

Salem 1

Initiating Events

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Significance: May 11, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

INADEQUATE IMPLEMENTATION OF PROCEDURES CONTROLLING REACTOR COOLANT SYSTEM COOLDOWN RATE

Technical Specification 6.8.1.a requires that written procedures be established, implemented and maintained covering the applicable procedures recommended by Appendix "A" of Regulatory Guide (RG) 1.33, Revision 2, February 1978. RG 1.33 requires general plant operating procedures for hot standby to cold shutdown. Salem operations procedure S2.OP-IO.ZZ-0006(Q), "Hot Standby to Cold Shutdown," step 3.6.3 provides precautions and limitations to determine RCS temperature and pressure at least once per 30 minutes with a maximum cooldown rate of 100°F in any one hour. Contrary to the above, PSEG Nuclear inadequately implemented S2.OP-IO.ZZ-0006(Q) and inadequately determined that RCS temperature was within limits with a maximum cooldown of 100°F in any one hour period when the RCS temperature change exceeded the 100°F limit between 0150 and 0219 hours with a maximum temperature drop of 127°F in a one hour period. This issue was placed into PSEG Nuclear's correction action program as notification 20095802.

Inspection Report# : [2002004\(pdf\)](#)

Mitigating Systems

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Significance: Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY TEST THE 12 COMPONENT COOLING HEAT EXCHANGER

A non-cited violation of 10 CFR 50, Appendix B, Criterion VI, "Test Controls," was identified for failure to properly establish the component cooling (CC) flowrate through the 12 CC heat exchanger during thermal performance testing. This finding is greater than minor because it affected the Mitigating System Cornerstone of equipment reliability, in that the failure to maintain adequate test controls could allow a degraded heat exchanger to go undetected. This finding was of very low significance because the CC heat exchangers remained operable when the flow measurement error was considered in the test evaluation.

Inspection Report# : [2002009\(pdf\)](#)

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Significance: Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO MAINTAIN COMPLETE AND ADEQUATE MAINTENANCE RECORDS

A non-cited violation of Technical Specification 6.10.1.b was identified for failure to maintain quality records of principal maintenance activities performed on the 1PR2 valve and on the 22 containment fan cooling unit. This finding was similar to a non-cited violation identified in Inspection Report 2001-12 and indicated that previous actions to correct this problem had not been effective. This finding was greater than minor since it impacted the inspectors ability to independently assess the condition of these components following maintenance activities. This finding was of very low significance because the components performed properly during the post-maintenance testing.

Inspection Report# : [2002009\(pdf\)](#)

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Significance: Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

SHUTDOWN COOLING LOOP INOPERABLE AND LESS THAN 3 FEET OF WATER ABOVE THE FUEL

A non-cited violation of Technical Specification 6.8.1 was identified for failure to establish and implement adequate procedures prior to the removal of the 11 CC pump room cooler fan from service for maintenance. This finding was greater than minor since it resulted in a condition where the two operable residual heat removal systems were not available when the reactor cavity water level was less than twenty-three feet above the top of the fuel as required by TS 3.9.8.2. The finding was evaluated by Regional and NRR Senior Reactor Analysts and determined

to be of very low significance since the 11 CC pump remained functional during the period of time when the fan was out of service without the necessary compensatory measures.

Inspection Report# : [2002009\(pdf\)](#)



Significance: Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY EVALUATE A TEMPORARY INSTALLATION TO THE 11 SERVICE WATER HEADER

A non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Controls was identified for the failure to properly evaluate a temporary hose connection to an operable service water header. This finding was greater than minor since it challenged the operability of the only operable service water header while reactor de-fueling operations were in-progress. This finding was determined to be of very low significance since the service water header remained functional while the hose was attached.

Inspection Report# : [2002009\(pdf\)](#)



Significance: Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO PROPERLY MAINTAIN ROOM ISOLATION BARRIERS AND IMPROPERLY IMPLEMENTED A MODIFICATION TO THE SWITCHGEAR PENETRATION AREA VENTILATION SYSTEM

An unresolved item was identified in Inspection Report 2002-07 for failure to properly maintain the automatic fire suppression system in six safety-related electrical areas as required by the fire protection program. The item remained unresolved to complete the risk assessment. A non-cited violation was identified in this report for failure to maintain the fire protection program as discussed above as required by License Conditions 2.C.5 (Unit 1) and 2.C.10 (Unit 2). The finding adversely impacted fire suppression equipment capability, affecting the reactor safety mitigating system cornerstone objectives, and therefore was greater than minor. The finding was determined to be of very low significance due to the multiple trains of mitigating systems which would survive postulated fire events.

Inspection Report# : [2002007\(pdf\)](#)

Inspection Report# : [2002009\(pdf\)](#)



Significance: Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO DOCUMENT AND MAINTAIN QUALITY RECORDS OF EMERGENT TROUBLESHOOTING AND MAINTENANCE ACTIVITIES ON THE CONTROL CIRCUITRY FOR THE 1B EDG

PSEG Nuclear maintenance failed to document and maintain records of emergent troubleshooting and maintenance activities on the control circuitry for the 1B EDG. PSEG Nuclear also failed to maintain records of a September 2000 internal inspection of the 12 charging pump speed increaser. These two examples of PSEG Nuclear's failure to maintain complete and adequate inspection and maintenance records were a non-cited violation of Technical Specification 6.10.1.b and 10 CFR 50, Appendix B, Criterion XVII, Quality Assurance Records. The findings were evaluated using the significance determination process (SDP) and considered to be of very low risk significance because the failure to maintain the records did not affect the availability of the mitigating systems.

Inspection Report# : [2001012\(pdf\)](#)

Barrier Integrity



Significance: Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO TAKE ADEQUATE CORRECTIVE ACTIONS TO PRECLUDE REPETITION OF CONTROL VALVE FAILURES IN THE CONTAINMENT FAN COOLER UNIT SYSTEM

A violation of 10 CFR Part 50, Appendix B, Criterion XVI, dispositioned as a non-cited violation, was identified for the failure to take adequate corrective actions to preclude repetition of service water control valve failures in the containment fan cooler unit (CFCU) system, a significant condition adverse to quality. In response to a control valve (14SW223) failure in January 2001, the PSEG Nuclear modified portions of the valve's control air supply tubing that were susceptible to vibration-induced failure. However, the corrective actions did not adequately ensure all susceptible lines were modified. As a result, a subsequent failure of another control valve (11SW223) occurred in June 2002. PSEG Nuclear's failure to take adequate corrective actions to resolve the vibration-induced air line failure was a cross-cutting contributing cause that led to a repetitive control valve failure problem. The inspectors noted tubing on other CFCU control valves that were not properly configured,

including an air tube to 15SW223 showed evidence of wear due to vibration induced rubbing. The risk of this finding is determined to be of very low safety significance, because the failure of valve 11SW223 did not impact the operability of other mitigating systems supported by service water. The finding is more than minor since the failure mechanism is common to all the CFCU control valves. This repetitive failure indicates that the problem resolution was not adequate to ensure the reliability of the valving associated with the service water system. Inspection Report# : [2002006\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : March 25, 2003