

Pilgrim 1

4Q/2003 Plant Inspection Findings

Initiating Events

Significance:  Dec 01, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadvertent Trip of the B Reactor Recirculation Pump due to human performance error

Green. A human performance error resulted in the inadvertent trip of the B reactor recirculation pump and subsequent plant transient and constituted a non-cited violation of Technical Specification 5.4.1, "Procedures." The failure to implement a maintenance procedure is an example of a contributing cause in the cross cutting area of human performance.

Inspection Report# : [2003011\(pdf\)](#)

Significance:  Jun 28, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Operator Error on MPR Caused MSIVs to Close and Reactor Scram on May 19

An operator manipulated the incorrect main control board (MCB) switch, which resulted in the automatic closure of the main steam isolation valves and shutdown of the reactor on May 19, 2002. The inspector identified a non-cited violation of Technical Specification 5.4.1.a because the operator failed to properly implement procedure 2.1.1, "Startup from Shutdown," by failing to properly operate the pressure regulating system, maintain the required MPR setpoint, and heed the procedure caution. The finding is more than minor because it led to a plant trip. This human performance error was determined by a phase 3 risk analysis to be of very low safety significance because the reactor decay heat was low, the operators could recover the main condenser as the normal heat sink, and mitigating systems were available following the shutdown.

Inspection Report# : [2003006\(pdf\)](#)

Significance:  Jun 28, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadequate Tagout Resulted in Inadvertent Drain Of Reactor Vessel on April 27, 2003

An inadequate tagout restoration resulted in an unintended drain path from the reactor vessel on April 27, 2003. The inspector identified a non-cited violation of Technical Specification 5.4.1.a because the operators failed to properly implement Section 6.2.10 of procedure 1.4.5, "PNPS Tagging Procedure," by failing to ensure appropriate restoration positions and sequences were specified. The loss of reactor water level is an issue that is more than minor because it is a precursor to a more significant event, the loss of shutdown cooling. The finding did not degrade the licensee's ability to terminate the leak path or recover decay heat removal, if lost. Because the loss of level was less than 24 inches, the finding was determined to be of very low safety significance (Green) when assessed in accordance with MC 0609, Appendix G.

Inspection Report# : [2003006\(pdf\)](#)

Significance:  Jun 28, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadequate Test Procedure Resulted in Inadvertent Reactor Vessel Drain Event on May 9, 2003.

A non-cited violation of Technical Specification 5.4.1.a occurred because a test procedure for testing emergency power sources was not adequate. This resulted in the inadvertent drain down of the reactor vessel through the automatic depressurization system (ADS) valves to the torus on May 9, 2003. The procedure failed to establish initial plant conditions or conditions to inhibit the ADS to prevent a drain down of the reactor vessel through the ADS valves. The loss of reactor water level is an issue that is more than minor because it is a precursor to a more significant event, the loss of shutdown cooling. The finding did not degrade the licensee's ability to terminate the leak path, recover decay heat removal, if lost, or impact the ability to establish a heat removal path to the suppression pool. Because the loss of level was less than 24 inches, the finding was determined to be of very low safety significance (Green) when assessed in accordance with MC 0609, Appendix G.

Inspection Report# : [2003006\(pdf\)](#)

Significance:  Mar 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Inadequate Procedures for Shutdown Cooling Resulted in Vessel Drain Down

An inadequate procedure used to control the residual heat removal (RHR) system resulted in the unintended decrease of reactor vessel level with the plant in cold shutdown on February 23. The combination of an inadequate procedure controls for the RHR minimum flow valve and inadequate operator procedure use caused vessel level to decrease about 21 inches. The finding is greater than minor because a loss of reactor level can be viewed as a precursor to a more significant event, the loss of shutdown cooling. The issue had very low safety significance when evaluated in the Significance Determination Process because the level decrease was less than 24 inches. The failure to provide adequate procedures was a non-cited violation of 10CFR 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings."

Inspection Report# : [2003004\(pdf\)](#)

Mitigating Systems

Significance:  Aug 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Implement Adequate Procedures Caused HPCI to be Inoperable for Maintenance for 3 days

Green. The failure to provide adequate guidance in HPCI maintenance procedures resulted in the HPCI system being inoperable for repairs for about 3 days during plant operations. This issue constitutes a self-revealing finding of very low safety significance (Green) and a non-cited violation of Technical Specification (TS) 5.4, "Procedures." The failure to adequately incorporate operating experience in maintenance procedures is an example of a contributing cause in the cross-cutting area of problem resolution.

