LONG ISLAND LIGHTING COMPANY
SHOREHAM NUCLEAR POWER STATION
P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

JOHN D. LEONARD, JR.
VICE PRESIDENT - NUCLEAR OPERATIONS

MAR 17 1986

SNRC-1232

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

SER Issue Number 57, Item II.B.3
Post Accident Sampling
Offsite Analysis of a Reactor Coolant Grab Sample
Shoreham Nuclear Power Station
Docket No. 50-322

Reference: LILCO letter (B. R. McCaffrey), to the NRC (H. R. Denton), SNRC-605, dated July 23, 1981

Dear Mr. Denton:

NUREG-0737, Item II.B.3, "Post Accident Sampling", states in part, "If inline monitoring is used for any sampling and analytical capability specified herein, the licensee shall provide backup sampling through grab samples..."

The Shoreham Safety Evaluation Report, Supplement #1 (SSER #1, page 22-37) states that LILCO committed to providing backup analysis capability by shipping a pressurized undiluted reactor coolant sample to an offsite laboratory. The staff found this to be an acceptable means of meeting the backup analysis capability.

Upon reexamination of this issue, we find that although shipping of an undiluted liquid sample is required, no shipping cask is available in the Plant Inventory Management System (PIMS) which is certified for and capable of handling a pressurized sample. In addition, shipping of a pressurized sample for backup analysis is unnecessary due to the capabilities of the Shoreham Post Accident Sampling System (PASS).

During normal PASS operation, reactor coolant gases are expanded into a known volume where pressure and temperature are measured. These three variables (P, V, T) are sufficient to measure the gaseous content of the reactor coolant. Upon failure of the

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pressure or temperature instrumentation it would not be necessary to ship a sample offsite for analysis of total dissolved gases. The gases can still be extracted from the liquid into the entire gas extraction loop rather than just the flask in the loop. Pressure and temperature can be measured on instrumentation in this portion of the loop. The reactor coolant total dissolved gases would then be determined by this capability. This technique is more consistent with ALARA principles than shipping either a gaseous grab sample or a pressurized liquid sample offsite and it yields results much more quickly.

We believe this is an acceptable means of meeting the intent of the backup analysis capability and we request your approval, by May 15, 1986. This request is not intended to affect the commitment to be able to ship an unpressurized, undiluted reactor coolant sample for offsite analysis. In accordance with the requirements of 10 CFR 170.21, LILCO encloses a $150.00 check covering the prescribed application fee for this approval request.

Any questions should be addressed to this office.

Very truly yours,

John D. Leonard, Jr.
Vice President-Nuclear Operations

PGP:ck

Enclosure

cc: J. A. Berry