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)	)	

LILCO'S MOTION TO STRIKE
TESTIMONY OF DALE G. BRIDENBAUGH
AND GREGORY C. MINOR REGARDING SUFFOLK COUNTY'S
EMERGENCY DIESEL GENERATOR LOAD CONTENTION

LILCO moves to strike portions of Suffolk County's diesel generator load contention testimony on various grounds, including that

(i) portions of the testimony are outside the scope of the contention,

(ii) portions of the testimony are contrary to the Board's Order of January 18, 1985;

(iii) portions of the testimony amount to pure speculation without basis or foundation;

(iv) portions of the testimony constitute an impermissible attack on the NRC's regulations; or

(v) portions of the testimony are irrelevant.

Each of these grounds is discussed more fully below in

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connection with the specific portions of testimony to which it applies.

I. Beyond the Contention, Contrary to the Board's Order or Irrelevant

The following portions of the County's testimony should be stricken because they are beyond the scope of the contention, contrary to the Board's January 18, 1985 Order or irrelevant:

A. Margin at Other Plants

1. Page 8, answer 7, subparagraph (1), the phrase "are unprecedented."

2. Page 11, answer 8, last two sentences including footnotes 9 and 10.

3. Pages 15-16, answer 14, except first sentence but including footnote 14.

4. Pages 16-17, answer 15, including footnote 15.

5. Pages 20-21, answer 21, first three sentences.

6. Exhibits 1, 3 and 4.

All of these portions reflect a surprising attempt by Suffolk County to reinject into this litigation the circumstances and conditions at other plants around the country. It

is surprising because the issue of the admissibility of facts and circumstances at other plants has already been raised and argued by the parties and resolved by the Board. The County, in its original diesel generator contention, sought to inject into this litigation the circumstances and load margins at other plants. LILCO objected, noting that

> [T]o the extent the contention is based on the margin provided at other nuclear plants, it is irrelevant and invites unnecessary litigation of facts and circumstances surrounding diesel generators at other nuclear power plants.[1/]

The Board agreed. In its January 18, 1985 Order, the Board ruled that

> [T]o the extent admission of this part [of the contention] would arguably include consideration of the margin at other nuclear plants, such litigation would be irrelevant or at least so remotely collateral to the material issues before us as to be digressive without any redeeming usefulness.[2/]

1/ LILCO's Response to Joint Motion to Admit Emergency Diesel Generator Load Contention dated December 27, 1984, at page 18. Footnote 12 at page 18 also indicated that the margin data and information from other plants had been incorrectly calculated and used. The portions of the testimony here objected to, particularly Exhibit 3, suffer from precisely the same infirmities. LILCO's information indicates that much smaller margins exist at most plants identified in Exhibit 3 and in at least two instances, there may be no margin at all.

2/ January 18, 1985 Order at 8.

By including testimony relating to margins and circumstances at other plants, Suffolk County has chosen to ignore the Board's Order. This testimony deserves summary rejection; the portions listed above should be stricken consistent with the Board's ruling of January 18, 1985.

B. Vague Uncertainties

1. Page 8, answer 7, paragraph (1), the term "uncertainties."

2. Page 12, answer 11, the phrase "after allowing a minimal but reasonable degree of margin for uncertainties, modeling error, system degradation, etc."

3. Page 13, answer 11, the phrase "all of the uncertainties plus."

4. Page 18, answer 17, third sentence.

5. Page 21, answer 21, "and none to provide for the modeling, calculational and other uncertainties inherent in the accident scenario forecast."

6. Page 30, answer 31, the clause "or for any inaccuracies which may exist in the predicted accident scenarios, modeling or loading conditions."

7. Page 15, answer 14, "taking into account the modeling and other uncertainties inherent in predicting the accident condition. . . ."

In its response to the joint motion to admit the load contention, LILCO objected to paragraphs (a)(v) and (a)(vi) of the restated contention. Those sections of the contention dealt with degraded plant conditions, modeling errors and the like. LILCO objected on a variety of grounds. See LILCO's Response dated December 27, 1984, at pp. 12-17. In essence, LILCO pointed out that these portions of the contention had no adequate basis, were speculative and, in the case of degraded plant conditions, had nothing to do with the implementation of a qualified load.

