Peach Bottom 3
4Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Dec 31, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
High Pressure Coolant Injection Condensate Storage Tank Suction Valve Resulted in HPCI Inoperability
A self-revealing non-cited violation (NCV) of Unit 3 Technical Specification (TS) 3.3.5.1, "Emergency Core Cooling System (ECCS) Instrumentation," was identified on October 9, 2004. Loss of the auto closure function on the Unit 3 high pressure coolant injection (HPCI) condensate storage tank suction valve, caused by a wire lug nut that was eight turns loose, resulted in HPCI inoperability.

The finding is considered more than minor because the issue was associated with the configuration control attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The loss of the automatic condensate storage tank (CST) closure function affected HPCI reliability because it could lead to vortexing and loss of pump suction.

A contributing cause to the relay lug being eight turns loose on the HPCI CST suction valve auto closure relay is related to the human performance cross cutting area. The most likely cause of this condition was previous instrumentation and controls maintenance work practices.

Inspection Report# : 2004005*(pdf)*

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Design Changes Made to the High Pressure Service Water Motor Operated Valve on the Residual Heat Removal Heat Exchanger Discharge Restricted HPSW Flow
A self-revealing non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified. Specifically, design changes made to the high pressure service water (HPSW) motor-operated valve (MOV) on the residual heat removal (RHR) heat exchanger discharge restricted HPSW flow in the affected RHR loop. HPSW flow in this loop was reduced below the design basis flow. The HPSW design basis flow is used to verify RHR heat exchanger operability.

The finding is considered more than minor, in that, the issue was associated with the design control attribute of the mitigating systems cornerstone. The cornerstone objective was affected because improper control of the design change to MO-3-10-89D reduced HPSW flow through this loop below the design basis flow of 4500 gpm. The finding was evaluated using Appendix A of NRC IMC 0609, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors concluded that this issue is of very low safety significance since the safety function was maintained.

The inspectors identified that a contributing cause of the finding was related to the problem identification and resolution cross-cutting area, in that Design Engineering personnel did not adequately resolve known problems with the HPSW MO-89 series valves.
Inspection Report# : 2004003*(pdf)*

Significance: G Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Maintenance Rule Bases Exceeded on the 2A Reactor Building Closed-Cooling Water Heat Exchanger and E-2 Emergency Diesel Generator
The NRC identified a non-cited violation (NCV) of 10 CFR 50.65, the Maintenance Rule, having very low safety significance (Green). As of December 14, 2003, the 2A reactor building closed cooling water (RBCCW) heat exchanger exceeded the unavailability criteria established by Exelon in its Maintenance Rule scoping document. The RBCCW system was not monitored against Exelon established criteria of two percent unavailability per 24 month period. Additionally, as of February 13, 2004, the E2 emergency diesel generator (EDG) exceeded the reliability criteria established by Exelon in its Maintenance Rule scoping document. The E2 EDG performance was not monitored against Exelon

established criteria of one maintenance preventable functional failure (MPFF) per 24 month period. The events determined to be MPFFs on the E2 EDG occurred on March 21, 2003, and September 15, 2003.

The finding is more than minor because the E2 EDG was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The 2A RBCCW heat exchanger was associated with the Equipment Performance attribute of the Initiating Events cornerstone. Exelon's not analyzing the E2 EDG or the 2A RBCCW heat exchanger performance in accordance with the maintenance rule was determined to have very low safety significance (Green) using Phase 1 of the Significance Determination Process (SDP) for Reactor Inspector Findings for At-Power reactor situations.

Inspection Report# : 2004002*(pdf)*

Significance: N/A Jun 08, 2000
Identified By: NRC
Item Type: AV Apparent Violation
Assoc Circuit - Mechanical Damage from Fire Induced Cable Faults not evaluated.
PECO adopted a licensing position that mechanical damage to alternative shutdown equipment resulting from fire-induced cable faults, as described in Information Notice 92-18, was outside the scope of the licensing and design bases of the facility. As a result, PECO did not evaluate the control circuits of the alternative shutdown equipment to determine if it was susceptible to this problem. Since a detailed review of the alternative shutdown capability at PBAPS was not performed as part of the scope of this inspection, the risk associated with this issue was not established.

This issue is being treated as an apparent violation of Condition 2.C.4 of the operating licenses for both Unit 2 and Unit 3, which requires PECO to implement and maintain the fire protection program described in the NRC Safety Evaluation Reports. PECO has entered this issue into their corrective action program and has implemented reasonable compensatory measures pending final resolution of the issue. However, the issue of mechanical damage to safe shutdown equipment due to fire-induced cable faults is in contention between the NRC and the nuclear industry. As such, any further enforcement action will be deferred pending final resolution of this issue by the Nuclear Energy Institute and the NRC staff, in accordance with Enforcement Guidance Memorandum 98-02, Revision 2, issued February 2, 2000.
Inspection Report# : 2000003*(pdf)*

Significance:  Jun 08, 2000
Identified By: NRC
Item Type: AV Apparent Violation
Assoc Circuit - Reliance on signal spurious assumption of one per system per fire.
PECO's specification for performing circuit analyses of post-fire safe shutdown equipment stipulates that only one spurious actuation for each system affected by any one fire be analyzed. For the areas inspected, the team determined that PECO adequately protected against fire-induced spurious actuations. The team did not identify any additional spurious actuations which would have prevented achieving safe shutdown conditions in the post-fire operating environment.

The assumption that only a single spurious actuation need be considered for any one system for any one fire is an apparent violation of the requirements of Section III.G. and III.L. of Appendix R to 10 CFR 50. PECO entered this issue into their corrective action program and have implemented reasonable compensatory measures. However, the issue of multiple spurious actuations of equipment in a post-fire environment is in contention between the NRC and the nuclear industry. As such, any further enforcement action will be deferred pending final resolution of this issue by the Nuclear Energy Institute and the NRC staff, in accordance with Enforcement Guidance Memorandum 98-02, Revision 2, issued February 2, 2000.
Inspection Report# : 2000003*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 09, 2005