Surry 1
4Q/2014 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 26, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Required Preventative Maintenance on Class 1E Molded Case Circuit Breakers
The team identified a Green non-cited violation of Technical Specification 6.4.A.7, "Unit Operating Procedures and Programs," for the licensee's failure to implement written procedures to perform periodic tests for the Class 1E 125 volt direct current thermal-magnetic molded case circuit breakers (MCCBs). The licensee entered the issue into their corrective action program as condition reports CR558445 and CR560488 and performed an immediate determination of operability, in which they determined that the MCCBs were operable but not fully qualified.

The licensee's failure to conduct periodic tests to detect the deterioration of the system and to demonstrate that components not exercised during normal operation of the station are operable, as required by IEEE 308-1970, Section 6.3, was a performance deficiency. The performance deficiency was determined to be more than minor because, if left uncorrected, it had the potential to lead to a more significant safety concern. Specifically, absent testing to detect deterioration and to demonstrate continued operability, the likelihood that these MCCBs will unpredictably fail when called upon increases with time in service. The team used Inspection Manual Chapter 0609, Att. 4, "Initial Characterization of Findings," issued June 19, 2012, for Mitigating Systems, and Inspection Manual Chapter 0612, App. A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component, which maintained its operability or functionality. The team determined that no crosscutting aspect was applicable because the finding was not indicative of current licensee performance. (Section 1R21.2b.i)
Inspection Report# : 2014007 *(pdf)*

Significance: G Sep 26, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Range of Conditions that Effect Canal Level Probes
The team identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to properly evaluate and quantify

the system response times and accuracies over the range of conditions under which the service water canal level probes must operate. The licensee entered the issue into their corrective action program as condition report CR558429 and performed an immediate determination of operability, in which they determined the canal level probes to be operable but not fully qualified.

The licensee's failure to evaluate conditions that affected system response times and accuracy of the canal level probes, as required by IEEE 279-1968, Section 4.1, was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, response time delays could allow the canal water level to fall below Technical Specification limits reducing the available heat removal required to mitigate Updated Final Safety Analysis Report chapter 14 design basis accidents. The team used Inspection Manual Chapter 0609, Att. 4, "Initial Characterization of Findings," issued June 19, 2012, for Mitigating Systems, and Inspection Manual Chapter 0612, App. A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component, which maintained its operability or functionality. The team determined that the finding was associated with the Design Margin cross-cutting aspect of the Human Performance area because recent modification designs for the canal probes were completed and approved without evaluating effects on the canal level probe response times and accuracies. [H.6] (Section 1R21.2b.ii).
Inspection Report# : 2014007 *(pdf)*

Significance: G Mar 31, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Recirculation Spray Heat Exchanger Inlet Isolation Valve MOV Thermal Overload Not Properly Reset (Section 1R15)
A self-revealing NCV of Surry Technical Specification (TS) 6.4.A.7 was identified because 1-SW-MOV-103D, the "B" and "C" recirculation spray heat exchanger (RSHX) inlet isolation valve, motor thermal overload was improperly reset after planned maintenance and became disengaged on November 29, 2013, rendering one service water (SW) flow path of the "B" and "C" recirculation spray (RS) subsystem inoperable. The issue was documented in Surry's corrective action program (CAP) as CR 533932.
The licensee's failure to include acceptance criteria for determining if a thermal overload was properly reset was a performance deficiency (PD) that was within the licensee's ability to foresee and correct. Specifically, an inadequate procedure did not have electricians verify that the trip indication flag in the thermal overload had fully cleared the viewing window or provide some other criteria for acceptance. The inspectors determined that the PD was more than minor because it was associated with the procedural quality attribute of the Mitigating Systems Cornerstone, and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the motor thermal overload was improperly reset after planned maintenance which resulted in rendering one SW flow path of the "B" and "C" RS subsystem inoperable thereby affecting the availability of the RS subsystem. Using Manual Chapter 0609.04, "Initial Characterization of Findings," Table 2, dated June 19, 2012, the finding was determined to affect the Mitigating Systems Cornerstone. The inspectors screened the finding using Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings at-Power" dated June 19, 2012, and determined that it screened as Green

because the deficiency did not affect the design or qualification of the RS system and it did not represent a loss of system safety function. This finding has a cross-cutting aspect in the Documentation aspect of the human performance area, H.7, because the licensee did not create and maintain a complete and accurate procedure to ensure that MCC thermal overloads were properly reset.
Inspection Report# : 2014002 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

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