



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406

October 16, 2008

James Connell
ISFSI Manager
Maine Yankee Atomic Power Company
321 Old Ferry Road
Wiscasset, ME 04578-4922

SUBJECT: INSPECTION 07200030/2008001, MAINE YANKEE ATOMIC POWER
COMPANY, WISCASSET, ME

Dear Mr. Connell:

On September 18, the United States Nuclear Regulatory Commission completed an announced inspection at your Maine Yankee Atomic Power Company facility. The inspector conducted an onsite inspection on August 18, 2008 and met with your Quality Assurance Manager, Robert Mitchell, on August 21, 2008. The preliminary results of the inspection were discussed with you and Mr. Mitchell on August 21, 2008, and on September 18, 2008, the inspector conducted an exit meeting via telephone with you and Mr. Mitchell. The enclosed report presents the results of this inspection.

This inspection was an examination of activities conducted under your license as they relate to safety and security, compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. Based on the results of this inspection, no violations were identified.

In accordance with 10 CFR Part 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

When separated from Enclosure 2, this
document is DECONTROLLED.

No response to this letter is required. Your cooperation with us is appreciated.

Sincerely,

/RA/

Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Docket No. 07200030

License No. SFGL-14

Enclosure 1: Inspection Report No. 07200030/2008001

Enclosure 2: Security Attachment to Inspection Report No. 07200030/2008001

cc:

G. Poulin, Chairman of the Board

E. Howes, Manager of Public and Governmental Affairs

J. Fay, General Counsel

W. Norton, Chief Nuclear Officer

R. Mitchell, QA Manager

P. Dostie, State Nuclear Safety Inspector

P. Brann, Assistant Attorney General

Chairman Board of Selectmen

State of Maine, SLO Designee

cc w/o encl 2:

M. Kilkelly, Chair - Community Advisory Panel

Friends of the Coast

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 07200030/2008001

Docket No. 07200030

License No. SFGL-14

Licensee: Maine Yankee Atomic Power Company

Facility: Maine Yankee Atomic Power Station

Location: 321 Old Ferry Road
Wiscasset, ME

Inspection Date: August 18 and 21, 2008

Dates Follow-up
Information Reviewed: September 16 - 18, 2008

Inspector: Mark C. Roberts, Senior Health Physicist
Decommissioning Branch
Division of Nuclear Materials Safety

Approved By: Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Maine Yankee Atomic Power Company
NRC Inspection Report No. 07200030/2008001

The inspection was a review of the operation of the Independent Spent Fuel Storage Installation (ISFSI). The report covers an announced safety inspection conducted by one regional inspector. The inspection consisted of field observations and an evaluation of the licensee's programs for radiation protection, self-assessment and corrective actions, surveillance and maintenance, environmental monitoring, fire protection, training, and security.

The licensee implemented its radiation protection, environmental monitoring, and fire protection programs in accordance with its license, Technical Specifications, and applicable regulations. The licensee maintains appropriate surveillance and maintenance programs to ensure that equipment is adequately maintained and tested. Emergency plan drills, equipment inventories, and emergency contact list updates were performed at designated frequencies. The licensee performed a self-assessment and maintained an adequate program for documenting issues and developing corrective actions. The licensee's training records indicated that all personnel were trained to perform their designated tasks

A. NRC Identified Findings

None

REPORT DETAILS

1.0 Operation of an Away-from-Reactor Independent Spent Fuel Storage Installation

1.1 Radiation Protection Program

a. Inspection Scope

The inspector reviewed the facility's radiation protection program to verify compliance with the license, Technical Specifications (TS), and applicable regulations. The inspector evaluated personnel monitoring records, radiation and contamination surveys, the sealed source program, and the radiological work control process (radiation work permits (RWP)).

b. Observations and Findings

No findings of significance were identified.

The licensee utilizes a contractor to provide most of its radiological protection needs, including personnel monitoring, environmental monitoring, radiation survey meter calibration, radiological and contamination surveys, and sealed source inventory and leak tests. Work within the radiologically controlled area was controlled through the use of RWPs. An annual review of the radiation protection program was conducted as part of the annual Quality Assurance (QA) audit. No significant findings were identified by the auditor. The licensee monitored site personnel through the use of thermoluminescent dosimeters (TLDs). The inspector evaluated the licensee's personnel monitoring records for 2007 - 2008 and determined that the site personnel receive much less than 10 percent of the annual regulatory limit during operation of the ISFSI.

The licensee performed cask surface dose rate and contamination surveys on a quarterly basis. Radiological surveys are also conducted within the security operations building. The ISFSI routine survey documentation indicated that the surface dose rates and contamination levels were well below regulatory limits and TS values. Radiation readings on each of the casks are performed at the same location to allow trending of cask radiation exposure rates over time. No adverse trends have been identified.

