



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

November 20, 2007

Mr. Wayne A. Norton
President and Chief Executive Officer
Connecticut Yankee Atomic Power Company
362 Injun Hollow Road
East Hampton, Connecticut 06424

SUBJECT: INSPECTION 05000213/2007001, CONNECTICUT YANKEE ATOMIC POWER
COMPANY, EAST HAMPTON, CONNECTICUT

Dear Mr. Norton:

On October 31, 2007, the United States Nuclear Regulatory Commission completed an announced inspection at your Haddam Neck facility. The enclosed report documents the inspection results which were discussed with Mr. G. van Noordennen and other members of your staff on November 13, 2007.

The inspection examined decommissioning activities conducted under your License Termination Plan (LTP), 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. The report also includes one letter report and two survey reports from the Oak Ridge Institute for Science and Education (ORISE).

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/
Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Docket No. 05000213; ISFSI Docket No. 07200039
License No. DPR-61

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ADAMS ACCESSION NO. ML073250040

Enclosures:

1. NRC Inspection Report No. 05000213/2007001
w/Attachment: Supplemental Information
2. Letter Report for Analysis of 32 Soil Samples Associated with the Connecticut Yankee Facility at Haddam Neck, Connecticut [Inspection Report #05000213/2007001] (RFTA 06-001), dated April 3, 2007 [ADAMS Accession No. ML073120571]
3. Confirmatory Survey Results for the Emergency Operations Facility (EOF) at the Connecticut Yankee Haddam Neck Plant, Haddam Neck, Connecticut [Docket No. 50-0213; RFTA No. 06-006], dated July 3, 2007 [ADAMS Accession No. ML073120613]
4. Revised Confirmatory Survey Results of Open Land Area Survey Units for Phases V, VI, and VII at the Connecticut Yankee Haddam Neck Plant, Haddam Neck Connecticut [Docket no. 50-0213; RFTA No. 06-006], dated September 12, 2007 [ADAMS Accession No. ML073120392]

cc w/encls:

T. Smith, Executive Director of Business Operations
G. van Noordennen, Director of Regulatory Affairs
and Quality Assurance
J. Lenois, ISFSI Manager
C. Pizzella, Treasurer
J. Fay, General Council
R. Capstick, Communications Manager
R. Bassilakis, Citizens Awareness Network
J. Brooks, CT Attorney
T. Bondi, Town of Haddam
E. Woollacott, NEAC
H. Curley, FSAC
State of Connecticut

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection Nos. 0500213/2007001

Docket No. 05000213

License No. DPR-61

Licensee: Connecticut Yankee Atomic Power Company (CYAPCO)

Facility: Haddam Neck Plant (Haddam Neck)

Location: 326 Injun Hollow Road
East Hampton, Connecticut 06424

Inspection Dates: April 23-26, 2007
June 6-7, 2007
July 17, 2007
September 4, 2007
October 29, 2007

Inspectors: Laurie A. Kauffman, Health Physicist, Decommissioning Branch

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

EXECUTIVE SUMMARY

Connecticut Yankee Atomic Power Company
NRC Inspection Report No. 05000213/2007001

The inspection included aspects of decommissioning activities regarding dismantlement and decommissioning of the facility, and storage of spent fuel. The report covers announced safety inspections conducted by one regional inspector. The report includes evaluations of the self-assessment and corrective action program, Independent Spent Fuel Storage (ISFSI) program, decommissioning and final status survey program, radiation protection program, and radioactive waste transportation program. The report also includes one letter report and two confirmatory survey reports by the NRC's contractor, Oak Ridge Institute for Science and Education (ORISE).

