



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

May 18, 2016

Docket Nos. 07200031  
05000029

License Nos. SFGL-13  
DPR-3

Brian Smith  
Site Manager  
Yankee Atomic Electric Company  
49 Yankee Road  
Rowe, MA 01367

SUBJECT: NRC INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION  
REPORT NO. 07200031/2016001 AND 05000029/2016001, YANKEE ATOMIC  
ELECTRIC COMPANY, ROWE, MASSACHUSETTS SITE

Dear Mr. Smith:

On April 20, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed a safety inspection of the Yankee Atomic Electric Company (Yankee Rowe) Independent Spent Fuel Storage Installation (ISFSI). The inspection examined activities under your license as they relate to safety and compliance with the Commission's regulations and the conditions of your license. The inspection consisted of observations by the inspector, interviews with personnel, and a review of records and procedures. The results of the inspection were discussed with you at the conclusion of the inspection. The enclosed report presents the results of this inspection.

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

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select Nuclear Materials; Med, Ind, & Academic Uses; then Regulations, Guidance and Communications. The current Enforcement Policy is included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents; then Enforcement Policy (Under 'Related Information'). You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's expectations for individual and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture web site at <http://www.nrc.gov/about-nrc/safety-culture.html>. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

No reply to this letter is required. Please contact John Nicholson at 610-337-5236 if you have any questions regarding this matter.

Sincerely,

*/RA/*

Raymond J. Powell, Chief  
Decommissioning and Technical Support  
Branch  
Division of Nuclear Materials Safety

Enclosure:  
Inspection Report No. 07200031/2016001

cc: John Giarrusso, Planning and Preparedness Division Chief  
Commonwealth of Massachusetts

B. Smith

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Enclosure:  
Inspection Report No. 07200031/2016001

cc: John Giarrusso, Planning and Preparedness Division Chief  
Commonwealth of Massachusetts

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**SUNSI Review Complete:** JNicholson

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No.	07200031/2016001
Docket Nos.	07200031 and 05000029
License Nos.	SFGL-13 and DPR-3
Licensee:	Yankee Atomic Electric Company
Location:	49 Yankee Road Rowe, MA
Inspection Dates:	April 20, 2016
Inspector:	John Nicholson Senior Health Physicist Decommissioning and Technical Support Branch Division of Nuclear Materials Safety
Approved By:	Raymond J. Powell, Chief Decommissioning and Technical Support Branch Division of Nuclear Materials Safety

Enclosure

**EXECUTIVE SUMMARY**

Yankee Atomic Electric Company  
NRC Inspection Report No. 07200031/2016001

An announced safety inspection was conducted on April 20, 2016, at the Yankee Atomic Electric Company (Yankee Rowe) Independent Spent Fuel Storage Installation (ISFSI). The inspector assessed whether Yankee Rowe personnel were operating and maintaining ISFSI programs at an away-from-reactor (AFR) ISFSI in conformance with the commitments and requirements contained in the Final Safety Analysis Report (FSAR), Safety Evaluation Report (SER), Certificate of Compliance (CoC), Technical Specifications (TS), Quality Assurance (QA) program, Yankee Rowe procedures, and 10 Code of Federal Regulations (CFR) Part 72. The inspector's review was directed toward confirming the ongoing adequacy of the radiation protection, fire protection, emergency preparedness, surveillance, maintenance, environmental monitoring, training, QA, and corrective action programs. The inspector observed activities, interviewed personnel, and reviewed records and procedures. Based on the results of this inspection, no findings of significance were identified.

Enclosure

## **REPORT DETAILS**

### **I. Organization and Radiation Safety Program**

#### **a. Inspection Scope**

The inspector assessed whether Yankee Rowe personnel were operating and maintaining ISFSI programs at an AFR ISFSI in conformance with the commitments and requirements contained in the FSAR, SER, CoC, TS, QA program, Yankee Rowe procedures, and 10 CFR Part 72.

AFR ISFSI facilities, located at sites where loading operations have been completed, are essentially passive operating facilities. The inspector's review was directed towards confirming the ongoing adequacy of the radiation protection, fire protection, emergency preparedness, surveillance, maintenance, environmental monitoring, training, QA, and corrective action programs.

The inspector observed activities, interviewed personnel, and reviewed records and procedures. The inspector also reviewed changes made to Yankee Rowe's programs and procedures since the last inspection to verify that changes were consistent with the license or CoC and did not reduce the effectiveness of the program.

#### **b. Observations**

The inspector determined that Yankee Rowe's plans and preparations for controlling radiological activities were effective at meeting 10 CFR Part 20 requirements. The inspector also verified that special nuclear material (SNM) stored at the ISFSI was properly accounted for. Dosimetry records and environmental monitoring reports were reviewed. All employees were below the regulatory dose limits and the dose requirements for members of the public at the nearest accessible location to the ISFSI were within limits prescribed by 10 CFR 72.104.

Yankee Rowe's emergency preparedness program properly coordinated with the appropriate offsite support groups, agencies, and local law enforcement agencies. The emergency call list was current and checked periodically for accuracy. All revisions to the emergency plan have been submitted to the NRC and reviewed by the Office of Nuclear Security and Incident Response.

