



January 28, 2008

James Connell, Site Vice President  
Maine Yankee Atomic Power Company  
321 Old Ferry Road  
Wiscasset, ME 04578-4922

SUBJECT: INSPECTION 05000309/2008001, MAINE YANKEE ATOMIC POWER  
COMPANY, WISCASSET, MAINE

Dear Mr. Connell:

On December 31, 2007, the United States Nuclear Regulatory Commission completed an announced inspection at your Maine Yankee facility. The enclosed report documents the inspection results which were discussed with you and Wayne Norton on January 25, 2008.

The inspection examined activities relating to operation of your Independent Spent Fuel Storage Installation conducted under your license as they related to safety and compliance with the Commission's rules and regulations. The inspector reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no violations were identified.

In accordance with Section 2.390 of the NRC's "Rules and Practices," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR) and will be accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. No response to this letter is required. Your cooperation with us is appreciated.

Sincerely,

*/RA/*

Dana Caron, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

Docket No. 05000309  
License No. DPR-36

Enclosure: NRC Inspection Report No. 05000309/2008001

J. Connell

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cc w/encl:

G. Poulin, Chairman of the Board

E. Howes, Manager of Public and Governmental Affairs

J. Fay, Corporate Counsel

P. Dostie, State Nuclear Safety Inspector

Chairman Board of Selectmen, Town of Wiscasset

M. Kilkelly, Chair - Community Advisory Panel

Maine State Planning Office - State Nuclear Safety Advisor

State of Maine, SLO Designee

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection Nos. 05000309/2008001  
Docket No. 05000309  
License No. DPR-36  
Licensee: Maine Yankee Atomic Power Company  
Facility: Maine Yankee  
Location: 321 Old Ferry Road  
Wiscasset, ME 04578-4922  
Inspection Date: August 14, 2007  
In office data review dates: June 4 - July 2, 2007  
November 15 - December 28, 2007  
Inspectors: Mark Roberts, Senior Health Physicist  
Decommissioning Branch  
Division of Nuclear Materials Safety  
Approved By: Dana Caron, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

## **EXECUTIVE SUMMARY**

Maine Yankee Atomic Power Company  
NRC Inspection Report No. 05000309/2008001

The inspection included aspects of decommissioning activities regarding operation of your Independent Spent Fuel Storage Installation (ISFSI). The report covers an announced safety inspection conducted by one regional inspector and in-office document reviews. The report includes evaluations of the corrective action program, ISFSI operations program, emergency preparedness, and radiation protection program.

### **Facilities Management and Control**

- The Maine Yankee (MY) staff maintained an adequate corrective action program. (Section 1.1)
- The MY security personnel and ISFSI operations staff maintained an adequate program for surveillance and monitoring of the ISFSI and stored spent fuel. (Section 1.2)
- The MY site personnel maintained emergency equipment in an appropriate state of readiness. An emergency drill identified strengths and opportunities for improvement that are scheduled to be addressed through the corrective action program. (Section 1.3)

### **Radiation Protection**

- MY implemented an effective program to control and limit occupational radiation exposure. (Section 2.1)
- MY maintained an adequate capability to monitor radiation exposure rates along the security fence perimeter. (Section 2.2)

## **REPORT DETAILS**

### **Summary of Facility Status**

Maine Yankee (MY) is continuing to operate their Independent Spent Fuel Storage Installation (ISFSI). Building demolition activities, soil excavation, debris removal and final status survey activities are complete.

### **1.0 Facilities Management and Control**

#### **1.1 Self-Assessment and Corrective Action Program**

##### a. Inspection Scope (IP 40801)

The inspector reviewed several condition reports (CRs) for issues related to the safeguards program and the radiation protection program.

##### b. Observations and Findings

No findings of significance were identified.

The inspector noted that the program for reporting potential safety issues by generating and entering CRs into the corrective action program for resolution appeared to be effective. The inspector selected several closed condition reports for review. Closure documents were readily retrieved and adequately described resolution of issues and corrective actions to prevent recurrence.

##### c. Conclusion

The MY staff maintained an adequate corrective action program.

#### **1.2 Independent Spent Fuel Storage Installation**

##### a. Inspection Scope (IP 60855)

The inspector reviewed procedures, maintenance and training records, and interviewed selected ISFSI operations personnel. The inspector toured the ISFSI, observed shift rounds, and discussed ISFSI operations with the Site Vice President, ISFSI Shift Supervisor, and security force members (SFM)

##### b. Observation and Findings

No findings of significance were identified.

The inspector noted that the vertical concrete casks were in good material condition, the ventilation openings were unobstructed, and the perimeter fence was intact and properly posted. A real-time radiation monitoring system had been installed at points along the

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perimeter fence. The inspector verified that the primary alarm station systems were operable. The inspector observed the access control actions taken by SFMs to identify and permit access for approved individuals and discussed the procedural actions that would be taken for unknown individuals.

c. Conclusion

The MY security personnel and ISFSI operations staff maintained an adequate program for surveillance and monitoring of the ISFSI and stored spent fuel.

