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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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

JOINT RESPONSE OF SUFFOLK COUNTY
AND NEW YORK STATE TO LILCO'S MOTION TO
SUPPLEMENT AND REOPEN THE RECORD ON EDG CONTENTIONS

On November 6, 1984, LILCO filed its Motion (A) for Limited Supplementation of the Diesel Generator Engine Block Record and (B) For Limited Reopening of the Diesel Generator Crankshaft Record. The Motion is in the guise of one simply to reopen and supplement the record with allegedly specific new material evidence; in reality, however, the Motion seeks to re-litigate the contested EDG issues under a changed and lower standard for EDG performance.

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It is clear that the current performance standards for the EDGs established by the Shoreman FSAR are 3500 kw continuous (8,760 hours), 2,000 hours, and 160 hours, and 3900 kw for 2 hours per 24 hour period and for 30 minutes. 1/ The litigation of the County's EDG contention has been carried on and is nearly completed under those FSAR standards. The record on the crankshaft issues has been closed, and the records on cylinder block and piston issues are nearing completion after extensive hearings which commenced on September 10, 1984.

LILCO recently completed testing of EDG 103 at a continuous load of 3300 kw as measured using normal plant instrumentation (i.e., ± 100 kw).2/ The Motion seeks to reopen the record on the crankshaft issues to introduce only evidence concerning the results of this testing, the results of calculations under DEMA at 3300 kw, and the effect of operation at 3300 kw on safety factors. LILCO also seeks to supplement the record on cylinder block issues only with evidence of strain gage tests on the cam gallery area of EDG 103 made during the testing at 3300 kw.

The proper standard for reopening the record has been sufficiently stated by this Board as requiring that: (1) the motion be timely; (2) the new evidence be significant from a

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1/ FSAR Section 8.3.1.1.5.

2/ See letter dated October 18, 1984 (SNRC-1094) from J.D. Leonard, Jr. (LILCO) to H.R. Denton (NRC Staff).

safety (or environmental) perspective; and (3) the new evidence might materially affect the outcome. [3/] Clearly, LILCO has not met these standards.

1. The Motion is Untimely. The testing of any EDG for an aggregate of about 740 hours at any load level is and has always been a matter solely within LILCO's control. LILCO could have tested EDG 103 or any other EDG for 740 hours with the replacement crankshafts, and could have performed strain gage tests on the crankshaft gallery area, before the hearing began. Instead, LILCO, and LILCO alone, chose to wait until after the hearing had started and the crankshaft record was closed before LILCO even began the additional testing.

Therefore, LILCO's own delay in carrying out the additional tests ensured that evidence from these tests would necessarily be too late to be included in the hearing record. Accordingly, the Motion is per se untimely. Any contrary conclusion would permit LILCO to purposely delay producing evidence until after the record closes, and then argue successfully that a motion to reopen the record to permit the evidence is timely because the evidence only became available after the record was closed. That kind of "boot-straping" and circular reasoning clearly cannot prevail.

[3/] Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-83-57, 18 NRC 445, 476 (1983).

LILCO's Motion states that it "is prompted by a series of recent events and developments."[4/] It then lists four factors, none of which prevented or restrained LILCO from performing the 740 hours of EDG testing or the cam gallery strain gage tests before the hearing started.

(a) The Staff's SER on the TDI Owners Group Program Plan. The SER, which was released on August 13, 1984,[5/] stated the Staff's position that as a prerequisite to interim licensing, LILCO must demonstrate that an EDG has "operated successfully for at least 10^7 loading cycles under loading conditions which meet or exceed the severity of the maximum emergency service load requirements . . ., the qualified load . . . ."[6/] The "qualified load" for the Shoreham EDGs was (and still is) a minimum of 3881 kw.[7/]

LILCO could have, and should have, promptly moved to postpone the incipient commencement of the hearing and begin the required EDG testing. It did not do so. Indeed, LILCO even opposed the Staff's request for a few extra days to file its testimony on the EDGs. The Staff's written testimony, filed on August 30, 1984, stated the position that EDG testing at full

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4/ LILCO Motion at 1.