Inspection Report# : [2003011\(pdf\)](#)

Significance:  Jul 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate diagnostic and indicating instrumentation was provided to the operators for post-fire shutdown outside the control room, contrary to requirements of license condition 2.F, Fire Protection.

The inspectors identified a non-cited violation of License Condition 2.F, Fire Protection, because the diagnostic and indicating instrumentation provided to the operators for post-fire shutdown outside the control room were inadequate for the operator to determine that actions were necessary, or that the manual action had caused the intended function to occur. The procedure for shutdown outside the control room called for evaluation of drywell temperature history prior to restoring the 'B' train of the reactor building closed cooling water system. This is due to the potential for high drywell temperatures to cause boiling, and voiding, in the non-essential loop of the reactor building closed cooling water system. The void collapse on subsequent starting of the system pump, could cause damage to the 'B' train piping system, rendering it unavailable for use. No protected train of drywell temperature instrumentation was provided for use in the post-fire operating environment. In addition, the instructions for operating motor control center (MCC) contactors manually at the MCC referred to the use of clamp-on ammeters to determine when valve motion had been completed, but no such ammeters were provided for use by the operators.

The finding was considered more than minor, in that the issue was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and it affects the cornerstone objective. The mitigating systems cornerstone objective was affected because the finding adversely impacted the ability of the operators to achieve and maintain safe shutdown conditions in the event that a plant shutdown from outside the control room due to a fire was required. The finding was evaluated using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors determined the finding does not represent a design or qualification deficiency, or an actual loss of safety function for either internal or external initiating events. Therefore, the inspectors concluded that the finding was of very low safety significance. (Section 1RO5.8)

Inspection Report# : [2003005\(pdf\)](#)



Significance: Mar 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Operator Failed to Assure RWM Operable for Startup

The rod worth minimizer (RWM) was bypassed when the control rods were being withdrawn on February 27, 2003. The issue occurred because the operators failed to follow procedure 2.1.1 for plant startup and failed to assure the RWM was operable when taking the reactor critical. This issue was more than minor because a system used to protect a safety barrier (fuel cladding) was not operable. The finding is of very low safety significance because a second licensed operator was present per Technical Specification (TS) 3.3.F to verify control rod movement was in accordance with the banked position withdrawal sequence. The operator errors were examples of a cross-cutting issue in human performance. The failure to follow procedure 2.1.1 was a licensee-Identified, non-cited violation of Technical Specification 5.4.1.

Inspection Report# : [2003004\(pdf\)](#)

Barrier Integrity



Significance: Jan 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Procedures, Resulting in a Control Rod Mis-Positioning During Surveillance Testing.

A non-cited violation of 10CFR50, Appendix B, Criterion V, was identified for a failure to follow a surveillance test procedure for control rod timing that resulted in a control rod being left in the wrong position.

This finding is greater than minor because, if left uncorrected, it could lead to reactivity control issues that can result in core thermal limits being exceeded. This finding affected the Barrier Integrity cornerstone. This finding was of very low significance (Green) because issues affecting the fuel barrier screen to Green in Phase 1 of the Significance Determination Process for Reactor At-Power Situations. (Section 40A2.b(2))

Inspection Report# : [2003003\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Jan 31, 2003

Identified By: NRC

Item Type: FIN Finding

Acceptable Corrective Action Program

Identification and Resolution of Problems

Based on the sample selected for review, the inspection team concluded that the implementation of the corrective action program at Pilgrim was adequate. In general, personnel identified problems at an appropriate threshold and initiated a Condition Report (CR) to enter them into the corrective action program. Audits and self-assessments identified adverse conditions and negative trends, and the results were entered into the corrective action program.

The licensee's evaluations were generally adequate to reasonably identify the causes of problems and provide for corrective actions. However, the team identified some instances in which the evaluations were not thorough or timely. These evaluations, some of which were associated with Category "A" CRs, were not sufficiently detailed to address all

underlying issues. One instance, regarding a failure to follow a procedure that resulted in a control rod being left in the wrong position, was determined to be a finding of very low safety significance (Green). The finding was also determined to be a violation of NRC requirements.

Inspection Report# : [2003003\(pdf\)](#)

Last modified : March 02, 2004