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Salem 2 – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

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Initiating Events

Significance: G Dec 31, 2016

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

Inadequate Surveillance Test Procedure Results in Water Hammer and Reactor Trip

The inspectors determined there was a self-revealing Green non-cited violation (NCV) of Technical Specification (TS) 6.8.1.c, "Surveillance and test activities of safety-related equipment," when PSEG did not establish adequate procedures for restoring service water (SW) to a drained section of discharge piping from the containment fan coil unit (CFCU) following surveillance test activities. Consequently, during restoration of SW to 22 CFCU following testing on August 31, 2016, refilling the voided SW piping created a pressure pulse sufficient to extrude the motor cooler cover plate spacer gasket inside primary containment, resulting in leakage that caused a 21 reactor coolant pump (RCP) cable fault and subsequent reactor trip. PSEG entered the issue in the corrective action program (CAP), performed a root cause evaluation (RCE), and revised applicable procedures for filling and venting SW to the CFCUs on September 19, 2016.

This issue was more than minor since it was associated with the procedure quality attribute of the Initiating Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability and challenge critical safety functions. Using IMC 0609, Attachment 4 and Appendix A, Exhibit 1, the inspectors determined that this finding was of very low safety significance, or Green, since mitigating equipment relied upon to transition the plant to stable shutdown remained available. The finding had a cross cutting aspect in the area of Problem Identification and Resolution, Evaluation, because PSEG did not thoroughly evaluate previous CFCU motor cooler gasket leaks such that the resolution addressed the cause.

Inspection Report# : 2016004 (*pdf*)

Significance: **G** Sep 30, 2016

Identified By: Self-Revealing

Item Type: FIN Finding

Misclassification of and Lack of Preventative Maintenance for SWC Valve 2GW75 and Relay S62-C1

The inspectors documented a self-revealing, Green finding (FIN) because PSEG did not classify plant equipment in accordance with procedure ER-AA-1001, "Component Classification," Revision 0, step 4.5. Specifically, PSEG did not appropriately classify a valve and relay within the stator water cooling (SWC) system, and subsequently did not perform the appropriate periodic maintenance. As a result of the absence of maintenance, the valve developed a packing leak, which dripped onto the trip relay and caused the relay to internally fill with water. On February 14, 2016, the trip relay contacts experienced an electrical short, which led to a turbine trip and a reactor trip from 100 percent power. PSEG entered this issue into the corrective action program (CAP) under notifications 20720566 and 20745264, performed apparent cause evaluation (ACE) 70184453, replaced the failed relay, and repaired the packing leak on the SWC valve.

The inspectors determined that a performance deficiency existed because PSEG did not properly classify the SWC relay and valve in accordance with station procedures to ensure the components would receive the appropriate preventive maintenance (PM). The finding was more than minor because it was associated with the equipment performance attribute of the Initiating Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability (main generator and turbine trip) and challenge critical safety functions. Using IMC 0609, Attachment 4 and Appendix A, Exhibit 1, the inspectors determined that this finding was of very low safety significance, or Green, since mitigating equipment relied up to transition the plant to stable shutdown remained available. The inspectors determined there was no cross-cutting aspect associated with this finding since it was not representative of current PSEG performance.

Inspection Report# : 2016003 (*pdf*)

Significance: **G** Jun 30, 2016

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Work Order Planning Results in Main Generator AVR STV Relay Trip

A Green, self-revealing finding (FIN) was identified against MA-AA-716-010, "Maintenance Planning Process," Revision 18, when PSEG work orders (WOs) did not specify the appropriate procedure to perform satisfactory modification testing of the main generator automatic voltage regulator (AVR) protective relay (model STV1). Consequently, the relay actuated below its design setpoint on February 4, 2016, resulting in an automatic trip of the Unit 2 main turbine and reactor. PSEG entered the issue in their Corrective Action Program (CAP) and performed a root cause evaluation (RCE), replaced the failed STV1 relay with a properly tested relay, verified other STV relays were appropriately tested as an extent of condition, and initiated an action to revise Laboratory Testing Services (LTS) department relay test procedures to ensure all applicable acceptance criteria will be incorporated.

The inspectors determined that a performance deficiency existed because PSEG WOs did not specify the appropriate procedure to perform satisfactory modification testing of the main generator AVR protection relay. This issue was more than minor since it was associated with the procedure quality attribute of the Initiating Events cornerstone and adversely impacted its objective to limit the likelihood of events that upset plant stability (turbine and reactor trip) and challenge critical safety functions. Using IMC 0609, Attachment 4 and Appendix A, Exhibit 1, the inspectors determined that this finding was of very low safety significance, or Green, since mitigating equipment relied up to transition the plant to stable shutdown remained available. The finding had a cross-cutting aspect in the area of Human Performance, Work Management, in that the PSEG did not adequately implement the work process to coordinate with

engineering and maintenance departments as needed to appropriately plan the STV1 relay modification test WO.

Inspection Report# : 2016002 (*pdf*)

Mitigating Systems

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : August 03, 2017

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