5/ Letter dated August 13, 1984, from D.G. Eisenhut (NRC Staff) to J.B. George (TDI Owners Group).

6/ SER at 13-14.

7/ See FSAR Table 8.3.1-1.

load and overload for 10^7 cycles should be performed by LILCO prior to interim licensing. Nevertheless, LILCO chose to ignore this injunction and begin the hearing.

(b) Determination of Lower Load Requirements. LILCO unilaterally decided to perform tests and analyses to attempt to reduce the "maximum emergency service load requirements", or "qualified load", from 3881 kw to some lower load. The qualified load for the EDGs has been 3881 kw (enveloped at 3900 kw "overload" and 3500 kw continuous) for over eight years. LILCO states that it did not complete its evaluation until October 15, 1984. There is no reason to justify LILCO's waiting so long to perform this load reduction evaluation. A reasonable utility would have begun such an evaluation no later than when the crankshaft on EDG 103 broke in August 1983. Clearly, LILCO could have and should have completed any tests and analyses justifying a lower qualified load before the EDG hearing began. Indeed, on July 3, 1984, LILCO notified the Board and parties that it intended to try to reduce the EDG load rquirements.[8/] Suffolk County referred to this matter in its prefiled EDG testimony on July 31, 1984, but LILCO chose to ignore the issue and push for an expedited hearing schedule. Clearly, LILCO's unwillingness to address the issue of

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8/ See letter dated July 3, 1984 (SNRC-1065) from J. D. Leonard, Jr. (LILCO) to H. R. Denton (NRC Staff).

a lower qualified load did not prevent LILCO from testing EDG 103 before the hearing began, or at least before the record was closed on the crankshaft issue.

(c) "Confirmatory" Tests and Inspections. These tests and inspections could have been carried out by LILCO before the EDG hearings began. LILCO's Motion makes no showing to the contrary.

(d) FSAR Proposed Amendments. LILCO waited until October 22, 1984, to submit a proposed FSAR amendment reflecting LILCO's belated re-analysis of the EDG qualified loads. For the same reasons as discussed in subparagraph (b) above, LILCO's decision to delay the re-analysis and proposed FSAR revision until after the hearing commenced and the crankshaft record was closed is unjustified.

In short, LILCO's Motion is cearly untimely. As LILCO has stated elsewhere,

> It is settled that the test for timeliness is whether the issues could have been raised earlier.[9/]

LILCO unquestionably could have tested an EDG for 10^7 cycles and performed strain gage tests on the cam gallery area before the EDG hearing began. Thus, LILCO could have raised the issues and evidence resulting from that testing earlier and on a timely basis. It did not.

9/ LILCO's Opposition to Suffolk County's Motion to Add an Emergency Diesel Generator Contention, May 16, 1983, at 10 (emphasis supplied).

2. The Evidence Which LILCO Seeks to Admit Is Not Significant and Cannot Materially Affect the Outcome. As to the crankshafts, the results of the 740 hour test of EDG 103 at 3300 kw have no significance to the litigated issues of whether the crankshafts are adequate for EDG operation at the FSAR rated and actual loads of 3500 kw continuous operation and 3900 kw overload. LILCO in fact appears to concede that the tests at 3300 kw are significant only to "the crankshaft's adequacy at this load."[10/] Nor do DEMA or other calculations of crankshaft stresses at 3300 kw have any significance to the current litigation. For these reasons, none of the evidence concerning crankshafts in the EDGs during operation at 3300 kw can possibly materially affect the outcome of the litigation.

Nor has LILCO demonstrated that the strain gage tests of the cam gallery area of the replacement cylinder block of EDG 103 are significant or will materially affect the outcome of the litigated block issues. In fact, the strain gage tests were performed at loads only up to 3300 kw and did not take into account residual stresses in the area. Moreover, the evidence on the record establishes that, because there were no crack indications in the cam gallery areas of the replacement EDG 103 block when it was delivered to LILCO, the cracks could only have resulted from EDG operation. Accordingly, there must be tensile stresses in the area. The strain gage test data which LILCO now seeks to

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10/ LILCO Motion at 8.

introduce are, for all of the above reasons, of no significance and cannot materially affect the Board's decision concerning the blocks at the current qualified loads.

