

Salem 1

Initiating Events

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. RG1.33 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\(pdf\)](#)

Significance:  Nov 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO PROPERLY CONTROL TRANSIENT COMBUSTIBLE MATERIALS WITHIN THE UNIT 1 SPENT FUEL POOL

Failure to properly control transient combustible materials located within the Unit 1 spent fuel pool building as required by fire protection program procedure, NC.NA-AP.ZZ-0025(Q), revision 5, "Operational Fire Protection Program." This finding was evaluated using the fire protection significance determination process and found to be of very low risk significance since the problem would not have affected the fire mitigation defense in depth elements involving detection, suppression or fire barriers. Inspection Report# : [2001010\(pdf\)](#)

Significance: N/A Mar 23, 2001

Identified By: NRC

Item Type: FIN Finding

SUPPLEMENTAL INSPECTION TO REVIEW THE CORRECTIVE ACTIONS IN RESPONSE TO THE SALEM UNIT 1 UNPLANNED SCRAM PERFORMANCE INDICATOR CROSSING THE WHITE THRESHOLD DURING THE 4TH QUARTER OF 2000

This supplemental inspection was performed in accordance with Inspection Procedure 95001 to assess PSEG's evaluation associated with the unplanned reactor scram performance indicator (PI) crossing the white threshold during the 4th quarter of 2000. The identification, evaluation, and corrective actions for each of the individual trips was appropriate. The inspectors determined that PSEG performed a comprehensive common cause analysis of the performance deficiencies related to this PI. While the analysis did not identify a definitive common cause, several influencing factors were identified regarding the Salem Unit 1 trips and associated white PI. These factors included human performance issues, equipment failure issues, procedure issues, and preventive maintenance issues. These issues were documented in PSEG's corrective action program and addressed in a comprehensive corrective action plan. PSEG took appropriate actions in addressing the performance deficiencies contributing to this white PI. As such, the NRC removed this issue from consideration of future agency actions, per the Action Matrix, in accordance with Inspector Manual Chapter 0305.

Inspection Report# : [2001005\(pdf\)](#)

Significance:  Apr 01, 2000

Identified By: Self Disclosing

Item Type: FIN Finding

A TECHNICIAN APPLIED A JUMPER TO THE WRONG RELAY CONTACTS DURING ON-LINE MAINTENANCE, CAUSING A COMPLETE LOSS OF ALL CIRCULATING WATER TRAVELING SCREENS

A maintenance technician applied a jumper to the wrong contacts on a protective relay during a planned on-line maintenance activity associated with the 12B circulating water pump breaker. This error resulted in the complete loss of all circulating water system traveling water screens (TWSs). The safety significance of this event was very low because the TWSs were restored within five minutes and there was no observable affect on circulating water flow to the main condenser.

Inspection Report# : [2000002\(pdf\)](#)

Significance:  Oct 10, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE FOR PLACING A MIXED BED DEMINERALIZER IN SERVICE, RESULTING IN INADVERTENT REDUCTION IN RCS BORON CONCENTRATION OF 75 PPM WHILE SHUTDOWN

PSEG operators failed to properly implement the procedure for placing a mixed bed demineralizer in service which resulted in an inadvertent reduction in reactor coolant system boron concentration of approximately 75 ppm. The safety significance of this event was very low based on the absence of any adverse consequences during the event and the TS limit for shutdown boron concentration not having been exceeded.

Inspection Report# : [1999008\(pdf\)](#)

Significance:  Oct 10, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

TWO EXAMPLES OF OPERATOR FAILURES TO FOLLOW SURVEILLANCE TEST PROCEDURES, RESULTING IN WRONG CHANNEL OR WRONG UNIT EQUIPMENT OPERATION

Two examples of licensed reactor operators failing to properly implement surveillance test procedures resulted in the operation of: (1) a switch in the wrong Unit 1 safeguards equipment cabinet, and (2) a charging system flow control valve on the wrong Salem unit. The safety significance of these examples was very low - in the first case, the plant was shutdown and there were no consequences to the error; in the second case, only one cornerstone was affected and (in the worst case) the error would have resulted in an uncomplicated reactor trip.

