



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION

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

Direct Dial Number

March 22, 1983

SNRC-850

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

Compliance With R.G. 1.62
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Dear Mr. Denton:

In enclosure four to NRC letter dated January 6, 1983 (A. Schwencer to M. S. Pollock), LILCO was requested to confirm the following statements:

- 1) As long as the LPCI system is pumping from the suppression pool and the suppression pool temperature is below 212°F, no seal cooling is required for the LPCI pumps. Also, normal secondary containment ventilation is sufficient to cool the LPCI pump areas until the Reactor Standby Ventilation System is actuated.
- 2) The Residual Heat Removal (RHR) non-essential flow path valves are normally aligned correctly (closed) for LPCI operation.
- 3) The RBCLCW system is not needed for the cooling of any safety functions other than the RHR shutdown cooling mode & spent fuel pool cooling.
- 4) The Service Water System is not needed for the first ten minutes following an accident (with the exception of diesel generator cooling) and it can be aligned as two separate safety grade divisions by manipulating, from the control room five valves and starting a maximum of two pumps. For diesel generator cooling, the Service Water pumps start when the diesels start and five valves have to be manipulated for alignment into two separate safety grade divisions.

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- 5) The Labeling for the system Level manual initiation switches (A and B) for the core spray system will be appropriately changed to reflect the fact that other systems in addition to the core spray system are actuated by the same switch. This change should be done in accordance with good Human Factors engineering principles. The Human Factors Branch (HFB) will review this change before fuel load.

LILCO does hereby confirm the above items to be correct with the following clarifications provided relative to items (4) and (5).

As stated during our meeting with members of your staff on December 16, 1982, after any design basis event, area cooling to support residual heat removal (LPCI mode) pump operation would not be required prior to ten minutes. Area cooling is provided by unit coolers which are a subsystem of the reactor building standby ventilation system. During the detailed in-house engineering and QA review of item (4) above, it was noted that, during certain design basis events, the unit cooler subsystem would operate in conjunction with the RBSVS cooling coils to remove latent and sensible heat and thereby support RBSVS design function (i.e. maintain reactor building secondary containment negative pressure). The unit cooler subsystem and RBSVS cooling coils are supplied by the safety related chilled water system which utilizes the reactor building service water system as a heat sink. The safety related chilled water system is designed to operate during all normal, shutdown, and design basis accident conditions without loss of function.

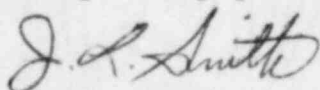
In the unlikely event that service water flow should be interrupted, the thermal inertia of the continuously circulating chilled water in the safety related chilled water system would be sufficient to support RBSVS cooling coil and unit cooler subsystem requirements for 3 to 5 minutes without a significant increase in secondary containment pressure. Service water flow would be restored by performing the same operator actions as those required to provide diesel generator cooling requirements (i.e. manipulation of five valves and starting a maximum of two pumps). However, cooling requirements for the diesel generators precede those of RBSVS, consequently the safety related chilled water system is assured of an adequate supply of cooling water and would therefore continue to meet the needs of the RBSVS cooling coils and unit cooler subsystem.

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Relative to item (5) above, after a preliminary review of the core spray manual initiation logic for those other systems (or portions of systems) which are actuated from the same pushbutton, the following proposed labeling changes (enclosure 1) will be submitted to LILCO's human factors consultant, General Physics Corporation, for evaluation of potential impact to the current control room configuration.

LILCO feels that these confirmations and related clarifications are sufficient to address NRC Staff concerns in this area. Should you have any further questions with regards to this issue, feel free to contact this office.

Very truly yours,



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

DWD:bc

Enclosure

cc: J. Higgins
All Parties Listed in Attachment 1

Enclosure 1

The following systems
(or portions of systems)
are actuated by this switch

Core Spray A
Diesel Generator 101
Diesel Generator 103
RBCLCW A Valves
Reactor Building Service Water
System A Valves

The following systems
(or portions of systems)
are actuated by this switch

Core Spray B
Diesel Generator 102
Diesel Generator 103
RBCLCW B Valves
Reactor Building Service Water
System B Valves

ATTACHMENT 1

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