In fact, the only significance of the additional testing and inspections of EDG 103 to the ongoing litigation is whether they disclose deficiencies in the crankshafts, the replacement cylinder block of EDG 103, or the AE pistons. If any deficiencies have occurred at continuous operation at only 3300 kw, they would clearly be significant to the safe operation of the EDGs at the continuous load of 3500 kw, at overload of 3900 kw, and at the qualified load of 3881 kw, and might affect materially the outcome of the litigation. As this Board has pointed out, in case of such deficiencies the Board would have the responsibility to determine whether to raise such matters sua sponte. And, of course, the County and State would also seek to bring any such deficiencies tc the Board's attention.

* * *

To be granted, LILCO's Motion must meet the reopening criteria in all respects. There is no lesser standard for late supplementation of the record. LILCO agrees that its Motion fails to meet the applicable criteria. LILCO asserts that to meet the reopening standards, either the Board must have determined that the evidence already submitted does not justify licensing the EDGs at 3500 kw, or LILCO must have conceded that

such evidence is insufficient.[11] In order to avoid this result and "have its cake and eat it too," LILCO suggests that a new, different and lesser reopening standard be applied to LILCO.

There is no authority in the law and no justification in the facts of this case for the proposed special LILCO standard. None of the cases relied upon by LILCO are applicable. In the Perry decision,[12] a portion of which is quoted by LILCO,[13] the Licensing Board did suggest that the reopening criterion of having a material effect on the outcome need not be applied to issues not yet decided. However, this singular exception to the applicable reopening criteria was made where the Board determined that there was new evidence of critical potential safety importance. As discussed above, the evidence which LILCO seeks to introduce is of no safety significance.

Moreover, LILCO has elsewhere argued vigorously that the reopening standard of whether an issue will affect the outcome must be applied in any decision to reopen the record, including in cases where there has been no initial decision. See LILCO's Reply to Suffolk County's Response on Proposed Diesel Generator Contention, June 9, 1983, at 8-9 and cases cited therein.

11/ LILCO Motion at 15.

12/ Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 & 2), LBP-83-52, 18 NRC 256 (1983).

13/ LILCO Motion at 14-15.

LILCO also cites the Comanche Peak[14/] and Byron[15/] decisions for the unconstitutional assertion that a different and lower standard for reopening the record should be applied for utilities than is applied to intervenors. In Comanche Peak the Licensing Board made no attempt to apply any of the reopening criteria to the applicant. Acknowledging "the burden imposed by our decision and the lack of precedent for failing to apply the standard for reopening the record to Applicant,"[16/] the Board invited the parties to seek review from the Appeal Board. The Comanche Peak decision was based solely on that Board's assertion that "it does not seem to us logical or proper to close down a multi-billion-dollar nuclear plant because of a deficiency of proof."[17/] Thus, this decision does not interpret the law and NRC regulations; rather it finds them inapplicable because of the utility's financial interests. Clearly this case is an aberration which should not be followed. Moreover, denial of LILCO's Motion would neither close down a nuclear plant, nor prevent the opening of Shoreham (which still has other significant hurdles precluding an operating license).

14/ Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 & 2), LBP-84-10, 19 NRC 509 (1984).

15/ Commonwealth Edison Co. (Byron Nuclear Power Station, Units 1 & 2), ALAB-770, 19 NRC 1163 (1984).

16/ Comanche Peak, supra, 19 NRC at 531.

17/ Id. at 530. The Chairman of the Board in Comanche Peak was also Chairman of the Board in Perry.

Similarly, Byron does not deal with the criteria for reopening the record, nor does it conceivably stand for the proposition that a lesser reopening standard should be applied for a utility than for other parties, as alleged by LILCO. Byron simply remanded the record to the Licensing Board for a further evidentiary hearing on quality assurance, where the QA issue was incomplete, and the Board had noted that the utility was "catching up" with its QA problems.[18] Hence, there was an implicit acknowledgement that additional evidence would necessarily be significant and determinative of the outcome of the case. As discussed above, none of the evidence sought to be introduced by LILCO has any significance to the EDG litigation.

