



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

December 14, 2017

Docket No. 07200059

License No. DPR-28

Mr. Jack Boyle
Director, Nuclear Decommissioning
Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
Vernon, VT 05354

SUBJECT: NRC INSPECTION REPORT NO. 07200059/2017002, ENTERGY NUCLEAR OPERATIONS, INC., VERMONT YANKEE NUCLEAR POWER STATION, VERNON, VERMONT

Dear Mr. Boyle:

On December 1, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the permanently shut down Vermont Yankee Nuclear Power Station (VY) Independent Spent Fuel Storage Installation (ISFSI) activities. The on-site inspection was performed November 27 through December 1, 2017. The purpose of the inspection was to determine whether ISFSI activities were conducted safely and in accordance with NRC requirements. The inspection consisted of observations by the inspectors, interviews with personnel, and a review of procedures and records. The results of this inspection were discussed with Corey Daniels and other members of your staff on November 30, 2017, and are described in the enclosed report. No findings of safety significance were identified.

In accordance with 10 Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure, and your response (if any) 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.

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J. Boyle

2

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

Docket No: 07200059

License No: DPR-28

Enclosure: Inspection Report 07200059/2017002
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

J. Boyle

2

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SUNSI Review Complete: JNicholson

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DATE	12/14/17		12/14/17		12/14/17			

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 072-00059

License No: DPR-28

Report No: 07200059/2017002

Licensee: Entergy Nuclear Operations, Inc. (Entergy)

Facility: Vermont Yankee Nuclear Power Station (VY)

Location: Vernon, VT 05354

Dates: November 27 – December 1, 2017

Exit Date: November 30, 2017

Inspectors: Orysia Masnyk-Bailey, Health Physicist
Decommissioning, ISFSI, and Reactor HP Branch
Division of Nuclear Materials Safety, Region I

John Nicholson, Senior Health Physicist
Decommissioning, ISFSI, and Reactor HP Branch
Division of Nuclear Materials Safety, Region 1

Approved by: Raymond Powell, Chief
Decommissioning, ISFSI, and Reactor HP Branch
Division of Nuclear Materials Safety, Region I

Enclosure

EXECUTIVE SUMMARY

Entergy Nuclear Operations, Inc.
Vermont Yankee Nuclear Power Station
NRC Inspection Report No. 07200059/2017002

This report covered an on-site inspection by the Nuclear Regulatory Commission (NRC) regional based inspectors of activities related to Vermont Yankee Nuclear Power Station (VY) dry cask storage of spent fuel during the inspection period from November 27 to December 1, 2017. The inspection included a review and observation of the Independent Spent Fuel Storage Installation (ISFSI) dry cask loading activities. The inspection consisted of observations by the inspectors, interviews with Entergy personnel, and a review of procedures and records. The NRC's program for overseeing the safe operation of dry storage of spent fuel at an ISFSI is described in Inspection Manual Chapter 2690, "Inspection Program for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packaging."

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

REPORT DETAILS

1.0 Independent Spent Fuel Storage Installation

1.0 Operation of an ISFSI at Operating Plants (IP 60855)

a. Inspection Scope

On November 27 through December 1, 2017, the inspectors observed and evaluated VY's loading of Multi-Purpose Canister (MPC) No. 32 associated with their ISFSI dry cask campaign. The inspectors verified compliance with the Certificate of Compliance, Technical Specifications (TS), and station procedures.

The inspectors observed fuel assemblies being loaded into the MPC. The inspectors also observed MPC processing operations including: installation of the automated welding system, welding, non-destructive weld examinations, pressure test, forced helium dehydration, attaching the mating device to the HI-STORM to prepare for stack-up and transfer, and collection and analysis of MPC annulus water. The inspectors also observed the performance of the daily check of the overhead crane and attended pre-job briefings. The inspectors observed plant personnel performing fuel loading verification to ensure that loading was in accordance with VY's loading plan. During performance of these activities, the inspectors verified that procedure use, communication, and coordination of ISFSI activities met established VY standards and requirements.

The inspectors observed radiation protection technicians as they performed surveys and provided job coverage for the cask loading workers. The inspectors reviewed survey data maps and radiological records to confirm that radiation survey levels measured were within limits specified by the TS and consistent with values specified in the Final Safety Analysis Report.

The inspectors reviewed selected corrective action reports and the associated follow-up actions to ensure that issues were entered into the corrective action program, prioritized, and evaluated commensurate with their safety significance.

b. Findings

No findings of significance were identified.

