



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
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KING OF PRUSSIA, PA 19406-1415

July 31, 2008

Mr. William Levis
President and Chief Nuclear Officer
PSEG Nuclear LLC
80 Park Plaza, T4B
Newark, NJ 07102

**SUBJECT: HOPE CREEK GENERATING STATION – NRC INTEGRATED INSPECTION
REPORT 05000354/2008003**

Dear Mr. Levis:

On June 30, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Hope Creek Generating Station. The enclosed integrated inspection report documents the inspection results discussed on July 9, 2008, with Mr. George Barnes and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The report documents one NRC-identified finding of very low safety significance (Green) that was also determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Hope Creek Generating Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the

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Sincerely,

/RA/

Arthur L. Burritt, Chief
Projects Branch 3
Division of Reactor Projects

Docket No: 50-354
License No: NPF-57

Enclosure: Inspection Report 05000354/2008003
w/Attachment: Supplemental Information

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Sincerely,
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U.S NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-354

License No: NPF-57

Report No: 05000354/2008003

Licensee: PSEG Nuclear LLC

Facility: Hope Creek Generating Station

Location: P.O. Box 236
Hancocks Bridge, NJ 08038

Dates: April 1, 2008 through June 30, 2008

Inspectors: B. Welling, Senior Resident Inspector
G. Malone, Senior Resident Inspector
A. Patel, Resident Inspector
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Approved By: Arthur L. Burritt, Chief
Projects Branch 3
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Enclosure

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SUMMARY OF FINDINGS

IR 05000354/2008003; 04/01/2008 – 06/30/2008; Hope Creek Generating Station; Operability Evaluations.

The report covered a three-month period of inspection by resident inspectors, a regional reactor inspector, and an announced inspection by a regional health physics specialist. One Green non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, for inadequate corrective actions to address previously identified corrosion of service water traveling screen seismic class 1 support structures. The actions were insufficient to address the corrosion on the D traveling water screen support structure, such that a seismic support I-beam was determined to be inoperable in May 2008. PSEG's corrective actions included replacing corroded I-beams and inspecting other support structure components.

The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone, and it affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the corrective actions did not assure operability of a seismic support for the D service water traveling water screen. The inspectors determined that the finding was of very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution because PSEG did not take appropriate corrective actions to address safety issues in a timely manner commensurate with their safety significance and complexity (P.1.(d)). Specifically, PSEG did not take adequate corrective actions to ensure that the operability of the degraded D TWS structural support steel was maintained. (Section 1R15)

B. Licensee Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

The Hope Creek Generating Station operated continuously for the duration of the inspection period. Station personnel performed power reductions for: 1) planned maintenance and testing, 2) power ascension and testing activities associated with an extended power uprate (EPU), and 3) two unplanned power reductions.

On April 20, operators performed an unplanned power reduction to 79%, as a result of direction from the PSEG transmission system operator to remove one 500 kV transmission line from service due to a brush fire. Operators restored the plant to full power on the same day. On April 30 through May 1, operators reduced power to perform testing at approximately 90% power in accordance with an EPU test plan. On May 16, PSEG implemented Amendment 174 to the Facility Operating License, which revised the maximum power level from 3339 to 3840 megawatts thermal. On May 22, operators began power ascension activities above 3339 megawatts thermal in accordance with the EPU test plan. On May 25, operators reduced power to approximately 44% of the new maximum power level, in preparation for a shutdown to comply with technical specifications due to a failed safety-related inverter. The power reduction was terminated following repairs to the inverter, and operators restored power to its previous level on the same day. At the conclusion of the inspection, the station was operating at 97% of the new maximum power level, which was consistent with PSEG's planned implementation of the EPU.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 - 3 samples)a. Inspection Scope

The inspector completed one seasonal weather preparation sample for the onset of hot summer weather. The inspectors performed a detailed review of PSEG's seasonal readiness procedures and reviews associated with hot weather conditions. System health reports were reviewed and systems that could be subject to increased heat conditions were walked down to assess reliability and availability during periods of extreme heat. The inspectors focused on the readiness of the station service water system, emergency diesel generators and safety auxiliary cooling system. This inspection sample satisfied the inspection requirement to review two to four risk-significant systems prior to the onset of hot weather.