As discussed above, there is no applicable legal authority to support LILCO's proposal for special lower reopening criteria. Moreover, neither the equities of this case nor policy matters support LILCO's request for special treatment. Indeed, both factors demonstrate that LILCO must make a choice now either to concede that the evidence is insufficient to prove safe and reliable EDG operation at 3500 kw or higher, and proceed with supplementary litigation of the adequacy of the 3300 kw qualified load, or to proceed with the current litigation and, after this Board's decision, decide whether and on what basis to apply for a license at the lower qualified load.

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[18] Byron, supra, 19 NRC at 1169.

First, as discussed above, the equities are against LILCO. Despite ample opportuniy to do so earlier, LILCO decided not to perform reanalyses of the FSAR requirements for the EDGs, not to perform additional testing of an EDG, not to perform cam gallery strain gage tests, and not to propose amendments to the FSAR as to EDG requirements until after the EDG hearing had begun. LILCO continually and aggressively advocated the most rapid litigation schedule possible, always opposing requests by Suffolk County and the Staff for modest and reasonable time extensions. While LILCO knew at least by early July 1984 that it intended to attempt to reduce the qualified load of the EDGs, LILCO avoided addressing this issue until November 1984, despite repeated invitations by Suffolk County and the Board to do so. LILCO's selfish and arrogant behavior forced the parties and Board to expend much time, effort and money on litigation of the EDGs at qualified load levels which LILCO itself has now abandoned.[19/] This Board has acknowledged these matters at several times during the hearing. See, for example, Tr. 24,064-69, 25,191-97.

Second, permitting LILCO to litigate the adequacy of the EDGs at the new qualified load of 3300 kw, while preserving its position that the Board should approve the abandoned qualified

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19/ It is significant that LILCO's proposed FSAR amendments provide at Section 8.1.4: "Each diesel generator has a qualified load of 3,300 kw. The nameplate ratings are retained in the FSAR as these ratings were used in the design and initial testing phases. In the future however, the new qualified load will be used for all purposes." (Emphasis added).

loads of 3500, 3881, or 3900 kw, would be bad policy. It would encourage utilities to proceed with hearings on issues before they have made final decisions on safety, adequacy or suitability, because the utility would know that if the Staff's or intervenor's evidence proved difficult, the utility would always have the option of making changes, reopening the record, and litigating the changed facts under different criteria. The utility could thus always preserve all options, while forcing other parties to engage in costly piecemeal litigation with imprecise standards and "moving targets." LILCO's special consideration proposal would be a precedent for inefficient, wasteful, delayed, and confusing litigation.

LILCO's apparent dilemma also is imaginary and self-inflicted. LILCO could have postponed EDG litigation until after it decided on a maximum load level. Instead, LILCO pushed forward with the EDG litigation at load levels which LILCO has now abandoned in its proposed revised FSAR. LILCO should now forthrightly abandon its efforts to have this Board approve the abandoned FSAR load requirements of 3500 kw and higher.

Suffolk County and the State of New York therefore oppose LILCO's Motion in its entirety. However, if LILCO concedes that the evidence so far adduced is insufficient to prove adequate EDG reliability at loads 3500 kw and higher and cancels its attemnpt to have the Board approve the abandoned load levels, the County and State will not oppose orderly supplementary litigation of the

adequacy of the proposed qualified load of 3300 kw and the adequacy of the EDGs to perform up to and including 3300 kw, as follows.

1. Adequacy of 3300 kw Qualified Load. The threshold issue under a new litigation focus and schedule is whether 3300 kw is an adequate and proper qualified load for the EDGs. Suffolk County consultants have received some documents on this issue from the Staff and have commenced their analysis. The County is awaiting additional information from LILCO. If the NRC Staff approves LILCO's proposed FSAR revisions, the following schedule would seem appropriate.

