

NRC PUBLIC DOCUMENT ROOM

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



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

)
)
) Docket No. 50-322
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)

SUFFOLK COUNTY SUPPLEMENTAL RESPONSE
TO APPLICANTS SECOND INTERROGATORIES

By orders dated March 2, 1978 and April 4, 1978, the Hearing Board granted partial relief to Applicant in connection with its motion to compel further County response to certain interrogatories. The responses which follow correspond to questions of the same letter and numeric used in the Applicant's December 8, 1977 interrogatories.

E. Contention 6(a) - Inclusion of All Credible Large
Accidents

1. The accident mechanisms referred to in this contention are the so-called Class 9 accidents which, by definition, include any accident of greater severity than a design basis accident. (DBA). Such accidents would include but are not limited to:

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a) vessel rupture; b) core melt; c) anticipated transients without scram (ATWS); and d) reactivity addition accidents.

2.(b & c). The transients referred to in the County's previous responses (ie., rod ejection, ganged rod withdrawal, rod drop accident) may result in gross vessel movement because the hydrodynamic effect of such transients is to cause a rapid and prompt criticality introducing a large amount of energy into the reactor core. The effect may be likened to a small explosion which could cause the vessel to jump, thus causing failures of components inside the vessel and ruptures of emergency core cooling system (ECCS) piping connections.

J. Contention 9(b) - Containment System Design Verification

2. Applicant has not demonstrated that the concerns identified by the County in its previous response to this interrogatory have been satisfied because the design verification program for the Mark II containment is incomplete. For example, the Caorso tests in Italy on Mark II containment have not been completed. Moreover, completion of the NRC's Safety Evaluation Report (SER) on Mark II dynamic containment loads is at least a year off and possibly more. See NUREG 0410; see also, NUREG 0474 and Mark II containment testing programs identified therein.

L. Contention 10(b) - Transient Condition Design Verification

1. 10 CFR, Part 50, Appendix B requires verification of the plant design and indicates that testing is one way such design verification can be accomplished. See, Criteria III, XI. However, it is the County's position that testing is the only acceptable method to assure the integrity of the Shoreham design because of the complexity of the accident sequences and the resultant inability to properly model said accident sequences. Under these circumstances, and notwithstanding the conditional language of 10 CFR, Part 50, Appendix B, the responsibility of the NRC to ensure that the Shoreham plant will operate without endangering public health and safety (see 10 CFR, Section 50.57 (a)(111); 42 U.S.C. §2133(d)) requires that verification of the Shoreham design be accomplished through testing.

Respectfully submitted,

Irving Like (rc#)

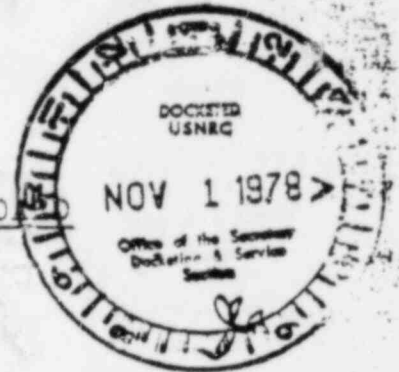
Irving Like
Special Counsel for the
County of Suffolk

Dated: October 26, 1978

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CERTIFICATE OF SERVICE

I hereby certify that copies of SUFFOLK COUNTY
SUPPLEMENTAL RESPONSE TO APPLICANTS SECOND INTERROGATORIES
were sent on October 27, 1978, by first-class, postage pre-
paid mail, to the following:

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