Again, the Board agreed with LILCO and in its January 18, 1985 Order, ruled that (a)(v) and (a)(vi) should not be admitted. In reaching this conclusion, the Board noted these portions of the contention relating to degraded plant conditions, modeling errors and vague references to inaccuracies suffered

> fatally from a lack of bases and an overabundance of speculation, and that this is exacerbated by the fact conceded by the County's witnesses that they would not expect such variations in load to be materially large.

January 18, 1985 Order at 7.

The Board's reasons remain valid and, indeed, the correctness of the Board's ruling is underscored by the vagueness of the County's testimony.

Here again, the County should not be permitted to ignore the Board's existing order. These portions of the testimony should be stricken as beyond the contention, contrary to the Board's Order, irrelevant and speculative.

C. Overload Rating

1. Page 8, answer 7, the phrase "and the absence of any overload rating."

2. Page 11, answer 8, the sentence "LILCO's proposal to operate the EDGs without a short-time rating is a departure from the general industry practice."

This testimony assumes and implies that the concept of a single qualified load is prohibited by regulation or attacked in the contention. Both implications and assumptions are wrong. No part of the admitted contention attacks the concept of a qualified load. As the Board knows, this concept was established as an interim licensing basis by the NRC Staff in its TDI Diesel Generator Owners Group Safety Evaluation Report. Thus, the County was on notice that the concept would be used and it failed to raise any objection to it. Nor could it properly do so, for there is no regulation that prohibits a

qualified load or mandates use of both a continuous load rating and an overload rating. Accordingly, this testimony is outside the scope of the contention, without regulatory basis and irrelevant.

II. Unfounded Speculation

A. Pages 18-19, answers 17 and 18.

These answers are, on their face, inadmissible speculation. For example, question 18 asks why LILCO followed a particular course of action. The answer begins with the phrase "we are not certain" and there it should end for the fact is Suffolk County does not know the answer and the remainder of answer 18 is rank speculation.

Answer 17 is equally speculative. It acknowledges on its face that "whether such 'locking' has been made a permanent requirement is not known." The answer should end with that acknowledgement. What follows is mere conjecture. Suffolk County plainly has no basis for answers 17 and 18 and these answers should accordingly be stricken.

III. Witnesses Not Qualified, Unfounded

A. Pages 24-28, answer 28 including footnotes 19 and 20.

In this testimony Messrs. Bridenbaugh and Minor summarize some aspects of various Shoreham procedures and purport to offer vague and general opinions concerning the likelihood of operator actions and errors. Neither witness is qualified by training or experience to offer these opinions. Neither witness, so far as this record is concerned, has ever been qualified to operate a plant, ever been employed as an operator, or ever received simulator training relating to a nuclear power plant. See, e.g. Tr. 2423-24, 2428 (low pwer proceeding). That Messrs. Bridenbaugh and Minor are engineers with some experience in the nuclear industry is not sufficient. Those without experience as plant operators, like Messrs. Bridenbaugh and Minor, cannot speak as expert witnesses concerning operating procedures or the reactions of operators during an accident. Accordingly, this testimony should be stricken as unfounded opinions of persons who are not experts on the matters in issue.

VI. Irrelevant, Unresponsive

A. Pages 5-7, answer 7 from the beginning to subparagraph (c).

Question 7 asks for the basis of the contentions and a summary of the witnesses' concerns. Yet the answer, for the most part, consists of a selective (and not wholly accurate) statement of some history leading up to the determination of

the qualified load. Pages 6 and 7 (subparagraphs (a), (b) and (c)) consist of nothing more than a partial, selective summary of LILCO's Revision 34 to the FSAR. This is plainly inappropriate, unresponsive and unnecessary; Revision 34 is a lengthy document which speaks for itself and can be offered into evidence if the County chooses. Not until page 8 does the County respond to the question by listing concerns. All of the testimony in Answer 7 prior to this should be stricken as unresponsive and irrelevant.