(a) Fifteen days after receipt of the final Staff approval of FSAR revisions, the discovery period (including depositions) ends.

(b) Fifteen days after the discovery period ends, the County and State either shall have agreed with the Staff, or will file testimony.

(c) If such testimony is filed, LILCO and the Staff will file rebuttal testimony 10 days thereafter. Fifteen days thereafter, the hearing will commence on this issue.

The County and State believe strongly that this threshold issue must be decided before supplementary litigation commences on the adequacy of the EDGs under the proposed revised FSAR. If,

for example, it is determined that the appropriate qualified load is really 3400 kw, no additional time, effort and expense should be wasted on useless litigation on EDG adequacy at a lower load.

2. Adequacy of EDGs at New Approved Qualified Load. Once a new qualified load is approved (by agreement of the parties or decision by the Board), supplementary litigation could proceed on the following additional evidence (assuming 3300 kw is the approved qualified load): as to crankshafts, pistons and cylinder blocks, evidence concerning the results of the additional testing and inspections of EDG 103 as to such components; and as to crankshafts, evidence concerning any DEMA stress calculations at the new qualified load, any other calculations at such load consistent with the County's crankshaft contention, and material responsive to the Staff's letter dated October 10, 1984, to the TDI Owners Group concerning the crankshafts on the Shoreham EDGs.

After approval of the new qualified load and receipt by the County and State of final inspection reports (after quality assurance review) of LILCO and its consultants, and final Staff inspection reports or comments (if any) on reports of LILCO and its consultants,[20/] the following schedule would seem appropriate:

20/ The County and State share the Board's concerns over the use of preliminary or incomplete documents by LILCO during the EDG hearing, and are anxious to avoid a repeat of this experience. See Tr. 25,594.

(a) Fifteen days after such receipt, the discovery period (including depositions) ends.

(b) Fifteen days thereafter, testimony will be due from the County, State and LILCO.

(c) Seven days thereafter, Staff tetimony will be due.

(d) Fifteen days thereafter, the hearing commences.

As discussed above, we do not believe any evidence purporting to demonstrate the adequacy of the EDGs at loads below 3500 kw should be permitted unless and until LILCO abandons its quest for Board approval of the abandoned qualified loads. However, if the Board nevertheless allows LILCO to reopen the record without meeting the applicable reopening criteria, then we believe findings on the EDG components at 3500 kw and 3900 kw overload under the current litigation should be deferred and consolidated with the findings with respect to the additional litigation of the lower qualified load. This would present a more orderly record, and permit counsel most familiar with EDG matters to handle the supplementary litigation, rather than writing findings, thus enhancing the efficiency of the litigation. If the Board permits LILCO to reopen the record without meeting the reopening criteria, we urge that the determination of the adequacy and appropriateness of the new lower qualified load be made prior to

any additional litigation on the adequacy of the EDGs at the lower qualified load.

Respectfully submitted,

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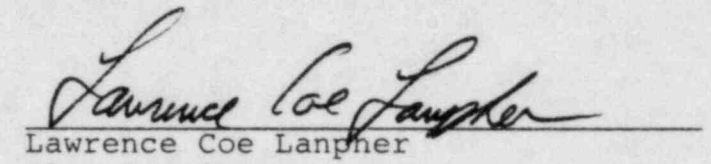

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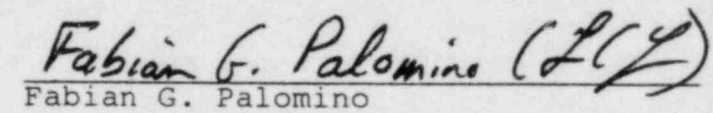

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November 13, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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

CERTIFICATE OF SERVICE

I hereby certify that copies of the JOINT RESPONSE OF SUFFOLK COUNTY AND NEW YORK STATE TO LILCO'S MOTION TO SUPPLEMENT AND REOPEN THE RECORD ON EDG CONTENTIONS, dated November 13, 1984, have been served on the following this 13th day of November 1984 by U.S. mail, first class, except as otherwise indicated.

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