Peach Bottom 3
2Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Implementation of Work Order Instructions Caused the Installation of an Incorrect Size Breaker and Resulted in a Fire in the '4T4' 480 Volt Load Center
A self-revealing finding was identified for inadequate implementation of work order (WO) instructions to verify the correct breaker frame size during the overhaul of a compatible spare breaker for installation into the ‘4T4' 480 volt load center. This condition resulted in a poor electrical connection between the primary disconnect fingers and the switchgear bus stabs for one breaker in the ‘4T4' load center that ultimately resulted in a fire that led to a plant transient and declaration of an Unusual Event (UE).

This finding is greater than minor because it affected the human performance attribute of the Initiating Event Cornerstone, in that, an incorrect frame size breaker was installed into a cubicle for which it was not sized. This mismatch caused an electrical fault that led to a fire and a plant transient that upset plant stability. This finding was of very low safety significance (Green) because it did not increase both the likelihood of a reactor scram and that mitigation equipment or functions would not be available. The cause of this finding had a cross-cutting aspect in the area of human performance (work practices component) because maintenance technicians did not follow WO instructions to specifically verify the frame size of a breaker during its overhaul (IMC 0305 aspect H.4(b)). (Section 4OA3.1)

Inspection Report# : 2007003 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Procedures by Performing Equipment Manipulations Without Instructions
A self-revealing non-cited violation of Technical Specification (TS) 5.4.1.a, "Procedures," occurred when, during a pre-job walk down, a senior reactor operator (SRO) inappropriately operated an instrument valve without a procedure. This inappropriate valve manipulation resulted in a half Group 1 primary containment isolation logic signal. PBAPS has entered this issue into their corrective action program (CAP) for resolution.

This finding is greater than minor because it is associated with the Initiating Events Cornerstone attribute of human performance and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Inappropriate operation of the instrument valve increased the likelihood of the main steam isolation valve’s (MSIV) closing, and a reactor scram with loss of normal heat removal. The finding was of very low safety significance because it did not contribute to both the likelihood of a reactor scram and the likelihood that mitigation equipment or functions would not be available.

A contributing cause of the finding has a cross-cutting aspect in the area of human performance work practices because operations personnel did not follow procedures when manipulating a main steam pressure switch instrument vent valve without the use of procedures. (IMC 0305 aspect H.4(b)). (Section 4OA3).

Inspection Report# : 2006004 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Missed Procedure Step Resulted in Unplanned Overloading of the E-3 EDG
A self-revealing NCV of Technical Specification (TS) 5.4.1, was identified when operators inadequately implemented a surveillance procedure by missing a procedure step. The missed step placed the E-3 emergency diesel generator (EDG) in the isochronous mode of operation while it was synchronized to off-site power and resulted in an unexpected over-loading of the E-3 EDG.

This finding is more than minor because it was associated with the human performance attribute of the Mitigating Systems Cornerstone, and impacted the cornerstone objective of ensuring the availability of the E-3 EDG to respond to initiating events. This finding is of very low safety significance (Green) because all other EDGs remained operable and the actual loss of safety function of the E-3 EDG was less than the TS allowed outage time of seven days. This finding had a cross-cutting aspect in the area of human performance (work practices component) because PBAPS personnel did not follow procedure steps when transferring the E-3 EDG to the isochronous load control mode with the E-3 EDG synchronized to the off-site power source (IMC 0305 aspect H.4(b)). (Section 4OA3.2)

Inspection Report# : 2007003 *(pdf)*

Significance: G Jun 30, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Procedural Compliance Issues Result in Damage to the Diesel Driven Fire Pump
A self-revealing NCV of TS 5.4.1, was identified when operators manipulated a diesel-driven fire pump (DDFP) cooling water valve outside of procedure guidance. The improper manipulation led to misalignment of the DDFP cooling water that subsequently damaged the engine during operations without cooling water.