2.0 Exit Meeting

On November 30, 2017, the inspectors presented the inspection results to Corey Daniels, Senior Manager Production, and other members of the Entergy staff who acknowledged the inspection results. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

C. Adcock	Holtec Level 2 Tech
W. Aho	Nuclear Assessor, NIOS
B. Aldrich	PCI Supervisor
Z. Allard	PCI Welder
B. Aldridge	PCI Welding Supervisor
R. Anthis	Holtec Cask Load Supervisor
C. Barfield	Holtec Cask Load Supervisor
B. Brink	PCI NDE/QC
*C. Chappell	Manager Design and Projects
*C. Daniels	Senior Manager Production
T. Davis	Holtec Electrical Technician
S. Dorval	RP Supervisor
B. Erickson	Holtec RP Technician
J. Geystor	Holtec Fuel Verifier
D. Holmquist	Holtec Lead RP Tech
D. Humbert	PCI Project Manager
C. Jennings	Holtec FHD Technician
A. Johnson	Holtec Cask Load Supervisor
D. Johnson	Holtec FHD Tech
M. Jurkowski	Entergy Project Oversight
*J. Laughney	Manager Quality Assurance
*A. Leshinskie	State of Vermont Decommissioning Engineer
P. McGaha	Senior Health Physicist
M. McNamara	Holtec Project Director
R. Miller	Holtec Decon Technician
G. Nalepo	Holtec Fuel Handler
*M. Pletcher	Manager Radiation Protection/Chemistry
G. Roediger	Chemistry Technician
*P. Ryan	Manager Security
*T. Silko	Lead Licensing Engineer
D. Smith	Holtec Fuel Handler
*K. Swanger	Manager Construction
*D. Ticatch	Holtec Project Manager
Y. Wellis	Entergy Oversight
S. Willett	PCI NDE/QC

* Denotes attendance at the ISFSI exit meeting held on November 30, 2017

ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Operation of an ISFSI at Operating Plants

Procedures

DP-0545 R.17, Fuel Pool Storage Requirements
EGVN-10149 R.1, Closure Welding of Holtec Multi-Purpose Canisters – HI-STORM 100 at Vermont Yankee Nuclear Plant
GQP-9.2 R.9, High Temperature Liquid Penetrant Examinations and Acceptance Standards for Welds, Base Metals, and Cladding (50*-350*)
GQP-9.6, Visual Examination of Welds
HPP-2569-200 R.20, Attachment 8:14, Annulus Flushing and Survey Pre-Operational Inspection
MMVN-DFS-10139 R.7, MPC Pre-Operational Inspection
MMVN-DFS-10140 R.10 MPC Loading At Vermont Yankee
MMVN-DFS-10141 R.4, MPC Sealing of Loaded Casks 14-40 at Vermont Yankee
MMVN-DFS-10142 R.4, MPC Transfer (Stack Up)
MMVN-DFS-10143 R.8, HI-STORM Movement at Vermont Yankee
OP-2200 R. 41, Operation of the Reactor and Turbine Bridge Cranes
OP-2530 R. 5, Radiological Monitoring For Dry Fuel Storage
PCI Welding Control Procedure 3, Weld Material Control
PCI Welding Control Procedure 5, Weld and Base Metal Repair
V-EN-MA 118, R.11, Foreign Material Exclusive
UM-CNSTR-OP-HMAVT-01 R.1, Set up and Periodic Verification of Hydrogen Monitor Alarms (Bump Test)

Condition Reports

CR-VTY-2017-01045, 2017-01058, 2017-01150, 2017-01126, 2017-01179, 2017-01182,

Miscellaneous

Exhibit 7.4: Operations Design Change For HUG Review, November 2016 Design Changes
QS-2017-VY-026, 08/28/2017, QAF CR-VTY-2017-435 Holtec Material Control Issues
QS-2017-VY-027, 08/31/2017, Holtec Document Package Review Cask #14
QS-2017-VY-028, 08/28/2017, Performance of Cask Verification for VY Cask #15 MPC-527
WO 00483360 01, Perform Inspection Cleaning of Bottom of Spent Fuel Pool
WO 00482180-05, MPC-DFS-40: Sealing and Drying
WO 00482180-06, MPC-DFS-40: Stack Up and Transfer

Licensing Documents

CoC for Spent Fuel Storage Casks, No. 1014, Amendment No. 10
CoC No. 1014, Appendix A Technical Specifications for the HI-STORM 100 Cask System

LIST OF ACRONYMS USED

ISFSI	Independent Spent Fuel Storage Installation
MPC	Multi-Purpose Canister
NRC	U.S. Nuclear Regulatory Commission
TS	Technical Specifications
VY	Vermont Yankee Nuclear Power Station