# Vermont Yankee
# 3Q/2006 Plant Inspection Findings

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## Initiating Events

**Significance:** G Sep 30, 2006
Identified By: NRC
Item Type: FIN Finding
**Vermont Yankee Did Not Correct Conditions Leading to the Continued Accumulation of Dust on Non-Safety Related Electrical Bus Grounding Resistors**
A self-revealing finding was identified because Vermont Yankee did not correct a previously identified condition that allowed the continued accumulation of dust on non-safety related 4160 Volt electrical bus 2 grounding resistor banks. This accumulation of dust ultimately contributed to the inadvertent initiation of the east switchgear room CO2 fire suppression system, declaration of an unusual event (UE), and performance of a rapid power reduction.

The finding is greater than minor because it is associated with the Equipment Performance-Maintenance attribute of the Initiating Events Cornerstone and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability (i.e., performance of a rapid power reduction). The inspectors conducted a Phase 1 screening of the finding in accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance because performing the rapid power reduction did not increase the likelihood of a loss of coolant accident, did not contribute to the likelihood of both a reactor trip and the unavailability of mitigating equipment, and did not increase the likelihood of a fire or flooding event.
Inspection Report# : 2006004*(pdf)*

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## Mitigating Systems

**Significance:** G Sep 30, 2006
Identified By: NRC
Item Type: FIN Finding
**Entergy Did Not Incorporate Industry Operating Experience into the Preventive Maintenance Strategies for the "A" RBCCW Pump Motor**
A self-revealing finding of very low safety significance was identified because Entergy did not effectively incorporate existing industry operating experience into the preventive maintenance (PM) strategy for the "A" reactor building closed cooling water (RBCCW) system pump motor as required by Entergy's PM program. As a result, conditions that ultimately resulted in the failure of the "A" RBCCW pump motor went unrecognized.

The finding is greater than minor because it is associated with the Equipment Performance attributes of both the Initiating Events and Mitigating Systems Cornerstones and because it affects the associated Cornerstone objectives to limit the likelihood of those events that upset plant stability and to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors conducted a Phase 1 screening of the finding in accordance with IMC 0609, Appendix A, and determined that a Phase 2 screening was required since the finding affected two or more Cornerstones. The inspectors conducted a Phase 2 screening and determined that the finding was of very low safety significance (Green) since no solved accident sequences resulted in a risk significance less than or equal to nine as indicated on the counting rule worksheet. A contributing cause of this finding is related to the cross-cutting area of Problem Identification and Resolution (PI&R). Entergy did not implement and institutionalize industry operating experience through changes to PM strategies for large pump motors.
Inspection Report# : 2006004*(pdf)*

**Significance:** G Aug 18, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Inadequate Appendix R Power Supply Surveillance Test**
The team identified a green, non-cited violation of 10CFR50, Appendix R (App R), General Requirements for failure to create and schedule surveillances to ensure App R components were operable. The team reviewed two modifications related to the replacement of 24 VDC ECCS Power supply components with a Division I, II and designated App R power converters. The App R converter was installed to supply power to the Division II panel in the event of a postulated design basis fire. The team determined that a periodic surveillance had not been created to verify the circuit from the App R converter to the distribution panel was operable after the equipment was placed in service. Entergy intends to create a new surveillance to correct the omission.

The issue is considered to be more than minor because if left uncorrected it could lead to a more significant safety concern and affect the Mitigating System Cornerstone attribute to ensure the availability of equipment. The issue was evaluated in accordance with the Appendix F Fire SDP and because the circuit had been tested satisfactorily as part of the 2005 modification post maintenance test the issue screens to green. This finding has a crosscutting aspect in Human Performance Resources related to ensuring equipment procedures are available.
Inspection Report# : 2006007*(pdf)*

**Significance:** G Aug 18, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Inadequate Clogged SW Strainer Procedure**
The team identified a green, non-cited violation of Technical Specification 6.4 Procedures, for Entergy's failure to establish an adequate procedure to address degraded service water (SW) flow conditions. The station's Loss of Service Water procedure permits operators to bypass the SW strainer if the strainer backwash feature was unavailable. The team determined Entergy had not evaluated the potential for river water debris to compromise the availability of downstream safety-related components. Entergy is currently evaluating design and procedural improvements and has entered this issue into their corrective action program for resolution.