**1.3 Emergency Planning**

a. Inspection Scope (IP 60855)

The inspector reviewed selected emergency preparedness documents, interviewed selected ISFSI operations personnel, and reviewed the status of emergency equipment. The inspector also reviewed the results of the emergency preparedness drill conducted November 6, 2007, and discussed the drill summary with the Site Vice President and Operations Specialist.

b. Observation and Findings

No findings of significance were identified.

The inspector noted that radiation protection equipment was available and calibration stickers on the equipment indicated instrumentation was within the current calibration period. An emergency diesel generator is available and is test-operated weekly.

MY conducts periodic emergency drills to test overall support staff emergency response capabilities, radiological monitoring, medical emergency response, and the fire protection program. Objectives of the emergency drill conducted on November 7, 2007, included testing the support staff emergency response and radiological monitoring capabilities. The drill scenario involved a beyond design basis event of a tipped-over cask. Identified strengths in the drill response included good command and control, communications, and coordination with staff. Improvement opportunities that were identified included the need for refresher training on radiological events and equipment and response to an Unusual Event declaration. A drill open item list and schedule were developed to resolve the items identified.

c. Conclusion

The MY site personnel maintained emergency equipment in an appropriate state of readiness. An emergency drill identified strengths and opportunities for improvement that are scheduled to be addressed through the corrective action program.

**2.0 Radiation Protection**

## 2.1 Occupational Radiation Protection

### a. Inspection Scope (IP 83750)

The inspector reviewed MY's occupational radiation protection program to assess the capability to monitor and control radiation exposure to employees.

### b. Observations and Findings

No findings of significance were identified.

MY ISFSI staff are monitored for occupation exposure by means of thermoluminescent dosimeters (TLDs). The TLD badges used by MY staff are sensitive to beta, gamma, and neutron radiations. The inspector reviewed selected personnel dosimetry records that indicated minimal exposure to staff members.

### c. Conclusion

MY implemented an effective program to control and limit occupational radiation exposure.

## 2.2 Effluent and Environmental Monitoring

### a. Inspection Scope (IP 84750)

The inspector reviewed MY's program for monitoring perimeter radiation exposure rates. The inspector examined selected perimeter radiation exposure records and discussed the installation of a new real-time radiation monitoring system with the Site Vice President.

### b. Observations and Findings

No findings of significance were identified.

MY conducts a program to monitor the radiation exposure rate at multiple locations along the security fence perimeter. The inspector reviewed selected environmental radiation exposure records from 2006 and 2007. The observed data were consistent over time and did not indicate any unusual exposure rates. My has installed a real-time radiation monitoring system to provide ISFSI operations staff with the ability to obtain real-time measurements to support the emergency planning response.

### c. Conclusion

MY maintained an adequate capability to monitor radiation exposure rates along the security fence perimeter.

**4.0 Exit Meeting Summary**

On January 25, 2008, a summary of the inspection findings for the entire inspection period was presented during a telephone conversation with the site vice president and chief nuclear officer. The inspector confirmed that proprietary and safeguards information were not included in this inspection report.

Attachment: Supplemental Information

**SUPPLEMENTAL INFORMATION**

**PARTIAL LIST OF PERSONS CONTACTED**

Licensee and Contractor Staff

\*J. Connell, Site Vice President and ISFSI Manager  
L. Jewett, Operations Specialist  
\*W. Norton, Chief Nuclear Officer  
M. Obrion, ISFSI Maintenance  
C. Rival, Securitas Energy Services, Project Manager  
J. Rzasa, Securitas Energy Services, Security Supervisor

\* Attended telephone exit meeting on January 25, 2008

State of Maine

P. Dostie, Maine Nuclear Safety Inspector  
C. Prey, State Nuclear Safety Advisor

**INSPECTION PROCEDURES USED**

40801 Self-Assessment, Auditing, and Corrective Action  
60855 Operation of Independent Spent Fuel Storage Installation  
83750 Occupational Radiation Exposure  
84750 Radioactive Waste Treatment, and Effluent and Environmental Monitoring

**ITEMS OPEN, CLOSED, AND DISCUSSED**

Opened                      None

Closed                      None

Discussed                      None

**LIST OF ACRONYMS USED**

CFR	Code of Federal Regulations
CR	Condition Report
DNMS	Division of Nuclear Materials Safety
IP	Inspection Procedure
ISFSI	Independent Spent Fuel Storage Installation
MY	Maine Yankee
NRC	Nuclear Regulatory Commission
SFM	Security Force Member
TLD	Thermoluminescent Dosimeter