LONG ISLAND LIGHTING COMPANY
175 EAST OLD COUNTRY ROAD · HICKSVILLE, NEW YORK 11801

MILLARD S. POLLOCK
VICE PRESIDENT-NUCLEAR

SNRC-677
March 11, 1982

Mr. Richard W. Starostecki, Director
Division of Resident and Project Inspection
U. S. Nuclear Regulatory Commission, Region I
631 Park Avenue
King of Prussia, PA 19406

NRC Inspection No. 82-02
Shoreham Nuclear Power Station, Unit No. 1
Docket No. 50-322

Dear Mr. Starostecki:

This letter responds to your letter of February 2, 1982, which forwarded the report of the routine inspection of activities authorized by NRC License CPPR-95, conducted by Mr. Higgins of your office on January 1-31, 1982. Your letter stated that it appeared that one of our activities was not conducted in full compliance with NRC requirements, and that one other activity appeared to be a deviation from FSAR commitments. Our response to the apparent non-compliance was provided in our letter SNRC-674. The deviation and our response follow:

APPARENT DEVIATION FROM COMMITMENT MADE
IN THE SHOREHAM FSAR, PARAGRAPH 4.4.6
THAT THE LOOSE PARTS MONITORING SYSTEM
MEETS THE REQUIREMENTS OF REGULATORY GUIDE 1.133

1. Regulatory Guide 1.133, Paragraph C.1.c specifies that instrument channels be physically separated where inaccessible during full power operation.

   Contrary to that requirement, as of January 13, 1982, instrument cables for different channels were not physically separated inside the drywell (which is inaccessible during full power operation) in that they were run in the same conduits and they utilized the same electrical penetration.

2. Regulatory Guide 1.133, Paragraph C.1.d specifies that an audible or visual alarm should alert control room personnel when the alert level is reached.

2. Cont'd.

Contrary to that requirement by system design, as of January 13, 1982, there was no alarm or annunciator from the loose parts monitoring panel to audibly or visually alert control room personnel that the alert level had been reached.

CORRECTIVE ACTION AND RESULTS

1. The loose parts monitoring system is not, nor is it required to be, a safety-related system. As such, Class IE criteria do not apply to the design and installation of this system. Regulatory Guide 1.133, Paragraph C.1.c, however, does recommend physical separation of the two sensors at each natural collection region from the sensor itself to a point in the plant that is always accessible for maintenance during full power operation. It should be noted that, as the purpose of having two sensors is to provide "broad coverage" of the collection region, these two sensors are not redundant.

The functional reason for separation is not explicit in the regulatory guide; however, it is stated that "it is desirable that the loose part detection system be designed to function following all seismic events that do not require plant shutdown." It is our interpretation, therefore, that the purpose of separation for this system is to protect non-accessible components of at least one of the two channels serving the same natural collection region from mechanical damage precipitated by an operating basis earthquake. In this regard we state the following:

a. The loose parts monitoring system is designed in accordance with R.G. 1.133 to operate to Operating Basis Earthquake (OBE) criteria. As such, the existing cabling in primary containment, which is installed to Design Basis Earthquake (DBE) levels plus Mark II hydrodynamic load criteria, is qualified significantly beyond the qualification of the loose parts monitoring system.

b. Although the existing cables are in the same penetration, the penetration is qualified to safety grade standards and exceeds loose parts monitoring system requirements.

c. Within the biological shield, separation is maintained up to a common junction box located at the biological shield penetration. From this junction box a common cable is run through conduit and trays to the primary

c. Cont'd.

containment penetration, all of which are designed and supported to withstand DBE. The conduit and cable tray provide mechanical protection to the cabling within the primary containment. Structures and equipment within the primary containment are also designed and installed to DBE levels plus Mark II hydrodynamic load criteria; therefore, any seismic event of sufficient magnitude to damage common channel cables or the penetration would exceed the design basis of the loose parts monitoring system as recommended by Regulatory Guide 1.133.

Although we do not believe separation for fire protection is intended by the regulatory guide, we further note that Shoreham's inerted containment will prevent the outbreak of fire. Also, the cable will carry only low energy signals (50Vmax AC and DC), for which the voltage and current handling capacity of the safety grade cabling will far exceed even the short circuit output of the loose parts monitoring system electronics.

Therefore, we believe that the intent, as well as the functional requirements, of Regulatory Guide 1.133 were met by the current design and installation, although the literal interpretation was not. Paragraph 4.4.6 of the Shoreham FSAR will be revised to explicitly state the above interpretation.

2. Visual indication of a loose part "alert" is provided at the loose parts monitoring panel at the main control room; however, the lack of spare annunciator windows at the main control board resulted in an alarm not being provided. Both an audible and an external visual alarm will be added at the loose parts monitoring system panel in the main control room to alert control room personnel that an alert level has been reached or exceeded. In addition, this alarm will be designed to remain functional following an OBE event as recommended by Paragraph C.1.g.

STEPS TAKEN TO PREVENT RECURRENCE

As stated above, we believe both the intent and the functional requirements of Regulatory Guide 1.133 were achieved without incorporation of electrical separation as recommended by the Regulatory Guide, therefore we feel no corrective action is required. Regarding the loose parts alert signal, the audible and visual signals as described above will be added to the loose parts monitoring panel.

With respect to the implementation of corrective actions associated with overall management control systems as they apply to the FSAR, in a meeting held on November 12, 1981 with the Resident Inspector, Region I Management, NRC Licensing Project Management, Stone & Webster Engineering Corporation, and LILCO Management, a number of similar inspection item findings were discussed both separately and in light of how they related to the overall question of FSAR conformance. As a result of an extensive evaluation performed by our Architect Engineer, it has been our conclusion that there have been no significant or generic differences between the licensing and design documents, that would warrant substantive changes to the in-place FSAR control mechanisms. As documented in Inspection Report 81-20, the NRC in general agreed with that conclusion, but nevertheless believed that the number of discrepancies between the as-built plant and the licensing document required an additional LILCO review to compare the as-built plant to the FSAR.

As a result of this meeting, we have initiated a formal Shoreham Configuration Review Program which involves a documented detailed comparison of the as-constructed configuration of major plant safety systems to the applicable FSAR descriptions. This review compares the systems to the FSAR, formally documents any discrepancies found, and initiates corrective actions/ dispositions, as appropriate. We feel confident that the existing FSAR update and control mechanisms, coupled with the FSAR configuration review program will provide adequate and effective management controls to assure that FSAR conformance is maintained.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

With respect to the loose parts monitoring audible and visual signals, full compliance will be achieved by June 30, 1982. With respect to the Shoreham Configuration Review Program, we anticipate completion by fuel load.

Very truly yours,

M. S. Pollock
Vice President-Nuclear

STATE OF NEW YORK)
: ss.:
COUNTY OF NASSAU)

MILLARD S. POLLOCK, being duly sworn, deposes and says that I am a Vice President of Long Island Lighting Company, the owner of the facility described in the caption above. I have read the Notice of Deviation attached to NRC Inspection Report 82-02 and also the response thereto prepared under my direction dated March 11, 1982. The facts set forth in said response are based upon reports and information provided to me by the employees, agents, and representatives of Long Island Lighting Company responsible for the activities described in said Notice of Violation and in said response. I believe the facts set forth in said response are true.

Millard S. Pollock
MILLARD S. POLLOCK

Sworn to before me this
11th day of March, 1982.

Rosa Lee Oliveros

ROSA LEE OLIVEROS
Notary Public, State of New York
No. 30-4732268
Qualified in Nassau County
Commission expires Mar. 30, 1984