Beaver Valley 1
1Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2005
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
OVERPOWER EVENT CAUSED BY INADVERENT OPENING OF A FEEDWATER HEATER BYPASS VALVE
The inspectors identified a self-revealing non-cited violation (NCV) of License Condition 2.C.1, because reactor power exceeded the licensed maximum power level of 2689 (100 percent) megawatts thermal. The transient was caused by an inadequate procedure that resulted in the unexpected opening of a feedwater train bypass valve, and an overpower excursion to approximately 105 percent power for four minutes.

This finding is more than minor because it affected an attribute and the objective of the initiating events cornerstone in that it caused a transient that upset plant stability and therefore could be viewed as a precursor to a significant event. Without operator action, this inadvertent valve opening could have resulted in a reactor trip. This finding is of very low safety significance since although it did contribute to the likelihood of a reactor trip, it did not contribute to the likelihood of unavailable mitigating system components. FENOC initiated a root cause investigation, identified deficiencies in the procedure and work order, and have identified actions in the corrective action program to prevent this event from recurring. A contributing cause to this finding is related to the resources subcategory of the human performance cross-cutting area because the resources aspect includes items that support performance such as complete and accurate procedures.
Inspection Report# : 2005007*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO SCOPE A SEISMIC, SAFETY-RELATED STRUCTURE INTO THE MAINTENANCE RULE STRUCTURAL MONITORING PROGRAM
The inspectors identified a Non-Cited Violation for failure to include seismic, safety-related valve pits for Unit 1 in the structural monitoring program of the maintenance rule as required by 10 CFR 50.65 (b). FENOC's failure to monitor valve pit structures could have led to the failure to identify rain water, groundwater or piping leaks, as well as pipe and valve support degradation, potentially rendering the river water cross-connect valves unable to perform their required safety function. This finding was entered into the corrective action program for resolution. The licensee has inspected one of two valve pits, has scheduled the inspection of the other valve pit, and will be adding these structures into the appropriate plant procedures and processes to ensure the requisite inspections are performed.

This finding was considered more than minor, because it was associated with the equipment performance attribute of the Mitigating System Cornerstone, and affected the availability and reliability of mitigating equipment. This finding was of very low safety significance since there never was a loss of function of the equipment in these structures.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE CORRECTIVE ACTIONS TO RESOLVE MAIN STEAM SAFETY VALVE (MSSV) COMPONENT DEFICEINCIES THAT WERE THE SUBJECT OF INDUSTRY OPERATING EXPERIENCE
The inspectors identified a self-revealing Non-Cited Violation against 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, for inadequate corrective actions to resolve main steam safety valve (MSSV) component deficiencies in Unit 1. Specifically, the failure to internalize several years of industry operating experience impacted the initial lift setpoints of all main steam safety valves on the "C" main steam header, and would have led to higher lifting pressures for potentially the entire operating cycle. This finding was entered into the corrective action program for resolution. Subsequently, the licensee performed a root cause evaluation, replaced all five "C" main steam header MSSVs with improved materials less susceptible to the failure mechanisms encountered, and will perform a mid-cycle lift test as a proof test of the new materials.

The inspectors determined this finding is more than minor because it impacted the reliability and function of mitigating equipment important to

safety. The inspectors determined that this finding is of very low safety significance, because there was no overall loss of function due to the redundant safety and atmospheric relief valves that remained capable of performing the necessary design basis function. A contributing cause to this finding is related to the identification subcategory of the problem identification and resolution cross-cutting area. Specifically, the failure to internalize several years of industry operating experience resulted in the oxidation condition that impacted the initial lift setpoints of all MSSVs on the “C” main steam header for potentially the entire operating cycle.

Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: FIN Finding
FAILURE TO CONSIDER EXTERNAL EVENTS DURING REACTOR COOLANT SYSTEM DRAIN-DOWN ACTIVITIES
The inspectors identified a finding which involved the failure to adequately plan for entry into a reduced inventory condition during the Unit 1 refueling outage. This resulted in an increased exposure to a reduced “time to boil”. Controls were not in place to ensure that post drain-down required equipment was properly staged. Specifically, the reactor coolant system (RCS) drain-down was prematurely secured when it was discovered that the stud de-tensioners were not staged in containment to begin entry into reactor operating mode 6. Stud de-tensioner movement into the containment had been halted during the drain-down due to a suspension of crane operations as a result of high winds. The licensee entered this deficiency into their corrective action program for resolution. In addition, a trend review condition report was initiated to evaluate the shutdown risk impacts that resulted from this and other issues that arose during the outage.

This finding is greater than minor because the licensee’s risk assessment failed to consider unusual external conditions that were present or imminent. This finding was determined to be a finding of very low safety significance because the event did not involve a loss of control or a reduction in mitigation capability. The cause of this finding is related to the cross-cutting element of human performance.
Inspection Report# : 2006002*(pdf)*

Significance: G Sep 01, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Unannounced Fire Drills Not Conducted in Accordance with Requirements
The team identified a non-cited violation of BVPS Units 1and 2, Facility Operating Licenses for improper planning and scheduling of unannounced fire brigade drills. For several years, the unannounced drills were in the weekly planning schedule; therefore, the fire brigade knew when the drill was going to be conducted. The finding was associated with the cross-cutting area of problem identification and resolution because the condition existed for several years, BVPS did not identify the deficient condition, and corrective actions to this deficiency were untimely.

The finding was more than minor because it affected the Mitigating System cornerstone and the reliability and capability of the fire brigade's ability to respond to a fire. The failure to conduct proper unannounced drills for several years resulted in BVPS not being able to fulfill the purpose of unannounced drills, which is to determine the fire fighting readiness of the plant fire brigade, brigade leader, and fire protection systems and equipment. NRC management reviewed this finding and determined it to be of very low safety significance (Green) based on no significant identified weaknesses with fire brigade performance during announced drills. The finding was associated with the cross cutting area of problem idenitification and resolution in that BVPS failed to identify the problem for serveral years.
Inspection Report# : 2005005*(pdf)*

Significance: G Jun 30, 2005
Identified By: Self-Revealing
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. [A contributing cause to this finding is related to the resources subcategory of the human performance cross-cutting area because the resources aspect includes items that support performance such as complete and accurate procedures.]
Inspection Report# : 2005006*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Sep 01, 2005
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Resolution Inspection -Team Summary
Overall, the team determined that the corrective action program at Beaver Valley Power Station (BVPS) was generally effective in the identification, evaluation, and resolution of problems. The team determined that BVPS typically identified problems and placed them in the corrective action program, but noted some deficiencies in the identification of issues as evidenced by several NRC-identified NCVs during the previous two years. The team also identified deficiencies in the identification and resolution of trends in the corrective action program for repeat maintenance and human performance issues. The team noted that BVPS was effective in conducting root cause and apparent cause evaluations. Therefore, BVPS effectively resolved problems categorized as more significant. However, the majority of items were classified at other significance levels, including some of the non-cited violations. In these cases, the team identified inconsistent evaluation and resolution including one of the two non-cited violations identified during this inspection. The team did not identify any safety conscious work environment issues.
Inspection Report# : 2005005*(pdf)*

Last modified : May 25, 2006