

Vogtle 2

4Q/2012 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate maintenance procedure results in inoperability of NSCW cooling tower fan

A self-revealing non-cited violation (NCV) for failure to meet the requirements of 10 CFR Part 50 Appendix B, Criterion V, “Instructions, Procedures, and Drawings” was identified for failure to provide adequate work instructions in the maintenance procedure used to modify 480V EMAX safety-related switchgear breakers. Specifically, when modifying the breaker by adding a higher amperage closing coil, failure to verify the proper placement of the wire bundle on top of the closing coil following replacement resulted in the safety-related 2A NSW cooling tower fan #3 480V EMAX breaker failing to close when demanded. The licensee replaced the failed breaker and returned the fan to operable status within 21.5 hours.

The finding was more than minor because it impacted the reactor safety mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of equipment performance. Since the inspectors answered “No” to all of the IMC 0609.04 (dated June 19, 2012) Exhibit 2, section A, questions 1-4, mitigating systems cornerstone screening questions, the inspectors concluded that the finding was of very low safety significance (Green). The cause of this finding was related to the corrective action program component of the problem identification and resolution cross-cutting area due to less-than-adequate problem evaluation. [P.1(c)] Specifically, the licensee’s extent of cause evaluations performed on previous 480V EMAX breaker failures (caused by restricted movement of the close lever) did not identify the potential of the closing coil wire bundle to interfere with the proper movement of the close lever. The licensee’s corrective action to the 480V EMAX breaker issue was to revise the maintenance procedure used to perform maintenance on EMAX breakers (procedure 28480-C, 480V EMAX Breaker Maintenance), and then inspect all 480V EMAX breakers on site that had been modified with the higher amperage closing coil to verify that the wire bundles were not interfering with the operation of the close coil. The licensee entered this into their corrective action program as CR 549999 and CR 550736. (Section 1R19)

Inspection Report# : [2012005](#) (*pdf*)

Significance: G Jul 13, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to identify and repair an inoperable fire penetration seal

An NRC-identified non-cited violation of Vogtle Unit 2, Operating License Condition 2.G, was identified for the licensee’s failure to identify and repair an inoperable fire penetration seal. The NCV was associated with the licensee’s failure to identify and repair Auxiliary Feedwater Pumphouse penetration seal 2-59-031-1 that was missing half of 1” damming board material on one side of the seal. The inoperable fire penetration seal is in a 3-hour fire rated wall of the Auxiliary Feedwater Pumphouse. The licensee took immediate corrective actions to declare the penetration seal inoperable, entered the issue in their corrective action program as CR 467932, established a continuous fire watch, and repaired the penetration seal to its design condition. Additionally, the licensee performed an extent of condition inspection of the Auxiliary Feedwater Pumphouse to verify that there were not any other penetration seals in the same degraded condition.

The inoperable fire penetration seal represented a performance deficiency, since the partial missing damming board would be expected to be identified and corrected by the licensee during performance of Procedure 29144-C, Fire Boundaries and Fire Rated Penetration Seals-18 Month Visual Inspection. The finding adversely affected the fire containment capability defense-in-depth element. The finding was determined to be more than minor because it was associated with the protection against external events attribute, (i.e., fire), and degraded the Mitigating Systems cornerstone objective to ensure the availability of systems that respond to initiating events. Using NRC IMC 0609, Appendix F, Fire Protection SDP Phase 1 Worksheet, the inspectors conducted a screening and determined the finding to be of very low safety significance (Green) because the remaining penetration seal depth and damming material provided at least 2-hours of fire resistance. The team identified a cross-cutting aspect in the resources component of the human performance area because the licensee did not ensure that personnel and procedures were available, and adequate to assure nuclear safety. Specifically, because the licensee did not identify any work activities that may have damaged the seal since the completion of the most recent inspection, it was reasonable to assume that the deficiency was missed during the surveillance performed on May 9, 2012. [H.2(c)] (Section 1R05.02)

Inspection Report# : [2012007](#) (*pdf*)

Significance: G Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to follow procedures renders safety related battery chargers inoperable

