Fort Calhoun
3Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Nov 18, 2008
Identified By: NRC
Item Type: FIN Finding
Inadequate Corrective Actions for Repetitive Failures of a Risk-Significant Valve
DRAFT - The inspectors identified a Green finding for inadequate corrective actions, which resulted in a plant transient. Specifically, prior corrective actions were ineffective at preventing repeated failures of condensate makeup control Valve, LCV 1190, a condition which had the potential to initiate a secondary plant event and/or adversely affect mitigating systems equipment (e.g., impacting the availability of the diesel-driven auxiliary feedwater Pump FW-54.)

The finding was greater than minor because the random failure of LCV-1190 could be reasonably viewed as precursor to a significant event. The finding, which is under the Initiating Events cornerstone, was of very low safety significance because it did not (1) result in exceeding the Technical Specification limit for reactor coolant system leakage, (2) contribute to both the likelihood and a reactor trip and that mitigation equipment would be unavailable, or (3) increase the likelihood of a fire or flood. This finding had a cross-cutting aspect in problem identification and resolution, specifically the evaluation aspect [P.1.(c)] because, as Inspection Manual Chapter 0305 states, licensees should “thoroughly evaluate problems such that the resolutions address the causes and extent of condition...” Based on the inspectors’ review of the previous events, the cause determinations lacked rigor and directly led to the recurrence of this condition.

Inspection Report# : 2008005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: VIO Violation
Failure to Properly Translate Raw Water System Design Basis Requirements
The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, for the failure to correctly translate the Fort Calhoun Station raw water strainer component’s design basis into specifications, procedures, and instructions. The raw water strainers were incorrectly translated as nonsafety related in design documents for their function of filtering small debris from the raw water system although the equipment is relied upon for design basis accident mitigation. This violation was identified by the NRC in 2007 and was a continuing violation that was not corrected in a reasonable time.

This finding was more than minor because it affected the Mitigating System Cornerstone objective of the design control attribute to ensure the reliability and availability of the raw water system to mitigate initiating events. Using the NRC Manual Chapter 0609, Phase 1 screening worksheet, the issue screened as having very low safety significance because it was a design or qualification deficiency confirmed not to result in a loss of operability per Part 9900, “Technical Guidance, Operability Determination Process for Operability and Functional Assessment.” The finding had a problem identification and resolution crosscutting aspect (corrective action component) because the licensee failed to take appropriate corrective actions to address the safety issue in a timely manner [P.1(d)]

Inspection Report# : 2009003 *(pdf)*

Significance: G May 19, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform an Operability Determination after Identifying a Degraded Condition
The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V for failure to follow Procedure NOD-QP-31, "Operability Determinations Process (ODP)", Revision 38. Specifically, the licensee determined that certain relays classified as Functional Importance Determination (FID) 1 should be replaced every 9 or 15 years depending on operating and environmental conditions. The licensee failed to perform an operability determination for this degraded condition. Many of these relays have been installed for 35 years. This condition has been entered into the licensee's corrective action program as Condition Report 2009-2319 & 2342.

The finding was determined to be greater than minor because the performance deficiency is associated with the procedure quality attribute (maintenance procedures) of the mitigating system cornerstone, and the performance deficiency adversely affected the associated cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated this finding using Manual Chapter 0609, Attachment 4, Phase 1 Significance Determination, and determined that it was of very low safety significance (Green) because the failure to perform the operability determination did not result in loss of operability or functionality and because the finding did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the area of human performance, decision-making, in that the licensee did not make safety-significant decisions using a systematic process, especially when faced with uncertain or unexpected plant conditions to ensure safety is maintained.

Inspection Report# : 2009007 *(pdf)*

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Write an Adequate Shutdown Procedure
A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the licensee's failure to take prompt corrective measures after identifying that water could penetrate cracks in the turbine building concrete floor and adversely impact the operability of an emergency diesel generator and safety related switchgear. Cracks in the floor of turbine building mechanical equipment room were identified in February 2006, when water was observed leaking into the Diesel Generator 1 room (Room 63). The licensee took no immediate corrective actions to evaluate or repair the cracks. In February 2009, water was again observed leaking into Room 63, resulting in unexpected tripping of breakers associated with the Diesel Generator 1, secondary compressor motor starter. The licensee entered this issue into their corrective action program as Condition Report 2009-0687.

This finding was more than minor because the failure to perform adequate corrective actions on the turbine building floor, if left uncorrected, could become a more serious safety concern. Specifically, water could seep through the floor and render the emergency diesel generator and/or safety related switchgear inoperable. Using the Manual Chapter 0609, "Significance Determination Process," Attachment 4 "Phase 1 Initial Screening and Characterization of Findings," this finding was of very low safety significance because it: 1) was confirmed to result in a loss of functionality of the secondary compressor motor starter; 2) did not represent a loss of safety function; 3) did not result in a loss of a technical specification required train for more than its allowed outage time; 4) did not result in a loss of risk significant equipment for more than 24 hours; and 5) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding did not have a crosscutting aspect because the performance deficiency was aged and not indicative of current licensee performance.

Inspection Report# : 2009002 *(pdf)*

Barrier Integrity

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 May 15, 2009
Identified By: NRC
Item Type: FIN Finding
Biennial Assessment of Identification of Resolution of Problems
The team reviewed approximately 500 condition reports, work orders, engineering evaluations, root and apparent cause evaluations, and other supporting documentation to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The team reviewed a sample of system health reports, self assessments, trending reports and metrics, and various other documents related to the corrective action program. Because of these reviews, the team concluded that when site personnel identified problems, they entered them into the corrective action program. The team identified several issues with the quality of cause evaluations. The team concluded that corrective actions were generally effective and implemented in a timely manner

The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the corrective action program. The licensee used industry operating experience when performing root cause and apparent cause evaluations. The licensee performed effective quality assurance audits and self-assessments, as demonstrated by self-identification of corrective action program weaknesses.
Based on 66 interviews including six focus groups (consisting of approximately 48 people) conducted during this inspection, observations of plant activities, and reviews of the corrective action and employee concerns programs, the team determined that site personnel were willing to raise safety issues and document them in the corrective action program. The team observed that workers at the site felt free to report problems to their management, and were willing to use the Employee Concerns Program.

Inspection Report# : 2009007 *(pdf)*

Last modified : December 10, 2009