discussed, in the second portion  
8 of his testimony, what he described as burdens that had been  
9 placed on LILCO as a result of its having to participate in  
10 what has been a long, contested proceeding. This portion of  
11 Mr. McCaffrey's testimony boils down to an argument that  
12 LILCO didn't like the proceedings. It took too long and it  
13 cost them money. But Mr. McCaffrey admitted that that pro-  
14 ceeding and the contentions that were admitted and the dis-  
15 covery that was conducted, were all conducted in accordance  
16 with the NRC Regulations. They presumably were also conducted  
17 based upon the judgment of the NRC licensing boards that were  
18 sitting during the various portions of the proceeding, that  
19 a proceeding of that length, and that the admission of con-  
20 tentions and the litigation of contentions was necessary in  
21 light of the Shoreham plant, the submissions made by LILCO  
22 and the findings that the NRC and those licensing boards were  
23 required to make.

24           The fact that this was a contested proceeding and  
25 that the NRC felt that under its regulations it had to conduct

1 the proceeding the way it has over these years, has nothing  
2 whatsoever to do with this exemption. And Mr. McCaffrey's  
3 testimony does nothing to relate the fact of the existence  
4 of a long proceeding to this exemption.

5 The exemption didn't come up until very recently.  
6 The proceeding happened long before that and is something that  
7 is provided for in the NRC Rules.

8 In addition, the particular examples, or the bases  
9 for Mr. McCaffrey's apparent conclusion that this proceeding  
10 should somehow be relevant to its exemption request, those  
11 examples were not based on any facts. During cross examina-  
12 tion, for example, in discussing with Mr. McCaffrey his  
13 assertion that LILCO, without technical justification, was  
14 consistently held by the NRC Staff to different standards  
15 than other plants, was able to come up with only one example  
16 of such an event. And that was his discussion of the steam  
17 by-pass issue. And this discussion took place at the trans-  
18 cript pages 1551 to 1570.

19 He, however, could not say that that particular is-  
20 sue was raised by an intervenor contention, which was the  
21 premise of his entire argument, that the Staff had consistent-  
22 ly held LILCO to different standards as a result of intervenor  
23 contentions.

24 He also testified that with respect to that issue,  
25 LILCO had appealed and objected the Staff's requirements and

1 the Staff disagreed. The Staff did not agree with LILCO that  
2 they were acting without technical justification. Furthermore,  
3 despite Mr. McCaffrey's assertion that LILCO's treatment was  
4 different from that of other plants, with respect to the only  
5 example he could come up with, he stated that he was not  
6 aware of any other plant having been treated differently on  
7 that issue.

8 The only example he could come up with, then,  
9 doesn't meet the very requirements, or the very situation, he  
10 asserted made the issue relevant. And the fact that he wasn't  
11 able to come up with any other examples and there's no other  
12 evidence in this record to support his assertion, that LILCO  
13 was without technical justification consistently held to dif-  
14 ferent standard, makes that testimony simply not material and  
15 not relevant here.

16 Mr. McCaffrey also discussed his personal belief  
17 that the SER should have come out sooner. I don't think there  
18 was any relationship in his testimony to that belief of his  
19 to this request for an exemption.

20 I don't think there's any evidence in the record,  
21 when this was discussed in the transcript around pages 1560  
22 and 61, there is no basis in the record for Mr. McCaffrey's  
23 belief, other than his own personal opinion. But he had  
24 never been told by the Staff that an SER should have come out  
25 earlier or that the SER's appearance, when it did appear, was

1 without technical justification. And, in fact, the evidence  
2 shows, in particular in Suffolk County Exhibit LP 19, that  
3 during that timeframe when the SER was being prepared, 1981,  
4 1980 to 1981, that the NRC Staff evaluations directly contra-  
5 dict Mr. McCaffrey's assertions.

6 In a report by the project manager, the NRC Staff  
7 project manager for Shoreham, Mr. Jerry Wilson who was the  
8 project manager stated that during the time period June, 1980,  
9 to June, 1981, LILCO's responses to the NRC Staff were below  
10 average and usually were not responsive to the Staff's con-  
11 cern, that LILCO's responses were frequently inadequate, that  
12 the FSAR contained insufficient information to adequately  
13 describe the design of the plant, that there were many long  
14 standing open items with respect to the Shoreham plant and  
15 that LILCO frequently opposed the Staff, hoping that the Staff  
16 would back off of requirements. And, finally, Mr. Wilson's  
17 overall evaluation was that LILCO was frequently recalcitrant.  
18 Even if the so called delays that Mr. McCaffrey felt were in-  
19 volved in the Staff's actions were relevant to this exemption,  
20 and I don't think there's any evidence that they were, they  
21 clearly were the result of LILCO's own actions and the state-  
22 ments by the NRC Staff itself directly contradict Mr. McCaf-  
23 frey's assertions.

24 Finally, Mr. McCaffrey's discussions about the pro-  
25 ceedings that have taken place on this license application,

1 and discovery and the hearings, which he discussed at some  
2 length, are simply not relevant here. All those matters were  
3 conducted pursuant to the NRC's Regulations and they have  
4 nothing to do with this exemption request.

5 His discussion concerning actions taken by the  
6 Marberger Commission, appointed by Governor Cuomo, that dis-  
7 cussion is also irrelevant. However, a review of the Mar-  
8 berger Commission report, which is Suffolk County Exhibit 20,  
9 and this was discussed with Mr. McCaffrey during cross exami-  
10 nation, in the transcript pages 1595 to 1603, the conclusions,  
11 the consensus view of the Marberger Commission contradict  
12 Mr. McCaffrey's assertions that County's claims were baseless  
13 or that certain actions taken by intervenors were improper.

14 The Commission concluded that the County's position  
15 on emergency planning, which was discussed in Mr. McCaffrey's  
16 testimony, was reasonable, that the Shoreham plant was a  
17 mistake and that LILCO should be held responsible, that  
18 LILCO had not prepared adequately for its foray into nuclear  
19 power technology and that LILCO lacks credibility as an opera-  
20 tor of a nuclear plant as stated in the emergency planning  
21 contentions filed by the County, that one of the, that the  
22 Commission had major reservations concerning LILCO's ability  
23 to implement an off site emergency plan. Again, a contention  
24 of the County in the emergency planning proceeding. And,  
25 finally, the Marberger Commission concluded that New York does

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1 not need the Shoreham generating capacity for more than 10  
2 years.

3 Mr. McCaffrey's allegations about certain so-called  
4 frivolous challenges made during these proceedings were demon-  
5 strated on cross-examination to be without any basis, this  
6 is transcript pages 1616 through 19 and Suffolk County  
7 Exhibit LP 22. Mr. McCaffrey was unable to identify what  
8 documents he was referring to, he was unable to identify what  
9 basis any of those so-called challenges had. He had no founda-  
10 tion whatsoever for his conclusion that those challenges were  
11 "frivolous."

12 In fact, the evidence in the record of this overall  
13 proceeding demonstrates that Mr. McCaffrey was not correct  
14 concerning his characterizations of any of these so-called  
15 challenges that he wasn't even able to identify.