V. Challenge to Regulation (Single Failure Criterion), Beyond the Contention

A. Page 29, answer 30.

B. Page 29, answer 29, last two sentences.

Answer 30 begins by postulating a LOOP/LOCA plus the failure of one diesel generator. This is a situation the plant must be, and is designed to tolerate under the single failure criterion. But the answer goes on to postulate an additional failure beyond the single failure of a diesel already postulated. This failure is said to result from an operator error that loads one of the two remaining diesels beyond the qualified load. SC, in this answer, argues, contrary to regulation, that LILCO must include within the qualified load those loads which could be applied due to operator error. In other words, the County claims that LILCO must design the plant to

accommodate random failure of one diesel (the single failure) along with erroneous loading of the remaining diesels by the operator (additional failures). This is a direct challenge to the single failure criterion regulation which requires that a plant be designed to withstand a single failure, but not multiple, independent failures.3/

It is one thing to argue that procedures should be implemented to provide reasonable assurance that the operator error beyond the single failure will not occur. This might well be a permissible subject of litigation. But it is quite another matter, an entirely impermissible one, to argue, as SC does here, that the plant must be designed to withstand multiple failures, namely an operator error in addition to some other single failure of another diesel.4/

3/ In its order of January 18, 1985, at page 5, the Board notes that its preliminary view on this issue is based, in part, on its view that single failure criterion analysis involves consideration of design and automatic operation of equipment, rather than consideration of operator errors. LILCO respectfully disagrees. Operator errors are and must be considered in single failure analysis. See, for example, Single Failure Criteria for Light Water Reactor Safety-Related Fluid Systems, ANSI/ANS-58-9-1981, which states at § 3.7:

> The designer shall consider an operator as a potential single active failure.

4/ In its January 18, 1985 Order at page 6, the Board states that LILCO's position is subject to a reductio ad absurdum criticism because it would suggest that the original EDG 103 block need not be replaced. The fallacy in the Board's reason-

(footnote continued)

The objectionable portion of answer 29 hypothesizes an accident scenario that begins with one EDG out of service, as allowed by technical specifications for 72 hours. This is, in essence, an argument that the plant must be designed to meet the single failure criterion and beyond (see above) when the limiting conditions for operation are not met. Such an argument is unfounded and contrary to the regulations concerning technical specifications. The limiting conditions for operation are themselves the lowest functional capability or performance levels of equipment required for safe operation of the facility. There is no regulatory requirement that a plant must be designed to meet the single failure criterion when the limiting conditions for operation set forth in the technical specifications are met. The opposite is the case. The technical specifications themselves set forth the remedial actions permitted and required in such situations.5/ 10 CFR § 50.36(c)(2). Thus, it is wholly inappropriate to permit SC

(footnote continued)

ing is the assumption that the single failure analysis is applied to equipment likely to fail. Not so; if a failure is likely to occur or if there is no reasonable assurance that it will not occur, then its occurrence is not part of single failure analysis -- it must be assumed to occur. Single failure analysis applies to equipment as to which there is reasonable assurance of reliable operation. This was arguably not the case with the original EDG 103 block.

5/ For example, when one diesel is out of service, additional surveillance must be performed on the remaining diesels to ensure their operability. Technical Specification § 3.8.1.1.

to litigate on the basis of a scenario that begins with a limiting condition for operation not being met. To do otherwise constitutes a challenge to regulations concerning technical specifications, and an attack on the basis of the technical specifications, both of which are impermissible and beyond the scope of the contention. Accordingly, this testimony should be stricken.

Respectfully submitted,

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DATED: February 1, 1985

CERTIFICATE OF SERVICE

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Docket No. 50-322 (OL)

I hereby certify that copies of LILCO'S MOTION TO STRIKE TESTIMONY OF DALE G. BRIDENBAUGH AND GREGORY C. MINOR REGARDING SUFFOLK COUNTY'S EMERGENCY DIESEL GENERATOR LOAD CONTENTION were served this date upon the following by hand, as indicated by an asterisk, or by first-class mail, postage prepaid.

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