U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-245/83-03
50-336/83-04

License No. 50-245
50-336

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DPR-65 Priority -- Category C
C

Licensee: Northeast Nuclear Energy Company

P.O. Box 270

Hartford, Connecticut 06101

Facility Name: Millstone Nuclear Power Station, Units 1 and 2 (MNPS)

Inspection At: Millstone Site and Northeast Utilities Service Company (NUSCo)

Inspection Conducted: February 8-11, 1983

Inspectors: J. J. Kottan for J. C. Jang, Radiaiton Specialist — 2-28-83 date

Approved by: J. J. Kottan for W. J. Pasciak, Chief, Effluents Radiation Protection Section, Radiological Protection Branch — 2-28-83 date

Inspection Summary:
Inspection on February 8-11, 1983 (Combined Report Nos. 50-245/83-03; 50-336/83-04)
Areas Inspected: Routine, unannounced inspection of environmental monitoring program for operations. The areas inspected included: management controls, the licensee's program for quality control and analytical measurements, implementation of the environmental monitoring program - radiological and biological/ecological, and a followup on licensee action on previous environmental inspection findings. The inspection involved 28 onsite inspector-hours by one regionally-based NRC inspector.

Results: Of the five areas inspected, no items of noncompliance were identified.

DETAILS

1. Individuals Contacted

D. Balcomb, Biologist, NUSCo
+J. Doroski, Engineer, NUSCo
W. Eakin, Assistant Engineer, NUSCo
C. Fontneau, Supervisor, Plankton Group, NUSCo
*B. Granados, Health Physics Supervisor, Millstone
P. Jacobsen, Supervisor, Fish Group, NUSCo
+B. Johnson, Manager, Environmental Laboratory, NUSCo
*J. Kangley, Radiological Services Supervisor, Millstone
M. Keser, Supervisor, Benthic Group, NUSCo
D. Kross, Supervisor, I & C, Millstone
R. Langer, Assistant Chemistry Supervisor, Unit 3
*E. Mroczka, Station Superintendent
R. Nejfelt, Environmental Technician, NUSCo
+R. Rodgers, Manager, Radiation Assessment Branch, NUSCo
R. Schleitcher, Assistant Supervisor, I & C, Millstone
*D. Stands, RAB, NUSCo
M. Tortora, Assistant Chemistry Supervisor, Unit 2

*present at the exit interview, MNPS
+present at the exit interview, NUSCo

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (245/77-27-01; 336/77-27-01): Environmental thermoluminescent dosimeters (TLDs) performance evaluation. The inspector reviewed the corrective actions and determined the corrective actions were adequate (see Detail 5.d).

(Open) Unresolved Item (245/79-06-04; 336/79-06-04): Changes in milk sampling locations prior to NRC approval. The inspector noted that changes in milk sampling locations submitted to the NRC have not been approved. The inspector stated that this item will remain unresolved until the changes are approved.

(Closed) Followup Item (245/81-03-01; 336/81-02-01): Adequacy of radiological QC reports from the contractor laboratory. The inspector reviewed QC reports and determined the corrective actions were adequate (see Detail 4).

(Closed) Noncompliance (245/81-03-03; 336/81-02-03): Failure to follow Technical Specification requirements for impingement sampling. The inspector reviewed impingement sampling dates for 1981 and 1982 and the corrective actions were satisfied.

3. Management Controls - Environmental Monitoring

a. Changes

The inspector reviewed the licensee's organization for the management of the environmental programs and identified no changes which would result in a decrease in overall effectiveness of management controls. Responsibilities for environmental programs have remained essentially the same since the last inspection.

No items of noncompliance were identified.

b. Licensee Audits

The inspector reviewed the semi-annual audits of the environmental programs, conducted by the Environmental Review Board (ERB) for 1981 and 1982. The inspector also reviewed Quarterly ERB Meeting Minutes for 1982. The inspector determined that responses to identified deficiencies were issued in a timely manner.

The inspector determined through records review that the primary radiological analytical contractor (Chemical Waste Management of Massachusetts, Inc.) was audited May 18, 1982; June 24, 1982; and October 5, 1982. The quality control analytical contractor (Yankee Atomic Environmental Laboratory) was introduced and was audited in 1982. Satisfactory responses had been received for all audits in the time specified.

No items of noncompliance were identified in this area.

4. Licensee Program for Quality Control of Analytical Measurements

a. Radiological

The inspector reviewed QC procedures and noted that these procedures contained the assignment of responsibility to manage and conduct the program, type and number of measurements checks, acceptance criteria, and followup to correct identified deficiencies.

