

Hope Creek 1

Initiating Events

Significance:  Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR DID NOT IDENTIFY AND ADMINISTRATIVELY CONTROL TRANSIENT COMBUSTIBLES MATERIALS IN THE HPCI PUMP AND TURBINE ROOM

The inspectors identified a non-cited violation for the failure to comply with the transient combustible control requirements in the high pressure coolant injection (HPCI) pump room. The safety significance of this finding was very low because of the availability of safe shutdown capabilities that were physically independent of the fire area, area- wide smoke detection, and effective fire brigade performance.

Inspection Report# : [2002006\(pdf\)](#)

Significance:  Jun 29, 2002

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

OPERATION OUTSIDE THE LICENSED CONDITIONS FOR MAXIMUM POWER LEVEL AND MINIMUM FEEDWATER TEMPERATURE FOLLOWING AN ELECTRICAL TRANSIENT

PSEG Nuclear identified that they had failed to take timely corrective actions for an August 1999 electrical transient in order to preclude its recurrence. A similarly induced electrical transient in May 2002 resulted in Hope Creek operation outside the licensed conditions for maximum power level and minimum feedwater temperature. This violation of Hope Creek operating license conditions 2.C.(1) and 2.C.(11) is being treated as a non-cited violation. The safety significance of this finding was very low because of the short duration, mitigation equipment availability, and no apparent adverse impact on fuel barrier integrity.

Inspection Report# : [2002005\(pdf\)](#)

Mitigating Systems

Significance:  Dec 28, 2002

Identified By: NRC

Item Type: FIN Finding

LICENSED OPERATOR REQUALIFICATION PROGRAM

The inspectors identified a finding associated with crew performance on the simulator. Of the nine crews evaluated, three failed to pass their facility-administered requalification examinations. The Operator Requalification Human Performance SDP establishes the risk importance for crew failure rate. The failure rate for Hope Creek crews was 3 of 9, or 33 percent. A failure rate of 20 percent to 34 percent is considered to be a Green finding, and is turned over to the facility licensee for corrective action. The finding is of very low safety significance because the failures occurred during annual testing of the operators on the simulator, because there were no actual consequences to the failures, and because all three crews were re-trained and re-evaluated before they were authorized to return to control room watches.

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

Significance:  Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

STANDBY LIQUID CONTROL PUMP FAILED INSERVICE TEST

The inspectors determined that PSEG failed to take adequate corrective actions to preclude repetition of a safety-related component failure. PSEG corrective actions for a B standby liquid control (SLC) pump inservice test (IST) failure in March 2002 did not adequately preclude a similar degraded condition from causing an A SLC pump IST failure on October 16, 2002. The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Actions, for this performance deficiency. This finding was considered to be more than minor because it affected the Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of the SLC system to respond to initiating events (ATWS) to prevent undesirable conditions. The inspectors determined that the finding was of very low safety significance (Green) because the B SLC pump remained operable and there was no loss of the SLC system safety function.

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



Significance: Dec 16, 2002

Identified By: NRC

Item Type: FIN Finding

INADEQUATE MODIFICATION AND SYSTEM DESIGN CONTROLS WITH RESPECT TO THE STATION ATWS EVALUATION

NRC Team identified a finding concerning inadequate modification and system design controls with respect to the station anticipated transient without scram (ATWS) evaluation. The team identified two modifications as well as other configuration differences that could change the results for the ATWS evaluation of record. There was no violation of NRC requirements because the licensee did evaluate design basis events such as loss of offsite power (LOP) and loss of coolant accident (LOCA) to verify design inputs and limits for the modifications. The finding is greater than minor because the condition if left uncorrected had the potential to affect the availability and reliability of HPCI. The finding is of very low safety significance because there was no loss of safety function and the reconciled and corrected ATWS evaluation demonstrated that suppression pool temperature remains below design limits and would provide adequate net positive suction head (NPSH) and LO cooling.

Inspection Report# : [2003002\(pdf\)](#)



Significance: Dec 16, 2002

Identified By: NRC

Item Type: AV Apparent Violation

INADEQUATE EMERGENCY DIESEL GENERATOR LOCKOUT RELAY TESTING FREQUENCY

NRC Team identified an apparent violation of Technical Specification (TS) 4.8.1.1.2.h.14 (a, b, and c) because of inadequate testing to verify that the emergency diesel generator (EDG) features associated with the 86R, 86B, and 86F lockout relays prevent EDG starting only when required. The licensee failed, in several cases, to test that the actual lockout features (i.e., lockout relay inputs) tripped the specific lockout relays as specified in the TS. This issue was more than minor because a TS required test was not performed within the required periodicity (Question 1.C in Appendix E of NRC Manual Chapter 0612). There was no actual loss of the safety system function, and subsequent testing indicated that the lockout features would have been able to accomplish their design safety functions. Enforcement action for this apparent violation will be handled by separate correspondence at a later date.

