Docket No.: 50-322

Mr. M. S. Pollock Vice President - Nuclear Long Island Lighting Company 175 East Old Country Road Hicksville, New York 11807

Dear Mr. Pollock:

NRG FORM 318 (10-80) NRGM 0240

Subject: NRC Staff Position on Procedures for Suppression Pool Pumpback System (SER Open Item No. 39) - Shoreham Nuclear Power Station

The Shoreham design does not use watertight rooms to provide flood protection for the ECCS pumps as do other BWRs. In the Shoreham design, the ECCS pumps are located in one large annular area surrounding the suppression pool enclosure in the reactor building basement (elevation 8-0). Your position is that this annular area has sufficient volume to prevent flooding of ECCS equipment prior to detection and isolation of the source of leakage. The method of locating the leak (inside the Reactor Building) in the long-term post-LOCA period involves isolating ECC systems (trial-and-error basis) and monitoring the level change in the suppression pool or reactor building flood drain sump.

In response to staff comments on this method, you installed a manually actuated "pumpback" system which can pump water from the reactor building basement floor drain sump to the suppression pool. The system is to minimize the possibility of flooding and reduce loss of inventory from the suppression pool.

By letter SNRC-473 dated May 2, 1980, you submitted a detailed design and operating philosophy of the suppression pool leakage return system. In your response (212.107) identification and isolation procedures of ECCS were given for the long-term post-LOCA period. Based on the above information submitted by you, the staff approved the system design and operating philosophy. We perceived that LILCO would incorporate the detailed identification and isolation procedures into plant operating procedures for use by the operator. Neither the operating procedure SP.23.702.04 Rev. 0 nor the alarm response procedures submitted on letter SNRC-696 dated April 30, 1982 includes the identification and isolation procedures given earlier to the staff.

The detailed operating procedures are also a useful tool in the operator training program. During the long-term post-LOCA period, the reactor conditions are stabilized and the operator will have the flexibility of initiating the selective identification and isolation of ECCS procedures to detect and isolate the leak.

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It is the staff's position that you include the identification and isolation of ECCS procedures given in your May 2, 1980 response (212.107) into plant procedures so that the operator will know the actions to be taken during the post-LOCA period.

Additionally, with regard to internal flooding in the elevation 8-0 areas as a result of the limiting moderate energy pipe break (Residual Heat Removal System), plant procedures should address leak detection and isolation methodology to ensure that operator action can be successfully completed within the 30 minute period described in FSAR Appendix 3C Section 3C.5.4.4. You should demonstrate that these procedures will also be adequate to detect and isolate leaks of lesser magnitude than the limiting moderate energy pipe leak. You also should demonstrate that access to equipment on elevation 8-0 will be available as necessary to detect and isolate leaks considering the accumulation of potentially radioactive and/or thermally hot water on this elevation and that the accumulation of water could submerge the leak.

As a result of water migration to elevation 8-0 due to moderate energy line breaks from elevations 175-0 through 40-0, it is requested that you address indirect equipment wetting and equipment qualification resulting from water flow and impingement through the staircase or other floor penetrations. Leak detection and isolation procedures should be verified effective within the time frame assumed in Appendix 3C of the FSAR as a part of the preoperational program.

Please inform the staff within seven days of receipt of this letter as to the schedule of your response to these items.

If you have any questions on this matter, please contact Mr. Ed Weinkam at (301) 492-8430 or myself.

EWeinkam/RGilbert

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Sincerely,

A. Schwencer, Chief Licensing Branch No. 2 Division of Licensing

JKennedy

cc: See next page

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