

## Beaver Valley 1 1Q/2005 Plant Inspection Findings

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### Initiating Events

**Significance:**  Sep 30, 2004  
Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE DESIGN CONTROL ASSOCIATED WITH UNIT 1 FLOOD CONTROL LEVEL SWITCHES**

The inspectors identified a non-cited violation of 10 Code of Federal Regulations (CFR) 50 Appendix B, Criterion XI, "Test Control," because four Unit 1 flood control level switches were found inoperable. Specifically, the NRC identified that these flood switches lacked surveillance or functional testing requirements that would have identified the inoperable and poorly designed flood switches.

The finding is more than minor since it affects the reliability of various mitigating systems during a flooding scenario. If an internal or external flood had occurred, no alarm would be received in the control room. The finding is of very low safety significance because operator rounds each shift would promptly alert the control room personnel of flooding conditions which could affect mitigating systems. [This finding was related to the Problem Identification and Resolution cross cutting area in that FENOC failed to identify the lack of adequate testing of these flood switches since initial construction.]

Inspection Report# : [2004005\(pdf\)](#)

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### Mitigating Systems

**Significance:**  Mar 31, 2005  
Identified By: Self Disclosing

Item Type: NCV NonCited Violation

#### **INEFFECTIVE PROCEDURAL CONTROLS CAUSED A MECHANICAL SEAL FAILURE ON THE UNIT 1 "A" RIVER WATER PUMP**

A self-revealing, non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified, which involved maintenance procedures used for installation of mechanical seals that were not implemented correctly and did not contain appropriate quantitative acceptance criteria (e.g., torque values). This resulted in subsequent seal failure and shaft damage to the "A" river water pump. The failure was caused by incorrect bolting material installed on the mechanical seal package, contrary to approved instructions and drawings, and incorrect torque values that were specified in the work instructions.

This finding is greater than minor because it affected an attribute and objective of the Mitigating Systems Cornerstone, in that it reduced the availability and reliability of a safety-related river water pump. Specifically, the seal failure and shaft damage resulted in the unplanned unavailability of the river water pump until repairs were completed. Further, from a reliability perspective, the degraded seal increased the likelihood of failure when the pump would be required to perform its safety function during design basis events, as evidenced by its ultimate failure when the pump was placed in service in March 2005. The finding is of very low safety significance since the river water pump was out of service for less than its technical specification allowed outage time. A contributing cause to this finding is related to the corrective action subcategory of the problem identification and resolution cross-cutting area, because seal leakage was not appropriately evaluated for a period of nine months until the pump was secured due to the seal failure.

Inspection Report# : [2005002\(pdf\)](#)

**Significance:**  Dec 31, 2004  
Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO TAKE ADEQUATE CORRECTIVE ACTIONS TO PRECLUDE REPETITIVE EMERGENCY RESPONSE FACILITY EMERGENCY DIESEL GENERATOR FAILURES**

The inspectors identified a non-cited violation of the Unit 1 facility operating license, Section 2.C.5, "Fire Protection Program" for failure to adequately correct repetitive failures of the Emergency Response Facility (ERF) Emergency Diesel Generator (EDG). The ERF EDG provides emergency power to the 'dedicated' Auxiliary Feedwater (AFW) pump which is required by the Unit 1 Updated Fire Protection Appendix 'R' Review, Rev. 25, due to the lack of fire train separation of the three safety-related Unit 1 AFW pumps.

The finding is greater than minor because it adversely affected the availability of a fire protection program component and mitigating systems

cornerstone objective. The finding is of very low safety significance due to the lack of large fire sources as well as the existence of sufficient cable separation in the affected fire zone. This finding is related to the problem identification and resolution cross-cutting area because the licensee's failure to implement effective corrective actions resulted in three ERF EDG failures in 2004.

Inspection Report# : [2004006\(pdf\)](#)

**G**

**Significance:** Jul 23, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE CORRECTIVE ACTION ASSOCIATED WITH A BORIC ACID LEAK ON THE UNIT 1 'A' LHSI PUMP**

The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because inadequate corrective action associated with boric acid leakage caused a low head safety injection (LHSI) pump to be rendered inoperable. The affected pump was subsequently repaired and returned to service.

This finding is greater than minor because it affected the availability and reliability of a mitigating systems component. The finding is of very low safety significance because the LHSI pump was out of service for less than its allowed outage time of 72 hours. [This finding was related to the Problem Identification and Resolution Cross-Cutting area, in that inadequate problem resolution led to the ultimate plug failure which rendered the 'A' LHSI pump out of service.]

Inspection Report# : [2004004\(pdf\)](#)

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## Barrier Integrity

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## Emergency Preparedness

**G**

**Significance:** May 13, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

#### **PAR DEVELOPMENT DEFICIENCY NOT IDENTIFIED BY THE LICENSEE IN ITS CRITIQUE**

The inspectors identified a non-cited violation against 10 CFR 50 Appendix E, Section IV.F.2.g, when the licensee's critique did not identify an invalid radiological release duration time used in dose projections during the May 11, 2004, exercise.

This finding is more than minor because it affects the emergency response organization performance attribute of the emergency preparedness cornerstone. Failing to identify and correct an invalid radiological release duration time could impact the EP cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Because the performance problem occurred with a protective action recommendation developed in association with a successful Drill and Exercise Performance (DEP) Performance Indicator (PI) opportunity, it is not considered to be a loss of planning standard function of 10 CFR 50.47(b)(14) and therefore is of very low safety significance.

Inspection Report# : [2004008\(pdf\)](#)

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## Occupational Radiation Safety

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## Public Radiation Safety

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## Physical Protection

[Physical Protection](#) information not publicly available.

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## Miscellaneous



**Significance:** Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

### **ACCEPTABILITY OF LICENSEE'S SIMULATOR TESTING METHODOLOGY**

The inspectors identified a finding because the licensee's methodology for simulator testing deviated from the accepted guidance. Inspectors noted the potential existed for deviations to be introduced between the plant's control room and the plant reference simulators. Deviations could cause negative training, which in turn could have an adverse effect on operator actions during plant operations.

The finding is more than minor because it affects the Human Performance attribute of the Mitigating Systems Cornerstone, in that simulator deviations could lead to pre- and post-event human error. The finding is of very low safety significance since the finding is related to simulator fidelity, and deviations between the actual plant and the simulator could impact operator actions.

Inspection Report# : [2004005\(pdf\)](#)

Last modified : June 17, 2005