

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

June 6, 2011

Mr. Michael Colomb Site Vice President Entergy Nuclear Operations, Inc. Vermont Yankee Nuclear Power Station Vernon, VT 05354

SUBJECT: VERMONT YANKEE NUCLEAR POWER STATION – NRC EVALUATED EMERGENCY PREPAREDNESS EXERCISE – INSPECTION REPORT NO. 05000271/2011502

Dear Mr. Colomb:

On May 5, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the May 3, 2011, evaluated emergency preparedness exercise at your Vermont Yankee Nuclear Power Station. The enclosed inspection report documents the inspection results, which were discussed on May 5, 2011, with Mr. C. Wamser, the General Manager of Plant Operations, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

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

In accordance with 10 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 available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

range

James M. Trapp, Chief Plant Support Branch 1 Division of Reactor Safety

Docket No. 50-271 License No. DPR-28

Enclosure: NRC Inspection Report 05000271/2011502

cc w/encl: Distribution via ListServ

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M. Colomb

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	05000271
License No.:	DPR-28
Report No.:	05000271/2011502
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	Vermont Yankee Nuclear Power Station
Location:	320 Governor Hunt Road Vernon, Vermont 05354-9766
Dates:	May 2–5, 2011
Inspectors:	 S. Barr, Sr. Emergency Preparedness Inspector, Division of Reactor Safety (DRS), Region I (Lead) D. Silk, Senior Operations Engineer, DRS, Region I R. Rolph, Health Physicist, DRS, Region I C. Crisden, Emergency Preparedness Inspector, DRS, Region I M. Jennerich, Reactor Engineer, Division of Reactor Projects (DRP), Region I
Approved By:	James M. Trapp, Chief Plant Support Branch 1 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000271/2011502; 05/02/2011 - 05/05/2011; Vermont Yankee Nuclear Power Station; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by five region-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

No findings were identified.

B. Licensee-Identified Findings

None.

REPORT DETAILS

1. **REACTOR SAFETY**

Cornerstone: Emergency Preparedness (EP)

1EP1 <u>Exercise Evaluation</u> (71114.01–1 Sample)

a. Inspection Scope

Prior to the May 3, 2011, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which Entergy had submitted to the NRC, to determine if the exercise would test major elements of the Vermont Yankee Emergency Plan as required by 10 CFR 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Entergy's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of Entergy's Vermont Yankee emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center (TSC), Emergency Operations Facility (EOF), and the Joint Information Center (JIC).
- A review of other performance areas, such as: the Vermont Yankee emergency response organization's (ERO) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Vermont Yankee exercise inspection report and Entergy's Vermont Yankee EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the May 3, 2011, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate Entergy's self-assessment of its ERO performance during the May 3, 2011, exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

Enclosure

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b. <u>Findings</u>

No findings were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04–1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, in August 2010, Entergy implemented various revisions of the different sections of the Entergy Vermont Yankee Emergency Plan. Entergy had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all EAL changes that Entergy had made since August 2010, and conducted a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. <u>Findings</u>

No findings were identified.

4. OTHER ACTIVITIES (OA)

- 4OA1 Performance Indicator (PI) Verification (71151–3 Samples)
- a. Inspection Scope

The inspectors reviewed data for the Vermont Yankee EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Vermont Yankee was conducted in the third quarter of 2010, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the third calendar quarter of 2010 through the first quarter of 2011, to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6.

This inspection activity represented the completion of three samples on an annual cycle.

Findings

No findings were identified.

4OA6 Meetings, Including Exit

On May 5, 2011, the inspectors presented the results of this inspection to Mr. C. Wamser, the General Manager of Plant Operations, and other members of the Entergy staff. No proprietary information was provided to the inspectors during this inspection.

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ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

C. Wamser, General Manager of Plant Operations M. McKenney, Emergency Planning Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Vermont Yankee Nuclear Power Station Emergency Plan (Revision 50) Vermont Yankee Emergency Plan Implementing Procedures Vermont Yankee May 3, 2011, Emergency Exercise Scenario Package Vermont Yankee Emergency Preparedness Drill Reports, October 2009–March 2011 Condition Reports generated as a result of the May 3, 2011, exercise (as documented in Vermont Yankee Graded Exercise Evaluation Report, dated June 1, 2011).

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Vermont Yankee Nuclear Power Station Emergency Plan (Revision 50) EN-LI-100, Process Applicability Determination (Revision 9) EN-LI-101, 10CFR50.59 Evaluation Program (Revision 5) EN-LI-113, Licensing Basis Document Change Process (Revision 4) EN-EP-305, Emergency Planning 10CFR50.54(q) Review Program (Revision 1) Vermont Yankee 50.54(q) Screenings and Evaluations, August 2010 through April 2011

Section 40A1: Performance Indicator Verification

EN-EP-201, Performance Indicators (Revision 10) DP0093, Emergency Planning Data Management (Revision 14) DEP PI Data, July 2010–March 2011 ERO Drill Participation PI Data, July 2010–March 2011 ANS Reliability PI Data, July 2010–March 2011

Attachment

LIST OF ACRONYMS

ANS	Alert Notification System
CR	Condition Report
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
JIC	Joint Information Center
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OA	Other Activities
OSC	Operations Support Center

Operations Support Center Performance Indicator PI

Risk Significant Planning Standard Technical Support Center RSPS

TSC