Inspection Report# : [2003002\(pdf\)](#)



Significance: Dec 16, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE INSERVICE TEST ACCEPTABLE CRITERIA FOR HIGH PRESSURE COOLANT INJECTION DEVELOPED PUMP FLOW

NRC Team identified a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III (Design Control) was identified for inadequate acceptance limits for HPCI quarterly operability surveillance testing requirements for developed pump flow. The licensee calculations that established the required test pressure and flows for the quarterly operability test were found to be non-conservative and no calculation was done to ensure that the system could meet design requirements. This issue was more than minor because applying the non-conservative or unreviewed acceptance limits for the pump operability test did not assure the availability and reliability of the HPCI system. This issue is considered a very low safety significance finding, because while established acceptance limits may not have been correct, there was no loss of safety function.

Inspection Report# : [2003002\(pdf\)](#)



Significance: Dec 16, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IDENTIFY AND CORRECT ISSUES WITH THE HIGH PRESSURE COOLANT INJECTION LUBRICATING OIL TEMPERATURE MONITORING INSTRUMENTATION

NRC Team identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI (Corrective Actions), for not assuring that conditions adverse to quality concerning the high pressure coolant injection (HPCI) system lubricating oil (LO) temperature monitoring were promptly identified and corrected. The temperature alarm actuated during observed inservice testing after which the team identified several deficiencies with plant drawings and procedures and at least six notifications related to uncalibrated instruments, high temperature alarms, and defective temperature switches entered into the corrective action program during the past two years. The finding was more than minor because the licensee failed to provide reliable indication in the control room potentially affecting the ability to monitor and assess equipment performance, which could affect the availability and reliability of HPCI. The issue was considered to be of very low safety significance because there was no loss of safety function and the actual oil temperature was below the technical manual temperature limit.

Inspection Report# : [2003002\(pdf\)](#)

G**Significance:** Dec 16, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

INCOMPLETE HIGH PRESSURE COOLANT INJECTION TECHNICAL SPECIFICATION VALVE LINE-UP

NRC Team identified a TS violation dispositioned as an NCV for failure to demonstrate the HPCI system operability by, at least once per 31 days, verifying that each valve, manual or automatic, in the system flow path that is not locked, sealed or otherwise secured in position is in its correct position. The team identified that manual valve BJ-048 was not accounted for in the HPCI system valve lineup. The finding is more than minor because a TS required valve position verification was not performed (Question 1.c in Appendix E Manual Chapter 0612), which had the potential to impact HPCI availability and reliability in reference to the configuration control attribute for operating equipment. Mis-positioning of this valve could result in damage due to inadequate LO cooling. The risk of this finding is determined to be of very low safety significance because there was no loss of safety function, and the valve was found to be in the proper positions during a subsequent valve line-up.

Inspection Report# : [2003002\(pdf\)](#)G**Significance:** Dec 16, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO EVALUATE THE POTENTIAL EFFECTS OF STEAM LEAKS ON STATION BLACKOUT COPING ASSUMPTIONS

An NCV of 10CFR50.63 (a) (2) Station Blackout (SBO) was identified due to the lack of an operability determination or engineering evaluation for the multiple steam leaks in the HPCI pump room. The degraded plant material condition of elevated HPCI room temperatures and humidity were not evaluated for the direct impact on the station's ability to cope following an SBO. The finding was more than minor because, for an SBO event, both the expected HPCI pump room temperatures and HPCI DC bus room temperatures would be above the evaluated temperature limits potentially affecting the availability and reliability of HPCI. The finding is of very low safety significance because there was no loss of safety function. Draft calculations and subsequent engineering review of the conservatism in the original calculation method provided evidence that the resulting elevated room temperatures were not likely to cause a short term failure of HPCI or a risk significant failure on the DC bus components during the four-hour coping period.

Inspection Report# : [2003002\(pdf\)](#)G**Significance:** Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR DID NOT PROMPTLY IDENTIFY AND INITIATE ACTIONS TO CORRECT A CONFIGURATION CONTROL DEFICIENCY ASSOCIATED WITH SERVICE WATER INTAKE WATERTIGHT FLOOD DOORS

The inspectors identified a non-cited violation for PSEG Nuclear's failure to promptly identify and initiate actions to correct a configuration control deficiency associated with SW intake watertight flood doors. The safety significance of this finding was very low (Green) because: (1) the likelihood of a flooding event in the service water (SW) screen room that would challenge the equipment in the B/D SW bay was low; (2) one complete SW loop remained available to provide safety-related cooling water to the safety auxiliaries cooling system (SACS), if needed; and (3) the duration that the condition existed was very short, less than four hours.

