



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

P.O. BOX 604, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

August 20, 1982

SNRC-755

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

SER Item No. 1 - Pool Dynamic Loads
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Dear Mr. Denton:

On the basis of our meeting on July 9, 1982 with the NRC concerning the final Mark II long-term program load definitions (NUREG-0808), it is LILCO's understanding that the Staff has reviewed the Shoreham Design Assessment Report (DAR), Revision 5, which was the LILCO response to a prior Staff request for a reevaluation of all piping systems. LILCO further understands that the Staff is satisfied with the DAR, Revision 5 in all respects except in the piping systems supported at three primary containment elevations. For these three locations, LILCO understands that the Staff requires a 100% reevaluation of the piping systems. LILCO hereby commits to perform a 100% reevaluation of the piping attached at the three locations of concern; i.e., 21 ft., 83 ft. and 106 ft.

It is LILCO's understanding that this reevaluation work is confirmatory and not required for closure of the current SSER open items on Mark II dynamic loads, nor a requirement for Fuel Load and low power testing. LILCO projects completion of work and a submittal of findings to the NRC by November 15, 1982. This issue is discussed in more detail below.

The DAR, Revision 5, submitted by LILCO on December 16, 1981 summarizes the results of extensive analysis of representative reactor building structures, systems, and components for NUREG-0808 loads. The scope of these analyses included 30 piping subsystems representative of reactor building configurations. These subsystems were chosen as being those generally having minimum inherent design margins, as discussed in DAR, Revision 5. The results of the detailed analyses of these

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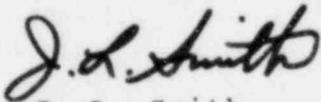
30 piping subsystems showed that all pipe stresses and support loads were found to be within design allowables. On this basis, LILCO concludes that Shoreham reactor building piping and supports are capable of sustaining the effects of NUREG-0808 loads.

In addressing the Staff's concern, the first step of the piping reevaluation will be the identification of all pipe supports that are potentially affected and the quantification of faulted condition design margins for these supports as well as for the piping itself. For components with design margins less than the maximum primary containment response spectra increase (which occurs in a narrow high frequency range), the effect of that load increase will be quantified. This revised hydrodynamic load effect will then be combined with the other applicable faulted load combination events and again compared to design allowables.

It is LILCO's judgment that no components will be found stressed beyond design allowable. This positive opinion is based on the following reasons:

1. As stated earlier, a large scope of such components have already been quantitatively evaluated and all found acceptable.
2. The effect of the confirmatory load will seldom be as large as the degree of amplified response spectra increase at high frequencies, since many system frequencies contribute to the total system response.
3. The percent increase in the faulted load combination will be less than the percent increase in the hydrodynamic load, since the effects of several load events are combined before comparing to design allowables.

Very truly yours,



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

HC/dls

cc: Messrs. Robert Bosnak
Walter Butler