16 Finally, I shouldn't say finally, Mr. McCaffrey  
17 also talked about LILCO personnel were tied up in litigation  
18 rather than being engaged in designing or building the plant.  
19 At transcript page 1631, Mr. McCaffrey admitted that despite  
20 that problem, LILCO never requested a stay of any of the pro-  
21 ceedings so that those LILCO personnel could finish the plant.  
22 Something again that was in LILCO's control. If that was a  
23 problem, they should have remedied it themselves.

24 He testified about a perception that the licensing  
25 proceeding will never end. I don't think he ever answered



1 the question, however, what does that have to do with this  
2 exemption request. That line of testimony by Mr. McCaffrey is  
3 simply irrelevant.

4           The bottom line with respect to Mr. McCaffrey's  
5 testimony as a whole, is that although he makes lots of asser-  
6 tions and innuendos about whose fault it is that LILCO now  
7 has to apply for this exemption and that the hearings have  
8 taken a long time, the fact is that the hearings have not  
9 delayed fuel load of the Shoreham plant. Mr. McCaffrey tes-  
10 tified, transcript 1632, that the Shoreham plant was not  
11 physically ready to load fuel until April or May of 1984.  
12 April or May of 1984, they couldn't do it before that.

13           As of April or May of 1984, no one was going to per-  
14 mit LILCO to load fuel into that plant, because at that  
15 point, they had three cracked diesel generators in that plant.  
16 The fact that LILCO has not loaded fuel, has nothing to do  
17 with a contested proceeding or the existence of intervenors  
18 in this proceeding. That fact is a result of the plant not  
19 being ready to load fuel and the fact that LILCO is unable,  
20 so far, to comply with the NRC's Regulations.

21           The conclusion is that on the second item of proof,  
22 on which LILCO has the burden in this exemption proceedings,  
23 whether or not there are any exigent circumstances that  
24 justify the grant of an exemption, LILCO has failed to meet  
25 that burden. There is no evidence in this hearing record that

1 justifies the grant of an exemption because of any exigent  
2 circumstances.

3           On the third element, whether or not operation of  
4 the Shoreham plant at 5% power would be as safe as operation  
5 at 5% power with a fully qualified source of on site power,  
6 the evidence shows here, I believe, also that LILCO has failed  
7 to meet its burden of proof. The evidence shows that there  
8 are several reasons why operation with the alternate configura-  
9 tion proposed by LILCO would not be as safe as operation with  
10 the, a qualified source of AC power.

11           First of all, all the off site enhancements that  
12 were discussed by Mr. Early in his argument, and that were  
13 discussed in the testimony by LILCO, are simply not pertinent  
14 here to the comparison that is mandated by the Commission's  
15 May 16th Order. Those enhancements to the off site system  
16 are common to both sides of the equation. Both sides of the  
17 comparison that must be made.

18           The comparison that has to be made is of the dif-  
19 ferences in the two configurations, the alternate configura-  
20 tion and a qualified source of AC power. What happens out  
21 beyond the plant line, the source of off site power is com-  
22 mon to both sides of that equation.

23           So those enhancements simply are not pertinent to  
24 this discussion. They are not pertinent to the comparison  
25 of relative safety.

1           When you look at the pertinent portions of the com-  
2 parison, however, the qualified source of AC power and the  
3 proposed alternate configuration, the evidence shows that there  
4 are several reasons why the alternate is not as safe.

5           First of all, in the event of a safe shut down,  
6 earthquake of .2G, horizontal acceleration, testimony was  
7 that there will likely be damage to the alternate AC power  
8 configuration, such that power would not be delivered to the  
9 safety load.

10           I'll get into a little more detail in a minute to  
11 the precise reasons why that would happen. But the other  
12 side of the comparison is, by contrast, the TDI's or any quali-  
13 fied source of on site AC power is by definition designed to  
14 survive the safe shut down earthquake. Therefore, from a  
15 seismic vulnerability point of view, operation at 5% power  
16 using the alternate AC power configuration could not be as  
17 safe as operation at 5% power with a fully qualified source.

18           There was testimony by the County's witnesses that  
19 soil liquifaction is possible in the areas around the EMD's  
20 and also in the areas of the gas turbines and the 69 KV switch  
21 yard in the event of a safe shut down earthquake. In contrast  
22 the TDI's and other category I structures on the Shoreham  
23 site have been built in category I structures and there has  
24 been densification or other actions taken to address the po-  
25 tention for soil liquifaction. No such actions have been

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1 taken, however, to deal with the liquifaction's potention near  
2 or relating to the alternate AC power sources.

3 The movement resulting from soil liquifaction, the  
4 County's witnesses testified, could lead to failures in the  
5 fuel line relating to the END's, failures to the END's switch  
6 gear cubicle cable, and failures to the pothead and bus sup-  
7 port structures and circuit breakers in both the 69 and 138  
8 KV switchyard.

9 In addition, aside from soil liquifaction, if there  
10 were a safe shut down earthquake, there are other structures  
11 and components and equipment essential to the functioning  
12 of the alternate AC power system, which would be likely to  
13 suffer damage. And the County's testimony concerning the  
14 vast majority of this testimony was uncontroverted by LILCO.

15 The County's witnesses testified that, with respect  
16 to the gas turbines, the foundation of the million gallon  
17 fuel tank, the tank itself, the four inch buried pipe between  
18 the fuel oil tank and the fuel pump, the piping system in  
19 the fuel oil piping station, the above grade fuel line going  
20 to the gas turbine, the connection between the air tank and  
21 the air compressor motor and the structure supporting the  
22 potheads and busses for the power output from the gas turbine  
23 would all be likely to fail in the event of a safe shut down  
24 earthquake.

25 That was in the County's testimony and also in

1 Exhibit LP 53, which was a document prepared by LILCO, an  
2 analysis by LILCO of the gas turbine. That testimony was not  
3 rebutted by any LILCO testimony in this proceeding.

4 In addition, the County's witnesses testified that  
5 other structures in the 69 KV switchyard, including the 13 KV  
6 to 69 KV transformer, and the pothead and bus structures  
7 would be likely to fail in the event of a safe shut down earth-  
8 quake. That was in the County's testimony by Messrs. Meyer,  
9 et al, in Suffolk County's Exhibit LP 1 and Suffolk County  
10 Exhibit LP 56.

11 In addition, the County's witnesses testified that  
12 that RSST and the NSST would have a potential for rocking or  
13 overturning in the event of a safe shut down earthquake, be-  
14 cause neither of those transformers were bolted to their foun-  
15 dation. Again, that testimony was not rebutted in this  
16 record by any LILCO testimony.

17 The County's witnesses also testified that the trans-  
18 mission lines from the 138 KV switchyard to the NSST could  
19 fail as a result of a safe shut down earthquake, or as a  
20 result of soil liquifaction.

21 With respect to the EMD diesels, although there was  
22 testimony submitted on that subject with respect to seismic  
23 vulnerability by the LILCO witnesses, there is no basis in  
24 this factual record for reliance upon the tests or the

25

1 analysis that was discussed in the testimony by the LILCO  
2 witnesses.

