U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-245/83-04
50-336/83-05

Docket No. 50-245; 50-336

License No. DPR-26; DPR-65 Priority ____ Category C

License: Northeast Nuclear Energy Company

P. O. Box 270

Hartford, Connecticut 06101

Facility Name: Millstone Nuclear Power Station, Unit 1 and 2

Inspection At: Waterford, Connecticut

Inspection Conducted: February 8-11, 1983

Inspectors: John R Clifford for
C. Rowe, Radiation Specialist 3/10/83
date

M McBride
M. McBride, Radiation Specialist 3/10/83
date

Approved by: J R Clifford for
M. Shanbaky, Chief, Facilities Radiaiton Protection Section 3/10/83
date

Inspection Summary:

Inspection on February 8-11, 1983 (Report No. 50-245/83-04 and 50-336/83-05)
Areas Inspected: Routine, unannounced safety inspection of licensee actions on previously identified items; advanced planning and preparation for major tasks; exposure control; in-plant radiation protection program implementation; personnel selection, qualification and training; and instruments and equipment. This inspection involved 64 inspection-hours onsite by 2 regionally based inspectors.
Results: No violations were identified. Three open items were reviewed and closed.

DETAILS

1.0 Persons Contacted

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

1.1 Licensee Personnel

*B. L. Granadas, Health Physics Supervisor, Millstone
*J. P. Kangley, Radiological Services Supervisor, Millstone
*J. J. Kelley, Jr., Unit 2 Superintendent, Millstone
*E. J. Mroczka, Station Superintendant, Millstone
*D. R. Strands, Nusco - Radiological Assessment Branch, Berlin

*Attended the Exit Interview on February 11, 1983

1.2 Other licensee employees were also contacted or interviewed during the inspection.

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 Items;

Advanced Planning and Preparation for Major Tasks;

Exposure Control;

- External
- Internal (including, Respiratory Protection Program)

In-Plant Radiation Protection Program Implementation;

Personnel Selection, Qualification and Training; and,

Instruments and Equipment.

3.0 Status of Previously Identified Items

(Closed) Violation (50-245/81-02-01) Failure to adequately describe the work to be done on RWP Number 101539 in accordance with Procedure HP 4912. The licensee's actions regarding cessation of work in the reactor cavity, personnel training,and procedural amendments, as stated in a letter to the Chief Projects Branch No. 1, NRC Region 1, dated December 1, 1981, were verified to be complete. These actions appeared to adequately address both the specific and generic cause of the violations.

(Closed) Violation (50-245/81-02-02) Failure to make surveys to determine levels of radioactive material in the breathing zone of workers in the

reactor cavity in accordance with 10 CFR 20.201 (b). The licensee's actions regarding cessation of work in the reactor cavity, instruction of radiation protection personnel, procedural revisions, and personnel training, as stated in a letter to the Chief Projects Branch No. 1, NRC Region 1, dated December 1, 1981, were verified to be complete. These actions appear to adequately address both the specific and generic cause of the vio ations.

(Closed) Violation (50-245/81-01-03) Failure to provide instructions to workers in the reactor cavity in accordance with 10 CFR 19.12. The licensee's actions regarding cessation of work in the reactor cavity, personnel training, and procedural revisions, as stated in a letter to the Chief Projects Branch No. 1, NRC Region 1, dated December 1, 1981, were verified to be complete. These actions appeared to adequately address both the specific and generic causes of the violation.

4.0 Advanced Planning and Preparation for Major Tasks

The licensee's efforts in advance planning and preparation for major tasks in the upcoming Unit 2 outage were reviewed against the criteria contained in Regulatory Guide 8.8, "Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations Will Be as Low as is Reasonably Achievable".

The major tasks reviewed included: steam generator eddy current testing, tube repair, installation of nozzle dams, and preparations for tube sleeving. The licensee has reviewed steam generator experiences gained in the 1981-1982 Unit 2 outage and plans to incorporate those experiences into the upcoming work.

The licensee's performance relative to the criteria were determined from discussions with the ALARA engineers and members of the health physics section and from review of licensee records.

Within the scope of this review, no violations were identified.

5.0 Exposure Control

5.1 External Exposure Control Program

The External Exposure Control Program was reviewed against criteria contained in:

- 10 CFR 20.101, 20.102, 20.203, 20.401, 20.408, and 20.409;
- Procedure SHP 4902, "External Radiation Exposure Control and Dosimetry Issue"; and,
- Procedure HP 907/2907, "Personnel Exposure Evaluation and Investigations".

The licensee's performance relative to these criteria was determined from discussions with the Health Physics Supervisor and other members of the radiation protection staff, direct observation of work in progress, and review of selected documents, i.e., survey records, dosimetry computer printouts, Forms NRC-4 and NRC-5, lost badge reports, dose assignments, and TLD/PIC discrepancy reports.

Within the scope of this review, no violations were identified.

The TLD/PIC Discrepancy Reports did not always contain sufficient detail for the inspectors to determine the cause of discrepancies and the licensee's basis for assigning corrected exposure. The Health Physics Supervisor indicated that future reports would be more detailed. The inspectors indicated this would be reviewed during a future inspection. (50-245/83-04-01)

5.2 Internal Exposure Control Program

The Internal Exposure Control Program was reviewed against criteria contained in 10 CFR 20.103 (c)(2).

The licensee's performance relative to these criteria was determined from discussions with the Radiation Protection Supervisor and certain members of his staff, and review of selected documents, i.e. monthly self-contained breathing apparatus inspection records for 1982, results of Grade "D" air quality tests, and records of whole body counts.

Within the scope of this review, no violations were identified.

6.0 In-Plant Radiation Protection Implementation

The implementation of the in-plant radiation protection program was reviewed against the criteria contained in:

- 10 CFR 20.201 and 20.203;
- Technical Specification 6.12, "High Radiation Areas";
- Procedure SHP 4905, "Radiological Surveys";
- Procedure SHP 4912, "Radiation Work Permit Completion and Flow Control"; and,
- Procedure SHP 4906, "Posting of Radiological Controlled Areas".

The licensee's performance relative to these criteria was determined from discussions with the Radiation Protection Supervisor and certain members of his staff, direct observation of work in progress, and review of selected documents, i.e. radiation work permits, survey records, audit reports, and incident reports.

Within the scope of this review, no violations were identified.

7.0 Personnel Selection, Qualification and Training

Personnel selection, qualification and training were reviewed against criteria contained in:

- 10 CFR 19.12, "Instruction to Workers";
- ANSI 18.1-1971, "Selection and Training of Nuclear Power Plant Personnel";
- Regulatory Guide 8.13, "Instruction Concerning Prenatal Radiation Exposure"; and,
- Procedure SHP 4920, "Contracted Health Physics Personnel Training Program".

The licensee's performance relative to these criteria was determined from discussions with certain members of the training and health physics departments staff and review of selected documents, i.e., lesson plans, training records, examination results, and licensee and contractor technician resumes.

Within the scope of this review, no violations were identified.

8.0 Instruments and Equipment

Instruments and equipment were reviewed against the criteria in:

- Procedure HP 904/2904, "Calibration of Health Physics Instrumentation"; and,
- Procedure HP 904/2904A, "Calibration of Count Rate Instruments and Laboratory Scalers"

The licensee's performance relative to these criteria was determined from discussions with the health physics staff, direct observation of work in progress, and review of selected documents, i.e., computer printouts, maintenance records, and calibration records.

Within the scope of this review, no violations were identified.

9.0 Exit Interview

On February 11, 1983, a meeting was held with licensee representatives (denoted in paragraph 1.1) to discuss the inspection scope and findings.