



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD, SUITE 102
KING OF PRUSSIA, PA 19406-1415

August 27, 2024

Rob Desmarais
ISFSI Manager
Connecticut Yankee Atomic
Power Company
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, CT 06424-3099

SUBJECT: CONNECTICUT YANKEE ATOMIC POWER COMPANY – INDEPENDENT
SPENT FUEL STORAGE INSTALLATION NRC INSPECTION REPORT NOS.
07200039/2024001 AND 05000213/2024001

Dear Rob Desmarais:

On August 2, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter 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 71 Transportation Packagings," at the Connecticut Yankee Atomic Power Company (Connecticut Yankee) Independent Spent Fuel Storage Installation (ISFSI). The inspection examined activities under your license as they relate to safety and compliance to the Commission's rules and regulations and conditions of your license. The inspection consisted of observations by the inspector, interviews with site personnel, a review of procedures and records and ISFSI pad walkdowns. The results of this inspection were discussed with you, and members of your staff on August 2, 2024, and are described in the enclosed inspection report.

Within the scope of this inspection, no violations of more than minor safety significance were identified.

In accordance with Title 10 of the *Code of Federal Regulations* (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 website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response, if any, 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; select **Radioactive Waste; Decommissioning of Nuclear Facilities**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's website at 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

R. Desmarais

2

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).

No reply to this letter is required. Please contact Christian Hargest of my staff at 610-337-5310 if you have any questions regarding this matter.

Sincerely,

ANTHONY
DIMITRIADIS

Digitally signed by
ANTHONY DIMITRIADIS
Date: 2024.08.27
08:04:54 -04'00'

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

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

Enclosure: Inspection Report Nos.
07200039/2024001 and 05000213/2024001

cc w/enclosure: State of Connecticut

SUBJECT: CONNECTICUT YANKEE ATOMIC POWER COMPANY - NRC INDEPENDENT
SPENT FUEL STORAGE INSTALLATION INSPECTION REPORT NOS.
07200039/2024001 AND 05000213/2024001 DATED AUGUST 27, 2024

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SUNSI Review Complete: CHargest

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OFFICE	RI:DRSS		RI:DRSS				
NAME	CHargest		ADimitriadis				
DATE	08/21/2024		08/27/2024				

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

INSPECTION REPORT

Inspection Nos. 07200039/2024001 and 05000213/2024001

License No: SFGL-21

Licensee: Connecticut Yankee Atomic Power Company

Location: East Hampton, CT

Inspection Date: July 22, 2024

Inspector: Christian Hargest, 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 Atomic Power Company
Inspection Report Nos. 07200039/2024001 and 05000213/2024001

A routine, announced inspection was completed at Connecticut Yankee Atomic Power Company (Connecticut Yankee) on August 2, 2024. On-site inspection activities were performed from July 22, 2024, to July 24, 2024. The inspection included a review of radiation protection, fire protection, emergency preparedness, surveillance, maintenance, environmental monitoring, training, quality assurance, corrective action programs, and aging management activities. The inspection consisted of observations on-site activities by the inspector, interviews with Connecticut Yankee personnel, a review of procedures and records, and ISFSI pad walkdowns. 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 Packagings."

Based on the results of this inspection, no violations of more than minor safety significance were identified.

REPORT DETAILS

1. **Inspection Scope, Observations, and Conclusion**

a. Inspection Scope

The inspector assessed whether Connecticut Yankee personnel had operated 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 evaluating the ongoing adequacy of the radiation protection, material conditions, fire protection, emergency preparedness, surveillance, maintenance, environmental monitoring, training, QA, and corrective action programs.

The inspector observed aging management 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 and Findings

The inspector determined that Connecticut Yankee's plans and preparations for controlling radiological activities were effective in meeting 10 CFR Part 20 requirements. The inspectors also verified that Special Nuclear Material (SNM) stored at the ISFSI was properly accounted for. A review of dosimetry records and environmental reports were found to be complete, and all employee exposures were below the regulatory dose limits. In addition, 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 that 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 that daily temperature monitoring of the Vertical Concrete Casks (VCCs) was performed by site personnel in accordance with surveillance requirements in the TS and that Connecticut Yankee's procedures contained back up plans if the primary surveillance method became unavailable. The inspector also verified that transient combustibles had not been 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 performed an independent walkdown survey of the VCC inlet vents to verify dose rates.

