

Peach Bottom 2 4Q/2016 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2016

Identified By: NRC

Item Type: FIN Finding

Reactor Feed Pump Controller Power Supply Shelf Life Not Maintained.

A self-revealing finding of very low safety significance (Green) was identified for Exelon's failure to maintain the Unit 2 'C' reactor feed pump (RFP) Woodward controller secondary power supply in accordance with PES-S-002, Exelon Shelf Life Program. Specifically, on May 27, 2016, the Unit 2 'C' RFP experienced speed oscillations due to an age-related failure of the Woodward controller secondary power supply, which resulted in an automatic recirculation runback to 53 percent rated thermal power (RTP). The power supply contained an electrolytic capacitor that had exceeded its shelf life per PES-S-002. This issue was entered into Exelon's corrective action program (CAP) under issue report (IR) 02691322. Exelon's corrective actions included replacement of the faulted power supply and an extent of condition (EOC) review of proper expiration date entry for shelf life program components.

The finding was more than minor because it was associated with the equipment performance attribute of the Initiating Events cornerstone and affected the cornerstone's objective of limiting the likelihood of events that upset plant stability during power operations. The inspectors evaluated the finding in accordance with Exhibit 1 of Inspection Manual Chapter (IMC) 0609, Appendix A, "SDP for Findings At-Power," and determined the finding was of very low safety significance (Green) because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors determined that no cross-cutting aspect was applicable to this finding because the performance deficiency (PD) was not indicative of current performance. The PD occurred between 1997 and 1999 when the power supply expiration date was incorrectly coded in Exelon's work management process in accordance with PES-S-002. (Section 4OA3)

Inspection Report# : [2016003](#) (*pdf*)

Significance: G Jun 30, 2016

Identified By: Self-Revealing

Item Type: FIN Finding

Human Performance Event Results in Emergent Downpower

Green. A self-revealing finding of very low safety significance (Green) was identified for the failure of Exelon operators to use human performance error reduction tools during equipment manipulation in accordance with HU-AA-101, "Human Performance Tools and Verification Practices." Specifically, on March 28, 2016, an equipment operator failed to use self-check (STAR) while removing a circuit breaker from service and incorrectly tripped the E-124 480 volt supply breaker which required a rapid manual power reduction to 80 percent rated thermal power (RTP) due to lowering main condenser vacuum and a partial loss of feedwater heating. Exelon entered the issue into their corrective action program (CAP) under issue report (IR) 2646772 and performed a root cause which identified corrective actions to address the adverse human performance behaviors at the station.

The finding was more than minor because it was associated with the human performance attribute of the Initiating

Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown, as well as power operations. Specifically, an equipment operator failed to adequately use human performance error reduction tools and opened an incorrect breaker which required a rapid downpower. The inspectors evaluated the finding in accordance with Exhibit 1 of IMC 0609, Appendix A, “The SDP for Findings At-Power,” dated June 19, 2012, and determined the finding was of very low safety significance (Green) because it did not result in a reactor trip and the loss of mitigation equipment relied upon for transition to a stable shutdown condition.

This finding was determined to have a cross-cutting aspect in the area of Human Performance, Field Presence, because Exelon did not ensure that deviations from standards and expectations, which were identified by leaders, were corrected promptly. Specifically, Exelon identified that adverse human performance behaviors existed with certain equipment operators, however, those observations were not appropriately input into their performance management system, such that the behaviors could be addressed. Thus, these adverse behaviors were a primary contributor to this human performance error. [H.2] (Section 4OA3)

Inspection Report# : [2016002](#) (pdf)

Mitigating Systems

Significance:  Jun 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Improperly Stored Material in Reactor Building

Green. The NRC identified a very low safety significance (Green) NCV of Technical Specification (TS) 5.4.1 for Exelon’s failure to adequately implement procedure requirements governing the storage of material in a safety-related structure. Specifically, on April 26, 2016, Exelon technicians stored ladders vertically without them being adequately tied off to prevent the ladders from falling over in accordance with MA-AA-716-026, “Station Housekeeping / Material Condition Program.” The inspectors identified that the ladders were stored in the PB Unit 2 reactor building (RB), such that they could fall over and impact safety-related equipment. The inspectors promptly notified Exelon, the ladders were immediately removed, and the condition was documented under IR 2661309.

This finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, Attachment 4, “Initial Characterization of Findings,” and Appendix A, “The SDP for Findings At-Power,” Exhibit 2. The inspectors determined this finding to be of very low safety significance (Green) because the degraded condition was not a design deficiency that affected system operability; did not represent an actual loss of function of a system; did not represent an actual loss of function of a single train or two separate trains for greater than its TS allowed outage time; and did not represent an actual loss of function of one or more non-TS trains of equipment designated as high safety significant. The finding was determined to have a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon technicians did not store ladders in safety-related buildings in accordance with station procedures, such that they could not fall over and damage safety-related equipment. [H.8] (Section 1R13)

Inspection Report# : [2016002](#) (pdf)

Significance:  Jun 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Untimely Corrective Actions to Address Condition Adverse to the Fire Protection Program Alternative Shutdown Capability

Green. The inspectors identified an NCV of very low safety significance (Green) of PB Unit 2 and Unit 3 Facility Operating License condition 2.C.(4) for failure to implement and maintain in effect all provisions of the approved fire protection program. Exelon did not correct a condition adverse to the fire protection program alternative shutdown capability in a timely manner. Specifically, Exelon did not establish testing requirements for transfer/isolation switches since the identification of the issue on February 6, 2014, and the due date to complete this action was extended to February 24, 2018. As a result, Exelon has delayed assurance that the components credited for alternative shutdown capability would perform their fire protection design basis function. Exelon entered this issue into their CAP as IR 02669323.

This performance deficiency (PD) was more than minor because it was associated with the protection against external factors (fire) attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, by failing to correct the condition, Exelon has not ensured that the control circuit for the safe shutdown components would be isolated from the effects of fire damage. The inspectors determined that the finding was of very low safety significance (Green) based on IMC 0609, Appendix F, "Fire Protection SDP," task number 1.3.1, because Exelon had demonstrated reasonable expectation of functionality for these switches by having comparable switches in the test program and periodically testing those switches. The test results did not indicate any kind of significant failures of these switches.

This finding was determined to have a cross-cutting aspect in the area of Human Performance, Resources, in that, Exelon extended the due date to complete the corrective action to support the completion of higher priority items, indicating lack of resources. [H.1] (Section 4OA2.2)

Inspection Report# : [2016002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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Miscellaneous

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