

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-322/80-17

Docket No. 50-322

License No. CPPR-95 Priority -- Category A-2

Licensee: Long Island Lighting Company (LILCo)

175 E. Old Country Rd.

Hicksville, New York 11801

Facility Name: Shoreham Nuclear Power Station (SNPS)

Inspection at: Shoreham Nuclear Power Station, Shoreham, New York; and
LILCo Corporate Offices, Hicksville, New York

Inspection conducted: October 27 - 30, 1980

Inspectors: Robert J. Bore
for J. J. Jackson, Radiation Specialist

12-3-80

date signed

Robert J. Bore
for C. A. Sakenas, Radiation Specialist

12-3-80

date signed

Approved by:

Robert J. Bore

R. J. Bore, Chief, Environmental &
Special Projects Section, FF&MS Branch

date signed

12-3-80

date signed

Inspection Summary:

Inspection on October 27-30, 1980 (Report No. 50-322/80-17)

Areas Inspected: Routine, unannounced inspection of environmental monitoring programs (construction and pre-operational), including: observations by the inspector of existing environmental conditions at the site and environs; verification of implementation of the construction permit requirements; implementation of pre-operational environmental monitoring programs; licensee program for quality control of environmental measurements; and management controls as related to these programs. The inspection involved 52 inspector-hours on site by two regionally-based NRC inspectors.

Results: Of the four areas inspected, no items of noncompliance were found.

DETAILS

1. Persons Contacted

LILCo

*J. Novarro, Project Manager, Shoreham Nuclear Power Station
*J. Morin, Senior Licensing Engineer
*B. McCaffrey, Assistant Project Manager, Shoreham Nuclear Power Station
*A. Gross, Senior Biologist
*K. Sullivan, Supervisor of Radiological Monitoring
J. Schmidt, Radiochemistry Engineer
L. Incorvia, Gas System Operations Technician
I. Haas, Radiation Protection Engineer
C. Saladino, Construction Supervisor
W. Faraday, Associate Biologist
*T. Gerecke, Quality Assurance Manager

GEOMET Technologies, Inc.

R. Schreiber, Project Leader
L. Williams, Ichthyoplankton Section Leader

*denotes those present at exit interview

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (50-322/77-13-01): Environmental TLD locations. The licensee had stated that all TLD stations would be relocated to face the plant to minimize radiation field distortion. The inspectors observed that TLDs at stations 3A1, 4A1, 7A1, 10A1, 12A1, and 7B1 were re-oriented to face the plant. This item is therefore closed.

(Closed) Unresolved Item (50-322/78-13-01): Beach Accumulation. The cause and effects of excessive accumulation of material east of the intake jetty were to be evaluated, and the results of the beach erosion survey were to be reviewed. The inspectors noted that construction of the offshore diffuser had been completed and that no dredge spoils were evident at the beachfront. The beach area appeared to have been restored to its original condition at the diffuser area. The inspectors also reviewed the results of the 1978 Beach Monitoring Survey. Based on the above, this item is considered closed (see Detail 3.b).

3. Verification of Implementation of Construction Permit Requirements

Upon arrival at the site on October 27, 1980, the inspectors conducted a site tour, including the site perimeter, Wading River Creek and marsh, and the spoils and lay-down areas. In addition, the meteorological tower and several environmental sampling stations (air particulate, air iodine, and TLD) were inspected.

a. Wading River Marsh

The inspectors observed the condition of the Wading River Marsh from the east and west site boundaries and noted no signs of erosion or excessive sedimentation in the marsh area. The licensee stated that dredging of the Wading River Creek mouth is performed each spring. The marsh appeared to have not been affected by construction activities.

The inspectors reviewed records of the licensee's wetlands inspection program which is conducted quarterly as a perimeter walk around, and noted that the licensee's program appeared to be in compliance with the Construction Permit requirements for protecting the Wading River Marsh from materials deposition.

No items of noncompliance were identified.

b. Beach Erosion Survey

The inspectors reviewed the results of the licensee's semi-annual beach monitoring program through October, 1980. The inspectors noted that the results of these beach surveys indicate a general accumulation of beach material to the areas east and west of the intake canal jetties. The licensee stated that most of the accumulation was due to transfer of material from construction of the offshore diffuser to the beaches, as per previous agreements with local residents. The accumulation of material on the beach, which was addressed in Inspection Report 50-322/78-13, was no longer evident. The licensee stated that this material had been used in the beach enrichment program on the beaches east and west of the plant.

The inspectors noted that the additional solid material being stored near the intake canal and noted in previous inspection reports (50-322/77-13 and 50-322/78-13) was still in place east of the intake canal. The licensee stated that it will remain at this location until site finishing operations are underway, at which time this material will be used as topsoil around the site. There was no appearance of erosion of this material, which was stabilized by vegetation.

No items of noncompliance were identified.

c. Spoils Area

The inspectors toured the spoils area south of the construction site and noted that the area was still in use. The licensee stated that reclamation of the land, including grading and seeding, will proceed when construction is completed.