3           During cross examination at pages 934 to 39 of the  
4 transcript, Mr. Malegi, one of the LILCO witnesses, testified  
5 that he did not know when any of the tests he relied upon  
6 were performed, what equipment was involved in those tests,  
7 when the EMD's themselves were manufactured. He, and, in  
8 fact, he testified that those tests and analysis only covered  
9 the engine blocks of the EMD's they didn't cover any of the  
10 other auxilliary equipment associated with those diesels.

11           Because the witnesses were not able to relate the  
12 tests or the analysis to the equipment at issue here, the  
13 particular EMD's in question here, there is no basis in this  
14 record to rely on those items to make a finding that the  
15 items at the Shoreham plant would withstand the safe shut  
16 down earthquake. In fact, the County's witnesses testified,  
17 in their direct testimony, that many elements associated with  
18 the EMD diesel operation, would be likely to fail in a safe  
19 shut down earthquake. And they discussed such failure being  
20 likely to occur with respect to the EMD fuel line, EMD diesel  
21 switchgear building, the connection for the power outlet on  
22 the roof of the switchgear building and the cable tray.

23           LILCO's witnesses did address the likelihood of  
24 the EMD diesel switchgear building sliding off its timbers  
25 or overturning in the event of an earthquake. The LILCO

1 witnesses, however, discussed such a likelihood with regard  
2 to the, an earthquake of .13 G, which is less than the safe  
3 shut down earthquake, and they stated on cross examination,  
4 transcript 942, that they couldn't say with confidence that  
5 at a safe shut down earthquake ground acceleration that switch-  
6 gear building would not slide or overturn.

7 That switchgear building isn't bolted to its founda-  
8 tion and the evidence, I think, shows that in the event of  
9 a .2 G safe shut down earthquake, there is a potential for  
10 that building failing.

11 The County's witnesses also testified that the  
12 nonemergency switchgear room block walls would be likely to  
13 fail in the event of a safe shut down earthquake. Such a  
14 failure is significant, as the County's witnesses testified  
15 and as is shown in Exhibits LP 58 and 59, because the 69 KV  
16 output, the 138 KV output and the 4 KV EMD diesel output  
17 all come into the nonemergency switchgear room. Therefore, a  
18 failure of the block walls in that room resulting from a  
19 seismic event, would disable all three of those sources of  
20 power, the 138 KV line, the 69 KV line, and the EMD's.

21 The disabling of the 69 KV line also automatically  
22 disables the gas turbine because, as the Staff testified and  
23 as LILCO testified, the gas turbine shares a portion of the  
24 69 KV line in bringing its power into the plant itself.

25 LILCO testified that it had come up with a

1 conceptual idea of an alternate routing for EMD power that  
2 would go around the nonemergency switchgear room. That  
3 evidence, that testimony by LILCO and that was in the trans-  
4 cript pages 813 to 820, should be disregarded by this Board  
5 because such a capability does not exist today. It is a  
6 purely conceptual idea. There are no installed cables  
7 raceways, there is no connection for those cables. LILCO  
8 has not determined which elements of its conceptual proposal  
9 would be installed before as opposed to after a seismic  
10 event, which portions of that proposal would be completed be-  
11 fore, rather than after, the beginning of phase III of its  
12 low power testing. And, in fact, LILCO has not even deter-  
13 mined how it would go about performing that modification.

14           Although two options were discussed, Mr. Shiffmacher  
15 stated at page 839 of the transcript, that not only has LILCO  
16 not determined which of two possible options it would use,  
17 it also has not ruled out consideration of additional options.

18           Furthermore, Mr. Gunther and Mr. Shiffmacher testi-  
19 fied that if a decision is ultimately made that such an  
20 alternate tie-in would be constructed, engineering work would  
21 have to be done, work would then have to be reviewed by plant  
22 management, procedures would then have to be revised, training  
23 would then have to be revised and performed. And, of course,  
24 the Staff has not yet reviewed any such proposal, since it  
25 doesn't exist.



1           The significance of the non-existence of this con-  
2 ceptual idea is that, right now, it's a configuration which  
3 LILCO proposes with respect to this exemption, is subject to  
4 complete failure and unavailability in the event of a safe  
5 shut down earthquake, because all of those power sources go  
6 through the nonemergency switchgear room.

7           In addition, going into two or three more points  
8 relating to the seismic vulnerability of the alternate con-  
9 figuration. LILCO testified that it committed to shut down  
10 the plant if a .01 G acceleration is recorded. Although  
11 LILCO so testified, there is no evidence in this record to  
12 controvert the testimony by the Suffolk County witnesses that  
13 if a .01 G acceleration occurs as part of a main shock of a  
14 safe shut down earthquake, the time between the occurrence  
15 of the .01 G and the peak of .2 G would be a matter of a  
16 few seconds and a shut down in a plant wouldn't be possible.

17           In addition, the Suffolk County witnesses testified,  
18 without controversy from LILCO, that if the .01 G were asso-  
19 ciated with a fore-shock, that it could be hours or days be-  
20 tween that fore-shock and a main shock, so that shut down of  
21 the plant could be irrelevant. It could be up and operating  
22 again when a main earthquake of .2 G hit.

23           Although the Staff had reference in its testimony  
24 concerning the seismic capabilities of the alternate config-  
25 uration, I think the record shows, transcript 1858 and 1865,

1 that Staff witnesses Knox and Tomlinson had no basis and no  
2 qualifications to discuss the seismic capabilities of the  
3 alternate configuration. The Staff stated that it had done  
4 no review of seismic qualifications, no review of even LILCO's  
5 review of seismic capabilities of that equipment. And those  
6 two gentlemen did not have any seismic or seismic qualifica-  
7 tion training or background.

8 The conclusion is, on the relative safety question,  
9 that from a seismic perspective, operation of the Shoreham  
10 plant at low power with the alternate AC power configuration  
11 would not be as safe as operation would be with three fully  
12 qualified diesel generators. There is a significant potential  
13 that as a results of the safe shut down earthquake, the  
14 138 KV system and the 69 KV system will suffer failure.

15 And, that failure would happen whether you had  
16 three fully qualified diesels there or you had the alternate  
17 configuration there. However, if there were three quali-  
18 fied diesels there, they, by definition, would be predicted  
19 not to fail in the event of a safe shut down earthquake,  
20 whereas the alternate configuration is predicted to fail. In  
21 fact, half of it would go along with the 69 KV systems.

22 Therefore, from a seismic vulnerability perspective  
23 operation would not be as safe.

24  
25

1 MS. LETSCHE: In addition, the testimony shows  
2 that from several other points of view operation at low  
3 power with the EMD diesels and the gas turbine as proposed  
4 by LILCO would not be as safe as operation with qualified,  
5 with a qualified source of on-site power.

6 The Suffolk County witnesses testified that unlike  
7 the TDI diesels the EMD diesels and the gas turbine are not  
8 protected from fire. A fire in any one of the four EMD  
9 diesels would probably preclude operation by any of those  
10 diesels. The fire threat, according to the Suffolk County  
11 witnesses, is compounded by a threat of explosion created  
12 by the inadequate ventilation of the batteries in the  
13 diesels and inadequate isolation of those batteries from  
14 ignition sources.