The inspectors identified a self-revealing NCV of Technical Specification (TS) 5.4.1, for two instances of failure to properly implement approved maintenance procedures and work order instructions. Specifically, maintenance electricians inadvertently removed the 2BD1CB safety related battery charger from service while attempting to perform a routine quarterly battery surveillance on the 2DD1CB battery charger. When the '2BD1CA/2BD1CB Trouble' alarm was received in the control room, the operators immediately contacted the electricians and the work was halted. Battery charger 2BD1CB was restored to service within 31 minutes. In the second instance, maintenance electricians inadvertently rendered both battery chargers for the 1CD1 safety-related battery inoperable during load-sharing adjustments on the 1CD1CB battery charger. The licensee restored the 1CD1CA battery charger to service within a few minutes. The licensee entered both of these issues into their corrective action program (CR 445343 & 457102 respectively).

The inspectors concluded that this finding was more than minor because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of equipment performance. Specifically, the unintentional opening of the AC input breakers to the 2BD1CB, 1CD1CA and 1CD1CB battery chargers resulted in the chargers being declared inoperable for several minutes. The inspectors used the Phase 1 Initial Screening and Characterization of Findings (IMC 0609.04 Exhibit 1) to characterize the finding. Since the inspectors answered "No" to all of the Table 4a Mitigating Systems Cornerstone questions, the inspectors concluded that the finding was of very low safety significance (Green). The inspectors determined that the cause of this finding was related to the Work Practices component of the Human Performance cross-cutting area due to less than adequate procedure use and self/peer checking. [H.4(a)] (Section 1R22)

Inspection Report# : [2012003](#) (*pdf*)

Significance: G Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Work Practice Error Renders Unit 2 TDAFW Pump Inoperable

Green: A self-revealing NCV of technical specification (TS) 5.4.1 was identified for failure to properly implement approved maintenance procedures. Specifically, maintenance technicians failed to properly re-land control wires, as required by procedure, on the Unit 2 turbine-driven auxiliary feedwater (TDAFW) pump following preventive maintenance activities. Once the loose wire connections inside junction box 2CWJB2729 were identified, the licensee immediately tightened the connections per procedure. The licensee entered this issue into their corrective action program (CR 404401 and CR 407192).

The finding was considered more than minor because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of equipment performance. Specifically, loose wires in the control circuit for the TDAFW pump prevented the trip and throttle valve from operating correctly and caused the TDAFW pump to be declared inoperable for several hours. The inspectors used the Phase 1 Initial Screening and Characterization of Findings (IMC 0609.04 Exhibit 1) to characterize the finding. Since the inspectors answered “No” to all of the Table 4a Mitigating Systems Cornerstone questions, the inspectors concluded that the finding was of very low safety significance (Green). The inspectors determined that the cause of this finding was related to the Work Practices component of the Human Performance cross-cutting area due to failure to follow procedures. [H.4(b)] (Section 1R22)

Inspection Report# : [2012002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance:  Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Unauthorized entry into a high radiation area

The inspectors identified a Green, self-revealing, Non-cited Violation of technical specification 5.7.1, “High Radiation Area”, for an unauthorized entry into a High Radiation Area (HRA). A maintenance worker entered a HRA in Unit 1 containment without being briefed on the radiological conditions. The licensee entered this issue into their corrective action program as CR 523976 and took immediate corrective actions including an outage work crew stand down.

This finding was more than minor because it was associated with the occupational radiation safety cornerstone attribute of human performance and adversely affects the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. The finding was evaluated using the occupational radiation safety significance determination process. The finding was not related to As Low As Reasonably Achievable (ALARA) planning, nor did it involve an overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. Therefore, the finding was determined to be of very low safety significance (Green). This finding involved the cross-cutting aspect of human performance, work practices [H.4.b] because the HRA event was a direct result of poor communications during the pre-job briefing and a lack of procedure adherence on the part of the maintenance worker. The licensee entered this issue into the Corrective Action Program (CAP) as CR 523976. (Section 2RS1)

Inspection Report# : [2012005](#) (*pdf*)

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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