

Beaver Valley 2

2Q/2008 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2008

Identified By: Self-Revealing

Item Type: FIN Finding

Deficient Control of Clearance Posting Interrupts Reactor Coolant Charging Path while Vessel Water Level Drained below the Flange.

A self-revealing finding was identified for failure to properly coordinate clearance activities associated with testing for penetration 2X-46 during reduced reactor coolant system level. A decision to post a clearance to support penetration testing resulted in the isolation of the make-up flow charging path to the reactor coolant system, resulting in an unexpected reduction of reactor coolant vessel that was identified and stabilized within the established band. The licensee's immediate corrective actions were to stop work, perform system configuration verification, and re-evaluated in-progress and planned activities for plant safety impact. Long-term corrective actions include a change in procedures to not allow this type of penetration test in this plant configuration.

The finding is more than minor because it affects the configuration control attribute of the Initiating Events cornerstone and affects the shutdown equipment lineup needed for stable reactor vessel level control during reduced RCS level operations, a high risk evolution. The inspectors performed a Phase 1 SDP evaluation in accordance with IMC 0609, Appendix G, Attachment 1, Checklist 3, Pressurized Water Reactor Cold Shutdown and Refueling Operation with RCS Open and Refueling Cavity Level < 23'. The inspectors reviewed station drawings and records of reactor vessel level indication during the event. The inspectors determined that although make-up flow was momentarily isolated, reactor vessel level was maintained, sufficient indication existed, and no actual loss of RCS inventory occurred. Therefore, a Phase 2 quantitative assessment was not required and the issue screened to Green (very low safety significance).

The cause of this finding is related to the cross-cutting area of human performance, in that FENOC did not appropriately coordinate work activities for the existing plant conditions to ensure the operational impact on reactor vessel level while at a reduced water level understood [H.3(b)]. (Section 1R20)

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

Significance: G Jun 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Properly Implement Operating Procedure during Plant Startup

A green self-revealing NCV of TS 5.4.1.(a) was identified in that the licensee failed to take appropriate action to trip the main turbine as specified in 2OM-52.4.A, "Raising Power from 5% to Full Load Operation," Rev. 13 during an unexpected main turbine load increase that caused average reactor coolant temperature to lower below the operational limit of 541F. The licensee has developed and implemented an operations department rapid improvement plan.

This finding was more than minor because it can be reasonably viewed as a precursor to a significant event. 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 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 failed to properly communicate critical parameters and limitations for personnel to perform work safely in a timely manner [H.1.(c)]. (Section 4OA3.3)

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

Mitigating Systems

G

Significance: Jun 30, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Properly Implement Abnormal Operating Procedure During Plant Startup

A green self-revealing NCV of TS 5.4.1.(a) was identified in that the licensee failed to properly enter and implement the appropriate abnormal operating procedure (AOP) for loss of main feedwater. Had the crew entered the Loss of Main Feedwater AOP, the procedure would have directed the crew to insert a manual reactor trip.

The licensee has developed and implemented an operations department rapid improvement plan.

This finding was more than minor because it can be reasonably viewed as a precursor to a significant event.

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 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 failed to properly implement appropriate roles and authority for decision making during risk-significant decisions. [H.1.(a)]. (Section 40A3.4)

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

G

Significance: Mar 31, 2008

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Incorrect performance of Test Procedure

A self-revealing, Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XI "Test Control," was identified for the failure to properly perform line starter testing for a Unit 2 safety-related battery exhaust fan (2HVZ-FN216B) in accordance with the written test procedure. The test procedure for the line starter establishes test conditions by

installing jumpers into a process rack, RK-2SEC-PROC-B1. Due to misidentification, jumpers were installed into the incorrect process rack, RK-2SEC-PROC-B. This rendered the 'B' train of Quench Spray Chemical Additive System inoperable for less than the allowed outage time. The licensee entered the deficiency into their corrective action

program as Condition Report 08-37168. FENOC performed a root cause evaluation, evaluated appropriate human performance contributors, and initiated corrective actions to prevent recurrence. The finding is greater 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. This finding is also similar to example 4.b of Manual Chapter 0612, Appendix E. Using Manual

Chapter 0609, "Significance Determination Process," Phase 1 worksheet, the finding was determined to have very low safety significance, because there was no overall loss of system function due to system redundancy and the system would have been able to perform its required safety function for the applicable mission time during design basis

events. The cause of this finding is related to the cross-cutting area of human performance, in that FENOC failed to utilize adequate self and peer checking during the identification of equipment and circuits specified in the test plan

[H.4(a)].

Inspection Report# : [2008002](#) (pdf)

G

Significance: Dec 31, 2007

Identified By: NRC

Item Type: FIN Finding

Ineffective Corrective Action for Preventing Postponing of Safety Related Heat Exchanger Cleaning

The inspectors identified a green finding because FENOC failed to meet a commitment made in their Generic Letter (GL) 89-13 program. Specifically, after a self-assessment identified the potential for postponing the cleaning of safety related heat exchangers, which was contrary to the Beaver Valley GL 89-13 commitments, corrective actions were

developed to prevent postponement of the planned cleanings. These actions were insufficient to prevent the postponement of cleanings of both the Jacket Water and Intercooler heat exchangers for the 2A Emergency Diesel

Generator (EDG) in October 2006. This issue was entered into the corrective action program as CR 07-29900. The

licensee performed a prompt operability determination to show reasonable assurance of operability through the rest of the operating cycle.

This finding is more than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspector conducted a Phase 1 SDP screening and determined the finding to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function or loss of a single train for greater than its allowed technical specification time, and did not screen as potentially risk significant due to seismic, flooding, or severe weather initiating events. This finding did not involve a violation of NRC regulatory requirements.

The cause of this finding is related to the cross-cutting area of problem identification and resolution, in that a 2004 self-assessment identified this potential vulnerability, but the resulting corrective actions were ineffective in preventing it [P.3 (c)]. (Section 1R07)

Inspection Report# : [2007005](#) (*pdf*)

Significance:  Aug 07, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

POST-FIRE SAFE SHUTDOWN CAPABILITY DEGRADED DUE TO AMMONIA GAS HAZARD

Green. (Section 1R05) The inspectors identified a non-cited violation (NCV) of Unit 2 license condition 2.F for failure to maintain adequate protection of a post-fire safe-shutdown area. Ammonia gas migrated through a floor drain, and concentrated in an area (MCC*2-E04 cubicle) at Unit 2 required to achieve and maintain hot standby and cold shutdown. The ammonia gas concentration was sufficient to impede entry into the cubicle and resulted in a degradation of FENOC's fire protection safe shutdown capabilities. The licensee took corrective actions to stage emergency breathing equipment near the area, established monitoring and mitigative actions for the ammonia gas in the cubicle, and entered the deficiency into their corrective action program.

This finding is more than minor because it affects the licensee's post-fire safe-shutdown capability and is associated with the Mitigating Systems Cornerstone and the respective attribute of external factors. Using Phase 1 and 2 of the Fire Protection Significance Determination Process, Inspection Manual Chapter (IMC) 0609, Appendix F, the inspectors determined this finding was of very low safety significance because: (1) duration factor was based on less than three days, (2) fire frequency was based on a cable vault with other electrical equipment, and (3) at least one train of safe shutdown system is still available. The cause of this finding is related to the cross-cutting area of problem identification and resolution, in that timely and appropriate actions were not taken to address safety issues and adverse trends [P.1 (d)].

Inspection Report# : [2007004](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational 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 29, 2008