The licensee maintained a group of sealed radioactive sources in a locked cabinet that are used for radiation survey meter performance checks. Semi-annual inventories of the sealed sources were performed by the contractor. Most of the sources are low-activity check sources and exempt from licensing. A Strontium-Yttrium-90 source that met the criteria for requiring leak-testing was leak-tested semi-annually as required. No source integrity issues were identified. An Americium-Beryllium neutron source was stored and not in use. The licensee indicated that the neutron source would be leak-tested as required prior to use or transfer.

Radiological survey meters for both contamination and radiation exposure rate measurements were maintained for routine and emergency use. Instruments were calibrated annually by the contractor. All instruments examined had been calibrated within the previous twelve months.

c. Conclusion

The licensee implemented its radiation protection program in accordance with its license, TS, and applicable regulations.

1.2 Self-Assessment and Corrective Action Program

a. Inspection Scope

The inspector reviewed the facility's corrective action program and the annual QA audit results. The inspector interviewed individuals and reviewed selected procedures and condition reports (CRs) related to ISFSI performance.

b. Observations and Findings

No findings of significance were identified.

The licensee maintained a corrective action program that is used to identify potential safety issues and areas for quality improvement. Issues were identified through specific self-assessments (e.g., the annual QA audit) or from observations during daily activities. Deficiencies and areas of improvement from the most recent QA audit had been entered into the corrective action program. The inspector selected several closed condition reports for review and determined that closure documents were readily retrieved and adequately described resolution of issues and actions to prevent recurrence.

c. Conclusion

The licensee maintained adequate programs for self-assessment, documentation of issues, and development of corrective actions.

1.3 Surveillance and Maintenance

a. Inspection Scope

The inspector reviewed the licensee's surveillance and maintenance program associated with the dry storage of the spent fuel to verify compliance with the license, technical specifications, and applicable regulations. In addition, the inspector reviewed the emergency plan and implementing procedures. The inspector toured the ISFSI pad, interviewed individuals, and reviewed selected procedures and records.

b. Observations and Findings

No findings of significance were identified.

The inspector conducted a walk-down of the ISFSI with licensee staff. Logs and past survey records indicated that the casks operated as designed with no abnormalities in temperatures, and no elevated radiation or contamination levels. As part of the daily surveillance activities, the licensee staff performed a visual examination of the cask vents to ensure that the vent openings were not blocked. The licensee has had to perform minor maintenance on some of the screens where corrosion was observed.

The temperature of the air exiting the cask vents is continuously monitored and recorded.

The licensee uses a maintenance tracking database program to track periodic surveillance and maintenance requirements. Work orders are developed from this program to perform the actual surveillance and maintenance activities and initiate work that may be developed from the conduct of the surveillance activities. The inspector reviewed a printout from the program and found that the licensee was tracking and performing required maintenance and testing of security, fire protection, and emergency system components. Required daily performance checks are incorporated into the daily security logs. The licensee did not encounter any major issues during maintenance activities.

The licensee maintained fuel inventory records as required. The records contained the information regarding the origin, the history, the physical and chemical properties of individual fuel assemblies, and their final positions in individual casks.

The licensee's emergency plan and emergency plan implementing procedures were current. Emergency plan drills, equipment inventories, and emergency contact list updates were performed at the designated frequencies.

c. Conclusion

The licensee implemented its surveillance and maintenance program in accordance with the license and the technical specifications. The licensee maintained records of its fuel inventory as specified in 10 CFR Part 72.72. Emergency plan drills, equipment inventories, and emergency contact list updates were performed at designated frequencies.

1.4 Environmental Monitoring

a. Scope

The inspector reviewed the licensee's ISFSI Annual Radioactive Effluent Release Report, the ISFSI Annual Radiological Environmental Operating Report, and the environmental monitoring program TLD results for 2007 and 2008.

b. Observations and Findings

No findings of significance were identified.

The licensee monitored direct radiation from the ISFSI using TLDs located near and along the perimeter of the site. The environmental TLDs are exchanged on a quarterly basis. The licensee determined that the annual dose equivalent to any individual who is located at the boundary of the controlled area would not exceed 25 millirem to the whole body from direct radiation from the ISFSI as required by 10 CFR 72.104.

The inspector reviewed the ISFSI Annual Radioactive Effluent Release Report that is required to be transmitted to the NRC. Decommissioning activities at the former Maine Yankee Atomic Power Plant have resulted in the removal of gaseous and liquid effluent sources and pathways for potential radioactive effluent releases. Operation of the ISFSI facility therefore did not result in any effluent releases during 2007.

Although not required by the Maine Yankee Offsite Dose Calculation Manual (ODCM), water samples were collected at Outfall-O018 and analyzed for gamma-emitting radionuclides. All sample results were less than the radionuclide detection concentrations.

c. Conclusions

The licensee established and maintained an environmental monitoring program in accordance with the TS and 10 CFR Part 50 and 72 requirements.

