

# Beaver Valley 1

## 2Q/2009 Plant Inspection Findings

---

### Initiating Events

**Significance:**  Sep 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Procedure Use Errors Result in Loss of an Electrical Bus**

A self-revealing NCV of TS 5.4.1.(a), "Procedures", was identified in that FENOC failed to properly implement procedures and required actions in planning, tagging, and electrical system operation. A series of procedural use errors in control of maintenance, equipment control and electrical system operation resulted in the inadvertent loss of the 1G 4160VAC (4kV) electrical bus. The licensee remediated the operating crew and communicated station expectations regarding organizational interfaces and procedural compliance. This was also communicated to all station crews, maintenance, and construction services departments. This finding is more than minor because it is similar to Inspection Manual Chapter (IMC) 0612, Appendix E, example '3b', since the procedural use errors resulted in the loss of the 1G Bus. Traditional enforcement does not apply because the issue did not have an actual safety consequence or the potential for impacting NRC's regulatory function, and was not the result of any willful violation of NRC requirements. In accordance with IMC 609, Attachment 609.04, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low risk significance. The cause of this finding is related to the cross-cutting area of human performance, in that FENOC's failed to follow station procedures resulting in a loss of the 1G bus [H.4.(b)]

Inspection Report# : [2008004](#) (*pdf*)

---

### Mitigating Systems

**Significance:**  Jun 30, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Inadequate Post-Maintenance Testing Specified for Safety-Related River Water Check Valve**

•Green. A non-cited violation (NCV) of 10CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" was identified for failure to specify and perform an adequate post-maintenance test (PMT) after replacing a safety-related river water check-valve. Specifically, the PMT under work order 200233562 was not adequate to verify the proper function of the valve 1RW-57 prior to its return to service. The PMT was subsequently performed successfully. This issue was entered into the licensee's corrective action program as condition report 09-59866.

The failure to specify and perform an adequate PMT after replacing a safety-related river water check-valve was a performance deficiency. The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), "Issue Screening," because the failure to specify and perform an adequate PMT is associated with the procedure quality performance attribute of the mitigating systems cornerstone and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences.

This finding has a cross-cutting aspect in the area of human performance associated with resources because the licensee did not have complete, accurate, and up-to-date maintenance work procedures [IMC 0305 Aspect: H.2(c)] (Section 1R19).

Inspection Report# : [2009003](#) (*pdf*)

**Significance:**  Jun 30, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Continuously Submerged Cables Design Deficiency**

• Green. The inspectors identified a non-cited violation (NCV) of 10CFR Part 50, Appendix B, Criterion III, “Design Control,” in that FENOC failed to maintain safety-related cables in an environment for which they were designed. Since NRC Information Notice 2002-12 was issued, FENOC has had several opportunities to trend as-found data, implement effective maintenance programs, and identify and thoroughly evaluate long-term adverse conditions for underground safety-related cables exposed to continuous submerged environments. Cables affected include those for Unit 1 river water and Unit 2 service water. The issue was entered into the licensee’s corrective action program (CR 09-60496) to initiate a review of the current manhole and cable monitoring programs, and to initiate long-term corrective actions.

Failure to maintain safety related cables in an environment for which they were designed is considered a performance deficiency. The finding was more than minor in accordance with IMC 0612, Appendix B (Section 1-3), “Issue Screening,” because if left uncorrected, the performance deficiency has the potential to lead to a more significant safety concern. Specifically, the deficiency did not result in the present loss of operability or functionality and did not represent a risk significant external event such as flooding. The issue was entered into the licensee’s corrective action program (CR 09-60496) to initiate a review of the current manhole and cable monitoring programs, and to initiate long-term corrective actions.

The performance deficiency had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee did not thoroughly evaluate problems such as resolutions, address causes, and evaluate the effectiveness of corrective actions [IMC 0305 Aspect: P.1 (c)] (Section 40A2.3).

Inspection Report# : [2009003](#) (*pdf*)

**Significance:**  Nov 24, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

**INADEQUATE CORRECTIVE ACTION FOR POTENTIAL BLOCKAGE OF AFW PUMP LUBE OIL COOLING SYSTEM ORIFICES WHEN SUPPLIED BY RW/SW**

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, in that FENOC did not take adequate corrective action following the identification of a condition adverse to quality. Specifically, in 2004, 2005 and 2006, FENOC identified that if the Unit 1 river water (RW) system or the Unit 2 service water (SW) system was aligned to the suction of the auxiliary feedwater (AFW) pumps it could result in blockage of cooling water flow for the pumps, but did not take actions to correct the deficiency. FENOC entered the issue into their corrective action program to correct the non-conformance. In addition, FENOC developed Operations Department standing orders to limit the use of TS action statement 3.7.6.a which credited the use of the lineup, and formalized compensatory actions to address an Appendix R compliance deficiency. The finding was more than minor because there was reasonable doubt as to the operability of the AFW system when supplied from RW or SW systems. In addition, the finding was associated with the design control attribute of the Mitigating Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Since the finding represented a potential loss of safety function, the team conducted Significance Determination Process (SDP) Phase 2 and Phase 3 analyses which determined the finding was of very low safety significance (Green). Finally, the finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program Component, because FENOC did not adequately evaluate this condition adverse to quality, including classifying, prioritizing, and evaluating for operability when it was identified in February 2004, and again in March 2005 and June 2006.

Inspection Report# : [2008008](#) (*pdf*)

---

## **Barrier Integrity**

---

## **Emergency Preparedness**

---

## **Occupational Radiation Safety**

---

## **Public Radiation Safety**

---

## **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 31, 2009