Inspection Report# : [1999008\(pdf\)](#)

Significance:  Aug 29, 1999

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY CONTROL THE REMOVAL OF ELECTRICAL CABLE FIRE WRAP MATERIAL

During the implementation of design change package 1EE-0436, some fire wrap was inappropriately removed such that UFSAR-described cable separation criteria were not met. The risk significance of this issue was low because only one train of safe shutdown equipment was affected. This issue represented a non-cited violation of 10 CFR 50, Appendix B Criterion III. This issue was characterized as a "green" finding as the risk significance of this issue was very low because only one train of safe shutdown equipment was affected.

Inspection Report# : [1999007\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: NRC

Item Type: FIN Finding

FIRE PROTECTION/BARRIERS

PSEG maintained appropriate control of combustible material and ignition sources in inspected areas. In general, impaired fire barriers were clearly tagged and documented in the corrective action program (CAP). However, the inspectors discovered some minor deficiencies such as a fire door which would not completely close without operator assistance. The minor violation associated with the fire door which would not close completely without operator assistance was classified as a green finding due to its very low safety significance.

Inspection Report# : [1999005\(pdf\)](#)

Mitigating Systems

Significance: TBD Sep 30, 2002

Identified By: NRC

Item Type: URI Unresolved item

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

The inspectors identified an apparent violation of License Conditions 2.C.5 (Unit 1) and 2.C.10 (Unit 2). PSEG Nuclear failed to properly maintain the carbon dioxide automatic fire suppression system as required by the fire protection program. Specifically, tracer gas testing identified that leakage from six safety-related electrical rooms (three at Unit 1 and three at Unit 2) was sufficient to prevent the carbon dioxide (CO₂) system from reaching and maintaining the 50 percent CO₂ concentration for a hold time of 20 minutes as required by the National Fire Protection Association (NFPA)-12, "Standard on Carbon Dioxide Extinguishing Systems." The leakage problems were attributed to a faulty design modification and a failure to perform effective preventive maintenance on the area isolation barriers. The determination of the significance of this finding was not completed by the end of the period. Therefore this finding will remain unresolved pending completion of the significance determination process (SDP).

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

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\(pdf\)](#)

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\(pdf\)](#)

Significance:  May 19, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY ASSESS THE RISK ASSOCIATED WITH THE REMOVAL OF THE 1C 125 VOLT BATTERY FROM SERVICE TO CONDUCT A PLANNED MAINTENANCE ACTIVITY

10 CFR 50.65 (a)(4) requires that "before performing maintenance activities, the licensee shall assess and manage the increase in risk that may result from the proposed activities." On April 20, 2001, PSEG Nuclear did not properly evaluate the risk associated with the removal of the 1C 125 volt battery from service to conduct a planned maintenance activity.

Inspection Report# : [2001006\(pdf\)](#)

Significance:  Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY ASSESS THE RISK ASSOCIATED WITH THE SIMULTANEOUS REMOVAL OF THE 1 SERVICE WATER BAY AND THE 1B EMERGENCY DIESEL GENERATOR FROM SERVICE

The licensee failed to properly assess the risk associated with the simultaneous removal of the 1 service water bay and the 1B emergency diesel generator from service. This finding was evaluated using the significance determination process and found to be GREEN (of very low risk significance) due to the relatively short duration (about 3 hours) that both systems were out-of-service. The failure to perform an adequate risk assessment prior to removal of these systems from service was a non-cited violation.

Inspection Report# : [2001003\(pdf\)](#)

Significance:  Feb 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

THE 12 COMPONENT COOLING WATER PUMP IMPELLER WAS UNDER-FILED DURING MAINTENANCE WITHOUT APPROPRIATE DESIGN CONTROLS.

The 12 component cooling water pump was underfiled during maintenance without appropriate design controls. During maintenance on the 12 component cooling water (CCW) pump, impeller filing removed mass from the impeller, changed internal impeller and volute dimensions and clearances, changed the impeller blade angle, and changed the

pump capacity. The filing was conducted with a maintenance order rather than the modification process, as required by station administrative procedures. The issue had a credible impact on safety, since this modification of a safety-related component outside of the approved modification process presented the risk that undocumented, unanalyzed, or procedurally uncontrolled dimensional changes could have degraded pump performance characteristics, such as net positive suction head, starting current or pump runout with their attendant impact on safety. Since only the mitigating system cornerstone was affected and this is a design qualification deficiency, the finding is considered to be of very low safety significance. Failure to control the filing of the 12 CCW pump impeller in accordance with administrative procedure requirements was considered a non-cited violation.

