

Salem 2

2Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

INADEQUATE CONTROL OF SWITCHYARD MAINTENANCE

A self-revealing finding of very low safety significance was identified on April 1, 2011, because a 500 KV load break disconnect 3T60 failed to operate upon the restoration of switchyard maintenance. This caused a four-hour delay in the restoration from a single source of offsite power, the exit from a 72-hour limiting condition for operation (LCO), and the extension of a yellow probability risk assessment condition. PSEG investigation revealed that the vendor, who was conducting maintenance on the 3T60 disconnect, removed the motor control fuse holder that was not a part of the tagout for the maintenance. PSEG determined that the cause of the disconnect not closing was that PSEG did not adequately brief and control the maintenance evolution. PSEG entered this event into their CAP as notification 20503254. PSEG's immediate corrective actions were to reinstall the fuses and close the 3T60 disconnect.

The inspectors determined that the failure of PSEG to assign a supplemental workforce supervisor or task manager to provide in-field supervision of the 3T60 disconnect maintenance in accordance with AD-AA-2001, "Management and Oversight of Supplemental Workforce", was a performance deficiency. The inspectors determined that the performance deficiency was more than minor because it is associated with the human performance attribute of the 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. The finding was evaluated under IMC 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings", and the inspectors concluded that a Phase 2 evaluation was required since the finding contributed to both the likelihood of a reactor trip and the likelihood that mitigating systems would not have been available. This conclusion was based upon the potential for emergency diesel generator (EDG) operation to be challenged upon the loss of all offsite power. A regional Senior Reactor Analyst completed a Phase 3 evaluation under the SDP. The performance deficiency was characterized as of very low safety significance (Green) based upon the results of this evaluation. The inspectors determined that this finding has a cross-cutting aspect in the area of human performance, because PSEG did not ensure supervisory and management oversight of the vendor work activity. Specifically, PSEG personnel did not assign a supervisor to provide in-field supervision, conduct an adequate pre-job brief with the vendor, and did not conduct an adequate post-maintenance restoration walkdown of the 3T60 switchyard maintenance. (H.4(c))

Inspection Report# : [2011003](#) (*pdf*)

Mitigating Systems

Significance:  Feb 18, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE CALCULATIONS FOR DEGRADED VOLTAGE RELAY VOLTAGE SETPOINT

The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control", because PSEG had not verified the adequacy of the design for the DVR voltage setpoint. Specifically, PSEG had not performed calculations for motor starting and running conditions, and for operation of other safety-related equipment based on voltages afforded by the degraded voltage relays. PSEG entered this issue into their corrective action program and performed preliminary calculations to demonstrate reasonable assurance of operability.

The finding is more than minor because it is associated with the design control 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. The team evaluated the finding in accordance with IMC 0609, Attachment 0609.04, Phase 1 – Initial Screening and Characterization of Findings, Table 4a for the Mitigating Systems Cornerstone. The team determined that the finding was of very low safety significance because it was a design deficiency confirmed not to result in loss of operability.

The team determined that this finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Operating Experience Component, because PSEG did not ensure that relevant internal and external operating experience was collected, evaluated, and communicated to affected internal stakeholders in a timely manner. Specifically, PSEG did not adequately evaluate a similar finding documented in a Hope Creek Generating Station NRC component design bases inspection report in November 2009 (NCV 05000354/2009007-03) and missed an opportunity in their internal response to NRC Information Notice 2008-02, “Findings Identified During Component Design Bases Inspections”, issued in March 2008.

Inspection Report# : [2011007](#) (*pdf*)

Barrier Integrity

Significance: SL-IV Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SUBMIT AN LER FOR A CONDITION PROHIBITED BY TS ASSOCIATED WITH CONTAINMENT ISOLATION

The inspectors identified a Severity Level IV NCV of 10 CFR 50.73, “Licensee Event Reporting (LER) System”, because PSEG personnel did not provide a written report to the NRC within 60 days after discovery of a condition prohibited by Technical Specification (TS) 3.6.1, “Containment Integrity”. This was an NRC-identified violation of reporting requirements and potentially impacted the regulatory process. This type of violation is dispositioned using the traditional enforcement process defined in the NRC Enforcement Policy. In accordance with Section 6.9.d of the Enforcement Policy, this violation is categorized as a Severity Level IV violation.

PSEG documented the issue in their CAP and conducted an evaluation to determine why the assignment to submit an LER was missed. The inspectors determined that this traditional enforcement violation did not involve a Reactor Oversight Process (ROP) finding, therefore, no cross-cutting issue was assigned.

Inspection Report# : [2011002](#) (*pdf*)

Significance:  Feb 18, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IDENTIFY AND CORRECT A CONDITION ADVERSE TO QUALITY AFFECTING THE CREACS EXPANSION JOINTS

The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, “Corrective Action”, because PSEG did not identify and correct a condition adverse to quality. Specifically, PSEG did not identify and correct the degraded condition of the Unit 1 and Unit 2 control room emergency air conditioning system (CREACS) common suction expansion joints because they did not implement appropriate preventive maintenance (PM) per their performance-centered maintenance (PCM) template. PSEG placed the finding and the associated issues in its corrective action program. In response to the identified control room envelope (CRE) breach, operators promptly entered TS 3.7.6 and initiated mitigation actions. PSEG affected prompt repairs, performed an appropriate post maintenance test, declared the CRE fully operable, and exited the TS limiting condition for operation action statement.

The finding is more than minor because it is associated with the barrier performance attribute of the Barrier Integrity

Cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the control room operators from radionuclide releases caused by accidents or events. The finding was evaluated in accordance with IMC 0609, Attachment 4, Table 4a for the containment barrier. Since the finding had the potential to impact more than the radiological barrier function, a Region I Senior Reactor Analyst (SRA) performed a Phase 3 analysis. The SRA determined that the dominant sequence involved a sufficient degradation of the CREACS barrier that would allow sufficient in-leakage to force an evacuation of the control room during a fire or toxic gas event. The areas with the degradation were in room 15615 and 25615 for Units 1 and 2, respectively. The SRA evaluated these areas and determined that the potential impact due to in-leakage through the degraded barrier from fire and toxic gas would be negligible. The SRA also reviewed the results of recent CRE in-leakage testing conducted in September 2010. The condition of the expansion joint tearing and wear could reasonably be assumed to have existed during the September testing. This testing also confirmed that the total in-leakage in these areas was small. Based on the above factors, the SRA determined the finding was of very low safety significance (Green).

The team determined that this finding has a cross-cutting aspect in the area of Human Performance, Work Control Component, because PSEG did not plan work activities to support long-term equipment reliability by ensuring that maintenance scheduling was more preventive than reactive. Specifically, PSEG did not implement appropriate PMs on the CREACS filter expansion joints necessitating several reactive corrective maintenance activities.

Inspection Report# : [2011007](#) (*pdf*)

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

Last modified : October 14, 2011