The finding is more than minor because it is associated with the procedure quality attribute of the Mitigating System cornerstone and affects its objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) since it did not result in a loss of safety system function and the team did not identify any events where operators had bypassed strainers and challenged safety systems.
Inspection Report# : 2006007*(pdf)*

**Significance:** G Aug 18, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
**Inadequate Corrective Actions for HPCI/RCIC Terry Turbine Controller Flow Oscillations**
The team identified a green, non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for failure to take actions to correct a condition adverse to quality related to significant flow oscillations caused by the Terry turbine flow/speed controllers for both the High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) systems. Entergy observed large flow oscillations during injection into the vessel from both the RCIC and HPCI systems following a plant trip in July 25, 2005. The team determined the licensee failed to take actions to correct the flow oscillation conditions and the operability determination performed following the event did not address all equipment performance deficiencies. The licensee has entered the issue into their corrective action program, performed an operability determination and implemented compensatory measures to address the issue.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating system cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. The finding was determined to be of very low safety significance (Green) since it did not result in a loss of safety system function. This issue has a crosscutting aspect in the area of Problem Identification and Resolution, corrective actions, in

that the licensee failed to take appropriate corrective actions to address this safety issues in a timely manner.
Inspection Report# : 2006007*(pdf)*

**Significance:** G Nov 18, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
**Vermont Yankee Personnel did not Perform an Adequate Cause Evaluation for a Condition Adverse to Quality.**
A very low safety significance, self-revealing non-cited violation was identified because Vermont Yankee personnel did not adequately evaluate the cause(s) in regards to a 2002 spurious high pressure coolant injection (HPCI) system suction realignment from the condensate storage tank to the the suppression pool (torus). As a result, the cause of the spurious actuation (i.e., degarded condensate storage tank (CST) low level alarm units) remained uncorrected and additional spurious actuations occurred in 2005.

The finding is greater than minor because it is associated with the Equipment Performance Attribute of the Mitigating Systems Cornerstone and because it affects the associated Cornerstone Objective. Specifically, not identifying and correcting the cause of the 2002 spurious HPCI system suction realignment reduced the reliability of a system that responds to initiating events to prevent undesirable consequences. The inspectors determined that the finding is of very low safety significance becuase it is not a design or qualification deficiency; does not represent a loss of system safety function; and does not screen as potentially risk significant due to a a seismic, flooding, or severe weather initiating event.

A contributing cause of this finding is related to the cross-cutting element of problem identification and resolution (PI&R). VY personnel did not adequately evaluate the cause(s) of the 2002 spurious HPCI system suction realignment. As a result, the cause of the spurious actuation remained uncorrected and additional spurious actuations occurred.
Inspection Report# : 2005005*(pdf)*

**Significance:** G Nov 04, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
**Entergy did not Maintain an Adequate Procedure for the Operation of the Reactor Protection System.**
A very low safety significance, self revealing non-cited violation was identified because Entergy did not maintain an adequate procedure for the operation of the reactor protection system (RPS). Specifically, system interdependencies between the RPS and the primary containment isolation system (PCIS) were not accurately described in Vermont Yankee Operating Procedure (OP) 2134, "Reactor Protection System." Lack of an adequate procedure left operators unaware of the fact that transferring the "A" RPS bus power supply concurrent with having the breaker for the "B" channel of PCIS logic tagged open for maintenance would result in an actuation of PCIS including a Group 4 shutdown cooling isolation, which ultimately occurred resulting in a loss of shutdown cooling for approximately 18 minutes.

The finding is more than minor because it is associated with the Mitigating Systems Cornerstone Attribute of Equipment Performance and affects the Cornerstone objective of ensuring the availablity, reliability, and capability of systems that respond to an initiating event to prevent undesirable consequences; in this case, an isolation of shutdown cooling resulting in maintaining less than one loop of residual heat removal in shutdown cooling operation. The finding is of very low safety significance because it did not increase the likelihood of a loss of reactor coolant system (RCS) inventory or degrade Entergy's ability to terminate a leak path or add RCS inventory if needed.

A contributing cause of this finding is related to the cross-cutting element of human performance. Entergy did not maintain an adequate procedure for the operation of the RPS. The procedure did not describe system interdependencies between the RPS and PCIS. As a result, during the transfer of power supplies for the "A" RPS bus, a PCIS Group 4 isolation was inadvertently initiated which isolated shutdown cooling (SDC).
Inspection Report# : 2005005*(pdf)*

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# Barrier Integrity

## Emergency Preparedness

## Occupational Radiation Safety

## Public Radiation Safety

## Physical Protection

Physical Protection information not publicly available.

## Miscellaneous

Last modified : December 21, 2006