

Summer

2Q/2008 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2008

Identified By: NRC

Item Type: FIN Finding

Untimely Corrective Actions To Resolve Feedwater Regulating Valve Malfunction Resulted In Reactor Trip

A Green self-revealing finding was identified for the failure to implement effective and timely corrective actions to prevent failure of a main feedwater regulating valve IFV000498 that resulted in a reactor trip. This valve failed due to previously identified pneumatic positioner pilot valve malfunction caused by either pilot valve stem fretting and/or foreign material intrusion from various internal air supply sources. All three loop feedwater regulating valve positioners and air supply components subject to potential sources of contamination were replaced prior to startup from the reactor trip. During Refueling Outage 17, modifications were completed to reduce vibration induced wear of control air system components and improve air quality to the positioners until the current positioner models can be replaced with a new design. This finding was entered into the licensee's corrective action program as Condition Report 08-00292.

This finding is greater than minor because it is associated with the Initiating Event Cornerstone attribute of equipment performance, and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during at-power operations. The finding was evaluated using Phase 1 of the At-Power SDP, and was determined to be of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions were not available. The cause of this finding was directly related to the aspect of appropriate and timely corrective action in the cross-cutting area of Problem Identification and Resolution (Corrective Action component) because actions to address previously identified feedwater regulating valve positioner pilot valve fretting and foreign material intrusion were not implemented in a timely manner (P.I.d).

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

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to maintain two required reactor coolant system leak detection systems operable and complete the required TS actions

Green. A Green non-cited violation (NCV) of Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.4.6.1, "Leak Detection Systems", was identified by the inspectors for failure to maintain two required reactor coolant system (RCS) leak detection systems operable and complete the required TS actions. Specifically, the Reactor Building Cooling Unit (RBCU) condensate drain flow detector (IFS01900A) was discovered to be inoperable for a significant period of time due to debris clogging the flow detector flow path. During the last three years prior to October 4, 2007, this condition was coincident with multiple time periods when the reactor building atmosphere gaseous and particulate radioactivity monitors were also inoperable for greater than six hours. The licensee immediately cleaned the condensate flow detector piping, calibrated the detector, restored compliance with TS, and documented this issue in their corrective action program as CR-07-02167 and CR-07-03332.

This finding was more than minor because it affected the availability, reliability, and maintenance of the barrier integrity equipment performance attribute of the initiating events cornerstone and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. With the RBCU condensate flow detector inoperable coincident with reactor building atmosphere gaseous and particulate radioactivity monitors, the capability of performing the TS, design bases function was lost for a significant period of time. The finding was evaluated using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Phase I Worksheet for initiating events. The finding is determined to be of very low safety significance because at least one method of RCS leak detection (reactor building

sump level) was available to the licensee above one gpm (the TS required limit for RCS unidentified leakage) was indicated through the RCS water balance surveillance test during the reviewed time period. The finding directly involves the cross-cutting area of Human Performance under the "Complete Documentation and Component Labeling" aspect of the "Resources" component, in that, the condensate flow detector TS surveillance procedure failed to test the capability of the system to perform its specified function to include support and auxiliary equipment (H.2.c).
Inspection Report# : [2007005](#) (pdf)

Mitigating Systems

Significance:  Jun 27, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

B.5.b Phase 2 and 3 Mitigating Strategy

This finding, affecting the Mitigating Systems Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has a cross-cutting aspect in the area of Human Performance (H.2.d). See inspection report for more details.

Inspection Report# : [2008008](#) (pdf)

Significance:  Sep 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Implementation of Dedicated Manual Operator Risk Management Actions During EDG Surveillance Testing

A Green non-cited violation (NCV) of 10 CFR 50.65(a)(4) was identified by the inspectors for the licensee's failure to manage the increase in plant risk during the conduct of "A" emergency diesel generator (EDG) routine surveillance testing. Specifically, the licensee failed to adequately implement the dedicated manual operator risk management compensatory actions for promptly restoring the EDG in the event of an emergency start demand. This resulted in the unplanned and unnecessary unavailability of the EDG during portions of the surveillance activity that relied on these dedicated manual operator actions. The licensee documented this issue in their corrective action program and conducted operator coaching on performing thorough pre-job briefings and the responsibilities of dedicated operators performing risk management actions.