The inspector reviewed records of the quality control program for 1981 and 1982 and noted that acceptance criteria had been applied to the results. The inspector also noted that discrepancies were addressed and corrective actions taken as appropriate.

The inspector reviewed QC reports submitted by the contractor laboratory for 1982. The inspector noted that the contractor laboratory submitted monthly QC reports including instrument performances (backgrounds and efficiencies), interlaboratory comparison results, and chemical yields for strontium analysis.

No items of noncompliance were identified.

b. Biological

The inspector reviewed the QC program for the biological laboratory including split sampling for benthos and calibration records of flow meter devices for impingement and entrainment samplings. The inspector verified that flow meter calibrations were performed on a routine basis.

No items of noncompliance were identified.

5. Implementation of the Environmental Monitoring Program - Radiological

a. Direct Observation

The inspector examined selected air sampling and TLD monitoring stations. The inspector determined that the examined stations were located as required by the Environmental Technical Specifications (ETS) and were operating at the time of the inspection. The inspector also noted that the air samplers and dry gas flow meters were maintained and calibrated on a routine basis.

The inspector had no further questions in this area.

b. Review of Annual Reports

The inspector reviewed annual reports for 1980 and 1981, and also reviewed the data being processed for the 1982 annual report. The inspector determined that the licensee has complied with the ETS in terms of sampling frequencies, measurements, analytical sensitivities, and reporting schedules.

The inspector noted that unusually high levels of Cs-137 and Sr-90 had been reported in goat milk samples. The licensee stated that the high Cs-137 and Sr-90 results were due to the feeding habits, and radioactivities in the fodder would be investigated in the future. The inspector noted that there were no unusual levels of Cs-134 and SR-89 reported in annual reports.

The inspector had no further questions in this area.

c. Nonroutine Reports

The inspector reviewed anomalous measurement reports (LERs 82-02, 82-03, 82-05, and 82-06) regarding radioactivity observed in oyster and aquatic flora collected from within 500 feet of the discharge. The inspector also reviewed the licensee's dose assessment calculations and the results were well below 10 CFR 50 Appendix I limits. The calculation method for dose assessment was acceptable. The inspector had no further questions in this area.

d. Thermoluminescent Dosimeters (TLDs)

The inspector noted that an unresolved item was identified during the previous inspection in this area. The inspector reviewed the licensee's evaluation of TLD performance and noted that TLD response to energies between 1 MeV and 3 MeV was not determined (245/77-27-01; 336/77-27-01). The inspector reviewed the corrective actions during this inspection. The inspector noted that the licensee obtained the energy response data up to 1.25 MeV from the TLD manufacturer and had used these data. The inspector also noted that the licensee calculated the theoretical responses to energies between 1.25 MeV and 3.0 MeV. In addition, the licensee performed TLD calibration for energy responses using Cs-137 and Co-60 sources in January 1983 and the results were satisfactory. The inspector stated that the corrective actions were adequate.

e. Meteorological Monitoring

The inspector examined the onsite meteorological instrumentation and readout system in the Unit I Control Room and determined that they were functioning at the time of inspection. The inspector determined that the instrumentation was routinely calibrated and weekly system checks were performed.

The inspector had no further questions in this area.

No items of noncompliance were identified in this area.

6. Implementation of the Environmental Monitoring Program - Biological

a. Direct Observations

The inspector toured sampling stations and examined the impingement and entrainment sampling devices. The inspector also toured the biological laboratory and observed the plankton counting technique.

The inspector had no further questions in this area.

b. Review of Annual Reports

The inspector reviewed the licensee's annual environmental monitoring reports for 1980 and 1981, and determined that the required sampling, analyses, and reporting had been performed as required.

The inspector noted that a noncompliance item was identified during the previous inspection regarding the frequency of the impingement sampling (245/81-03-03; 336/81-02-03). The inspector reviewed a sampling log for 1981 and 1982 and noted that samplings were performed as required by Section 3.1.2.1.10 of the Environmental

Technical Specifications. The inspector stated that the corrective actions were adequate. The inspector had no further questions in this area.

No items of noncompliance were identified.

7. Nonradioactive Effluent Release Rates and Limits

The inspector reviewed and examined selected records of measurements of temperature, pH, and residual chlorine at the discharge. The inspector reviewed periodic checks and calibration records for 1982 and determined that the requirements were performed.

No items of noncompliance were identified.

8. Exit Interview

On February 8 and 11, the inspector met at the corporate offices of NUSCo and at MNPS, respectively, with the individuals noted in Detail 1. During this meeting, the inspector discussed the purpose, scope, and findings of this inspection.