Peach Bottom 3
1Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Scope Outer Intake Structure Trash Racks
The inspectors identified a very low safety significance (Green), NCV of 10 CFR 50.65, paragraph b(2)(iii). Specifically, Peach Bottom Atomic Power Station (PBAPS) did not scope the outer intake structure trash racks into the Maintenance Rule when past station events showed elevated levels of debris blockage on the trash racks would upset plant stability and increased the likelihood of a scram on both units due to loss of main condenser vacuum.

This finding is greater than minor because it was associated with the protection against external factors attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability during power operations. The finding is of very low safety significance (Green) because it did not affect both the likelihood of a plant transient and unavailability of mitigation equipment or functions. Specifically, PBAPS personnel were able to recover intake basin level during the January 2004 and January 2005 icing events prior to a scram being procedurally required.

A contributing cause to the failure is related to the identification subcategory of the Problem Identification and Resolution cross-cutting area because PBAPS did not identify the requirement to scope the intake structure trash racks into the Maintenance Rule.
Inspection Report# : 2005002*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2005
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Station Blackout Power Supply to Emergency Buses with SBO Transformer Tap Loss of Function
A self-revealing Green NCV of 10 CFR 50.63, "Loss of All Alternating Current Power," was identified for PBAPS's inadequate station blackout coping analysis for the configuration that existed from September 14 until December 1, 2004. Lack of design documentation and administrative controls resulted in inadequate configuration control of the SBO system that would have de-energized the power feed to its control power circuit following a station blackout event.

This finding is greater than minor because it was associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of safe shutdown systems to respond to a station blackout event. The finding is of very low safety significance (Green) because the issue was a design deficiency of a defense in depth support system to long-term heat removal that was subsequently verified not to represent an actual loss of safety function.

A contributing cause for the inadequate configuration control was related to the organization subcategory in the Human Performance cross-cutting area, in that procedure and design documents did not support maintaining SBO system operability.
Inspection Report# : 2005002*(pdf)*

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: 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: G 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 : June 17, 2005