Beaver Valley 1
1Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Apr 30, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADEQUATE CONTAINMENT ISOLATION VALVE LEAKAGE TESTING PROCEDURE RESULTS IN RCS PIPING WATER HAMMER
A self-revealing Green NCV of TS 5.4.1, "Procedures", for FENOC's failure to establish adequate procedural guidance for plant conditions for containment isolation valve leakage testing. Specifically, inadequate procedural guidance in BVT-1.47.11, Safety Injection and Charging System Containment Penetration Valve Integrity Test , established plant conditions that resulted in a water hammer event in RCS safety injection piping. FENOC entered this issue into the corrective action program for resolution as (CR 2012-06841).
The inspectors determined the failure to establish adequate procedural guidance for plant conditions for containment isolation valve leakage testing is a performance deficiency that was within FENOC's ability to foresee and correct which contributed to a water hammer event in RCS safety injection piping. The finding is more than minor because it affects the procedure quality attribute of the Initiating Events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using "PWR Refueling Operation: RCS level > 23' or PWR Shutdown Operation with Time to Boil > 2 hours and Inventory in the Pressurizer" Checklist 4 of Attachment 1 to Appendix G of IMC 0609. No loss of control occurred and all mitigating capabilities were available, therefore a Phase 2 quantitative assessment was not required, therefore the inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of Human Performance, Work Control, because FENOC failed to coordinate work activities impacted by changes to the work scope in the plant [H.3(b)].

Inspection Report# : 2012003 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2012
Identified By: Self-Revealing
Item Type: FIN Finding
REMEDIAL EXAMINATION FAILURE RATE EXCEEDS 10 PERCENT
A self-revealing Green finding was identified when greater than 10 percent of reactor operators who failed the biennial written requalification examination subsequently failed the remediation examination. A performance deficiency existed since the re-examination failure rate exceeded guidance in NRC Inspection Procedure (IP) 71111.11B, Appendix F, which is an industry standard. The licensee has entered this issue into the corrective action program as CR 2012-11110.
This finding was more than minor because it was associated with human performance attribute of the mitigating systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and, if this finding were left uncorrected

would have the potential to lead to a more significant safety concern. The finding was determined to be of low safety significance (Green) based upon guidance from Inspection Manual Chapter 0609, "Significance Determination Process," Appendix I, "Licensed Operator Requalification Significance Determination Process" because more than 10 percent of the licensed operators who were remediated failed their remediation examination.
The inspector determined that this finding had a cross-cutting aspect in the area of Human Performance, Resources, in that FENOC did not apply sufficient resources to properly remediate licensed operators who had failed their biennial written requalification examination [H.2.(b)].

Inspection Report# : 2012004 *(pdf)*

Significance: G Apr 15, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
INADEQUATE MAINTENANCE RESULTS IN LOW HEAD SAFETY INJECTION SYSTEM EXCEEDING OUTSIDE CONTAINMENT LEAKAGE RATE
A self-revealing Green NCV of License Condition 2.C.6.(2), Outside Containment Leakage Rate, was identified in FENOC's failure to perform adequate maintenance and restoration of the Unit 1 LHSI system. The inspectors determined the failure to adequately perform maintenance and restore the LHSI system to service is a performance deficiency that was within FENOC's ability to foresee and correct which contributed to the inoperability of the LHSI system in November 2011 and exceeding the outside containment leakage rate. FENOC entered this issue into their corrective action program as CR 2010-85863, 2012-05832, and 2012-06658.
This finding is more than minor because it affects the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The inspectors and a Region I Senior Reactor Analyst (SRA) evaluated the finding using Phase 1, "Initial Screening and Characterization" worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." Per Table 4a, under the Mitigating Systems Cornerstone, the inspectors determined this finding was not a design or qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Accordingly, under the Mitigating Systems Cornerstone this finding screens as Green. However, under the Barrier Integrity Cornerstone, the inspectors determined this finding represents an actual open pathway in the physical integrity of reactor containment via a heat removal system and warrants a review per Appendix H, "Containment Integrity Significance Determination Process." The inspectors and SRA determined that this finding is appropriately categorized as a Type A finding, per Appendix H, because the degraded relief valve adversely affects the operability of the LHSI system, a closed system which extends beyond the containment boundary. Based upon the above Mitigation System Cornerstone determination that this finding screens to Green (no significant increase in core damage frequency) and Table 4.1, that categorizes the faulted relief valve, that is connected to a small line (less than 1 to 2 inches in diameter) and connected to a closed system, as a condition that generally does not contribute to LERF, this finding screens per Appendix H, Figure 4.1, as very low safety significance.
This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience, because FENOC failed to implement operating experience through changes to station procedures and equipment [P.2 (b)].

Inspection Report# : 2012003 *(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.

Miscellaneous

Last modified : June 04, 2013