The inspectors also completed one adverse weather protection sample for PSEG's response to a site-specific weather-related condition of hot weather. Specifically, during the period of hot weather, the inspectors walked down the station service water system, control room chilled water system, primary condensate pumps, and control room panels to verify proper operation of risk significant equipment. The inspectors also monitored various plant parameters that could be affected by the hot weather conditions using a computerized plant monitoring system. The inspectors verified that the adverse weather conditions did not adversely impact mitigating systems or increase the likelihood of an

initiating event. Inspectors discussed readiness with operations and work control personnel to assess personnel readiness and availability for adverse weather response.

Additionally, the inspectors completed one inspection sample to evaluate the readiness of PSEG's offsite and alternate AC power systems for adverse weather. Inspectors verified that plant features and procedures for operation and continued availability of offsite and alternate AC power systems during adverse weather are appropriate. The inspectors reviewed station procedures affecting these areas and communications protocols with the transmission system operator to verify that the appropriate information is exchanged when issues arise that could impact the offsite power system.

The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04 - 5 samples, 71111.04S - 1 sample)

.1 Partial Walkdown

a. Inspection Scope

The inspectors completed partial system walkdown inspection samples for the five systems listed below to verify the operability of redundant or diverse trains and components when safety equipment was unavailable. The inspectors completed walkdowns to determine whether there were discrepancies that could impact the function of the system, and therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, walked down control system components, and verified that selected breakers, valves, and support equipment were in the correct position to support system operation. The inspectors also verified that PSEG had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program. Documents reviewed are listed in the Attachment.

- C emergency diesel generator (EDG) during D EDG maintenance on April 23, 2008
- D residual heat removal (RHR) system following a D RHR system in-service test completed on April 21, 2008
- B RHR system during A/C RHR system outage on May 6, 2008
- High pressure coolant injection (HPCI) system during reactor core isolation cooling (RCIC) system outage on June 18, 2008
- RCIC system during HPCI system outage on June 24, 2008

.2 Complete Walkdown

a. Inspection Scope

The inspectors performed one complete walkdown inspection sample of the hard pipe containment vent system. The inspectors used PSEG procedures and other documents listed in the Attachment to review proper system alignment and functional capability.

The inspectors independently verified the alignment and status of containment vent valves, GSHV-4964 and GSHV-11541, electrical power, backup nitrogen bottles, labeling, operator workarounds, hangers and supports, and associated support systems. The inspectors also verified alarm response procedures, abnormal operating procedures, and emergency operating procedures were sufficient to complete the risk-important operator action of containment venting. The inspectors reviewed the open maintenance work orders (WOs) on the system for any deficiencies that could affect the ability of the system to perform its function. Documentation associated with unresolved design issues such as temporary modifications (TMs), operator workarounds, and items tracked by plant engineering were also reviewed to assess their collective impact on system operation. In addition, the inspectors reviewed the condition report (CR) database to verify that equipment alignment problems were being identified and appropriately resolved.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05 - 6 samples)

.1 Fire Protection – Tours

a. Inspection Scope

The inspectors completed six quarterly fire protection inspection samples. The inspectors conducted tours of the areas to assess the material condition and operational status of fire protection features. The inspectors verified that combustibles and ignition sources were controlled in accordance with PSEG's administrative procedures; fire detection and suppression equipment were available for use; passive fire barriers were maintained in good material condition; and compensatory measures for out-of-service, degraded, or inoperable fire protection equipment were implemented in accordance with PSEG's fire plan. The six areas toured are listed below with their associated pre-fire plan designator. Other documents reviewed are listed in the Attachment.

- FRH-II-512, HPCI and LPCI battery rooms
- FRH-II-522, Cable spreading room
- FRH-II-532, Lower control equipment room
- FRH-II-542, Control equipment room
- FRH-II-541, Class IE switchgear rooms A, B, C, D
- FRH-II-551, A, B, C, D battery rooms and battery charger rooms