Inspection Report# : [2000011\(pdf\)](#)

Significance:  Feb 10, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

LICENSEE IDENTIFIED THAT SAFETY-RELATED VENTILATION DAMPER SPRING WAS MODIFIED DURING MAINTENANCE WITHOUT APPROPRIATE DESIGN CONTROLS

10 CFR 50, Appendix B, Criterion III, Design Control, requires that measures be established for the selection and review for suitability of application of parts that are essential to the safety-related functions of structures, systems and components. PSEG Nuclear identified that while repairing Unit 1 auxiliary building ventilation excess flow damper, S1ABV-1ABS8 under Order 60014824, a spring that assists in damper actuation was modified without the proper engineering documentation. This was documented in the corrective action program as Notification 20052729.

Inspection Report# : [2000011\(pdf\)](#)

Significance:  Dec 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROPERLY ALIGN THE BREAKER FOR A UNIT 1 SERVICE WATER PUMP

Operators failed to properly align the breaker for a Unit 1 service water pump following maintenance. This resulted in the pump failing to start approximately 11 days after being returned to service. Also, the corrective action investigation was not thorough and did not recognize that the pump may have been inoperable for these 11 days. The failure to properly align the breaker was a non-cited violation. The finding was of very low safety significance (Green) because redundant mitigating equipment was available during the periods when the pump was unavailable.

Inspection Report# : [2000010\(pdf\)](#)

Significance:  Nov 11, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SCHEDULE AND PERFORM PREVENTIVE MAINTENANCE FOR A TURBINE DRIVEN AUXILIARY FEEDWATER MODIFICAITON

PSEG Nuclear did not perform the specified preventive maintenance (PM) tasks for the new equipment associated with the turbine driven auxiliary feedwater pump enclosure modification at both units. This problem resulted in a credible impact on safety-related equipment which could have affected the availability and reliability of the auxiliary feedwater system. The failure to properly perform PM tasks for new equipment associated with modification 2EC-3522 as required by Procedure NC.WM-AP.ZZ-0003(Q), Rev 0, "Regular Maintenance Process," was considered to be a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings." The issue was determined to be of very low risk significance using the Significance Determination Process phase 1 screening because no actual equipment failures were attributed to the missed PMs.

Inspection Report# : [2000009\(pdf\)](#)

Significance:  Feb 07, 2000

Identified By: NRC

Item Type: VIO Violation

THE CARBON DIOXIDE TESTS FOR THE UNITS 1 & 2 4,160 VAC SWITCHGEAR ROOMS DID NOT REACH OR MAINTAIN THE REQUIRED CO2 CONCENTRATION OF 50%

PSEG did not ensure that the carbon dioxide concentration tests for the Units 1 & 2 4,160 VAC switchgear rooms reached and maintained the required CO2 concentration of 50%. This is a violation of Unit 1 license condition C.5 and Unit 2 license condition 2.C.10. This finding was determined to be WHITE by the significance determination process. The safety significance of this WHITE finding is low to moderate. During the supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspector determined that PSEG had performed a comprehensive evaluation of the failure of the carbon dioxide suppression system to achieve its design concentration. PSEG is currently working to correct carbon dioxide concentrations for the total flooding fire suppression systems, upgrade electrical raceway fire barrier systems, and convert the 4160v switchgear room fire suppression systems from manual to automatic. Based on PSEG's acceptable performance in addressing the switchgear room fire suppression system issue, the White finding associated with this issue will only be considered in assessing tplant performance for a total of four quarters in accordance with the guidance in NRC Inspection Manual Chapter 0305.

Inspection Report# : [1999010\(pdf\)](#)



Significance: Feb 07, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG FAILED TO ENSURE THE CO2 SYSTEMS FOR THE UNITS 1 & 2 4,160 VAC ELECTRIC PENETRATION ROOMS REACHED AND MAINTAINED THE REQUIRED CO2 CONCENTRATION

The team identified that the carbon dioxide concentration tests for the Units 1 & 2 electrical penetration areas did not reach or maintain the required CO2 concentration of 50%. This failure is a violation of license conditions for each unit. This finding was evaluated by the significance determination process (SDP) and determined to be GREEN based on the other detection and suppression systems available in the area. The safety significance of this finding is very low.