The inspector reviewed and determined that Connecticut Yankee had a training program which consisted of classroom instruction, on-the-job training, and various drills. Additionally, the training program includes shift turnover briefings by supervisors and that refresher training was provided on a regular frequency. The inspector verified all employees had been trained and qualified to perform their assigned ISFSI related duties in accordance with the requirements.

The inspector determined that issues were entered into the corrective action program, prioritized, and evaluated commensurate with their safety significance, and 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 inspectors also determined the Connecticut Yankee's 10 CFR 72.212 evaluation report had been appropriately updated.

The inspector verified that Connecticut Yankee's aging management activities were performed in accordance with TS requirements and guidance from NUREG-2214, "Managing Aging Processes in Storage (MAPS) Report."

c. Conclusion

No violations of more than minor significance were identified.

2. Exit Meeting

On August 2, 2024, the inspector presented the inspection results to Rob Desmarais, ISFSI Manager, Connecticut Yankee Atomic Power Company, who acknowledged the inspection results. No proprietary information was retained by the inspector or documented in this report.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT:

J. Macdonald, Director of Operations, 3 Yankee Companies
R. Desmarais, Connecticut Yankee ISFSI Manager
D. Laing, Maine Yankee ISFSI Manager
J. Bourassa, Radiation Protection Manager
S. Day, Licensing Representative, 3 Yankee Companies
N. Fales, Aging Management Project Manager
S. Hemingway, Assistant Director of Operations, 3 Yankee Companies
P. Plante, Consultant

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Audits and Reports

Annual Special Nuclear Material (SNM) Report for 2023
CY-TE-21-01-01, Technical Assessment of Postulated Construction Dust on TSC
and VCC Internal Structures
CY-TE-24-01-00, VCC 38/TSC 38 Aging Management Baseline Inspection
EF-3, Rev. 11 SNM and GTCC Waste Control, Accountability and Reporting Program
June 2024 Annual Radiological Survey
Haddam Neck Updated Final Safety Analysis Report Rev. 05/2018
HNP ISFSI 10 CFR 72.212 Evaluation Report, Rev. 17
LBDCR 2021-01
LBDCR 2021-02
LBDCR 2021-03
NAC Calculation Number 30013-2001, MPC/UMS License Renewal Application Projects
NAC Calculation Number 30013-2003, Corrosion Analysis of MPC VCC Steel components
for Extended Storage
NAC Calculation Number 30013-5001: Aging Analyses for MPC/UMS Neutron Absorber
and Neutron Shield Components
Position Paper Regarding EGM 22-001 Rev. 3

Procedures

AD-6, Rev. 5 Chemical Control Program
AD-28, Rev. 2 Maintenance Program
AM-0, Rev. 1 Connecticut Yankee Aging Management Program
AM-1, Rev. 0 TSC Inspection Procedure
AM-3, Rev.0 VCC Externals Coated Metal Inspection Procedure
AM-4, Rev. 1 Reinforced VCC Concrete Structures Inspection Procedure
AM-5, Rev. 1 Reinforced Pad Concrete Structure Inspection Procedure
AM-6 Rev. 0 Guidelines for Maintenance and Repair of Important to Safety Equipment
and Structures

AM-7 Rev. 0 Procedure for Coordinating Operating Experience for Dry Storage of
Used Fuel and Conducting Tollgate Assessments
AM-8 Rev. 1 Code Inspection Requirements Procedure
OP-4, Rev. 14 Cold Weather Operations
QA-3, Rev. 4 Quality Inspection Program

INSPECTION PROCEDURES USED

IP 60858, AWAY FROM REACTOR ISFSI INSPECTION GUIDANCE

LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AFR	Away-From-Reactor
CFR	<i>Code of Federal Regulations</i>
CoC	Certificate of Compliance
Connecticut Yankee	Connecticut Yankee Power Atomic Company
EGM	Enforcement Guidance Memorandum
FSAR	Final Safety Analysis Report
GTCC	Greater-than-Class C
HNP	Haddam Neck Plant
IMC	Inspection Manual Chapter
IP	Inspection Procedure
ISFSI	Independent Spent Fuel Storage Installation
LLEA	Local Law Enforcement Agency
NRC	U.S. Nuclear Regulatory Commission
NSIR	Office of Nuclear Security and Incident Response
MAPS	Managing Aging Processes in Storage
MPC	Multi-purpose Canister
QA	Quality Assurance
Rev	Revision
SER	Safety Evaluation Report
SNM	Special Nuclear Material
TS	Technical Specifications
TSC	Technical Storage Canister
VCC	Vertical Concrete Cask