

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 86-15

Docket No. 50-322

License No. NPF-36

Priority -

Category C

Licensee: Long Island Lighting Company
P.O. Box 618
Wading River New York 11792

Facility Name: Shoreham Nuclear Power Station

Inspection At: Wading River, New York

Inspection Conducted: August 25-29, 1986

Inspectors: T. Dragoun
T. Dragoun, Senior Radiation Specialist

9/15/86
date

Approved by: M. Shanbaky
M. Shanbaky, Chief, Facilities Radiation
Protection Section

9/15/1986
date

Inspection Summary: Inspection on August 25-29, 1986 (Report No. 50-322/86-15)

Areas Inspected: Routine unannounced inspection of the radiation safety program including: status of previously identified items; radiation work permits; routine radiation surveys; and QC surveillance of radiation protection activities.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

During the course of this routine inspection the following personnel were contacted or interviewed:

1.1 Licensee Personnel

J. Scalice, Operation Manager and Assistant Plant Manager
S. Daniel, Rad Chem Supervisor
N. DiMascio, Health Physics Engineer
J. Manso, Compliance Engineer
J. McCleer, HP Supervisor
P. Puttre, Licensing Specialist
C. Seaman, Quality Control Division Manager
J. Schmitt, Radiological Controls Division Manager
D. Smith, Compliance Engineer
B. Whitmer, HP Foreman

All personnel listed above attended the exit interview on August 29, 1986. Other personnel were also contacted or interviewed.

1.2 NRC Personnel

J. Berry, Senior Resident Inspector

2.0 Purpose

The purpose of this routine inspection was to review the licensee's radiation protection program with respect to the following elements:

- °Status of Previously Identified Item
- °Radiation Work Permits
- °Routine Radiation Surveys
- °QC Surveillance of HP Activities

3.0 Status of Previously Identified Items

3.1 (Open) Follow-up Item (83-19-04): Licensee to ensure that process and effluent monitors collect representative samples. An engineering evaluation of panels 1D11-PNL-041 and 1D11-PNL-021 is complete. A line loss calculation for panel 041 has been completed per ANSI N13.1-1969. This calculation is under review. The need for particulate and iodine sampling at panel 021 is under evaluation.

- 3.2 (Closed) Follow up Item (85-04-02): Evaluate adequacy of reactor coolant sample water sources. Three demineralized water tanks, each with a capacity of 213 gallons, have been installed in the upper PASS area (1Z96TK-002A, -002B and -002C). These tanks can be used as an alternate gravity feed source of flush water for the PASS sampling panel.
- 3.3. (Closed) Follow-up Item (85-04-10(d)): Ensure oxygen analyzer can withstand full reactor coolant system pressure. The oxygen analyzer has been replaced by a Biosphere model 21102 which is certified by the manufacturer to withstand reactor system pressure.
- 3.4 (Closed) Follow-up Item (85-04-16): Perform calibrations and loop checks for PASS instruments. The I&C department now routinely performs these tests.
- 3.5 (Closed) Follow-up Item (86-07-01): Provide a calibration curve on air sampling pumps. Each pump is provided with its own unique rotameter calibrated to read true air flow at 1, 2, 3, 4, and 5 CFM. Calibration procedure 66.032.01 has been revised to reflect the use of individually calibrated rotameters.
- 3.6 (Closed) 86-07-02: Provide quality control charts to track performance of the whole body counter. The background counts and detector efficiency are plotted daily. Procedure 63.028.01 section 8.4.14 provides instructions for graphing this data.
- 3.7 (Closed) 85-38-09: Review adequacy of procedures for off site transportation of PASS samples. Procedures EPIP 3-7 and EPIP 2-26 were reviewed and appear to be adequate.

4.0 Radiation Work Permit System

The licensee's use of a radiation work permit system was reviewed with respect to criteria contained in:

- 10 CFR 19.12 Instruction to workers
- 10 CFR 20 Standards for Protection Against Radiation
- Technical Specification 6.8 Procedures and Programs
- Reg Guide 1.33 Quality Assurance Program Requirements (Operation)
- SNPS Final Safety Analysis Report Section 12.5.3.2
- Station Procedure (SP) 12.012.01 "Radiation Work Permit"
- SP 12.013.01 "Maintenance Work Requests"

The licensee's performance relative to these criteria was determined from:

- Interviews with the Radiological Controls Supervisor, Health Physics Foreman, and Health Physics Technicians.
- Reviews of active and inactive RWPs including start of job radiation surveys and access records.

