U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-309/88- 8

Docket No. 50-309

License No. DPR-36 Priority - Category C

Licensee: Maine Yankee Atomic Power Company
83 Edison Drive
Augusta, Maine 04336

Facility Name: Maine Yankee Nuclear Power Station

Inspection At: Wiscasset, Maine

Inspection Conducted: September 12-16, 1988

Inspectors: Jason C. Jang 10-3-88
J. C. Jang, Senior Radiation Specialist date

Approved by: W. J. Pasciak 10-5-88
W. J. Pasciak, Chief, Effluent Radiation Protection Section date

Inspection Summary: Inspection on September 12-16, 1988 (Inspection Report No. 50-309/88-18).

Areas Inspected: Routine, unannounced inspection of the operational radiological environmental monitoring program, including management controls, the licensee's program for quality control of analytical measurements, meteorological monitoring, and implementation of the radiological environmental monitoring program.

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

DETAILS

1.0 Individuals Contacted

*E. Boulette, Plant Manager
D. Lemieus, I&C Supervisor
R. O'Clair, Environmental Service Field Supervisor, Central Maine Power
P. Radsky, Chemistry Section Head
J. Stevens, Lead Chemist
*D. Sturniolo, Principle Radiological Engineer

*Denotes those present at the exit interview on September 16, 1988.

2.0 Management Controls

The inspector reviewed the licensee's management controls for the radiological environmental monitoring programs (REMP), including assignment of responsibility, program audits, and annual reports required by the Technical Specifications.

2.1 Assignment of Responsibility

The inspector reviewed the organization and administration of the REMP. The program is administered by the Principle Radiological Engineer, who has the responsibility for ensuring that federal, state, and corporate requirements are fulfilled, as well as for review of analytical results and reports generated within the program. Actual day-to-day performance of the REMP requirements is carried out by the Environmental Service Field Supervisor, an employee of Central Maine Power, a part owner of the Maine Yankee Nuclear Power Station. This individual will be employed by Maine Yankee in the near future and will report to the Principle Radiological Engineer. The principle Radiological Engineer reports through the Manager, Nuclear Engineering and Licensing, to the Vice President for Quality Program and Engineering (Maine Yankee Atomic Power Company corporate office). The inspector determined that the REMP remains essentially the same as it was at the time of the last inspection in this area.

2.2 Audits

The inspector reviewed the following audit reports for the REMP and audits of the contractor laboratory, Yankee Environmental Laboratory (YEL):

- MY-87-02 "Chemistry, Radiological Effluent Technical Specifications/ODCM, and REMP," October 8, 1987

- MY-88-02 "Chemistry, Radiological Effluent Technical Specification/ODCM, and REMP," September 6, 1988
- 1985 LQCAC, YEL, December 3, 1985
- 1986 LQCAC, YEL, November 21, 1986
- 1987 LQCAC, YEL, October 21, 1987

The inspector noted that the above referenced audits were performed as required by the Technical Specifications and audit findings and recommendations were good. The inspector determined that the audits of the contractor laboratory were thorough and of sufficient technical depth to adequately assess capabilities of the contractor.

3.0 Licensee Program for Quality Control of Analytical Measurements

The Quality Control (QC) of analytical measurements is conducted by the Yankee Environmental Laboratory (YEL). This laboratory participates in the EPA crosscheck program. In addition, approximately 25% of the laboratory through put consists of various QC samples: blind duplicates, blanks, replicates, and spike samples.

The licensee prepares blind duplicate samples and sends them to the YEL for analyses. The results from these blind duplicate samples are used to check for precision in laboratory analyses.

Analyses of QC data are listed in the annual report. The inspector reviewed these statistical analyses of the data and determined that the YEL performed a good QC program for analytical measurements.

4.0 Implementation of the REMP

4.1 REMP Manual and Procedures

The inspector reviewed following procedures:

- Procedure No. 26.1, "Offsite Environmental Sample Collection Requirements and Dose Calculation Methods," Revision 1, March 30, 1988
- Procedure No. 26.301, "Environmental Media Sample Collection Methods," Revision 2, April 11, 1988

Procedure 26.301 is designed to provide guidance for using the "Procedures Manual for the Maine Yankee Offsite Radiological Environmental Surveillance Program." The inspector reviewed the manual. The manual describes sampling procedures for air, milk, water, soil and ingestion pathway samples such as lobster, crabs and vegetables. The manual also describes the calibration and maintenance of the air sampling equipment. No problems were identified.

4.2 Direct Observation

The inspector examined selected air sampling stations; all of the examined stations were operating at the time of this inspection.

The inspector observed the land use census on September 14, 1988. The land use census is required annually by Section 4.8.B of the Technical Specifications. The inspector noted that the licensee performed the census as required by the Technical Specification. No problems were identified.

5.0 Environmental Dosimetry

The U. S. Nuclear Regulatory Commission (NRC) Direct Radiation Monitoring Network is operated by the NRC (Region I) to provide continuous measurement of the ambient radiation levels around nuclear power plants, (71 sites) throughout the United States. Each site is monitored by arranging approximately 30 thermoluminescent dosimeter (TLD) stations in two concentric rings extending to about five miles from the power plant. The monitoring results are published in NUREG-0837 quarterly.

One of the purposes of this program is to serve as a basis of comparison with similar programs conducted by individual utilities which operate nuclear power plants. In general, several NRC TLDs are collocated with each licensee's TLD stations. During this inspection the monitoring results of the licensee's TLDs collocated with NRC's were compared and the results are listed in Table 1. It should be emphasized that the collocated TLDs are not always situated next to each other, but may be as much as one tenth of a mile apart or more. Although there are some differences between the NRC's and the licensee's results, they are generally in agreement.

6.0 Meteorological Monitoring

The I&C Department has responsibilities to perform calibration and preventive maintenance of the meteorological instrumentation. The inspector reviewed the calibration procedure and the current calibration results for wind speed, wind direction, and air temperature.

Procedure 6-100-2, "Quarterly Calibration of Meteorological System," Revision 3, July 1, 1988 describes all calibration steps including acceptance criteria. The inspector reviewed calibration results for 1987 and 1988 and found all results within the acceptance criteria.

7.0 Exit Interview

The inspector met with the licensee representatives (identified in Paragraph 1) at the conclusion of the inspection on September 16, 1988. The inspector summarized the purpose and scope of the inspection and the inspection findings.

TABLE 1

Environment Monitoring Results fo. Collocated TLDs

Unit = mR/90 days

Yr.	Qtr	(1) NRC-6	(2) MY-6	NRC-9	My-7	NRC-10	My-1	NRC-33	MY-5
1987	1	13.9±0.6	15.3	14.2±0.6	13.4	12.8±0.5	14.0	13.5±0.5	18.6
	2	18.4±0.7	16.9	16.1±0.6	16.0	17.4±0.7	16.2	17.4±0.7	20.5
	3	17.5±0.6	17.7	16.6±0.5	16.9	16.8±0.6	17.1	18.5±0.6	19.4
	4	18.3±0.8	17.9	18.6±0.8	16.4	19.0±0.5	15.1	19.5±0.8	17.7
1988	1	17.0±0.6	17.2	15.1±0.6	14.8	14.9±0.6	14.3	16.0±0.6	16.9
	2	18.6±0.6	18.4	16.2±0.6	17.6	16.8±0.6	16.6	17.7±0.6	17.3

(1) NRC: Panasonic UD-801, Reporting Unit = mR±S.d, Quarterly Monitoring

(2) MY (Maine Yankee): Panasonic UD-814, Reporting Unit = uR/hr, Quarterly Monitoring