Daily temperature monitoring of the vertical concrete casks (VCCs) was performed by Yankee Rowe personnel in accordance with surveillance requirements in the TS. Yankee Rowe's procedures contain backup plans if the primary surveillance method was unavailable. The inspector performed a tour of the ISFSI pad and did not note any significant material condition issues that would impact the performance of the pad and loaded VCCs. The inspector also verified that transient combustibles were not being stored on the ISFSI pad or in the vicinity of the VCCs and confirmed vehicle entry onto the ISFSI pad was controlled in accordance with site procedures.

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Yankee Rowe has a training program which consists of classroom and on-the-job training, as well as briefings, performed by supervisors. Refresher training was given on a regular basis and retraining was given as necessary if human performance issues were identified. All employees have been trained and qualified to perform their assigned ISFSI-related functions.

The inspector reviewed the most recent independent audit of the ISFSI program. The inspector determined that issues were entered into the corrective action program, prioritized, and evaluated commensurate with their safety significance. Corrective actions were implemented to address identified issues and were tracked to closure. The QA program evaluated changes in the ISFSI program to ensure that any changes that were implemented would not decrease the overall effectiveness of the program. The inspector also reviewed Yankee Rowe's 10 CFR 72.212 evaluation report and ensured it was being appropriately updated.

c. Findings

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

**II. Exit Meeting Summary**

On April 20, 2016, the inspector presented the inspection results to Brian Smith, Yankee Rowe Site Manager and other Yankee Rowe personnel.

**SUPPLEMENTAL INFORMATION****PARTIAL LIST OF PERSONS CONTACTED**Licensee

G. Brewster, Electrician  
 J. Bourassa, RPM/QA Representative  
 T. Chalmers, G4S Assistant Project Manager  
 S. Day, Licensing Engineer  
 N. Fales, Aging Management, Program Manager  
 L. Jewett, ISFSI Specialist  
 K. Kuzontkoski, G4S Project Manager  
 J. Lenois, 3 Yankee Security Program Manager  
 K. Shea, ISFSI Technical Specialist  
 B. Smith, Site Manager  
 T. Snyder, Facility Specialist  
 D. Yorke, Operations Specialist

**ITEMS OPEN, CLOSED, AND DISCUSSED**

None

**LIST OF DOCUMENTS REVIEWED**Audits and Reports

3 Yankees Self-Assessment for Common Program Area of Emergency Preparedness,  
 September 29, 2015  
 Biennial Update to the Yankee Nuclear Power Station Final Safety Analysis Report, October 8,  
 2015  
 Biennial Update to the Yankee Nuclear Power Station License Termination Plan, October 8,  
 2015  
 Quality Assurance Audit Y-16-A04-01 ISFSI Operations Audit April 12, 2016  
 Quality Assurance Audit Y-14-A04-01 ISFSI Operations Audit May 9, 2014  
 YR 2015 SNM Inventory, August 4, 2015  
 YR Annual Independent Assessment of the Yankee Rowe Emergency Plan, May 21, 2015  
 YR Annual Special Nuclear Material Report 2015  
 YR ISFSI Memo-15-104, 2015 Yankee Rowe Independent Management and Safety Culture  
 Assessment  
 YR ISFSI Memo-15-038, Fire Protection Program Evaluation

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Condition Reports

2014-010, 019, 024, 025, 035, 045, 52, 73 2015-015, 043, 044, 074, 085 2016-008

Miscellaneous

OP-1, Attachment E, Temperature Monitoring Log, January 1, 2016

OP-7, Rev. 3 Attachment C, VCC Inspection Tracking Form, June 21, 2015

Table 4.3 Direct Dose from ISFSI Operations 2015

YR ISFSI Routine Activity Item ID 607 RPM Perform June Radiation Protection Tasks

YR Request for Exemption from Certain Requirements of 10 CFR 72.212 and 10 CFR 72.214 for the Yankee Nuclear Power Station ISFSI, September 1, 2015

YR Regulatory Compliance Matrix Special Nuclear Material Accountability

Procedures

EF-3, Rev. 7, Special Nuclear Material and Greater than Class C Waste Control, Accountability, and Reporting Program, February 17, 2015

EO-1, Rev. 14, Emergency Planning Implementation

FP-1, Rev. 6, ISFSI Fire Protection Program

FP-2, Rev. 0, Fire Hazard Analysis

FP-4, Rev. 4, ISFSI Fires and Fire Alarms

OP-6, Rev. 2, VCC and Related Concrete and Coating Repairs

OP-7, Rev. 3, ISFSI Annual Inspection Program

OP-10, Rev. 16, Fire Protection Surveillances

RP-1, Rev. 5, Conduct of Radiation Protection

RP-2, Rev. 12, Radiological Surveys and Postings

RP-6, Rev. 10, Radiological Environmental Monitoring Program (REMP)

RP-3, Rev. 10, Personnel Radiation Monitoring

**LIST OF ACRONYMS USED**

AFR	Away-From-Reactor
CFR	Code of Federal Regulations
CoC	Certificate of Compliance
FSAR	Final Safety Analysis Report
IP	Inspection Procedure
ISFSI	Independent Spent Fuel Storage Installation
QA	Quality Assurance
SER	Safety Evaluation Report
SNM	Special Nuclear Material
TS	Technical Specification
VCC	Vertical Concrete Cask
YR	Yankee Rowe

Enclosure