Inspection Report# : [2002006\(pdf\)](#)G**Significance:** May 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROMPTLY IDENTIFY AND CORRECT A DEGRADED CONDITION ON THE D EMERGENCY DIESEL GENERATOR

The inspectors identified a non-cited violation for inadequate corrective actions for PSEG Nuclear's inability to promptly identify a degraded condition on the D emergency diesel generator (EDG). The safety significance of this finding was very low, based on the continued operability of the D EDG.

Inspection Report# : [2002004\(pdf\)](#)G**Significance:** May 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ADEQUATELY ASSESS AND MANAGE THE INCREASE IN RISK ASSOCIATED WITH PLANNED MAINTENANCE ON THE A EDG AND C SW PUMP

The inspectors identified a non-cited violation for PSEG Nuclear's ineffective assessment and management of the increase in risk associated with planned maintenance on the A emergency diesel generator and C service water pump. The safety significance of this finding was very low, because the components were not removed from service at the same time.

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

G

Significance: May 11, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM ADEQUATE INSPECTIONS IN ACCORDANCE WITH PROCEDURES

The inspectors identified a non-cited violation for PSEG Nuclear's failure to adequately perform post installation inspections on the high pressure coolant injection (HPCI) 250 volt DC battery. The safety significance of this finding was very low, because PSEG Nuclear was able to demonstrate that the HPCI battery remained operable in this circumstance.

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

G

Significance: May 11, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN SECONDARY CONTAINMENT INTEGRITY IN ACCORDANCE WITH TS 3.6.5.1

Technical Specification 3.6.5.1 requires secondary containment integrity maintained. On April 30, an in-field SRO identified that a 1-inch service water (SW) emergency makeup line breached secondary containment. Operators determined that a tagged open SW vent valve in the control/diesel building provided an air leakage path to a SW emergency makeup line drain valve in the reactor building. Engineering determined that the leakage path would not have prevented the filtration, recirculation and ventilation system from performing its intended safety function.

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

G

Significance: Mar 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR DID NOT ESTABLISH ADEQUATE CORRECTIVE ACTIONS TO ASSURE THAT A SW INTAKE AREA SILT ACCUMULATION ISSUE WAS PROMPTLY IDENTIFIED AND CORRECTED

The inspectors identified a non-cited violation for ineffective corrective actions for malfunctions regarding standby service water (SW) pump performance due to intake silt accumulation, in that poor standby pump performance in a 2001 incident recurred in 2002. The safety significance of this finding was very low, because the redundant SW pump in the affected loop remained operable and capable of performing its safety function, given considerable operator action.

Inspection Report# : [2002002\(pdf\)](#)

G

Significance: Mar 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR DID NOT INCORPORATE A CHANGE IN THE TS MINIMUM RIVER LEVEL REQUIREMENT INTO THE C SW PMP IST PROCEDURE

The inspectors identified a non-cited violation for PSEG Nuclear's failure to incorporate a change in the Technical Specification (TS) minimum river level requirement into SW pump inservice testing procedures. The safety significance of this finding was very low because the level measured during the test was above the TS required minimum limit and the control room operators recorded river level every two hours.

Inspection Report# : [2002002\(pdf\)](#)

G

Significance: Mar 30, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO MAINTAIN CONFIGURATION CONTROL OF THE B RHR MINIMUM FLOW MANUAL ISOLATION VALVE

PSEG Nuclear procedure NC.NA-OP.ZZ-0005, Station Operating Practices, requires that manually operated valves that do not have position indication in the control room and would render an ECCS inoperable shall be locked to prevent inadvertent or unauthorized valve operation. On March 20, 2002 plant operators found the B RHR minimum flow manual isolation valve, 1-BC-V032, unlocked and shut. The valve's required position is locked open. Based on an analysis of vendor information, operating experience feedback, emergency operating procedures, RHR design basis, and operating crew simulator response; PSEG Nuclear determined that B RHR remained capable of performing its design

functions with BC-V032 closed.
Inspection Report# : [2002002\(pdf\)](#)



Significance: Mar 30, 2002

Identified By: Licensee

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO IMPLEMENT AND MAINTAIN ALL PROVISIONS OF THE APPROVED FIRE PROTECTION PROGRAM

Hope Creek Generating Station Facility Operating License Condition 2.C.7, requires PSEG Nuclear to implement and maintain all provisions of the approved Fire Protection Program as described in the UFSAR. USFAR Figure 9.5-13 and P&ID M-00, sheet 2, note 34, indicate that the motor driven fire pump suction strainer, TS112, was a temporary start-up strainer which was replaced by a removable spool piece. Contrary to this requirement, PSEG Nuclear identified that temporary start-up strainer was still installed.

