

Beaver Valley 1 4Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Moisture Separator Reheater Valve Misposition Results in Plant Transient

A self-revealing, Green NCV of TS 5.4.1 “Procedures” was identified when an operator did not correctly implement procedure 1OM-52.4.A, Raising Power from 5% to Full Load Operation, Revision 68, during the warm up the moisture separator reheaters. Specifically, a human performance error resulted in a main steam valve being mispositioned that subsequently caused a plant power transient. FENOC entered this issue into the corrective action program under CR 2013-17848 and reviewed the transient under the Reactivity Management Program. The site performed a limited apparent cause evaluation and plans to update the procedure.

The finding is more than minor because it is associated with the Human Performance attribute of the Initiating Events cornerstone and affects 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, a human performance error resulted in a main steam valve being mispositioned that subsequently caused a plant power transient. The finding is also similar to the more than minor example 4.b in IMC 0612, Appendix E, Examples of Minor Issues. In accordance with IMC 0609.04, “Initial Characterization of Findings,” and Exhibit 1 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” issued June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency did not cause both a reactor trip and the loss of mitigation equipment relied upon to transition the plant to a stable shutdown condition. This finding has a cross-cutting aspect in the area of Work Practices, Human Performance because FENOC did not ensure personnel work practices support human performance. Specifically, FENOC operators did not use an appropriate self-check and peer check during an activity with the potential to affect reactivity [H.4(a)].

Inspection Report# : [2013005](#) (*pdf*)

Significance: G Apr 18, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM A WRITTEN EVALUATION AS REQUIRED BY 50.59

The inspectors identified a Severity Level (SL) IV NCV and associated Green finding of 10 CFR 50.59, “Changes, Tests and Experiments,” in that FENOC failed to perform a written evaluation for creation of an abnormal operating procedure (AOP) for response to a security threat. Specifically, FENOC created procedure 1/2OM-53C.4A.100.1 “Security Threat Procedure” to cooldown the reactor coolant system (RCS) in excess of the maximum cooldown rate prescribed in the updated final safety analysis report (UFSAR) and technical specifications (TS) without performing a written evaluation to provide the basis for the determination that a license amendment was not required. FENOC generated CR-2013-06122, 06382, and 07557. FENOC revised the abnormal operating procedure (AOP) to comply with TS as part of the immediate corrective actions.

The inspectors evaluated the performance deficiency using traditional enforcement because the performance deficiency had the potential to impact the regulatory process. This violation is associated with a finding that has been

evaluated by the SDP and communicated with an SDP color reflected of the safety impact of FENOC's deficient performance. The finding is more than minor because if left uncorrected, could have the potential to lead to a more significant safety concern. Specifically, if the procedure were implemented during a security event, FENOC would exceed cooldown rates assumed in the UFSAR accident analyses, potentially challenging the integrity of the RCS. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 1 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency represented a transient initiator that would not cause a reactor trip and loss of mitigation equipment relied upon to transition the plant from the onset of a trip to a stable shutdown condition. In accordance with Section 6.1.d.2 of the NRC Enforcement Policy, this violation is categorized as an SL IV because the resulting conditions were evaluated as having very low safety significance (Green) by the SDP. This finding has a cross-cutting aspect in the area of Human Performance, Work Practices because FENOC did not follow their 10 CFR 50.59 User Guidelines. Specifically, FENOC did not appropriately follow the regulatory applicability process, and as a result concluded that 50.59 was not applicable to implementation of 1/2OM-53C.4A.100.1. Although the performance deficiency occurred in 2005, the underlying cause of this performance deficiency is indicative of current performance because subsequent revisions of 1/2OM-53C.4A.100.1 and 100.2 (the most recent revision implemented on December 12, 2012) have not conducted written evaluations due to failure to appropriately follow the 10 CFR 50.59 User Guidelines causing the inaccurate conclusion that either 50.59 was not applicable or a written evaluation was not required [H.4(b)].

Inspection Report# : [2013003](#) (pdf)

Mitigating Systems

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance:  Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Insufficient VHRA Control Under Vessel

The inspectors identified a Green non-cited violation involving the failure to properly ensure that a device used to control access to a Very High Radiation Area was adequate to prevent an unauthorized entry into the area. Specifically, the licensee used a pliers-style locking device that did not provide a robust locking mechanism to prevent unauthorized access into a VHRA. In response to the concern, FENOC entered the issue into the corrective action program as CR 2013-18743 and changed the VHRA locking device at the Unit 2 reactor keyway.

The finding is more than minor because it is associated with the Program and Process attribute of the Occupational

Radiation Safety Cornerstone and affects the cornerstone objective of ensuring the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine reactor refueling operations. The finding is also similar to the more-than-minor example 6.g in IMC 0612, Appendix E, “Examples of Minor Issues” issued August 11, 2009. In accordance with IMC 0609.04, “Initial Characterization of Findings,” issued June 19, 2012 and IMC 0609, Appendix C, “Occupational Radiation Safety Significance Determination Process,” issued August 19, 2008, the finding was determined to have very low safety significance (Green), because the finding was identified during a routine test and no unauthorized entry occurred, did not result in an ALARA Planning or work control issue, did not result in an overexposure nor was there a substantial potential for an overexposure, and the ability to assess dose was not compromised. The finding has a cross-cutting aspect in the area of Corrective Action Program, Problem Identification and Resolution, in that FENOC did not identify that the locking device was inadequate for the reactor keyway VHRA, and consequently, did not plan to replace the same type of device in place at Unit 2, even after replacing the failed reactor keyway VHRA locking device at Unit 1 [P.1(c)].

Inspection Report# : [2013005](#) (*pdf*)

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.

Miscellaneous

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