Within the scope of this review no violations were observed. For the year to date the licensee has issued approximately 150 RWPs. Potential weaknesses with this system were noted as follows:

- Worker briefings are required only when specified by the ALARA procedure. However, workers should be given the opportunity to discuss the radiological conditions prior to any entry into an RWP area as required by 10 CFR 19.12.
- RWP's issued on back shifts may be completed and reviewed by the shift HP technician. This approach does not provide the benefit of an independent supervisory review which is provided on day shifts.

A potential strength of the program was noted as follows:

- The licensee discussed centralizing the RWP processing through one individual. This person would attend all work planning meetings and ensure that RWP is issued when required.

5.0 Routine Radiological Surveys

The licensee's program for the routine survey of dose rates, loose surface contamination and airborne contamination was reviewed against criteria contained in:

- Technical Specification 6.10 Record Retention
- Technical Specification 6.11 Radiation Protection Program
- Reg. Guide 8.2 "Guide for Administrative Practices in Radiation Monitoring"
- 10 CFR 20.105, 10 CFR 20.201, 10 CFR 20.203, and 10 CFR 20.401
- SP61.018.01 "Radiological Survey Schedule and Locations"
- SP62.010.01 "General Radiation Survey Techniques"
- SP62.020.01 "General Contamination Survey Techniques"
- SP62.030.01 "Airborne Activity Survey Techniques and Determination"
- Work Instruction 009 "Document Storage"

-FSAR Section 12.5.3.1 "Radiation Surveys"

The licensee's performance relative to these criteria was determined from interviews with selected personnel, a review of records, and a tour of plant areas.

Within the scope of this review no violations were identified. The licensee is conducting a generally adequate routine survey program. Program improvements were identified as follows:

- The daily, weekly and monthly schedules for dose rate and contamination surveys are given in SP 61.018.01. The locations are given in broad descriptive terms, i.e. reactor building - elevation 8'0" - general area. These general requirements are translated into a specific schedule by the Health Physics Operations Foreman. However, the survey data is recorded by Technicians on maps that have no identification number. In some cases several floor plan maps are needed to cover an area on one building elevation while one map is adequate in other cases. There is no instruction to the technician as to the number of maps required to complete a survey. The licensee stated that a proposal to obtain floor plan survey maps with major equipment outlines has been submitted for budget approval. These maps would be identified and controlled as are other official station records. Survey schedules would be revised to specify use of a particular map. This matter will be reviewed in a future inspection. (86-15-01).
- The licensee is using eleven continuous air monitors (CAM) in plant areas where supervision has determined that airborne activity may occur. The location of a CAM is periodically changed depending on plant evaluations. The inspector noted that technicians tour these areas and check CAM operation on a shiftly basis. The fixed filters in the CAM are removed for laboratory analysis once per day at about midnight. However, these routines are not documented in the survey procedure. There is no centralized log to indicate air sampling results. In the event of a CAM alarm the technician is directed to conduct a survey without being given any specific guidance regarding this survey. During a tour of the plant the inspector found the air pump secured on one CAM. The licensee was advised that recordkeeping of airborne survey results and action required on a CAM alarm need improvement. This matter will be reviewed in a future inspection. (86-15-02).

6.0 QC Surveillance of HP Activities

The licensee advised that a radiation protection specialist has been added to the Quality Control Division staff to develop a performance oriented surveillance program for HP activities. Eleven checklists have been developed for HP activities thus far, training for the QC staff of 14 inspectors is in progress. A schedule of at least one surveillance of HP per month now and two per week during operations has been proposed. Findings will be analyzed by station management to identify any programmatic weakness.

The inspector noted that this is a commendable effort and progress of this program will be reviewed in future inspections.

7.0 Exit Interview

The inspector met with licensee personnel denoted in Section 1.1 at the conclusion of the inspection on August 29, 1986. The scope and findings of the inspection were discussed at that time.