



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713**

October 26, 2021

Jim Lenois
ISFSI Manager
Connecticut Yankee Atomic Power Company
362 Injun Hollow Road
East Hampton, CT 06424

**SUBJECT: CONNECTICUT YANKEE ATOMIC POWER COMPANY - NRC INDEPENDENT
SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT NOS.
07200039/2021001 AND 05000213/2021001**

Dear Mr. Lenois:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) conducted a safety inspection at the Connecticut Yankee Atomic Power Company (Connecticut Yankee) Independent Spent Fuel Storage Installation (ISFSI). The inspection examined activities under your licenses as they relate to safety and compliance with the Commission's regulations and conditions of your licenses. The inspection consisted of observations by the inspector, interviews with site personnel, and a review of procedures and records. The results of the inspection were discussed with Mr. Wayne Norton, you, and members of your staff during a phone call on October 6, 2021. 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, 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 Web site 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.

If you have any questions regarding this matter, please contact Orysia Masnyk Bailey of my staff at 864-427-1032 or via electronic mail at Orysia.MasnykBailey@nrc.gov.

J. Lenois

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Thank you for your cooperation.

Sincerely,

Anthony Dimitriadis, Chief
Decommissioning, ISFSI and Reactor HP Branch
Division of Radiological Safety and Security

Docket Nos. 07200039, 05000213
License Nos. SFGL-21, DPR-61

Enclosure:
Inspection Report Nos. 07200039/2021001 and
05000213/2021001

cc w/enclosure State of Connecticut

CONNECTICUT YANKEE ATOMIC POWER COMPANY - NRC INDEPENDENT SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT NOS. 07200039/2021001 AND 05000213/2021001, DATED October 26, 2021.

DOCUMENT NAME: https://usnrc.sharepoint.com/:w:/r/teams/Region-I-Decommissioning-Branch/_layouts/15/Doc.aspx?sourcedoc=%7B49550725-89F1-4BFF-A86B-442616687A30%7D&file=Conn%20Yankee%20IR%202021001%20Rev%203.docx&action=default&mobileredirect=true **ML21299A200**

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection Nos. 07200039/2021001 and 05000213/2021001
Docket Nos. 07200039 and 05000213
License Nos. SFGL-21 and DPR-61
Licensee: Connecticut Yankee Atomic Power Company
Location: East Hampton, CT
Inspection Dates: September 30, 2021

Inspector: Orysia Masnyk Bailey, Health Physicist
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Approved By: Anthony Dimitriadis, Chief
Decommissioning, ISFSI and Reactor Health Physics Branch
Division of Radiological Safety and Security

EXECUTIVE SUMMARY

Connecticut Yankee Atomic Power Company
Inspection Report Nos. 07200039/2021001 and 050000213/2021001

An announced routine ISFSI inspection of the Connecticut Yankee Atomic Power Company ISFSI was completed on October 6, 2021. An on-site inspection was performed on September 30, 2021. The inspection included a review of radiation protection, fire protection, emergency preparedness, surveillance, maintenance, environmental monitoring, training, QA, and corrective action programs. The inspection consisted of observations by the inspector, interviews with Connecticut Yankee personnel, and a review of records and procedures. The NRC's program for overseeing the safe operation of an ISFSI is described in Inspection Manual Chapter (IMC) 2690, "Inspection Program for Storage of Spent Reactor Fuel and Reactor Related Greater-Than-Class C Waste At Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packaging."

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

REPORT DETAILS

1. Inspection Scope, Observations, and Conclusion

a. Inspection Scope (Inspection Procedure 60858)

The inspector assessed whether Connecticut Yankee personnel were operating and maintained 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, Connecticut Yankee procedures, and 10 CFR Part 72.

AFR ISFSI activities, located at sites where loading operations have been completed, are essentially passive operating facilities. 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 site personnel, and reviewed procedures and records. The inspector also reviewed changes made to Connecticut Yankee's programs and procedures since the last inspection to determine if changes were consistent with the license or CoC and if such changes reduced the effectiveness of the program.

b. Observations

The inspector determined that Connecticut Yankee'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 reports were found to be complete, and all employee exposures were below the regulatory dose limits, and dose to members of the public at the nearest accessible location to the ISFSI were within limits as prescribed by 10 CFR 72.104.

The inspector verified Connecticut Yankee's emergency preparedness program was properly coordinated with the appropriate offsite support groups, agencies, and local law enforcement agencies (LLEAs). The inspector also verified the emergency call list was current and checked periodically for accuracy and all revisions to the emergency plan had been submitted to the NRC and reviewed by the Office of Nuclear Security and Incident Response (NSIR).