The failure to use a procedure for cleaning and restoring the DDFP cooling water strainer was a more than minor finding because it was associated with the degradation of a fire protection feature, in that, the DDFP was rendered inoperable by damage to the engine. Using the Fire Protection SDP, the finding was determined to be of very low safety significance due to the motor-driven fire pump remaining operable during the five days the DDFP was inoperable, and the small number of fire scenarios which would impact the power supply to the motor-driven fire pump. This finding had a cross-cutting aspect in the area of human performance (resources component) because procedure ST-O-37D-340-2 did not provide complete and accurate instructions for cleaning the DDFP cooling water strainer (IMC 0305 aspect H.2(c)). (Section 4OA3.3)

Inspection Report# : 2007003 *(pdf)*

Significance: G May 18, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a 2006 NRC-Identified NCV in a Timely Manner - Quarterly Surveillance Test with Non-Conservative Acceptance Criteria for the HPCI Pump
The NRC identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, “Corrective Actions,” related to the failure to correct the March 2006 deficiency identified in NCV 05000277,278/2006009-01, related to less than adequate acceptance criteria in a quarterly surveillance test procedure for the HPCI pumps. The team identified that Exelon had not revised the procedure and had continued to conduct the surveillance test, thirteen times since the issue was discovered by the NRC. Exelon performed an evaluation of the recent HPCI pump surveillance test results and concluded that the pumps currently met the design basis requirements, and had remained operable.

The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon failed to take prompt corrective actions to address a safety issue in a timely manner, commensurate with safety significance and complexity. [P.1.(d)]

The finding is more than minor because it affects the procedure quality attribute associated with the Mitigating Systems Cornerstone objective to ensure the capability of HPCI, a mitigating system. The finding is of very low safety significance because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and was not risk significant due to external initiating events. (Section 4OA2.a(3)(a))

Inspection Report# : 2007006 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Technical Specifications Position Incorrectly Credited for Active License Maintenance
The inspectors identified a NCV of 10 CFR 55.53(e), "Conditions of Licenses," for incorrectly credited individuals with actively performing the functions of a senior operator (SO) while that individual was staffing a position that was not specified in PBAPS's Technical Specifications (TSs). Specifically, PBAPS incorrectly credited individuals with actively performing the functions of a SO while that individual was staffing the work execution control supervisor (WECS) position. The WECS position is not required by PBAPS's TSs. Corrective actions included issuing a cease and desist order to licensed operators to stop crediting time in the WECS position as active time for maintaining their licenses.

The finding is greater than minor because if left uncorrected, it would become a more safety significant safety concern. Specifically, although the WECS performs activities important to safety, the active time credited was not in a position defined by TSs that involved directing the licensed activities of licensed operators. The finding was related to operator license conditions and was determined to be of very low safety significance (Green) because more than 20 percent of the records reviewed had deficiencies. (Section 1R11.1)

Inspection Report# : 2007002 *(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)*
Inspection Report# : 2007002 *(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)*
Inspection Report# : 2007002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Exelon Did Not Establish and Implement Adequate Procedures for Quality Assurance of Effluent Monitoring as Required by Technical Specification 5.4.1.
The inspectors identified a NCV of TS 5.4.1.C for inadequately establishing and maintaining procedures for effluent monitoring. Specifically, the quality assurance (QA) required procedures for effluent monitoring were inadequate to detect non-representative sampling of the 'B' train of the main stack particulate effluents sampling system. This issue was placed in the CAP for resolution.

This finding is greater than minor because it affected the Public Radiation Safety Cornerstone objective to ensure adequate protection of public health and safety. This finding was determined to be of very low safety significance because: 1) it was not a radioactive material control issue, 2) it did involve the effluent release program, 3) there was an impaired ability to assess dose, and 4) public radiation doses did not exceed 10 CFR 50, Appendix I values.

The finding has a cross-cutting aspect in the human performance area, resources component because the procedures and training of personnel were inadequate to detect the sample bypass. (IMC 0305 aspct H.2(c)) Section 2PS1)

Inspection Report# : 2007002 *(pdf)*

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Last modified : August 24, 2007