Inspection Report# : [1999010\(pdf\)](#)



Significance: Feb 07, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG FAILED TO ENSURE THAT ONE TRAIN OF EQUIPMENT NECESSARY TO ACHIEVE HOT SHUTDOWN FROM THE EMERGENCY CONTROL STATION IS FREE OF FIRE DAMAGE

PSEG identified a condition in which they failed to ensure that one train of equipment necessary to achieve hot shutdown from the emergency control station is free of fire damage. This is a non-cited violation of Section III.G.1.a of Appendix R. This issue was evaluated by the SDP and found to be within the licensee's response band. (GREEN) The safety significance of this finding is very low.

Inspection Report# : [1999010\(pdf\)](#)



Significance: Feb 07, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG IDENTIFIED A CONDITION IN WHICH A FIRE COULD DAMAGE CABLES SUCH THAT THE POWER OPERATED RELIEF VALVE WOULD OPEN AND THE ASSOCIATED BLOCK VALVE COULD NOT BE CLOSED.

PSEG identified a condition in which a fire could damage cables such that the power operated relief valve would open and the associated block valve could not be closed. The failure to protect one train of equipment necessary to achieve hot shutdown is a violation of III.G.1.a of Appendix R. This finding was evaluated by the SDP and determined to be GREEN. The safety significance of this finding was very low.

Inspection Report# : [1999010\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE ACCEPTANCE CRITERIA IN SURVEILLANCE TEST PROCEDURES

The acceptance criteria in the auxiliary feedwater (AFW) pump surveillance test procedures was inadequate since it did not ensure that the pump performance was capable of meeting accident analysis performance or pump operability criteria found in the Unit 1 and 2 Technical Specifications. This issue was considered potentially significant due to the allowable degraded core cooling capability associated with the established AFW pump minimum performance acceptance criteria. This issue has been entered into PSEG Nuclear's corrective action program (CAP). The issue was considered "green" in the significance determination process since it did not have an immediate impact on AFW system operability as determined by an evaluation of recent pump performance.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

MULTIPLE EXAMPLES OF INEFFECTIVE IMPLEMENTATION OF THE CORRECTIVE ACTION PROGRAM

The team identified some instances where PSEG Nuclear did not effectively implement the corrective action program (CAP): 1) A prior performance weakness resulted in a governor control system needle valve setting for the 23 AFW pump turbine that was not optimal for actual operating conditions; 2) During operation of the 23 AFW pump, the team identified that the turbine outboard bearing temperature exhibited an increasing trend, which represented an operability question, and PSEG Nuclear was not aware of this potential problem. Consequently, this problem was not entered into the CAP; and, 3) Other examples of ineffective implementation of the CAP were identified, including deficiencies not promptly entered into the CAP or not adequately corrected. These issues were considered to be significant in that they indicated an overall CAP weakness since problems were noted in not identifying corrective action items and the lack of timeliness and effectiveness of corrective actions. These issues were considered "green" in the significance determination process because they did not have an immediate impact on AFW system operability and were ultimately included in PSEG Nuclear's CAP.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Sep 01, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE DESIGN CONTROL CONCERNING REPLACEMENT PARTS FOR POSITIONERS FOR AFW FLOW CONTROL VALVES

The team found that the positioners for the AFW flow control valves had been maintained with parts that were not qualified for use in safety-related applications. This issue was considered significant since the functionality for valves in a risk significant system was being challenged. The qualification issue was considered "green" in the significance determination process because it did not have an immediate impact on AFW system operability based on an engineering evaluation and the issue was being addressed by PSEG Nuclear's CAP.

Inspection Report# : [1999006\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: Licensee

Item Type: FIN Finding

CFCU TRAIN UNAVAILABILITY PERFORMANCE CRITERIA

PSEG nuclear personnel properly monitored containment fan cooling unit (CFCU) performance for reliability and unavailability. However, while PSEG's recent change in the CFCU train unavailability performance criteria was

acceptable, it was not based on an evaluation of all of the appropriate factors. Also, the goals for the diesel generators were weak in that the cause of the associated unavailability was not addressed. This finding was assessed to be green as a reevaluation by PSEG of the CFCU train unavailability performance criteria using more appropriate factors revealed only a minimal increase in large early release frequency (LERF).

Inspection Report# : [1999005\(pdf\)](#)

Significance:  Jul 11, 1999

Identified By: NRC

Item Type: FIN Finding

INCOMPLETE COMPENSATORY MEASURES FOR DEGRADED EQUIPMENT CONDITIONS

PSEG nuclear operators appropriately assessed three degraded equipment conditions in terms of their impact on the design basis functions of the affected systems. Each of the operability evaluations were completed in a timely manner. However, some of the associated compensatory measures were either incomplete or poorly controlled. This finding was evaluated to be green due to the minor significance of the compensatory measures needed and the absence of NRC requirements in this area.

