



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

Direct Dial Number

November 8, 1982

SNRC-790

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

High Radiation Signal to Purge Valves
SER Issue II.E.4.2
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Reference: (1) SNRC-762 dated 8/31/82

Dear Mr. Denton:

In the reference (1) letter, LILCO provided justification for delaying the implementation of a high radiation signal for initiating closure of the 6" and 4" purge valves. This delay until the first refueling outage was determined by LILCO to be acceptable based on the following:

- 1) the high reliability of the existing isolation signals;
- 2) the low probability that automatic isolation on high radiation will be required;
- 3) the negligible radiological consequences for such an occurrence.

A Shoreham specific analysis was done which determined that the offsite thyroid dose for the limiting reactor coolant system break which would not result in automatic containment isolation was .003 Rem. This is well below the EPA's Protective Action Guide value of 5 Rem.

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It should be emphasized that the purge valves in question are 6" and 4" globe type valves. They are not the large 18" butterfly type valves which, by technical specification, must be closed during operational conditions 1, 2 and 3.

In a letter from the NRC (A. Schwencer) to LILCO (M. S. Pollock) dated 10/13/82, the staff requested, in light of Shoreham's revised fuel load date to the first quarter of 1983, that LILCO re-evaluate their ability to install the high radiation signal prior to fuel load.

This re-evaluation has been done, and a determination has been made that the required change cannot be accomplished by fuel load. Implementation of purge valve isolation upon a high-radiation signal requires modification of an existing radiation monitor by the system vendor. A requirement to perform this modification on an accelerated near-term schedule would be very difficult to achieve due to the following:

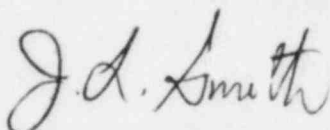
- 1) the design complexity of the digital-based equipment involved,
- 2) the present commitment of the vendor to supporting completion of remaining engineering and production items,
- 3) vendor support of schedule-critical onsite system testing, and
- 4) the loss in recent weeks of certain vendor personnel who were significantly involved in the development of the original Shoreham system.

Based on the above evaluation, LILCO feels that, contingent upon vendor ability to support such an endeavor, an implementation date of December 1983 can be achieved. Further, for reasons summarized in this letter and presented previously in the Reference 1 letter, LILCO has proven that this delay does not affect the health and safety of the general public. LILCO will, therefore, strive to implement a high radiation signal for purge valve closure on this schedule, and requests that Safety Evaluation Report Issue II.E.4.2 be closed on that basis.

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Should you have any questions, please contact this office.

Very truly yours,

A handwritten signature in cursive script that reads "J. L. Smith". The signature is written in dark ink and is positioned above the typed name and title.

J. L. Smith
Manager, Special Projects
Shoreham Nuclear Power Station

RWG:mp

cc: J. Higgins
All parties