No items of noncompliance were identified.

4. Meteorology

The inspectors discussed with the licensee the implementation status of the meteorological monitoring program. The licensee stated that, at the present time, no meteorological data was being collected for the Shoreham program, since the required pre-operational data had already been collected. The licensee also stated that the program will be resumed prior to operation of the plant.

The inspectors had no further questions in this area at this time.

5. Implementation of Pre-operational Environmental Monitoring Programs

a. Radiological

The inspectors discussed with the licensee the current status of the radiological environmental monitoring program (REMP), which is currently a full pre-operational program. Samples of surface water, potable water, fish, sediment, milk, soil, vegetation, air iodine, air particulates, direct radiation and game have been included in the program. The inspectors reviewed sampling procedures and analytical results for 1979 and 1980, and noted that the (REMP) program was being conducted as outlined in Table 11.6.3.1 of the FSAR.

The inspectors examined selected air sampling stations and observed the licensee's routine change-out of particulate and iodine collection filters. The inspectors noted that air pump exhaust hoses were not protruding from the sampler housing at stations 12A1 and 4A1, increasing the possibility of sampled air recirculating. The licensee stated that the sampling procedure would be modified to include a weekly equipment check, following sample exchange, to assure that the exhaust hose protrudes from the housing.

An abundance of vegetation was observed at station 4A1. The inspectors recommended that a step be incorporated in the maintenance procedure to periodically remove vegetation from the area surrounding the sampler to reduce air flow restriction.

The inspectors discussed with the licensee the method of measuring air sample volume, and noted that temperature compensated volume meters are in use. The inspectors noted that the licensee records sample line vacuum data. The licensee currently uses this vacuum data to maintain a check on the sampling apparatus integrity and ensure that no leaks are present. The inspectors discussed with the licensee the effect on sample volume of pressure drop in the sample line across the sample filters and the possible need to correct measured sample volume appropriately.

The licensee stated that the volume meter manufacturer will be consulted on this question and a determination made as to whether correction of measured volumes is necessary to compensate for decreased pressure in the volume meter. The inspectors stated that this evaluation would be reexamined during a subsequent inspection (322/80-17-01).

No items of noncompliance were identified.

b. Biological/Ecological

The inspectors discussed the status of the biological environmental monitoring program, which is currently a full preoperational program. The inspectors reviewed sampling procedures and program results for 1977-1979. The inspectors noted that the program was being conducted as outlined in table 6.1 of the SNPS FES-1977.

The inspectors visited the consultant laboratory (GEOMET Technology, Inc.), and accompanied GEOMET and licensee personnel on an ichthyoplankton sampling run on Long Island sound. The inspectors observed the methods of sampling, counting and identifying ichthyoplankton, and recording of data.

No items of noncompliance were identified.

6. Licensee Program for Quality Control (QC) of Environmental Measurements

The inspectors discussed with the licensee the QC program for collection and analysis of radiological samples. The licensee stated that about 10% of the samples collected are split (some spiked) with another laboratory (Interex) for confirmatory analysis. The inspectors noted that sampling procedures did not contain instructions for splitting samples and the licensee stated that the need for such procedures would be evaluated. A copy of the primary contractor's evaluation (RMC's) of TLD conformance with NRC Reg. Guide 4.13 was provided to the inspectors by the licensee.

The inspectors discussed with the licensee the status of the biological QC program for sampling and analysis. The licensee stated that selected samples are sent to another laboratory for confirmation of species identification as needed.

No items of noncompliance were identified.

7. Management Controls of the Pre-operational Environmental Monitoring Programs

The inspectors reviewed the management structure for the radiological and biological monitoring programs and found that it has not changed from the last inspection (IE Report No. 50-322/78-13) with the exception of Mr. K. C. Sullivan replacing Mr. A. P. Nelson, as the person directly responsible for the REMP.

The inspectors reviewed the following audits of portions of the REMP performed by the LILCo QA Department.

<u>Audit No.</u>	<u>Date</u>
FA-1147	July 30, 1980
FA-1093	March 19, 1980
FA-1075	February 8, 1980
FA-1025	October 22, 1979
FA-969	June 26, 1979
FA-915	March 6, 1979
FA-864	December 12, 1978
FA-835	September 26-27, 1978

The inspectors reviewed the following audits of field operations of the biological-ecological program by the LILCo QA Department.

<u>Audit No.</u>	<u>Date</u>
FA-1107	April 24, 1980
FA-1060	January 18, 1980
FA-1025	October 22, 1979
FA-077	July 11, 1979
FA-937	April 24, 1979
FA-839	October 11, 23, 1978

The inspectors noted that audit findings were responded to according to procedure and in a timely manner.

The licensee stated that audits are also conducted of the biological contractor's laboratory, but infrequently recorded. The inspectors recommended that these inspections be documented routinely.
No items of noncompliance were identified.

8. Exit Interview

The inspectors met with the licensee representatives (as noted in Detail 1) at the conclusion of the inspection on October 30, 1980. The inspectors summarized the purpose and scope of the inspection and the findings.