Inspection Report# : [1999005\(pdf\)](#)

Barrier Integrity

Significance:  Sep 30, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

CONTAINMENT SPRAY SYSTEM VALVES HAD NOT BEEN PROPERLY LEAK RATE TESTED AS REQUIRED BY 10 CFR 50, APPENDIX J

10CFR 50, Appendix B, Criterion XVI, requires, in part, that conditions adverse to quality be promptly identified and corrected. Contrary to the above on August 2, 2001, a PSEG Nuclear engineer identified that containment spray system valves (11, 12, 21, and 22 CS10) had not been properly leak rate tested as required by 10CFR50, Appendix J; however, an appropriate operability assessment and corrective actions were not implemented until August 13, 2001.

Inspection Report# : [2001009\(pdf\)](#)

Significance:  May 19, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IMPLEMENT APPROPRIATE CORRECTIVE ACTIONS FOR A DEGRADED MOISTURE BARRIER

PSEG Nuclear did not repair defects that challenged the integrity of the moisture barrier enclosing the containment insulation assembly and liner, and did not evaluate this aspect of the defects. These defects provided a path for moisture to reach inaccessible and uninspected areas of the containment liner. This finding was evaluated using the significance determination process and found to be of very low significance because the containment integrity was not immediately compromised and adverse effects would be long term. The failure to promptly correct this condition adverse to quality was a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI.

Inspection Report# : [2001006\(pdf\)](#)

Significance:  Feb 27, 2000

Identified By: NRC

Item Type: FIN Finding

SMALL UNIDENTIFIED LEAK FROM THE CVCS AT UNIT 2 PERSISTED FOR 3 1/2 HOURS BEFORE

IDENTIFICATION AND TERMINATION

A small unidentified leak from the chemical and volume control system at Unit 2 persisted for approximately 3 1/2 hours before operators recognized and terminated the condition. PSEG attributed the delays in recognizing the condition, in part, to the fact that two other concurrent evolutions were in progress or had just been completed which effectively masked the indications of a leak, namely volume control tank level and plant ventilation radiation levels. The safety and risk significance of this incident was very low because adequate reactor coolant inventory sources remained available throughout the event and offsite release rates remained well below regulatory limits.

Inspection Report# : [2000001\(pdf\)](#)

Emergency Preparedness

Significance:  Nov 28, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

INEFFECTIVE CORRECTIVE ACTIONS IN THE EP AREA INVOLVING THE FAILURE TO MAKE TIMELY EVENT DECLARATIONS DURING EVENTS ON 12/8/98 AND 9/8/99

GREEN. The NRC identified a problem with corrective actions for emergency classifications based on an untimely EP declaration for a Unit 2 event in 12/98 and again during a Unit 1 event in 9/99. Using the SDP, the finding was determined to be White, in that a PI&R problem existed, there was a failure to resolve the problem based on its recurrence, and an EP planning standard (50.47(b)(14)) was involved. In addition, the NRC observed ineffective PSEG efforts to address the problem. However, following a regulatory conference with PSEG in February 2000 during which additional information was provided, this WHITE finding was reclassified as green. The safety significance of this GREEN finding was very low.

Inspection Report# : [1999009\(pdf\)](#)

Occupational Radiation Safety

Public Radiation Safety

Significance:  Dec 29, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN YEAR 2000 CALIBRATION RECORDS FOR CHEMICAL WASTE BASIN MONITOR (R37) AND UNIT 1 CONTAINMENT FAN COOLER-SW DISCHARGE MONITOR (1R13B)

Technical Specification Section 6.10.d requires that records of surveillance activities, inspections, and calibrations, required by the TSs, be retained for at least five years. The radiological calibration results for the Chemical Waste Basin Monitor (R37) and the Unit 1 Containment Fan Cooler-Service Water Line Discharge Monitor (1R13B) for the year 2000 were not retrievable. PSEG Nuclear placed this issue into its corrective action system as a Notification Report (Notification 20084063). The finding was determined to be of very low safety significance, because the issue did not impair the ability to assess the public dose, and did not result in exceeding public dose limits listed in Appendix I of 10 CFR 50 or 10 CFR 20.1301(d). The issue was not reportable in the Annual Radiological Effluent Report.

Further, PSEG Nuclear produced a work record indicating the calibrations had been properly performed.