Facilities Management and Control

- The CYAPCO staff maintained an adequate self-assessment and corrective action program. (Section 1.1)
- The CYAPCO security personnel maintained an adequate program for surveillance and monitoring of the ISFSI and stored spent fuel. (Section 1.2)

Decommissioning Performance and Status Review

- The CYAPCO staff conducted decommissioning activities in accordance with the approved License Termination Plan (LTP) requirements and adequately implemented sampling and survey procedures and protocols to support the final status survey program. (Section 2.0)

Radioactive Waste Management

- The CYAPCO radiation protection staff implemented an effective program to control and limit occupational radiation exposures. The CYAPCO staff effectively implemented the radioactive waste transportation program. (Sections 3.1 and 3.2)

REPORT DETAILS

Summary of Facility Status

Haddam Neck is continuing to operate their Independent Spent Fuel Storage Installation (ISFSI). Building demolition activities, soil excavation, debris removal and final status survey activities have been completed.

1.0 Facilities Management and Control

1.1 Self-Assessment and Corrective Action Program

a. Inspection Scope (IP 40801)

The inspector reviewed Connecticut Yankee Atomic Power Company's (CYAPCO) License Termination Program (LTP) self-assessment report, SCA-07-01 "Review of Final Status Survey (FSS) Release Records for Phase IV, Phase V, and Phase VI," dated March 2007. The inspector also reviewed several condition reports (CRs) for issues related to the FSS program, the safeguards program, the radiation protection program, and the transportation of radioactive waste program.

b. Observations and Findings

No findings of significance were identified.

The inspector noted that the self-assessment program identified strengths and potential areas of declining performance. The CYAPCO staff ensured that the FSS program conformed to the LTP requirements and implementing procedures. The inspector also 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.

c. Conclusion

The CYAPCO staff maintained an adequate self-assessment and corrective action program.

1.2 Independent Spent Fuel Storage Installation

a. Inspection Scope (IP 60855)

The inspector reviewed procedures, maintenance and surveillance records, and interviewed selected ISFSI operations personnel. The inspector toured the ISFSI, observed shift rounds, and discussed ISFSI operations with the ISFSI Manager and ISFSI Shift Manager.

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. The inspector verified that the control room systems were operable. The inspector noted that the ISFSI Shift Supervisor (ISS) implemented routine maintenance and surveillance activities in accordance with the associated procedures.

c. Conclusion

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

2.0 Decommissioning Performance and Status Review

2.1 Inspection of Final Surveys

a. Inspection Scope (IPs 71801 and 83801)

The inspector reviewed the status of decommissioning activities and the FSS program to confirm that the decommissioning activities were performed in accordance with the LTP. The inspector and the NRC's contractor, Oak Ridge Institute of Science and Education (ORISE), performed independent confirmatory inspections in April and June 2007. Areas inspected included the Emergency Operations Facility (EOF) and the open land area survey units (SU) for Phases IV, V, VI, and VII.

b. Observations and Findings

No findings of significance were identified.

In March 2007, the inspector split two soil samples from the pond and 30 soil samples from discharge canal and sent them to ORISE for independent analysis. The inspector compared these results to CYAPCO's sample results and determined that they were comparable. The inspector noted that both sets of sample results were below the derived concentration guideline levels (DCGLs) listed in the approved LTP. The ORISE soil sample results are contained in the enclosed ORISE report, "Letter Report for Analysis of 32 Soil Samples Associated with the Connecticut Yankee Facility at Haddam Neck, Connecticut," dated April 3, 2007. [ADAMS Accession No. ML073120571]

In April and June 2007, ORISE performed confirmatory surveys of the remaining open land area SUs for Phases IV, V, VI, and VII. These confirmatory surveys included surface scans and soil sampling. Also in June 2007, ORISE performed surface scans and surface swipes in the EOF. The details of both confirmatory surveys are contained in the following ORISE reports: "Confirmatory Survey Results for the Emergency Operations Facility (EOF) at the Connecticut Yankee Haddam Neck Plant, Haddam Neck, Connecticut," dated July 3, 2007, and "Revised Confirmatory Survey Results of Open Land Area Survey Units for Phases V, VI, and VII at the Connecticut Yankee Haddam Neck Plant, Haddam Neck Connecticut," dated September 12, 2007, which are enclosed. [ADAMS Accession Nos. ML073120613 and ML073120392, respectively.]