15 The county witnesses also testified that the alarms  
16 related to the EMD diesels are all local and all but one  
17 of them is enunciated only when an engine shutdown is  
18 initiated. Therefore, unlike the situation with the TDI  
19 diesels, there is no opportunity, given operation of the  
20 EMD's for an operator intervention to prevent or to stop  
21 developing mechanical problems before an engine actually  
22 shuts down. All of those items were not addressed or  
23 rebutted by the LILCO submitted testimony.

24 In addition, the county's witnesses testified that  
25 because the EMD's require several manual operations, as

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1 compared to the TDI's whose operation is fully automatic,  
2 the need for manual operation decreases the reliability of  
3 those E&D's and adds an extra element of uncertainty and  
4 an extra vulnerability to failure as a result of human  
5 errors.

6 The discussion in the LILCO testimony concerning  
7 procedures and testing related to the diesels should not  
8 be considered by this Board as being probative. The  
9 witnesses submitted by LILCO were not even able to identify  
10 what versions of the procedures had been the subject of  
11 testing by operators. There was no evidence in this  
12 record that the LILCO operators were trained on the  
13 actual procedures to be used rather than ones which may  
14 have been in effect back in March and April.

15 In addition, the staff witness on procedures, Mr.  
16 Clifford, stated that his testimony related only to the  
17 performance of a set of actions. Those set of actions in  
18 his testimony were basically performed in a vacuum. His  
19 testimony did not address particular equipment or the  
20 actual conditions under which those actions would have  
21 to be performed. I'm referring to the transcript at 1834  
22 to 1840.

23 In addition, relating to procedures, the staff has  
24 stated that there are five license conditions which would  
25 have to be imposed and which would have to be met relating

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1 just to procedures before the staff could approve the use  
2 of this new alternate system. Therefore, as the record  
3 currently stands, the staff has not approved the procedures  
4 relating to the use of these, - of this alternate equipment.

5 The County's testimony also addressed the potential  
6 for single failures to which the EMD's and the gas turbine  
7 are subject. The discussion in the other counsel's  
8 closing arguments concerning the single failure testimony  
9 has been misleading and has ignored a major piece of the  
10 County's testimony.

11 The fact is, as the staff witness, Mr. Tomlinson  
12 agreed, the ... number one, the EMD's and the gas turbine  
13 are not wholly independent. They share certain elements.  
14 In particular, and both those items of equipment are  
15 subject to certain single failures or single events. In  
16 particular, failures in the non-emergency switchgear room  
17 such as a failure caused by a seismic event or a failure  
18 caused by a fire in that room.

19 Both of those events, one event could disable, and  
20 would disable both of those pieces of equipment, the EMD's  
21 and the gas turbine. In addition, the staff admitted, the  
22 staff witness admitted that the on-site alternate, or the  
23 alternate configuration proposed by LILCO is not  
24 independent of the off-site system proposed by LILCO  
25 because the gas turbine shares the 69KV switch yard and the

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1 69 KV lines. Therefore, the staff's testimony concerning  
2 the independence of the off-site and the proposed alternate  
3 on-site power systems is simply incorrect. I'm referring  
4 to the transcript 1868, testimony of Mr. Knox.

5 In addition, the county's witnesses testified that  
6 the EMD's are subject to several single failures themselves  
7 that reduce their reliability and they gave several  
8 examples of single electrical output cable to the 4KV  
9 buses, the single starting supply, the single fuel system  
10 and equalizing line, and the fact that all of the EMD  
11 diesels are reliant upon the one EMD switchgear cubicle.

12 Moreover, the county's witnesses discussed  
13 inadequacies in the proposed surveillance testing procedures  
14 for the EMD's which was unrebutted by LILCO or the staff  
15 witnesses.

16 With respect to the gas turbine, the, I mentioned  
17 earlier several items that the county's witnesses addressed  
18 concerning those gas turbine and reasons that operation  
19 with that piece of equipment, even combined with the  
20 existence of the EMD diesels would not be as safe as  
21 operation with the TDI's.

22 The staff testimony concerning the gas turbine does  
23 not lend any support to LILCO's position. The staff did  
24 not perform any independent review of the reliability of  
25 the gas turbine or of the EMD's and the staff witness did

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1 not even know what criteria had been used by LIICO in  
2 determining the reliability of those machines. And, I  
3 am referring to the transcript, Page 1871.

4 The staff also noted in its testimony other  
5 differences between the alternate AC power system and a  
6 qualified AC power system that render the alternate  
7 configuration not as safe as operation would be using a  
8 qualified system. Mr. Hodges testified that in light of  
9 the cladding temperatures that could result after 5%  
10 operation with the two types of configurations, the margin  
11 of safety would be less under the alternate configuration  
12 than it would be with a qualified system.

13 In addition, all the witnesses have testified that  
14 the TDI's would be available to provide power within a  
15 very short amount of time, 10 to 20 seconds, whereas the  
16 EMD's and the gas turbine could require as much as 30  
17 minutes before they would be available. Clearly, the  
18 margin of safety is less when you are talking about being  
19 without any source of AC power for up to a half hour and  
20 you only have 55 minutes in which to get it back than when  
21 you are talking about having that power available to you  
22 in 15 or 20 seconds.

23 Testimony by Mr. Quay, the staff witness, concerning  
24 a standby gas treatment system, he agreed in the transcript  
25 at page 1769, that if there were no AC power and if you had

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1 a fuel handling accident, you would not have the mitigation  
2 available from the standby gas treatment system. The  
3 plant operation would not be as safe without the existence  
4 of that treatment system, and you don't have that system  
5 if you lose off-site power under the alternate  
6 configuration proposed by LILCO.

7           Significantly, the staff has required at least 16  
8 technical specification changes and at least 9 license  
9 conditions in order for the staff eventually to approve  
10 the use of the alternate AC power configuration. Without  
11 those 16 tech spec changes and the meeting of 9 license  
12 conditions, the alternate configuration, according to the  
13 staff, is not acceptable. It is significant that all these  
14 changes are required because those changes in tech specs  
15 and license conditions are not necessary under a normal  
16 plant configuration.

17           In addition, a lot of those changes relate to  
18 important safety requirements. In the SER, the staff has  
19 stated that some of them are necessary because the  
20 alternate configuration does not have the normal quality  
21 assurance that is related to and important to safety  
22 and safety related equipment. The alternate configuration  
23 does not meet Appendix R requirements. The alterante  
24 configuration does not meet separation and fire prevention  
25 requirements. Those are all safety requirements that are

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1 not met by the alternate configuration and therefore it  
2 cannot be found that operation with that configuration  
3 would be as safe as operation with a configuration that  
4 meets those safety requirements.

5 The bottom line on final criteria, whether or not  
6 operation would be as safe is that, with the fully  
7 qualified source of on-site power available to the Shoreham  
8 plant would be 3 fully independent sources of on-site power  
9 and 2 sources of off-site power. A total of 5.