The inspector verified daily temperature monitoring of the vertical concrete casks (VCCs) was performed by Connecticut Yankee personnel in accordance with surveillance requirements in the TS and that Connecticut Yankee's procedures contain back up plans if the primary surveillance method became unavailable. The inspector determined the licensee continued to focus on pad conditions and pad repairs and upgrades were expected to be completed in 2023. The inspector also verified that transient combustibles were not being stored on the ISFSI pad or in the vicinity of the VCCs and confirmed procedures were in place to control entry onto the ISFSI pad.

The inspector determined Connecticut Yankee has a training program which consists of classroom instruction, on-the-job training, and various drills, as well as shift turnover briefings by supervisors and refresher training was given on a regular basis. The inspector verified all employees had been trained and qualified to perform their assigned ISFSI related duties.

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 inspector verified 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 determined the Connecticut Yankee 10 CFR 72.212 evaluation report had been appropriately updated.

c. Conclusion

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

2. Exit Meeting

On October 6, 2021, an exit meeting was conducted virtually with the licensee. The results of the inspection were discussed with Mr. Wayne Norton, President and Jim Lenois, ISFSI Manager. No proprietary information was retained by the inspector or documented in this report.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

- * W. Norton, President and CEO
- * J. Lenois, Connecticut Yankee ISFSI Manager
J. Bourassa, Radiation Protection Manager
- * S. Day, Licensing Representative, 3 Yankee Companies
- * N. Fales, Aging Canister Program Manager, 3 Yankee Companies
- * J. Fay, General Counsel, 3 Yankee Companies
- * S. Hemingway, Assistant Director of Operations
- * D. Laing Maine Yankee ISFSI Manager
- * J. Laughney, QA Representative, 3 Yankee Companies
- * J. Macdonald, Yankee Rowe ISFSI Manager
- * M. Marston, Director of Operations
- * P. Plante, Cask Relicensing Project Manager, 3 Yankee Companies

* Present at virtual exit meeting conducted on October 6, 2021

ITEMS OPEN OR CLOSED

None

PRIMARY DOCUMENTS REVIEWED

Audits and Reports

Annual Radioactive Effluent Release Report, Annual Radiological Environmental Operating Report and Revision to Offsite Dose Calculation Manual 2017-2020
Offsite Dose Calculation Manual
Special Nuclear Material Inventories 2018, 2019, and 2020
2018 Neutron Survey
ISFSI-19-086 Documentation of the Completion of the Radiological Assessment of the Vertical Concrete Cask Cracks, August 20, 2019
Personnel Dose Reports 2018, 2019, and 2020
General Area Surveys 2018, 2019, and 2020
Periodic Assessment of the Fire Protection Program ISFSI-18-077 and 161, ISFSI-19-067 and 159, ISFSI-20-083 and 171, and ISFSI-21-07
Personnel Training and Qualification Records
Quality Assurance Assessments and Status Reports 2018-2021

Procedures

Emergency Plan, Rev. 15
EO-5, Rev. 15, Emergency Plan Implementation
FP-1, Rev. 5, Fire Protection Program
FP-2, Rev. 4, Fire Hazards Analysis
FP-3, Rev. 7, Fire Fighting Pre-Plans
OP-7, Rev. 6, VCC and ISFSI Pad Inspection Program

Procedures (Cont'd)

RP-1, Rev. 5, ISFSI Conduct of Radiation Protection
RP-2, Rev. 14, Radiological Surveys and Postings
RP-3, Rev. 12, Radiological Environmental Monitoring Program (REMP)
RP-4, Rev. 12, Personnel Radiation Monitoring
RP-5, Rev. 7, Radiation Work Permits

INSPECTION PROCEDURES USED

IP 60858, AWAY-FROM-REACTOR INDEPENDENT STORAGE INSTALLATION INSPECTION GUIDANCE

LIST OF ACRONYMS USED

AFR Away-from-Reactor
CFR Code of Federal Regulations
CoC Certificate of Compliance
DRSS Division of Radiological Safety and Safeguards
FSAR Final Safety Analysis Report
HP Health Physics
IP Inspection Procedure
ISFSI Independent Spent Fuel Storage Installation
LLEA Local Law Enforcement Agency
NRC Nuclear regulatory Commission
NSIR Office of Nuclear Security and Incident Response
QA Quality Assurance
SER Safety Evaluation Report
SNM Special Nuclear Material
TS Technical Specifications
VCC Vertical Concrete Cask