1.5 Fire Protection

a. Inspection Scope

The inspector reviewed the facility's fire protection program to verify compliance with the applicable regulations. The inspector interviewed licensee personnel, reviewed records, and toured the facility.

b. Observations and Findings

No findings of significance were identified.

The inspector performed a walkdown of the ISFSI pad and verified the absence of any transient combustibles on the pad and in the vicinity of the casks. The licensee maintained procedures that administratively minimized the fire load on the ISFSI by limiting the total quantity of fuel in vehicles adjacent to the ISFSI pad. The licensee's routine maintenance and surveillance program includes maintenance and testing of fire dampers in the Security Operations Building and fire extinguishers. The licensee maintains a letter of agreement with the Wiscasset Fire Department for fire-fighting assistance.

c. Conclusions

The licensee implemented its fire protection program in accordance with its technical specifications and applicable regulations.

1.6 Training

a. Inspection Scope

The inspector reviewed the licensee's training program to ensure personnel were trained to perform their designated tasks. The inspector interviewed licensee personnel and reviewed selected training materials and records.

b. Observations and Findings

No findings of significance were identified.

The licensee conducted General Employee Training program for site employees. The training program addressed the areas of site organization, radiation protection, industrial safety, fire protection, quality assurance program, security plan, ISFSI emergency plan, and fitness for duty. The licensee also conducts periodic refresher training for the work assignments of the staff. Refresher training incorporated input from the corrective action program. During the observations, the licensee staff was knowledgeable regarding the objectives of performed activities, the equipment being used, and the processes used on site to document and resolve issues.

c. Conclusions

The licensee's training records indicated all personnel were trained to perform their designated tasks.

3.0 Exit Meeting

On August 21, 2008, the inspector presented the preliminary inspection results to James Connell and Robert Mitchell. The inspector confirmed that proprietary information was not provided or examined during the inspection. On September 18, 2008, the inspector conducted an exit meeting via telephone with Mr. Connell and Mr. Mitchell.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

K. Clark, ISFSI Shift Supervisor
J. Connell, ISFSI Operations Manager
L. Jewett, Operations Specialist
R. Mitchell, QA Manager
M. Obrien, Facility Specialist
J. Rzasa, Senior Security Supervisor

State of Maine

P. Dostie, State Nuclear Safety Inspector

INSPECTION PROCEDURES (IPs) USED

IP 60855 Operation of an Independent Spent Fuel Storage Installation
IP 60858 Away-from-reactor ISFSI Inspection Guidance

LIST OF ACRONYMS USED

CFR Code of Federal Regulations
CR Condition Report
IP Inspection Procedure
ISFSI Independent Spent Fuel Storage Installation
LER License Event Report
ODCM Offset Dose Calculation Manual
QA Quality Assurance
RWP Radiation Work Permit
TLD Thermoluminescent Dosimeter
TS Technical Specifications

LIST OF DOCUMENTS REVIEWED

Radiation Protection

Occupational Radiation Exposure Report - Monitoring Periods 7/1-2007 – 12/31/2007 and 1/1/2008-6/30/2008

ISFSI Routine Surveys, 2007 and 2008

Radioactive Source Inventory/Leak/Disposal Records, 2007 and 2008

Radiation Survey Meter Calibration Records, 2007 and 2008

Radiation Work Permit No. 08-00001, Rev 0; ISFSI Routine Activities for Operations, Minor Work, Inspection, and Surveillance

Surveillance and Maintenance

Maine Yankee Defueled Safety Analysis Report, Rev. 21, July 19, 2007

Procedure No. ISFSI 0-16-1, Corrective Action Program, Rev. 3, April 12, 2007

Procedure No. OP-6, ISFSI Vehicle Barrier System, Rev. 0, July 24, 2008

Maine Yankee Special Nuclear Material Inventory 2008, July 28, 2008

Report for Quality Assurance Audit MY-08-A05-01, "ISFSI Operations Audit," June 23, 2008

Maine Yankee Independent Spent Fuel Storage Installation (ISFSI) Emergency Plan; September 27, 2007

Maine Yankee Independent Spent Fuel Storage Installation (ISFSI) Emergency Plan Implementing Procedures; September 27, 2007

Environmental Monitoring

Maine Yankee Independent Spent Fuel Storage Installation Offsite Dose Calculation Manual, Change No. 33; March, 19, 2007

Maine Yankee Independent Spent Fuel Storage Installation Annual Radioactive Effluent Release Report, January – December 2007; April 2008

Maine Yankee Independent Spent Fuel Storage Installation Annual Radiological Environmental Operating Report, January – December 2007; April 2008

Maine Yankee Environmental Dosimetry Reports – 2007 and 2008