10 Under the alterante configuration which LILCO  
11 proposes under its exemption request you have the same 2  
12 sources of off-site power, but instead of 3 fully  
13 independent sources of on-site power, you have one additional  
14 source of power and that is the EMD's. The gas turbine  
15 shares, the off-site line, 69KV line so you have one.  
16 Before you had three and now you have one.

17 In addition, the evidence shows that the one  
18 addition source, the EMD's require manual action, are  
19 subject to seismic failures, are much more complex  
20 electrically and therefore subject to more failure points.  
21 That testimony by Mr. Minor was uncontraverted in this  
22 record, and that operation of those EMD's takes much more  
23 time than operation of the fully automatic TDI's, thereby,  
24 by definition, reducing the margin of safety that would  
25 be involved in operation of this plant.

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1           Mr. Rolfe mentioned in his closing argument that  
2 the County's safety comparison never addresses the safety  
3 comparison as an absolute matter, I believe were the words  
4 he used. That simply is not true. The county's testimony  
5 does address the safety comparison set forth in the  
6 Commission's order. It talks about the precise comparison  
7 between both the individual items that are part of the  
8 alternate system and the combined alternate system.

9           In addition, additional testimony which did address  
10 nothing but the absolute comparison, the relative safety  
11 of the operation of the entire system, compared to  
12 operation with the TDI's was not admitted into evidence  
13 in this proceeding. The testimony by Mr. Weatherwax and  
14 Mr. Minor did precisely that, but was excluded by the  
15 Board.

16           In conclusion, the evidence shows that LILCO has  
17 failed to establish that the grant of this exemption would  
18 be in the public interest. The evidence and facts shows  
19 that the grant of the exemption would be contrary to the  
20 public interest. LILCO has failed to show that there are  
21 any extraordinary circumstances that relate to this  
22 exemption that would justify operation without it being  
23 in compliance with the regulations.

24           Third, LILCO has failed to demonstrate that operation  
25 with the alternate configuration would be as safe as operation

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1 with a fully qualified source of AC power that complied  
2 with all of the Commission's safety regulations.

3 JUDGE MILLER: Thank you. Mr. Palomino?

4 MR. PALOMINO: I believe Ms. Letsche has covered  
5 everything I wanted to discuss Your Honor. But, I would  
6 like to point out just a few things to the Board.

7 First, this question of whether to double or a single  
8 failure, I think, if you postulate the first accident as  
9 a single failure, the second would certainly be a double  
10 failure. But you don't have to postulate it that way.  
11 If that first engine, that gas turbine, is unavailable for  
12 any reason, if it is being overhauled, you would have a  
13 single failure in all those circumstances in the EMD's  
14 where they pointed out. And then reverse would be true  
15 with the gas turbine.

16 So, there isn't necessarily a double failure rule  
17 being followed here. Alright. The second things is  
18 that, this is a legal propostion your Honor, this comparison.  
19 I think the Board ought to say what it means. That you  
20 have to compare the configuration the County is proposing  
21 with duly qualified AC power on-site power source as to  
22 safety, and you have to make that comparison.

23 I don't think you can go to a rule of reason. All  
24 a rule of reason would lead to is really going to an  
25 unqualified system and going to the lowest common denominator

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1 of safety. In effect, you would be asking really, as long  
2 as you have a power net you are alright. That's what I  
3 think the staff is proposing by so-called rule of reason.  
4 And I don't know that it works out very well in practice  
5 or, in fact, on the evidence in this record because  
6 according to the evidence of the record, if you don't have  
7 a loss of coolant and you can last for 30 days, if you  
8 have a loss of coolant you are good for 55 minutes.

9 Well, the evidence in the record, which is un-  
10 contradicted shows that if you were to have a safe  
11 shutdown earthquake of that capacity, both your gas  
12 turbines and your EMD's would not be functioning. And,  
13 of course, the evidence of Mr. Gunther which you had . . .  
14 of an hour. So if you had a loss of coolant you wouldn't  
15 be within these times and it wouldn't be safe.

16 So, I don't think the Board intended to postulate  
17 anything like that and I think you have to . . . it was,  
18 what they are saying is, if you don't have a qualified  
19 system the other configuration you should come up with  
20 should be as safe and in the public interest or you are  
21 not meeting the public interest. It should not be judged  
22 against any other kind of rule of reason standard which  
23 could lead to a lesser degree of safety to the public as  
24 I have demonstrated.

25 I don't think there is any need to go further your

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Tape 4  
LAR 10

1 Honor. I think it has all been thoroughly covered. I  
2 could cover a few things but it isn't worth the burden.

3 JUDGE MILLER: A short rebuttal?

4 MR. ROLFE: Judge Miller, a few things that  
5 I think ought to be pointed out, and I will take them in  
6 the order that Suffolk County's counsel took for  
7 convenience purposes.

8 First of all, Ms. Letsche pointed out that the  
9 public interest consideration ought to be determined by  
10 the fact that Suffolk County in New York state are here  
11 opposing the plant and that therefore forecloses any  
12 inquiry into public interest. The fact is that there was  
13 no evidence presented by either of those parties on the  
14 record here as to why the public interest would be  
15 detrimentally effected by the granting of this exemption.  
16 Suffolk County didn't put any evidence on that issue in  
17 the record. New York state did present some testimony by  
18 Mr. Kessel which was largely conclusary and had no basis  
19 in fact stated in this record.

20 So, the mere fact, that for what ever reasons,  
21 political or otherwise, these two governmental bodies are  
22 intervenors and have opposed this plant for a long time,  
23 does not determine the public interest issue as counsel  
24 for Suffolk County suggested.

25 Now, counsel, secondly suggested that LILCO's public

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Tape 4  
LAR 11 25

1 interest evidence was all based on the assumption that the  
2 plant would receive a commercial operating license, and  
3 certainly with the respect to the postulation of reduction  
4 of oil dependency, the economic benefits to the rate payers,  
5 that's true.

6 One of the benefits from this exemption is, is that  
7 it might lead to an earlier commercial operation and that  
8 clearly is a benefit. The Commission has told us on two  
9 occasions that we assume that the plant will receive a  
10 commercial operating license for licensing purposes. You  
11 don't have to assume that it won't. And so, therefore,  
12 if we proceed on that assumption, and if the plant will  
13 get the commercial operation possibly three months earlier  
14 as a result of this exemption, then there is a very real  
15 public benefit.

16 Now, Ms. Letsche further said that Mr. Szabo admitted  
17 that there were certain uncertainties attendant to his  
18 opinion that reducing LILCO's and New York State's  
19 dependence on foreign oil sooner is a benefit. Of course  
20 there are uncertainties. Mr. Szabo didn't get up here  
21 and try to tell you that he could look into the future 12  
22 months and predict with accuracy what was going to happen.

23 The very fact that there are uncertainties is the  
24 reason why it is important, as Mr. Perlis has said, it is  
25 a national policy to reduce our dependence of foreign oil.

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LAR 12

1 It is to eliminate those uncertainties. So, whichever  
2 way they happen to go, LILCO's rate payers won't be subject  
3 to those uncertainties.