This finding was more than minor because it was associated with the Equipment Performance 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. The finding is of very low safety significance because the Risk Deficit for the finding was calculated (using Appendix K of Inspection Manual Chapter 0609, "Maintenance Risk Assessment and Risk Significance Determination Process") to have been significantly less than 1×10^{-6} . The cause of the finding directly involved the "Supervisory and Management Oversight" aspect of the "Work Practices" component of the cross-cutting area of Human Performance, in that, operator supervisory personnel failed to provide the appropriate level of supervisory oversight, especially during the activity pre-job brief, to ensure the proper implementation of dedicated manual operator risk management actions (H.4(c)).

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

Barrier Integrity

Significance:  Dec 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to implement TS required administrative controls when opening containment isolation valves 8767-DN and 8768-DN

Green. A Green non-cited violation (NCV) of Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.6.4, "Containment Isolation Valves", was identified by the inspectors for the failure to implement required administrative controls when opening the normally locked closed inner and outer manual containment isolation valves (CIVs) 8767-DN and 8768-DN, in containment penetration XRP0231. The licensee drained the penetration, returned the valves to their locked closed positions, and documented this violation in their corrective action program as CR-07-02894.

The failure to implement TS required administrative controls when opening normally locked closed CIVs 8767-DN and 8768-DN constituted a performance deficiency and a finding. This finding is more than minor because it affected the containment boundary configuration control attribute of the barrier integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that the containment physical design barrier protects the public from radionuclide releases caused by accidents or events. The finding was evaluated using Inspection Manual Chapter 0609, "Significance Determination Process," Appendix H, "Containment Integrity Significance Determination Process." This finding is of very low safety significance (Green) because of the short duration both valves were open and the small size of the piping (one-inch) penetrating containment. The finding directly involves the cross-cutting area of Human Performance under the "Work Planning" aspect of the "Work Control" component, in that, appropriate work plans were not implemented to ensure that operators were stationed locally to close both valves in the event of a design bases accident resulting in a violation of TS 3.6.4 (H.3.a).

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

Emergency Preparedness

Occupational Radiation Safety

Public 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

Significance: N/A Mar 28, 2008

Identified By: NRC

Item Type: FIN Finding

Problem Identification and Resolution Inspection Result

The team determined that the licensee was identifying plant deficiencies at an appropriately low level, effectively entering them into their corrective action program (CAP), and performing corrective actions to prevent recurrence. The team determined that while the licensee was properly prioritizing and evaluating issues, several isolated examples were identified where corrective actions did not appear to be accurately documented, or were not completely carried

out. The team also observed that the quality of Condition Report (CR) documentation has improved since the last NRC biennial PI&R inspection, but further improvements could be made. Additionally, there continue to be examples of difficulty in effectively integrating suggested improvements from self-assessments and audits; however, the licensee had shown progress over the inspection period. The team concluded that the licensee was generally providing an effective CAP.

The inspectors observed that the implementation of a new CR software system (Computerized Maintenance Management System (CMMS)) created a number of minor issues regarding the ability to effectively track and implement corrective actions. While no issues existed that warranted regulatory attention, the licensee was aware of the potential pitfalls that existed during the software familiarization period, and they have made numerous enhancements to CMMS to strengthen the software system's use. A review of the technical interface between personnel and the CMMS program identified that personnel were comfortable with the software and its functionality in creating and processing CRs.

On the basis of interviews conducted during this inspection, the inspectors determined that workers at the site felt free to put safety concerns into the corrective action program. The inspectors concluded that the Employee Concerns Program was functioning acceptably

Inspection Report# : [2008006](#) (*pdf*)

Last modified : August 29, 2008