Inspection Report# : [2001011\(pdf\)](#)

Significance:  Feb 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

UNTIMELY AND INEFFECTIVE CORRECTIVE ACTIONS FOR VENTILATION DAMPER DEFICIENCIES WHICH RESULTED IN LOW AUX BUILDING EXHAUST AIR FLOW DUE TO A CLOSED FIRE DAMPER.

Effective and timely corrective actions for ventilation damper deficiencies were not taken and resulted in low auxiliary building exhaust air flow due to a fire damper failing closed. Several previous similar events had demonstrated the susceptibility of damper locking devices. The finding had a credible impact on safety because radiological effluents could have bypassed the auxiliary building ventilation charcoal filter during accident conditions and resulted in a public radiation hazard. The finding was of very low safety significance because the auxiliary building was maintained at negative pressure during the low flow condition and any radioactive release would have been through high efficiency filtration via the normal monitored flowpath. The failure to take timely and effective corrective actions to preclude the recurrence of damper deficiencies was considered a non-cited violation.

Inspection Report# : [2000011\(pdf\)](#)

Significance:  Oct 10, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO REPORT IN RAD. ENV. OP. REPORTS ACTIONS TO PREVENT RECURRENCE OF RAD. ENVIR. AIR SAMPLER OUTAGES

PSEG failed to provide complete information in their 1997 and 1998 Annual Radiological Environmental Operating Reports in that these documents did not describe plans to prevent recurrence of multiple environmental air sampler outages. This issue was characterized as a Non-Cited Violation of TS 3.12.1. The safety significance of this issue was very low because it did not significantly compromise PSEG's ability to assess the environmental impact of continued plant operation.

Inspection Report# : [1999008\(pdf\)](#)

Physical Protection

Significance:  Aug 29, 1999

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONDUCT PACKAGE SEARCH IN ACCORDANCE WITH SITE SECURITY PLAN

Security personnel did not properly search a hand-carried package prior to granting it unrestricted access to the site protected area (PA). Specifically, guards permitted a plant worker to bypass the x-ray machine and carry a large bag of moving blankets into the PA without a search of the bag's contents. Later examination of the bag's contents yielded no contraband. This incident was characterized as a "green" issue since no contraband was identified in the package which was not searched.

Inspection Report# : [1999007\(pdf\)](#)

Miscellaneous

Significance: N/A Mar 23, 2001

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION AND RESOLUTION PROGRAM INSPECTION

The licensee staff used the notification system appropriately to identify issues needing review for corrective actions. Daily issue review and prioritization meetings focused on safety and minimization of plant risk. Operators reviewed the risk worth of planned work activities. Operability determinations appeared adequate for the reviewed issues. Identified issues were being reviewed for apparent and root causes. Root cause evaluations were conducted to an appropriate depth and provided associated corrective actions. Corrective actions for identified issues were effective, commensurate with the safety significance of the issues, and sensitive to the necessity for reliable equipment performance. The extent of condition and generic applicability for significant conditions adverse to quality were properly considered. The size of the corrective action backlog and timeliness of corrective action completion, with respect to safety significance, was formally tracked and managed. The licensee had taken actions commensurate with the importance of service water system issues; however, detritus and silt continued to challenge the operators and plant equipment. Self-assessments and audits were self-critical and provided appropriate feedback, including notifications and recommendations.

Inspection Report# : [2001004\(pdf\)](#)

Significance: N/A Apr 18, 2000

Identified By: NRC

Item Type: FIN Finding

PROBLEM IDENTIFICATION AND RESOLUTION

The licensee was effective at identifying problems. Nevertheless, the team found two instances, involving low significance, where issues were not entered into the corrective action process in a timely manner. The instances did not represent a programmatic trend or concern. The licensee's resolution of problems was adequate. Based on the sample reviewed, items entered into the corrective action program were properly classified and prioritized for resolution. Evaluations and root cause analysis were of good depth and quality. The prescribed corrective actions appeared appropriate to correct the problems and the corrective actions were generally completed in a timely manner. However, there were a few instances where the required evaluations for notifications were untimely or when the prescribed corrective actions were overdue. Although none of the examples resulted in a significant adverse condition, they were similar to previous NRC observations and the licensee's self-assessments of activities involving the corrective action program. In the area of safety conscious work environment (SCWE), plant personnel were familiar with and did not feel reluctant to use the processes that existed for raising safety issues.

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