The NRC had completed a review of the final release records for all phases of the CYAPCO's decommissioning process. The results of the surveys were less than the DCGLs specified in the LTP.

c. Conclusion

The CYAPCO staff conducted decommissioning activities in accordance with the LTP requirements and adequately implemented sampling and survey procedures and protocols to support the FSS program.

3.0 Radioactive Waste Management

3.1 Radiation Protection

a. Inspection Scope (IP 83750)

The inspector reviewed CYAPCO's radiation protection program in order to determine the adequacy of the Radiation Protection (RP) program and to assess the capability to monitor and control radiation exposure to employees.

b. Observations and Findings

No findings of significance were identified.

The inspector noted that the RP staff had implemented a free release program, which included conducting surveys of tools and equipment prior to release from the site. The inspector reviewed selected survey records and verified that no detectable activity above background was identified on any tools or equipment prior to release. The inspector noted that field survey instruments were properly calibrated and maintained.

c. Conclusion

The CYAPCO RP staff implemented an effective program to control and limit occupational radiation exposure.

3.2 Transportation of Radioactive Waste

a. Inspection Scope (IP 86750)

The inspector reviewed CYAPCO's program for transportation of radioactive waste to determine whether the radioactive materials were properly packaged, stored, and shipped. The inspector reviewed the radioactive waste shipments, which included dry active waste and low-level radioactive demolition debris. The inspector observed the CYAPCO staff conduct surveys and prepare shipments for transport.

b. Observations and Findings

No findings of significance were identified.

The selected radioactive waste shipment records included completed copies of characterization reports, waste manifest shipping papers, emergency response information, survey record forms, and related documentation (i.e. shipment inspection plans and truck inspection records). The CYAPCO staff met the applicable radiation and transportation requirements for the shipments reviewed.

c. Conclusion

The CYAPCO staff effectively implemented the radioactive waste transportation program.

4.0 Exit Meeting Summary

On November 13, 2007, a summary of the inspection findings for the entire inspection period was presented during a telephone conversation with Mr. G. van Noordennen and members of your staff. 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

J. Arnold, Executive Staff Assistant
 B. Couture, Project Support Resource Conservation and Recovery Act Coordinator
 R. Haight, Waste Management Coordinator, Decommissioning
 J. Lenois, ISFSI Manager
 R. McGrath, Radiation Protection/FSS Manager
 W. Norton, President and Chief Executive Officer
 C. Newson, Technical Support Supervisor/FSS
 J. Wagner, FSS Supervisor
 D. Roberson Heath Physics Supervisor, FSS
 G. van Noordennen, Director of Regulatory Affairs and Quality Assurance

INSPECTION PROCEDURES USED

40801 Self-Assessment, Auditing, and Corrective Action
 60855 Operation of Independent Spent Fuel Storage Installation
 71801 Decommissioning Performance and Status Reviews
 83750 Occupational Radiation Exposure
 83801 Inspection of Final Status Surveys
 86750 Solid Radioactive Waste Management and Transportation of Radioactive Materials

ITEMS OPEN, CLOSED, AND DISCUSSED

<u>Opened</u>	None
<u>Closed</u>	None
<u>Discussed</u>	None

LIST OF ACRONYMS USED

CR	Condition Reports
CYAPCO	Connecticut Yankee Atomic Power Company
DCGL	Derived Concentration Guideline Level
EOF	Emergency Operations Facility
FSS	Final Status Survey
ISFSI	Independent Spent Fuel Storage Installation
ISS	Shift Supervisor
LTP	License Termination Plan
ORISE	Oak Ridge Institute for Science and Education
RP	Radiation Protection
SU	Survey Unit