4 Now, the testimony of Mr. Nozollilo (Phonetic) with  
5 respect to the economic benefit and Ms. Letsche said that  
6 there was no evidence that synchronization could occur in  
7 1984, if I recall correctly Suffolk County's counsel asked  
8 Mr. Nozollilo that very question and he said; in my opinion  
9 it could be achieved it just depends on the scheduling.,  
10 So, there was evidence in this record. Granted, it is  
11 speculative as to whether synchronization could occur but  
12 it might.

13 Now, Ms. Letsche said that the 8 million dollar  
14 benefit that LILCO postulates is in affect, overshadowed  
15 by the 165 million dollar rate increase that you would  
16 have in the first year. I might just point out to the  
17 Board that the 8 million dollars that Mr. Nozollilo is  
18 talking about is a benefit in terms of present worth  
19 dollars which takes into account all the early rate  
20 increases and then the later benefits.

21 If you want to look in terms of actual dollars, in  
22 1997 dollars or whatever, the benefit to the rate payers  
23 would be much much greater than 8 million dollars in that  
24 year. So, we get to the 8 million dollars, we have offset  
25 the 165 million dollar rate increase in the first year and

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Tape 4  
LAR 13 25

1 whatever rate increase there may be in the years thereafter.  
2 We are looking at the whole continuum of years and would  
3 come out with the benefit and there was no question about  
4 that.

5 Secondly, counsel for Suffolk County says that  
6 Messer's, Madan's and Dirmeier's (phonetic) testimony was  
7 not rebutted in this record and that even though they  
8 were contradicted and they admitted they made mistakes,  
9 the mere fact that they came back at the end of their  
10 testimony and said, still we stick to our conclusions,  
11 that that makes their testimony unrebutted and LILCO didn't  
12 present any evidence to the contrary.

13 Well, I suggest to the Board that when testimony is  
14 inherently unbelievable, or incredible, you don't need to  
15 present additional evidence. It is like a man coming in  
16 and testifying in an automobile accident case and he gets  
17 on the stand and he says, the light was red. And, on cross  
18 examination it turns out that he was blind. And then on  
19 re-direct he says, yeah but I still think it was red. You  
20 don't need to put on another witness to say he couldn't  
21 see it. And that's the kind of situation we have here.

22 I mean, the fact is that Messer's, Madan's, and  
23 Dirmeier (phonetic) admitted that they had made mistakes  
24 in their analysis and that the testimony they presented  
25 went to a computer printout, went to an analysis that was

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Tape 4  
LAR 14 25



1 not the analysis Mr. Nozollilo based his testimony on.

2 Now, and I add to that again that they didn't have  
3 any independent basis for their analysis. In other words,  
4 sort of taking Mr. Nozollilo's analysis and basing their  
5 own conclusions on it, they didn't have anything to go on  
6 whatsoever, and they frankly admitted that.

7 Now, counsel for Suffolk county also referred to  
8 testimony by Mr. Kessel, that it was not in the public  
9 interest to contaminate the plant in light of the  
10 uncertainties concerning full power operation, that if the  
11 plant were ultimately abandoned, cost would increase,  
12 that there might be a decline in services as a result of  
13 Shoreham coming on line, and that LILCO faces bankruptcy  
14 and therefore we shouldn't let the plant be operated at  
15 low power.

16 In the first place, none of those considerations  
17 are relevant as the Commission has ruled twice, as this  
18 Board has ruled consistently. Uncertainties concerning  
19 full power operation is just not a relevant consideration.  
20 The possible decline in service, this Board ruled in  
21 striking part of Messer's, Madan's and Dirmeier's testimony,  
22 was not a relevant consideration and any financial  
23 qualification issues which is the bankruptcy question  
24 Mr. Kessel was talking about, is not relevant.

25 And secondly, Mr. Kessel had no facts in his testimony

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Tape 4  
LAR 15

1 on which to base those opinions, and he didn't have any  
2 qualifications expressed on which he could express opinions  
3 as an expert concerning those things. So, that testimony  
4 doesn't do anything with regard to determining the public  
5 interest.

6 Then we get to Ms. Letsche's discussion of  
7 extraordinary circumstances. I might point out to the  
8 Board that nothing in the Commission's order said that the  
9 equities that were to be weighed had to be extraordinary.  
10 Counsel for Suffolk County said that the good faith  
11 testimony concerning LILCO's good faith efforts to comply  
12 with GDC 17 didn't show that LILCO had done anything  
13 extraordinary because presumably everybody tries to comply  
14 with GDC17.

15 The Commission didn't say that the Board was to  
16 consider the applicant's extraordinary efforts to comply  
17 with the regulation. The Commission said the Board should  
18 consider the applicant's good faith efforts, and that is  
19 exactly what this evidence addressed.

20 Now, I don't think that anybody could seriously  
21 question that given the amount of time, given the amount  
22 of effort, given the amount of money, that LILCO has put  
23 into trying to get qualified diesels, with the TDI's, with  
24 spending another 93 million dollars on the Colt diesels  
25 which, by the way, was uncontradicted in the record, with

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Tape 4  
LAR 16

1 bringing in the EMD diesels for low power purposes and  
2 having the 20 megawatt gas turbine, it is very very  
3 difficult, in fact it would border on incredible, for  
4 anybody to say that LILCO had not made an effort to comply  
5 with GDC 17.

6 Sure, we can dissect and hind sight every action  
7 LILCO has taken and there may be some who would criticize,  
8 some of those actions that if they made this decision  
9 instead of that decision they would be in a different  
10 posture. But, that's not what the Commission ordered to  
11 be addressed. What the Commission ordered to be addressed  
12 was good faith effort. I think it is beyond doubt that  
13 LILCO made a good faith effort.

14 Counsel for Suffolk County then talked about the  
15 testing benefit that LILCO's evidence proved. And, I am  
16 sure she didn't do it intentionally, but, counsel for  
17 Suffolk County just misstated the record in this regard.  
18 Mr. Gunther did testify that all the tests were required  
19 but he also testified that there would be testing done in  
20 addition to, and beyond what was required, and specifically  
21 with respect to the 72 hours of additional training at,  
22 I've lost my notes as to what transcript page it was, but  
23 Mr. Gunther was specifically asked, what do you mean by  
24 72 hours of additional training? And he said; we'd add  
25 72 hours to the total schedule:

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LAR 17

1           And then he was asked, well, in terms of man hours,  
2 what do you mean for additional training? It is at  
3 transcript page 829, and he said hundreds of actual man  
4 hour training benefits would be achieved. So, he wasn't  
5 talking about 72 man hours spread over 43 people. He was  
6 talking about 72 actual hours in which a number of people  
7 would receive additional training. Indeed, he said hundreds  
8 of actual man hour training benefits.

9           The record is clear and there was no contrary  
10 evidence about the training benefits.

11           Now, the third area counsel for Suffolk County  
12 addressed was the as safe as area. The first point that was  
13 made is that we ought not to look at the off-site system  
14 because that is the same on both sides of the equation.  
15 Well, I think that is typical of the approach that the  
16 intervenors are trying to take and yet it is a very  
17 myopic and blind approach.

18           What we are looking at here is will the operation  
19 of the plant be safe. Will it be as safe as it would  
20 have been with qualified on-site diesels? And what we  
21 are looking at is, can you operate it without any adverse  
22 health consequences, can you operate it within the limits  
23 specified in 10CFR Section 5046? If you can, you are  
24 safe. If you can't then you have got some problems.

