



# 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

September 18, 1984

SNRC-1082

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

Wetwell/Drywell Inerting  
Nitrogen Cooling of Components  
Below Nil Ductility Temperature  
Shoreham Nuclear Power Station - Unit 1  
Docket No. 50-322

- References:
1. IE Information Notice 84-17, "Problems with Liquid Nitrogen Cooling Components Below the Nil Ductility Temperature", dated March 5, 1984
  2. GE Service Information Letter SIL-402, "Wetwell/ Drywell Inerting", dated February 14, 1984

Dear Mr. Denton:

This letter provides the status of LILCO's evaluation of the referenced notice and SIL-402.

Reference 1 identifies potential problems with liquid nitrogen systems utilized to inert primary containment. The basic concern involves the introduction of cold N<sub>2</sub> gas into the containment, resulting in thermal shock to equipment local to the point of N<sub>2</sub> entry including the associated N<sub>2</sub> containment penetrations. In addition, SIL-402 (Reference 2) has been issued regarding the potential problems and presents recommendations for corrective action. The following lists the recommendations of SIL 402 and how Shoreham is implementing them:

- 1) Evaluate Inerting System Design - Specifically, General Electric recommends that the system design be reviewed to assure that injection of cold nitrogen into the containment would be detected and prevented. Shoreham's Nitrogen

8409250084 840918  
PDR ADOCK 05000322  
G PDR

Boo!  
10

Inerting System has been reviewed and continues to be evaluated in light of this concern, and LILCO is currently awaiting recommendations from the vendor of the Nitrogen Inerting System. Consequently, final nitrogen system design and operating procedure modifications, if any, will be determined upon evaluation of these recommendations. Vendor recommendations are expected within two weeks, with the LILCO evaluation scheduled to be completed within thirty (30) days

2) Evaluate Inerting System Operation - Since Shoreham is not yet operational and the primary containment has not been inerted, no operating experience has been accumulated.

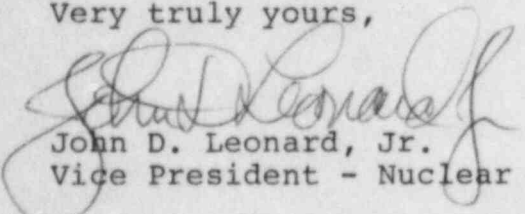
3) Test for Drywell/Wetwell Bypass Leakage - Since Shoreham is not yet operational, and the primary containment has not been inerted, no need exists to perform a bypass test to confirm the integrity of the vent system. Bypass leakage tests will be performed during operation per Shoreham Technical Specifications.

4) Inspect Nitrogen Injection Line - Since Shoreham is not yet operational and the primary containment has not been inerted, there exists no need to perform an ultrasonic test to inspect for the initiation of cracking of the nitrogen injection line.

5) Inspect Containment - Since Shoreham is not yet operational and the primary containment has not been inerted, there is no need at this time to visually inspect the containment to determine if it has been affected by the injection of cold nitrogen.

LILCO trusts this is responsive to Mr. Ralph Caruso's questions regarding LILCO's intent to implement the recommendations of SIL-402. If you require additional information, please contact this office.

Very truly yours,



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

NRL:ck

cc: P. Eselgroth  
C. Petrone