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07 - 1 sample)

a. Inspection Scope

The inspectors selected the B1 and B2 safety auxiliary cooling system (SACS) heat exchangers for review. The inspectors verified that biofouling programs existed and

were managed in accordance with PSEG procedures and commitments to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," and that heat exchanger performance data demonstrated satisfactory performance. The inspectors walked down the B1 and B2 SACS heat exchangers to identify any evident leaks or degraded conditions. The inspectors also reviewed notifications in the corrective action program to verify that PSEG was identifying SACS heat exchanger problems at the appropriate threshold and that corrective actions addressed the identified problem and were effective. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11Q - 1 sample)

a. Inspection Scope

The inspectors observed a licensed operator annual requalification simulator scenario on May 6, 2008, to assess operator performance and training effectiveness. The scenario involved a simulated earthquake, loss of offsite power and loss of coolant accident. The inspectors assessed simulator fidelity and observed the crew's and simulator instructor's critiques of operator performance. The inspectors also observed control room activities with emphasis on simulator identified areas for improvement. Finally, the inspectors reviewed applicable documents associated with licensed operator requalification as listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12 - 2 samples)

a. Inspection Scope

The inspectors completed two maintenance effectiveness inspection samples. The inspectors evaluated items such as: appropriate work practices; identifying and addressing common cause failures; scoping in accordance with 10 CFR 50.65(b) of the maintenance rule; characterizing reliability issues for performance; trending key parameters for condition monitoring; charging unavailability for performance; classification and reclassification in accordance with 10 CFR 50.65(a)(1) or (a)(2); and appropriateness of performance criteria for structures, systems, and components (SSCs) functions classified as (a)(2) and/or appropriateness and adequacy of goals and corrective actions for SSCs/functions classified as (a)(1). Documents reviewed are listed in the Attachment.

- Emergency diesel generator K1 relay failures
- D service water system strainer failures and traveling screen unavailability

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - 5 samples)

a. Inspection Scope

The inspectors completed five maintenance risk assessment and emergent work control inspection samples. The inspectors reviewed on-line risk management evaluations through direct observation and document reviews for the following five configurations:

- Emergent unavailability of Salem gas turbine with D service water pump and A technical support center chiller out of service on May 30, 2008;
- Emergent main steam isolation valve C channel logic trip on April 8, 2008;
- 1CD481 inverter failure with D emergency diesel generator inoperable on April 22, 2008;
- D service water pump out of service with potential for increased grassing on May 14, 2008; and
- 1CD482 inverter failure with D service water pump inoperable on May 24, 2008.

The inspectors reviewed the applicable risk evaluations, work schedules and control room logs for these configurations to verify that concurrent planned and emergent maintenance and test activities did not adversely affect the plant risk already incurred with these configurations. PSEG's risk management actions were reviewed during shift turnover meetings, control room tours, and plant walkdowns. The inspectors also used PSEG's on-line risk monitor (Equipment Out-Of-Service workstation) to gain insights into the risk associated with these plant configurations. Finally, the inspectors reviewed notifications documenting problems associated with risk assessments and emergent work evaluations. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - 5 samples)

a. Inspection Scope

The inspectors completed five operability evaluation inspection samples. The inspectors reviewed the operability determinations for degraded or non-conforming conditions associated with:

- A emergency diesel generator lube oil keep warm pump high vibrations;
- Auxiliary building conduit flood seal degradation;
- B service water traveling water screen seismic support;
- D service water traveling water screen seismic support; and
- High pressure coolant injection system low suction pressure trip.

The inspectors reviewed the technical adequacy of the operability determinations to ensure the conclusions were justified. The inspectors also walked down accessible equipment to corroborate the adequacy of PSEG's operability determinations. Additionally, the inspectors reviewed other PSEG identified safety-related equipment

deficiencies during this report period and assessed the adequacy of their operability screenings. Documents reviewed are listed in the Attachment.

b. Findings

Introduction: The inspectors identified a Green non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, for inadequate corrective actions to address previously identified corrosion of service water traveling screen seismic class 1 support structures. The actions were insufficient to address the corrosion on the D traveling water screen support structure, such that a seismic support I-beam was determined to be inoperable in May 2008.

Description: There are four traveling water screens (TWS) located in the service water system intake structure. The structural steel supports for the TWS are designed to meet safety-related, seismic class 1 requirements as described in the Updated Final Safety Analysis Report, Table 3.9-6. The TWS function is to maintain service water system cooling flow by preventing large debris from entering the system piping.

In May 2004, the inspectors observed extensive corrosion and coating degradation of TWS structural steel framing and supports. The inspectors documented these observations in NRC Inspection Report 05000354/2004003 and identified a finding (NCV 50-354/04-03-01) for inadequate corrective actions to repair these seismic class 1 structures. Subsequently, PSEG developed a number of corrective actions to address the corroded structures. These corrective actions included two items for the D TWS as documented in notification 20202207: 1) remove existing rust and re-apply coatings to the structural steel; and, 2) replace the structural supports when the D TWS is replaced.

