

# Beaver Valley 1

## 1Q/2009 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 12, 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*)

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### Mitigating Systems

**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*)

**G**

**Significance:** Jun 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Inadequate Maintenance Procedure Results in Unexpected Terry Turbine Speed Increase**

A self-revealing NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified in that the licensee failed to incorporate sufficient assembly detail into the maintenance procedure for the governor linkage on the Turbine-Driven Auxiliary Feedwater (TDAFW) pump. The required gaps and tightening criteria for the reassembly of the governor valve linkage were not included in the overhaul procedure resulting in jam nuts loosening, allowing the valve stem to rotate. Rotation of the valve stem caused an uncontrolled change in position of the governor valve position. This resulted in an unanticipated speed increase of the TDAFW during the performance of surveillance test 1OST-24.4 "Steam Turbine Driven Auxiliary Feed Pump Test [1FW-P-2]." Corrective actions included a change to the maintenance procedure and the installation of spacer shims for the anti-rotation block.

This finding was more than minor because it affected the equipment performance attribute of the associated Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter (IMC) 0609, 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 did not maintain a complete, accurate, and up-to-date governor overhaul procedure in regards to actuator reassembly which resulted in speed control degradation to the TDAFW [H.2.(c)]

Inspection Report# : [2008003](#) (*pdf*)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **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.

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# Miscellaneous

Last modified : May 28, 2009