

# Vermont Yankee

## 1Q/2008 Plant Inspection Findings

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### Initiating Events

**Significance:**  Mar 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Work Order Results in Unplanned “A” Service Water Pump Inoperability**

A self-revealing non-cited violation (NCV) of Technical Specification 6.4, “Procedures,” was identified for Entergy’s failure to provide an adequate procedure for setting the “A” service water (SW) pump lower motor guide bearing during its replacement in May 2007. Specifically, work order (WO) 111249-14, “Replace “A” Service Water Pump Lower Motor Guide Bearing,” did not provide adequate guidance to ensure proper verification of shaft lift to prevent loading the lower motor guide bearing. As a result, the bearing was improperly set which caused bearing degradation and unplanned “A” SW pump inoperability on February 12, 2008. Corrective actions taken or planned include replacement of the “A” SW pump motor and revisions to applicable procedures.

The finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events Cornerstone and affects the associated Cornerstone objectives of limiting the likelihood of those events that upset plant stability. The finding is of very low safety significance because the estimated increase in core damage frequency was less than 1E-06, assuming the reactor was operating at full power and the “A” SW pump was unavailable for less than 3 days. The performance deficiency has a cross-cutting aspect in the area of Human Performance, Resources component, in that Entergy did not provide an adequate procedure for the installation of the lower motor guide bearing.

Inspection Report# : [2008002](#) (*pdf*)

**Significance:**  Sep 28, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Inspection program Resulted in a Partial Collapse of a Non-Safety Related Cooling Tower Cell**

A self-revealing NCV of TS 6.4, “Procedures,” was identified for Entergy’s failure to effectively incorporate readily available industry operating experience (OE) into the cooling tower (CT) inspection program and processes. Specifically, Entergy had not recognized the importance of performing hands-on inspections of CT structural members which were located in heavily loaded and normally inaccessible areas for detecting degraded conditions. As a result of not performing adequate inspections of “B” and “C” columns within the fill area, a partial collapse of non-safety CT cell 2-4 occurred on August 21, 2007. This event resulted in Entergy rapidly reducing reactor power from 100 percent to approximately 35 percent power, although no significant degradation of the safety-related cell was identified.

The performance deficiency is that Entergy did not incorporate readily available OE into the CT inspection process and procedures to detect degraded structural components. This finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events Cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors conducted a Phase 1 screening in accordance with IMC 0609, Appendix A. The finding was determined to be of very low safety significance because it did not contribute to both the likelihood of a reactor scram and the likelihood that mitigating equipment or functions would not be available. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because Entergy did not implement and institutionalize OE through changes to station processes and procedures for the CT, as appropriate. [P.2(b)]

Inspection Report# : [2007004](#) (*pdf*)

**Significance:** **G** Sep 28, 2007

Identified By: NRC

Item Type: FIN Finding

### **Reactor Scram During Troubleshooting Due to Inadequate Main TSV Preventive Maintenance**

A self-revealing Finding of very low safety significance was identified for Entergy's failure to specify adequate preventive maintenance (PM) for main turbine stop valve number two (TSV-2). As a result, during troubleshooting activities on the TSV-2 bypass control mechanism, a reactor scram occurred when all four main turbine stop valves closed.

The performance deficiency is the failure of Entergy to have an adequate PM strategy for TSV-2. This finding is more than minor because it is associated with the Equipment Performance attribute of the Initiating Events Cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, during troubleshooting of the TSV-2 bypass control mechanism, an automatic reactor scram occurred. The inspectors conducted a Phase 1 screening of the finding in accordance with IMC 0609, Appendix A. The finding was determined to be of very low safety significance because it did not contribute to both the likelihood of a reactor scram and the likelihood that mitigating equipment or functions would not be available. The finding has a cross-cutting aspect in the area of Human Performance, Resources component, because Entergy did not maintain an effective PM program for TSV-2. Specifically, the PM for TSV-2 did not specify a periodic activity to inspect, rebuild, and lubricate the bell crank assembly portion of the bypass control mechanism. [H.2(c)]

Inspection Report# : [2007004](#) (*pdf*)

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## **Mitigating Systems**

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **Physical Protection**

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## **Miscellaneous**

**Significance:** N/A Nov 09, 2007

Identified By: NRC

Item Type: FIN Finding

### **Results of the Biennial Inspection of Problem Identification and Resolution**

The inspectors concluded that Entergy was effective in identifying, evaluating and resolving problems. Vermont Yankee personnel generally identified problems and entered them into the Corrective Action Program (CAP) at a low threshold, and had taken actions to address previous NRC findings. The inspectors determined that Entergy appropriately screened issues for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors determined that corrective actions addressed the identified causes and were typically implemented in a timely manner. However, the inspectors noted several examples of minor material condition issues that had not been identified by your staff. In addition, the inspectors noted that a corrective action was closed without being properly completed. These issues were determined to be minor and properly documented, evaluated, and assessed during the inspection.

The inspectors determined that operating experience information was appropriately considered for applicability, and corrective and preventive actions were taken as needed. Self assessments, Quality Assurance audits, and other assessments were critical, thorough, and effective in identifying issues. Based on interviews, observations of plant activities, and reviews of the CAP and the Employees Concerns Program (ECP), the inspectors determined that site personnel were willing to raise safety issues and to document them in the CAP.

Inspection Report# : [2007007](#) (*pdf*)

Last modified : June 05, 2008