

Vermont Yankee

4Q/2005 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2005

Identified By: Self-Revealing

Item Type: FIN Finding

Technician Did Not Follow Non-Safety Related Maintenance Procedure Which Resulted in a Reactor Water Level and Power Perturbation

A very low safety significance, self-revealing finding was identified because an instrumentation and control (I&C) technician did not follow instructions contained in a maintenance procedure. Rather than isolating the air supply to condensate demineralizer system valve SP-52-E1C, the technician inadvertently isolated the air supply to an adjacent valve which ultimately resulted in a small reactor vessel level and power perturbation.

This finding is greater than minor since it is associated with the Configuration Control-Operating Equipment Lineup attribute of the Initiating Events Cornerstone and because it affects the associated Cornerstone Objective to limit the likelihood of those events that upset plant stability during power operations. In accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Findings for At-Power Situations," the inspectors conducted an SDP Phase 1 screening. The inspectors determined that the finding is of very low safety significance since it does not contribute to the likelihood of a primary or secondary system loss of coolant accident, does not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions would not be available, and does not increase the likelihood of a fire or internal/external flood.

A contributing cause of this finding is related to the personnel subcategory in the cross-cutting area of human performance. The I&C technician did not apply the required self-checking techniques (i.e., did not read the valve identification tag to verify he was manipulating the correct valve) while attempting to close valve SP-52-E1C. (Section 1R04)

Inspection Report# : [2005002\(pdf\)](#)

Mitigating Systems

Significance:  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., degraded 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 because 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 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:  Nov 04, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Energy 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 availability, 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\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Significance: N/A Sep 29, 2005

Identified By: NRC

Item Type: FIN Finding

Results of Biennial Problem Identification and Resolution Inspection

The team determined that implementation of the corrective action program (CAP) at Vermont Yankee was generally good. The team determined that Entergy was effective at identifying problems and entering them in the CAP. Once entered into the system, the items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance. The causal evaluations for equipment issues/events and for human performance/process issues reasonably identified the causes of the problems and developed appropriate corrective actions. Corrective actions were typically implemented in a timely manner.

Inspection Report# : [2005006\(pdf\)](#)

Significance: SL-III Aug 27, 2004

Identified By: NRC

Item Type: VIO Violation

Did Not Keep Adequate Records, Follow Procedures, and Perform Physical Inventory of Special Nuclear Material

In a letter dated June 22, 2005, the NRC issues a Severity Level II violation Supplement III. Specifically between January 1980 and July 13, 2004, two irradiated fuel rod pieces were not in their proper location in the spent fuel pool as detailed in the inventory records. In addition, during that time you failed to ensure that either (1) the fuel rod pieces remained there; or (2) the records indicated the new location of the pieces after they moved. You also failed to conduct adequate inventories of the location of the two fuel pieces.

The inspectors identified an apparent violation of 10 CFR 74.19 because Entergy and its predecessor did not keep adequate special nuclear material inventory records of two spent fuel rod pieces, did not follow its written procedures when two spent fuel rod pieces were moved to a fuel storage liner, and did not conduct adequate periodic physical inventories of the two spent fuel rod pieces.

Because the two spent fuel rod pieces remained in the Vermont Yankee spent fuel pool, the entire time the apparent violation existed, there was no actual safety consequence of this apparent violation. Nevertheless, the NRC considers this apparent violation a potentially significant failure of Entergy's material and control accounting program. This failure could have resulted in these two spent fuel rod pieces being inappropriately included in a shipment of radioactive material to a low-level radioactive waste site.

Inspection Report# : [2004007\(pdf\)](#)

Last modified : March 03, 2006