PSEG removed rust and re-applied protective coatings to the structural steel in September 2004. PSEG did not evaluate whether this action would be sufficient to preclude further degradation, determine the potential corrosion rate in the adverse environmental conditions, or provide for more frequent monitoring or periodic inspections of the degraded conditions, such that there was reasonable assurance that the support structure components would remain operable until the D TWS was replaced.

In May 2008, PSEG began maintenance activities on the D service water train that included the D TWS replacement and an inspection of the structural steel. PSEG engineers observed that certain seismic support structural steel members were severely corroded and required replacement on an emergent basis. Engineering performed an evaluation of the seismic supports for the TWS based on the observed corrosion. Engineering determined that the TWS remained seismically qualified, but one of the structural steel I-beams (W12x22) that had a four-inch diameter hole in the web area and a corroded bottom flange was inoperable for its seismic support function.

In summary, in May 2004 inspectors identified a condition adverse to quality in that there was extensive corrosion and coating degradation of structural steel framing and supports for the safety-related service water traveling water screens. PSEG developed a number of corrective actions for the condition, but did not evaluate whether the actions would be sufficient to preclude further degradation or monitor the structural integrity of the supports until they were replaced. As a result, one of the TWS structural steel members was severely degraded due to corrosion and required emergent replacement in May 2008. The inspectors determined that this was a performance deficiency because

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures be established to assure that conditions adverse to quality are promptly identified and corrected. The issue was within PSEG's ability to foresee and correct because PSEG had opportunities to identify the adverse environmental conditions and the degree of degradation of the D TWS structural steel during periodic walkdowns by engineering and operations personnel. Walkdown inspections of the TWS structural steel conducted by the inspectors in May 2008 identified significant corrosion and degraded coatings on horizontal, carbon steel I-beams for the B TWS, and varying levels of corrosion on structural steel for the other trains. The horizontal I-beams contained standing brackish river water, wetted oil absorbent rags, and wet debris, all of which likely contributed to the corrosion of the carbon steel beams.

Analysis: The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone, and it affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the corrective actions did not assure operability of a seismic support for the D service water TWS. The inspectors conducted a Phase 1 screening of the finding in accordance with Inspection Manual Chapter (IMC) 0609, Attachment 0609.04, "Phase I - Initial Screening and Characterization of Findings." The issue screened as Green (very low safety significance) because it did not result in an actual loss of the service water safety function and was not potentially risk significant due to a seismic, flooding, or severe weather initiating event. Although one traveling screen support beam was determined to be inoperable, other support beams were sufficient to prevent a loss of service water traveling screen safety function during a seismic event.

This finding has a cross-cutting aspect in the area of problem identification and resolution because PSEG did not take appropriate corrective actions to address safety issues in a timely manner commensurate with their safety significance and complexity (P.1.(d)). Specifically, PSEG did not take adequate corrective actions to ensure that the operability of the degraded D TWS structural support steel was maintained.

Enforcement: 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, defective material and equipment, and non-conformances are promptly identified and corrected. In May 2004, PSEG identified and initiated corrective actions to address degraded traveling screen support structural steel. Contrary to the above, these corrective actions were inadequate, in that in May 2008, PSEG discovered that a D TWS I-beam was inoperable for an indeterminate period of time due to corrosion. Because this finding was of very low safety significance and was entered into the corrective action program as notifications 20370390, 20370435, and 20371775, this violation is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy. **(NCV 05000354/2008003-01, Inadequate Corrective Actions for Traveling Water Screen Support Structure)**

1R18 Plant Modifications (71111.18 - 2 samples)

.1 Permanent Plant Modification

a. Inspection Scope

The inspectors reviewed one permanent plant modification design change package for the removal of the auto-close function for the HPCI to feedwater injection valve, HV-8278. This modification was installed to address the potential for the HPCI feedwater injection valve to thermally bind and subsequently fail to open. This review verified that the design bases, licensing bases, and performance capability of the system was not degraded by the modification. The inspectors verified the new configuration was accurately reflected in the design documentation, and the post-modification testing was adequate to ensure the structures, systems, and components would function properly. The inspectors interviewed plant staff, and reviewed issues that had been entered into the corrective action program to determine whether PSEG had been effective in identifying and resolving problems associated with permanent plant modifications. The 10 CFR 50.59 evaluation associated with this permanent plant modification was also reviewed. Documents reviewed are listed in the Attachment.