25           Well, here it is important that it is very unlikely

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LAR 18

1 that you are ever going to get to a situation of a loss  
2 of off-site power because of all these added enhancements  
3 you have got in your off-site system. You can't just  
4 close your eyes to that. If it is unlikely because you  
5 have got that much of those enhancements in your off-site  
6 system, you can't ignore it. We are not looking at a  
7 vacuum and just saying just take the 20 megawatts and  
8 the EMD's and compare them to the TDI's. I mean, to take  
9 it to the extreme, if the off-site system were invulnerable  
10 and could never fail then it would be ludicrous to say  
11 that we wouldn't be as safe with or without the TDI's.

12 So, the probability of a loss of off-site power on  
13 the off-site system is very important to the analysis.  
14 And the fact that it is very unlikely to occur here because  
15 of all the added features LILCO has in its system, bears  
16 strongly on the ability to provide AC power within the  
17 time frames that the Chapter 15 analysis gives you.

18 The next measured point Suffolk County counsel spent  
19 a long time on was the safe shutdown earthquake. This is  
20 an issue which I think has been overemphasized here. The  
21 fact is that the staff and LILCO's witnesses have said  
22 that in your safety analysis you do not have to assume  
23 a coincident loss of coolant accident with a seismic  
24 event.

25 Suffolk County had no witness that came in here and

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Tape 4  
LAR 19

1 said that there was a credible probability of those two  
2 independent events happening simultaneously. Now, if you  
3 don't have to make that assumption then it doesn't matter  
4 whether the EMB's or the 20 megawatt gas turbines survive  
5 a seismic event because then you have got 30 days or more  
6 to restore AC power and you will recall the testimony of  
7 Mr. Schiffmacher about how you could repair  
8 various elements of the power system such as the transmission  
9 lines, the transformers and what not.

10 You will recall the testimony of Mr. Tomlinson of  
11 the staff that the staff is confident that some other  
12 power source could be brought in in 30 days if need be.  
13 Indeed, he said he had had conversations with the Army  
14 Core of Engineers and you could get mobile generators  
15 brought in by them if you needed to.

16 So, the seismic issue ought not to be blown out of  
17 proportion. LILCO did put on the evidence to show that  
18 even though you don't have to worry about it, these  
19 machines do have some seismic capabilities and I think it  
20 ought to be pointed out that the witnesses all agreed as  
21 to the seismic capabilities of the EMD's.

22 Suffolk County's counsel attacked LILCO's experts  
23 and yet the fact of the matter is, Suffolk County's experts  
24 came to virtually the identical conclusions with respect to  
25 the EMD's. And, I should further point out that it is not

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LAR 20

1 true that Mr. Meligi (phonetic) conceded that he didn't  
2 have any basis for his analysis, at transcript page 956  
3 and 957 Mr. Meligi was asked specifically, did you  
4 investigate to see whether your analyses were made of  
5 machines that were like the ones at Shoreham. And he said;  
6 yes I visited the Shoreham site, I looked at those machines,  
7 moreover we contacted General Motors EMD Division which  
8 manufacture the machines and we got a clear indication  
9 that they, that the machines at Shoreham are exactly of  
10 the same types of the machines we have qualified previously.

11 So, again, there was a slight misstatement of the  
12 record with respect to that. Again, with respect to the  
13 alternate tie-in, counsel for Suffolk County says; it's  
14 not done, therefore you can't consider it.

15 Well, that makes no sense. The fact of the matter  
16 is the witnesses testified that it was possible, it was  
17 feasible and what's more, that there was nothing unique  
18 about effecting this tie-in. The only reason it hadn't  
19 been done is a very practical reason and that is, LILCO  
20 didn't want to spend the money to do that and then find  
21 out it wasn't going to get the license and it would have  
22 been a useless act.

23 There is nothing unique or difficult. No one from  
24 Suffolk County or anyone else came in said; gee whiz,  
25 you can't accomplish this. LILCO's witnesses testified

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Tape 4  
LAR 21 25

1 that it was a routine matter to provide for this tie-in  
2 and that it could be accomplished in 4 weeks once low  
3 power licenses were granted.

4 Now, Suffolk County's counsel further made the point  
5 that the EMD's were not protected from fire and she was  
6 talking about the various single failure possibilities.  
7 The fact of the matter is, first of all, any fire in the  
8 EMD's by the admission of Suffolk County's witnesses,  
9 would have no effect on the gas turbines. So, if you are  
10 postulating the single failure and you look at the on-site  
11 power system, the 20 megawatts and the EMD's together, it  
12 would not effect the availability of off-site AC power.

13 JUDGE MILLER: Alright counsel. I think now  
14 we are getting into too finely spun an argument. You  
15 were going to have an opportunity to submit proposed  
16 findings and if you want to argue further in the company  
17 brief. We have other matters to take care of and I am  
18 afraid you are going to crowd us out now by an  
19 interminable counter thrust which you may more properly,  
20 perhaps, set up in your written packages to be filed.  
21 So, I think we have heard quite good closing arguments  
22 by all of you. We think that they are helpful. The  
23 transcript references will be of assistance to the Board.  
24 I think if someone has something . . . what's better than  
25 extraordinary? Something catastrophic to argue upon us,

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LAR 22



1 we are going to conclude this portion. I will ask counsel  
2 at this time to indicate the persons whose attendance is  
3 necessary at the in camera session, . . . . as authorized  
4 persons in order to enable us to get into at least that  
5 portion of . . .

6 All I'm asking for now is the list of authorized  
7 persons, and keep it short, those that you need today  
8 because we can bring out a supplemental protective order  
9 on additional ones. But, where the Board does have to  
10 exercise judgment as to need to know, area of expertise  
11 and alike. What we are asking today is for the authorized  
12 persons who will be participating in the shortly to be  
13 convened in camera session.

14 I guess will ask LIICO first. Do you need anybody  
15 besides you two?

16 MR. ROLFE: Judge Miller, Donald P. Irwin who  
17 is on my right and the Board's left will be working as  
18 counsel for LIICO in addition to Mr. Earley and myself  
19 on this. Indeed, he will be the lead attorney for  
20 purposes of this security phase of the proceedings.

21 JUDGE MILLER: You might introduce your  
22 associate counsel then.

23 MR. ROLFE: Yes your Honor. This is Donald  
24 P. Irwin. He is my law partner. He is a partner at the  
25 firm of Hunter Williams (phonetic) and he has appeared

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LAR 23

1 throughout these licensing proceedings although not in  
2 this low power proceeding.

3 JUDGE MILLER: Alright. For the record now,  
4 a Protective order is not a matter that has to be done  
5 in camera. It will be issued shortly when we get the  
6 names to fill in the blanks. State the names and addresses  
7 and the law firm affiliations now of the persons who will  
8 be considered, your considered authorized persons to be  
9 denominated as such by the Board at this time.

