UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

DOCKETED

BEFORE THE ATOMIC SAFETY AND LICENSING BOARDER -7 P1:31

In the Matter of
LONG ISLAND LIGHTING COMPANY
(Shoreham Nuclear Power Station,
Unit 1)

Docket No. 50-322
(OL)

MPC STAFF RESPONSE TO LILCO BRIEF ON THE APPLICABILITY OF THE SINGLE FAILURE CRITERION TO THE EDG LOAD CONTENTION

I. Introduction

On December 17, 1984, Suffolk County and the State of New York filed their "EDG Load Contention." On December 28th, the Licensing Board admitted various portions of the contention (as reorganized by LILCO), including Contention (a)(iv), which alleges in pertinent part that LILCO's proposed "qualified load" of 3300 KW is inadequate because "operators may erroneously start additional equipment." (Board Order of January 18, 1985, Attachment). In admitting Contention (a)(iv), the Board specifically extended to LILCO the opportunity to provide a brief specifying its regulatory basis for asserting that the contention impermissibly challenged the Commission's regulations (specifically, the "single failure criterion"). (Order at 4-6). LILCO filed its Brief on January 15th; the State and County jointly filed their response on January 25th. The Staff herein files its response to LILCO's Brief; for the reasons stated below, the Staff submits that the Board correctly found Contention (a)(iv) admissible.

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II. Discussion

In its Brief, LILCO argues that the contention is inadmissible because:

- (i) section (a)(iv) of EDG contention alleges multiple failures beyond the single failure criterion,
- (ii) the MRC's regulations prohibit the admission of such an issue absent special circumstances, and
- (iii) Intervenors have alleged no special circumstances adequate to justify admission of the contention.

Brief at 2. The second and third parts of the argument cited above follow from 10 C.F.R. § 2.758; it is clear that if in fact the contention is a challenge to the regulations, it is inadmissible in this proceeding (absent the grant of a waiver petition not requested here). The key issue thus becomes whether all challenges to the diesel generators based on operator errors are barred as a matter of law because of the single failure criterion.

The single failure criterion is specifically referenced in the second paragraph of GDC-17:

The onsite electric power supplies, including the batteries, and the onsite electric distribution system, shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

Single failure itself is defined in Appendix A to Part 50:

Single failure. A single failure means an occurrence which results in the loss of capability of a component to perform its intended safety functions. Multiple failures resulting from a single occurrence are considered to be a single failure. Fluid and electric systems are considered to be designed against an assumed single failure if neither (1) a single failure of any active component (assuming passive components function properly) nor (2) a single failure of a passive component (assuming active components function properly), results in a loss of the capability of the system to perform its safety functions.

LILCO argues that the application of the criterion to operator errors necessarily results in the conclusion that operator error can only be postulated to fail one diesel, a failure which the TDI's (because of the presence of three diesels when only two are needed to perform the system's safety function) can withstand and still perform capably. The problem with this argument is that it places too much reliance on the single failure criterion and ignores requirements pertaining to the adequacy of equipment or operators.

For example, GDC-1 to Appendix A to Part 50 requires that structures, systems and components important to safety be designed, fabricated, erected, and tested to certain quality standards. A showing that a system meets the requirements of GDC-1 is necessary before the single failure criterion can be invoked; only after it is shown that a system meets applicable quality standards does the NRC then examine that system to ascertain that it can nonetheless survive a single failure.

Leaving aside the question of whether a single operator error could overload more than one machine, a necessary predicate to the application of the single failure criterion to operator actions is that the procedures (and related training) for such actions (or to prevent erroneous actions) are adequate to assure safe operation of the facility. See e.g., $10 \text{ C.F.R. } \S 50.36(c)(5)$. The contention in question calls the adequacy of such procedures and training into question; until such adequacy is shown, the single failure criterion is simply inapplicable.

III. Conclusion

For the reasons presented herein, the Staff submits that Contention (a)(iv) does not present an impermissible challenge to the Commission's regulations.

Respectfully submitted,

Robert G. Perlis

Counsel for NRC Staff

Dated at Bethesda, Maryland this 5th day of February, 1985

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO LILCO BRIEF ON THE APPLICABILITY OF THE SINGLE FAILURE CRITERION TO THE EDG LOAD CONTENTION" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 5th day of February, 1985.

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