Inspection Report# : [2002002\(pdf\)](#)



Significance: Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ESTABLISH ADEQUATE CORRECTIVE ACTIONS TO ASSURE DEGRADED CRANKCASE VACUUM CONDITION WAS PROMPTLY IDENTIFIED AND CORRECTED

The inspectors identified that PSEG Nuclear's failed to establish adequate corrective actions to assure that a B emergency diesel generator degraded crankcase vacuum condition that existed on October 30, 2000, was promptly identified and corrected. The safety significance of this finding was very low, because PSEG Nuclear's resultant investigation and operability determination determined that the diesel engine was not experiencing excessive blowby and the engine did not exhibit any mechanical conditions that could generate the temperatures required to initiate a crankcase explosion.

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



Significance: Feb 09, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO ESTABLISH ADEQUATE FME CONTROLS DURING B EDG MAINTENANCE CONDUCTED IN THE FALL 2001 REFUELING OUTAGE

The inspectors identified that PSEG Nuclear failed to establish adequate foreign material exclusion controls during B emergency diesel generator (EDG) maintenance conducted in the Fall 2001 refueling outage (RF10). The safety significance of this finding was very low because PSEG Nuclear's resultant operability determination determined that the B EDG was operable and capable of performing its safety function.

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

Barrier Integrity



Significance: Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO CONDUCT MAINTENANCE IN ACCORDANCE WITH NC.NA-AP.ZZ-0069, RESULTING IN THE LOSS OF BOTH TRAINS OF CONTROL ROOM VENTILATION

A July 16 event revealed inadequate work control, in that technicians failed to conduct maintenance in accordance with NC.NA-AP.ZZ-0069, "Work Control Coordination," resulting in the loss of both trains of control room ventilation. The safety significance of this finding was very low (Green) because: (1) the likelihood of an initiating event that would challenge the control room barrier function was low; (2) the physical integrity of the control room barrier was maintained, which would minimize in-leakage into the control room; (3) the control room ventilation system was recoverable; (4) full faced, self-contained breathing apparatus and protective clothing were available for use by control room operators; and (5) the duration that the condition existed was very short, approximately 40 minutes.

Inspection Report# : [2002006\(pdf\)](#)



Significance: Sep 30, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR DID NOT TAKE APPROPRIATE CORRECTIVE ACTIONS TO PRECLUDE RECURRENCE OF A DEFICIENCY ASSOCIATED WITH SECONDARY CONTAINMENT INTEGRITY

The inspectors identified a non-cited violation for PSEG Nuclear's failure to take appropriate corrective actions to preclude recurrence of a filtration, recirculation and ventilation system (FRVS) configuration control deficiency, i.e., an incorrect operating setpoint for the B FRVS ventilation fan. The safety significance of this finding was very low, as the finding only represented a degradation of the radiological barrier function for FRVS, the A FRVS train remained available to control reactor building pressure, and secondary containment integrity was maintained (no open pathway existed).

Inspection Report# : [2002006\(pdf\)](#)



Significance: Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PERSONNEL PERFORMANCE DURING NONROUTINE PLANT EVOLUTIONS

The inspectors identified a non-cited violation for inadequate corrective actions for the reactor operators' failure to promptly identify and initiate actions to correct a deficiency associated with an elevated turbine first stage pressure indicative of a potential overpower condition. The safety significance of this finding was very low, based on the small magnitude of the overpower condition, limited duration, and no apparent adverse impact on fuel barrier integrity.

Inspection Report# : [2002005\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety



Significance: Jun 29, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

PSEG NUCLEAR FAILED TO CALIBRATE TWO AREA RADIATION MONITORS

The inspector identified that two area radiation monitors had not been calibrated every 18 months as required by procedure NC.WM-AP.ZZ-0003, Regular Maintenance Process. This violation of Technical Specification 6.8.1.a is being treated as a non-cited violation. The safety significance of this finding was very low, because other radiological instrumentation, industry survey meters and electronic dosimeters, were available.

Inspection Report# : [2002005\(pdf\)](#)

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : March 25, 2003