

Pilgrim 1

2Q/2006 Plant Inspection Findings

Initiating Events

G**Significance:** Apr 02, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to evaluate failed AOG bypass valve contributes to manual reactor scram

The inspectors identified a non-cited violation (NCV) of Technical Specifications for failure to evaluate the impact of an inoperable manual bypass valve (1-HO-154) in the augmented off-gas (AOG) system. Specifically, on January 12 and March 12, 2006, when the bypass valve could not be opened, plant personnel did not initiate a condition report, evaluate the impact on plant operations, and consider the need to establish compensatory measures, contrary to corrective action process procedure requirements. As a result, opportunities to repair the valve were missed and the valve's inoperable condition was not communicated effectively to station management and within operations. Consequently, on March 13 the operating crew was unaware the bypass valve was inoperable and attempted to use the bypass valve to restore dilution steam flow to the recombiner when the controller failed. The inability to restore dilution steam flow led to an increase in recombiner temperature which required the operating crew to initiate a manual reactor scram in accordance with procedure 2.4.141, "Abnormal Recombiner Operatin." Corrective actions, immediate and long-term, are provided for in the root cause evaluation for condition report (CR) 20060977 and CR 20061024.

The finding was determined to be of very low safety significance (Green), when evaluated per the significance determination process of MC-0609, Appendix A. The finding is more than minor because it led to a plant transient. The finding's significance however, was not greater than Green because it did not contribute to both a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding has a cross cutting aspect in problem identification and resolution which significantly contributed to the performance deficiency because Entergy did not thoroughly evaluate the degraded condition of the manual bypass valve for impact on the plant or appropriate compensatory measures. (Section 1R14)

Inspection Report# : [2006002\(pdf\)](#)

Mitigating Systems

G**Significance:** May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

The team identified a Green non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control.

Entergy used a non-conservative calculation method to determine the critical condensate storage tank (CST) water level which would preclude vortex formation at the suction of the high pressure coolant injection (HPCI) pump. The finding was more than minor because the formation of vortexing at the intake of the HPCI suction line could result in air entrainment, which in turn, could cause pulsating pump flow and/or reduction in pump performance. It was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. The team reviewed this finding using the Phase 1 SDP worksheet for Mitigating Systems and determined the finding was of very low safety significance (Green), because it did not represent a loss of safety function. (Section 1R21.2.1.1)

Inspection Report# : [2006006\(pdf\)](#)G**Significance:** May 19, 2006

Identified By: NRC

Item Type: FIN Finding

The team identified a finding regarding Entergy's operability determination for a HPCI trip solenoid valve failure.

The team identified a finding regarding Entergy's operability determination for a HPCI trip solenoid valve failure. Specifically, Entergy's operability evaluation technical basis did not support the specific technical specification (TS) requirement of ensuring that the HPCI system automatically isolates on a reactor vessel high water level signal. The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. Specifically, Entergy did not ensure HPCI's continued reliability and capability to isolate automatically as designed during reactor vessel high water level conditions. The team reviewed this finding using the Phase 1 SDP worksheet and determined the finding was of very low safety significance (Green), because it did not represent a loss of safety function for greater than its TS allowed outage time. (Section 1R21.2.1.2)

Inspection Report# : [2006006\(pdf\)](#)

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Significance: Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Problem Resolution of an Internal Flood Control Deficiency

The inspector identified an NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action." Entergy did not take timely corrective action, for a condition adverse to quality identified in August 2004, regarding the missing seals required by plant design drawings to be installed around the A residual heat removal (RHR) quadrant floor plugs to minimize potential water intrusion into the RHR quadrant below. Entergy entered the issue into the corrective action program and plans to reschedule the required repairs.

