

Peach Bottom 3

1Q/2007 Plant Inspection Findings

Initiating Events

Significance:  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.

Inspection Report# : [2006004](#) (*pdf*)

Mitigating Systems

Significance:  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.

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

Significance:  Apr 21, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Non-Conservative High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Pumps Test Acceptance Criteria

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, Test Control. The team determined that the licensee had failed to ensure that the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) pump hydraulic performance test procedures had acceptance criteria that incorporated the limits from applicable design documents. If the HPCI pump had degraded to the lower limit of the test acceptance criteria, it would not have been able to meet the design basis discharge pressure and flow requirements. Following the identification of the issue the licensee entered the issue into the corrective action program and verified the operability of the pumps based on actual test results. Additionally, the licensee intends to change the test procedures.

The finding was more than minor because it affected the procedure quality attribute associated with the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of the HPCI and RCIC systems, which are both mitigating systems. The team reviewed this finding using the Phase 1 SDP worksheet and determined the finding was of very low safety significance (Green), because subsequent analyses determined that the pumps were capable of meeting the design basis discharge pressures and flows.

Inspection Report# : [2006009](#) (*pdf*)

G

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*)

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

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Significance: Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Foreign Material Exclusion Controls for the HPCI Turbine Exhaust Drain Inboard Isolation Valve.

The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when PBAPS personnel inadequately accomplished foreign material exclusion (FME) recovery procedures for the Unit 3 high pressure coolant injection (HPCI) turbine exhaust drain piping. The failure to properly implement this procedure prevented a HPCI primary containment isolation valve closure on April 5, 2006. PBAPS entered this procedure adherence issue into their CAP for resolution.

The finding is more than minor because the failure of a containment isolation valve to close is associated with the Barrier Integrity Cornerstone attribute of systems and component performance and affected the objective to provide reasonable assurance that physical design barrier (containment) to protect the public from radionuclide releases caused by accident or events. The finding was determined to be of very low safety significance since the finding did not represent an actual open pathway in the physical integrity of reactor containment. A contributing cause of the finding has a cross-cutting aspect in the area of problem identification and resolution because PBAPS did not thoroughly evaluate a similar October 2005 loss of FME integrity in the same piping such that the extent of debris intrusion was determined and the cause was resolved to preclude recurrence.

Inspection Report# : [2006003](#) (*pdf*)

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Significance: Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Annual Operating Test Administered at Limerick

The inspectors identified a finding of very low safety significance (Green) non-cited violation (NCV) of 10 CFR 55.59(a) (2)(ii) for an inadequate annual operating test that was administered at Limerick for Peach Bottom and Limerick Senior Reactor Operators Limited to Fuel Handling (LSROs). Exelon procedures and commitments made by the licensee in 1991 require questions on job performance measures (JPMs) to explore the differences, if any, in task performance between Limerick and Peach Bottom. Three of the five JPMs had significant differences in the way the task is performed at Limerick versus the same task at Peach Bottom. These three JPMs should have had questions to explore these differences, but did not. Exelon has entered this issue into their corrective action program (CAP) for resolution.

The inspectors determined that the inadequate annual operating test administered at Limerick for Peach Bottom and Limerick LSROs was more than minor because it was associated with the human performance attribute and affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The finding is Green because the inadequate annual operating test did not have an adverse impact on operator actions such that safety related equipment was made inoperable during normal operations or in response to a plant transient.

Inspection Report# : [2006003](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

G**Significance:** 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.

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

Physical Protection

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

Miscellaneous

Last modified : June 01, 2007