10 MR. ROLFE: Donald P. Irwin, Robert M. Rolfe,  
11 Anthony-

12 JUDGE MILLER: Spell . .

13 MR. ROLFE: Rolfe is R-O-L-F-E. And Anthony  
14 F. E-A-R-L-E-Y, Jr. All three of us are with the law  
15 firm of Hunton and Williams, P.O. Box 1535, Richmond,  
16 Virginia 23212. Additionally, your Honor, two LIILCO  
17 employees are here -

18 JUDGE MILLER: I'm not sure about them. They  
19 are going to have to make a showing as to need to know  
20 and expertise and so forth. That is what we are trying to  
21 avoid at this time. The Board is going to have to  
22 exercise judgment. Now, when we get into the in camera,  
23 you may want to make a statement and we will pass on it  
24 but we don't want to do it now out of protective session.

25 However, you could, perhaps . . ., there was a name

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LAR 24

1 and address of the lead counsel for service purposes  
2 which is on page 5 of the proposed protective order on  
3 behalf of LILCO, if you have that.

4 MR. ROLFE: Yes, your Honor, it will be Donald  
5 P. Irwin and I just gave this address in the record.

6 JUDGE MILLER: Okay. That will be lead counsel  
7 for service purposes as defined on page 5?

8 MR. ROLFE: Yes, your Honor.

9 JUDGE:MILLER: Okay. Now, is there any  
10 information you can give us from page 6 which will be the  
11 place where notes, copies of pleadings and soforth will  
12 be maintained by authorized persons at the specified  
13 locations? We have in mind there, staff, county and state,  
14 and consultants when we get to them. I don't we got any  
15 consultants involved at the moment.

16 MR. ROLFE: Your Honor, may I let Mr. Irwin  
17 address this please?

18 JUDGE MILLER: Yes. I guess you really don't have  
19 to do you, the utility.

20 MR. IRWIN: That was one thing I was going to  
21 point out.

22 JUDGE :MILLER: . . . responsible at all, I  
23 don't believe you are required to do that.

24 MR. IRWIN: That's correct. We will maintain  
25 our papers just for the Board's and the parties

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LAR 25

1 information at our principle offices in Richmond,  
2 Virginia. But as you just recognized Judge Miller, not  
3 only our papers but also LIICO employees who have in fact  
4 a need to know are permitted under Section 73.21 of the  
5 regulations, to have the access to safeguards information  
6 concerning their plant.

7 JUDGE MILLER: Yes, that's correct. Alright.  
8 Does staff want to go next to give us the information on  
9 authorized persons and locations?

10 MR. PERLIS: In addition to our Silver Spring,  
11 Maryland, which is the offices of NMSS, the staff would  
12 be keeping notes and copies of pleadings in a safe at the  
13 Office of the Executive Legal Director in the Maryland  
14 National Bank Building. At this time those would be the  
15 only two locations.

16 In terms of staff individuals who would be involved  
17 in the proceeding at this point, I think two attorneys  
18 from the Office of the Executive Legal Director, make that  
19 three attorneys from the Office of the Executive Legal  
20 Director, myself. .

21 JUDGE MILLER: Myself being whom?

22 MR. PERLIS: Robert Perlis, P-E-R-L-I-S,  
23 Edwin Reis, R-E-I-S, and Bernard Bordenick, B-O-R-D-E-N-I-C-  
K.

JUDGE MILLER: Okay. Let's see, does the

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LAR 26 25

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county want to go next? I think we have indicated you could have 2 attorney in addition to yourself.

MR. PERLIS: Excuse me. I just want to make clear that the papers should be served upon Bernard Bordenick.

JUDGE MILLER: Okay.

MS. LETSCHE: For purposes of the in camera this afternoon, Judge Miller, the people here are myself, Karla J. L-E-T-S-C-H=E, and Herbert H. Brown.

JUDGE MILLER: And the law firm?

MS. LETSCHE: From the law firm of Kirkpatrick, Lockheart, Hill, Christopher and Phillips. Our address is 1900 M. Street N.W., Washington, D.C. 20036.

I will be the lead counsel for service purposes.

JUDGE MILLER: Okay. Will be your firm's address then for the . .

MS. LETSCHE: With respect to the papers that Mr. Brown and I will be keeping, yes, that would be our law firms address which I just gave.

MR. PALOMINO: Fabian G. Palomino, a special counsel of the Governor's office, 2 World Trade Center, New York New York, 10047.

JUDGE MILLER: Alright. I guess that comprises the only person necessary for the session today. Now, in the future, there may or may not be consultants but you

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LAR 27 25

1 will qualify and you will have an address for them?

2 MS. LETSCHE: Yes. There are additional  
3 people that we, when you get to your entire list of  
4 authorized persons, there will be additional. This is  
5 just for the purposes of this afternoon's hearing, Mr.  
6 Brown and myself.

7 JUDGE MILLER: Okay. Anything else now before  
8 we close this portion of the conference with parties  
9 and counsel?

10 MR. IRWIN: Judge, just for the Board's  
11 information, although as we just indicated, LILCO  
12 employees who have in fact a need to know are permitted  
13 access to safeguards information. There are two such  
14 LILCO employees with us and we would like to have present  
15 at the session. Brian McCaffry and Gary Gisona, G-I-S-O-N-  
16 DAA who is sitting directly behind Mr. Rolfe and myself.

17 JUDGE MILLER: Is there any objection, staff  
18 county or state? I believe it to be within the rule and  
19 we will recognize these two gentlemen, pardon me.

20 MR. IRWIN: If I can add to that, the staff  
21 also has in the room, the assistant project manager, Mary  
22 Jo Compinony (phonetic) who would also like to have present.

23 JUDGE MILLER: On the Shoreham project manager  
24 on some facet of Shoreham?

25 MR. IRWIN: That's correct. She is assistant

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LAR 28

1 project manager for Shoreham. As well as there may be  
2 two gentlemen from the Office of MNSS coming here later  
3 this afternoon.

4 JUDGE MILLER: And what is their involvement?

5 MR. IFWIN: Their involvement would be  
6 Charles Gaskin (phonetic) and Donald Kasun. They would  
7 be the gentlemen primarily responsible for reviewing the  
8 security plan.

9 JUDGE MILLER: Alright we will take about a 10  
10 minute recess. The time we reconvene then, it will be in  
11 camera. We would like to have these affidavits of  
12 disclosure which are very similar to which you signed but  
13 we would like to have them signed by you persons who will  
14 be here. The reporters are noting our others and you can  
15 use this or similar form . . . in the future. I will  
16 leave them up here for you.

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Tape 4

LAR 29 25

1 CERTIFICATE OF PROCEEDINGS

2  
3 This is to certify that the attached proceedings before  
4 the NRC.

5 In the matter of:

6 LONG ISLAND LIGHTING COMPANY

7 Date of Proceeding: August 16, 1984

8 Place of Proceeding: Bethasda, Maryland

9 were held as herein appears, and that this is the original  
10 transcript for the file of the Commission.

11  
12  
13  
14 Joe Newman  
15 Official Reporter - Typed

16  
17 Joe Newman / JAB  
18 Official Reporter - Signature

19  
20 David T Beckman  
21 OFFICIAL TRANSCRIBER/PREPARER