The finding was determined to be of very low safety significance per the Phase 1 worksheet in Appendix A of MC-0609, Significance Determination Process. The finding was not a design issue, did not result in a loss of a safety function of a mitigating system, and did not screen potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding is more than minor because it adversely impacted the Reactor Safety Mitigating System Cornerstone attribute Protection Against External Factors (i.e., flood hazard) and the cornerstone objective to ensure the reliability and availability of mitigating systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). A cross-cutting aspect of the finding related to problem identification and resolution, in that completion of corrective actions for a condition adverse to quality was not prioritized commensurate with the potential significance of the condition. As a result, timely corrective action was not taken to restore the A RHR quadrant floor plugs to their required design configuration. (1R06)

Inspection Report# : [2005005\(pdf\)](#)

G

Significance: Dec 31, 2005

Identified By: NRC

Item Type: FIN Finding

Lack of Effective Maintenance for the Emergency Lighting System

The inspector identified that Entergy failed to implement effective maintenance on the emergency lighting system in a manner necessary to prevent repeated functional failures from causes which were within the licensee's capability to foresee and prevent. As a result of failures predominately due to low battery electrolyte levels and the improper adjustment of the battery charger output voltage, the emergency lighting system experienced 20 functional failures in a 36-month period and failed to meet the reliability performance criteria in four of the last five years. No violations of regulatory requirements were identified. Entergy placed the emergency lighting system in a(1) status and developed an action plan that addressed the lighting deficiencies necessary to restore system reliability and return the system to a(2) status.

The finding was determined to be of very low safety significance per the Phase 1 worksheet in Appendix A of MC-0609, Safety Determination Process. The finding was not a design deficiency, did not represent an actual loss of safety function of a mitigating system, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding is more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating System Cornerstone. Portions of the emergency lighting system were not available to perform their intended function of supporting operator actions to mitigate the consequences of fires upon loss of all other lighting. A cross-cutting aspect of the finding related to problem identification and resolution, in that effective corrective action was not taken for the failed emergency lights due to deferral of corrective maintenance and improper maintenance instructions. (1R12)

Inspection Report# : [2005005\(pdf\)](#)

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Significance: Aug 02, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to maintain and observe controls to prevent injection of cold gaseous or liquid nitrogen into containment.

A finding of very low safety significance which constituted a non-cited violation (NCV) of NRC requirements was identified by the inspector. Entergy personnel did not ensure that the temperature of nitrogen gas added (makeup) to the drywell/torus was not less than 70 degrees Fahrenheit, as required by procedure 8.A.1. The finding is more than minor because it could be reasonably viewed as a precursor to a significant event and if left uncorrected the finding could become a more significant safety concern. The finding impacted both the reactor safety mitigating system and barrier integrity cornerstones and adversely effects the cornerstones' attributes of human performance, procedure quality, and design control. The finding, evaluated using the Significance Determination Process (MC-0609), was determined to be of very low safety significance based on engineering judgement that the torus and/or drywell structure was not degraded or in a failed condition. Causes contributing to the finding relate to the cross-cutting areas of human performance and problem identification and resolution. Specifically, personnel did not follow procedure requirements to ensure nitrogen temperature was at least 70 F nor did personnel identify procedure deficiencies via the corrective action process.

Inspection Report# : [2005004\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Significance: SL-III Jul 14, 2005

Identified By: NRC

Item Type: VIO Violation

Inattentive Control Room Supervisor with Wilfull Inappropriate Response by Other Control Room Licensed Staff .

In a letter dated July 14, 2005, the NRC issued a Severity Level III Notice of Violation and Proposed Imposition of Civil Penalty to Entergy in the base amount of \$60,000 associated with a Severity Level III problem. The Severity Level III problem involved four violations of NRC requirements related to Technical Specification 5.4.1, 10 CFR Part 50 Appendix B, and 10 CFR Part 26. The specific violations involved: (1) a Pilgrim control room supervisor sleeping for approximately four minutes in the control room and therefore being neither alert or attentive to his duties; (2) a reactor operator observing the sleeping control room supervisor, but deliberately not taking immediate actions to awaken the control room supervisor, inform appropriate site personnel and initiate a condition report; (3) a Shift Manager, in careless disregard of requirements, although taking some actions, not informing appropriate site personnel and initiating a condition report; and (4) the sleeping control room supervisor not being relieved of duty and for-cause Fitness-for-Duty tested. There were no actual safety consequences resulting from this event because there were no plant conditions that warranted immediate action.

Inspection Report# : [2005003\(pdf\)](#)

Inspection Report# : [2005005\(pdf\)](#)

Last modified : August 25, 2006