

Beaver Valley 1 2Q/2005 Plant Inspection Findings

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\(pdf\)](#)

Mitigating Systems

Significance:  Jun 30, 2005

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

INADEQUATE PROCEDURE RESULTS IN INCORRECT LEAD TIME CONSTANT IN THE OVER TEMPERATURE DELTA TEMPERATURE REACTOR TRIP FUNCTION

A self-revealing, non-cited violation of the Unit 1 Technical Specification (TS) Limiting Condition for Operation (LCO) 3.3.1.1 was identified, in that an inoperable channel of the Over-Temperature Delta-Temperature (OTDT) Circuit was not placed in the tripped condition within six hours. Specifically, inadequate procedural steps within maintenance procedures resulted in the lead and lag switches of a circuit card in the OTDT channel of the Reactor Protection System (RPS) being left in the "OFF" position for several days following maintenance.

This finding is greater than minor because it affected an attribute and objective of the Mitigating Systems Cornerstone, in that it reduced the reliability of a RPS component and thus reactivity control was degraded. Specifically, the lead and lag switches being left in the "OFF" position caused the loop 1 channel OTDT setpoint to be less responsive than required by TS. The finding is of very low safety significance because the affected channel of OTDT was still capable of causing a reactor trip and other trips were available to provide a backup to this safety function.

Inspection Report# : [2005006\(pdf\)](#)

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: **G** 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\(pdf\)](#)

Significance: **G** 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\(pdf\)](#)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

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 : August 24, 2005