

Vogtle 1

3Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate operations and maintenance procedures results in brittle failure of the loop 2 and loop 3 outboard MSIV stems

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 operations and maintenance procedures used to open main steam isolation valves (MSIVs) that were bound in their closed seat. Specifically, the operations and maintenance procedures used to open the loop 2 and loop 3 outboard MSIVs did not provide instructions to limit the magnitude of the force applied to the valve stems while attempting to open the valves, which ultimately resulted in the brittle failure of the valve stems. The licensee conducted ultrasonic testing of the remaining six Unit 1 MSIVs to verify that the valve stems were intact. The two failed valve stems were replaced, and the reactor was restarted nine days later.

The finding was more than minor because it was associated with the procedure quality attribute of the reactor safety - initiating events cornerstone and it adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to provide adequate work instructions to operations and maintenance personnel resulted in the failure of both the loop 2 and loop 3 outboard MSIVs and the subsequent manual reactor trip. Since the inspectors answered "no" to the Exhibit 1, section B, initiating events screening question, the inspectors concluded that the finding was of very low safety significance (Green). The cause of the finding was related to the work control component of the human performance cross-cutting area due to less-than-adequate work planning. [H.3(a)] Specifically, the licensees' procedures used to open the MSIVs that were stuck on their closed seat did not contain instructions or precautions to limit the magnitude of the force applied to the valve stems while attempting to open the valves. The licensee entered this issue into their corrective action program as CR 530916. (Section 40A2)

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

Mitigating Systems

Significance: G Aug 30, 2013

Identified By: NRC

Item Type: FIN Finding

Failure to Correct a Condition Affecting EDG Recovery Capability under Station Blackout Conditions

Green. The team identified a Green finding for the licensee's failure to follow guidance in nuclear management procedure NMP-GM-002-001, "Corrective Action Program Instructions," Version 30.1, which resulted in their failure to correct a condition that adversely affected the implementation of the station's mitigating strategies for a station blackout (SBO). This was a performance deficiency. The licensee entered the issue into their corrective action

program as Condition Report 673722, and performed an evaluation that determined the ‘as-found’ condition would not prevent successful implementation of their SBO mitigating strategies.

The performance deficiency was more than minor because it affected the Mitigating Systems cornerstone attribute of Design Control 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, the capability of the emergency diesel generator air start system following the SBO coping duration was not ensured since the licensee did not adequately evaluate and address the test acceptance criteria for the air start check valves, as captured in Condition Report 599089. The finding was determined to be of very low safety significance (Green) because the finding was a deficiency affecting the design of a mitigating structure, system, or component, confirmed not to have resulted in the loss of functionality. The cause of the finding was indicative of current licensee performance and involved the Corrective Action component of the Problem Identification and Resolution cross-cutting area, because the licensee failed to thoroughly evaluate a problem involving a deficiency in their SBO mitigation strategies such that the resolution addressed the cause of the deficiency. [P.1(c)].

Inspection Report# : [2013007](#) (*pdf*)

Significance:  Mar 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Maintenance Procedures Results in Failure of the Inboard Bearing on the Unit 1A CCW pump #1

Green: A self-revealing non-cited violation (NCV) of 10 CFR Part 50 Appendix B, Criterion V, “Instructions, Procedures, and Drawings” was identified for failure to provide appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, procedure 27080-C, “CCW Pump Maintenance”, did not provide adequate direction as to the duration of and instrumentation required to properly perform a post-maintenance test that would detect a misalignment between the pump and motor shafts. The licensee entered this issue into their corrective action program as CR 526268, and revised maintenance procedure 27080-C to specify the proper post maintenance testing required after rebuilding CCW pumps.

The finding was more than minor because it was associated with the equipment performance 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 (i.e., core damage). Specifically, the post-maintenance test performed after rebuilding the Unit 1A component cooling water (CCW) pump #1 failed to identify excessive misalignment between the motor and pump shafts, which subsequently resulted in the catastrophic failure of the inboard pump bearing once the pump was returned to service. Because the inspectors answered “No” to all of the IMC 0609 Appendix A (dated June 19, 2012) Exhibit 2, Section A, “Mitigating Systems Screening 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 control component of the human performance cross-cutting area due to less-than-adequate procedures. Specifically, the maintenance procedures used to reassemble the CCW pumps did not provide adequate direction as to the duration of and instrumentation required to properly perform an adequate post-maintenance test. [H.2(c)]

Inspection Report# : [2013002](#) (*pdf*)

Barrier Integrity

Significance:  Mar 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Human Performance Error Renders 1A CS Pump Inoperable

Green. A self-revealing non-cited violation (NCV) for failure to meet the requirements of plant Technical Specification (TS) 5.4, Procedures was identified. While realigning equipment to support the filling and venting of the Unit 2 containment spray header the system operator inadvertently closed 1HV-9017A, refueling water storage tank (RWST) suction to Unit 1 containment spray (CS) pump A. As a result, the 1A CS pump was temporarily rendered inoperable. The valve was subsequently re-opened and the pump was declared operable. The licensee entered the issue into their corrective action program (CR 608718).

This finding is more than minor because it is associated with the human performance attribute of the barrier integrity cornerstone and it adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the performance deficiency is a human performance error which affected the availability, reliability, and capability of the Unit 1 “A” train containment spray system to limit and maintain post accident conditions to less than containment design values. Because the inspectors answered “No” to all of the IMC 0609 Appendix A (dated June 19, 2012) Exhibit 3, Section B, “Barrier Integrity Cornerstone Screening 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 human error prevention techniques. Specifically, peer checking techniques were less than adequate. [H.4(a)]

Inspection Report# : [2013002](#) (pdf)

Emergency Preparedness

Occupational Radiation Safety

Significance: G 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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