.2 Temporary Modification

a. Inspection Scope

The inspectors completed one temporary plant modification sample for the addition of a time delay to the HPCI pump low suction pressure trip circuitry. This review verified that the design bases, licensing bases, and performance capability of the system was not degraded by the temporary modification. The inspectors verified the new configuration was accurately reflected in the design documentation, and the post-modification testing was adequate to ensure the structures, systems, and components would function properly. The inspectors interviewed plant staff, and reviewed issues that had been entered into the corrective action program to determine whether PSEG had been effective in identifying and resolving problems associated with temporary modifications. The 10 CFR 50.59 evaluation associated with this temporary modification was also reviewed, and is listed in the Attachment along with the other documents reviewed.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - 5 samples)

a. Inspection Scope

The inspectors completed five post-maintenance testing inspection samples. The inspectors reviewed the post-maintenance tests for the maintenance listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed test procedures to verify the procedure adequately tested the safety functions that may have been affected by the maintenance activity and the acceptance criteria in the procedure were consistent with the UFSAR and other design documentation. The inspectors witnessed the test or reviewed the test data to verify test results adequately demonstrated restoration of the affected safety functions. The inspectors also verified that the post-maintenance tests conducted were adequate for the scope of the maintenance performed. Documents reviewed are listed in the Attachment.

- C channel main steam isolation valve logic K014C relay replacement on April 8, 2008
- C residual heat removal pump test following replacement of mechanical seal on May 8, 2008
- 1CD482 inverter repairs on May 25, 2008
- Reactor core isolation cooling (RCIC) system planned maintenance outage between June 16 and 19, 2008
- K-6 relay and 250 volt station RCIC battery charger maintenance on June 18, 2008

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 - 7 samples)

a. Inspection Scope

The inspectors completed seven surveillance testing (ST) inspection samples. The inspectors witnessed performance of and/or reviewed test data for the risk-significant STs to assess whether the SSCs tested satisfied TS, UFSAR, and procedure requirements. The inspectors verified that test acceptance criteria were clear, demonstrated operational readiness and were consistent with design documentation; that test instrumentation had current calibrations and the range and accuracy for the application; and that tests were performed, as written, with applicable prerequisites satisfied. Upon ST completion, the inspectors verified that equipment was returned to the status specified to perform its safety function. Documents reviewed are listed in the Attachment.

- A service water pump in-service surveillance test on April 1, 2008
- A residual heat removal pump in-service surveillance test on April 3, 2008
- B service water pump in-service surveillance test on April 15, 2008
- High pressure coolant injection (HPCI) system valves inservice test on April 28, 2008
- HPCI pump quarterly surveillance test on June 3, 2008
- D emergency diesel generator surveillance test on June 16, 2008
- RCIC containment isolation valve water leak rate test on June 18, 2008

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01 - 4 samples)

a. Inspection Scope

The inspectors reviewed and assessed the adequacy of PSEG's internal dose assessment for any actual internal exposure greater than 50 millirem (mrem) committed

effective dose equivalent. No uptakes greater than 10 mrem have occurred in 2007 and 2008.

The inspectors examined PSEG's physical and programmatic controls for highly activated or contaminated materials (non-fuel) stored within spent fuel and other storage pools.

The inspectors reviewed PSEG's self assessments, audits, Licensee Event Reports, and Special Reports related to the access control program since the last inspection. The inspectors verified that identified problems were entered into the corrective action program for resolution.

The inspectors verified adequate posting and locking of all entrances to high dose rate-high radiation areas, and very high radiation areas located in the reactor building, turbine building and service and radwaste building.

The inspector evaluated PSEG performance against the requirements contained in 10 CFR 20.1601, Technical Specification 6.12, and Updated Final Safety Analysis Report (UFSAR) Chapter 12.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02 - 3 samples)

a. Inspection Scope

The inspectors reviewed the assumptions and basis for the current annual collective exposure estimate. The inspectors reviewed applicable procedures to determine the methodology for estimating work activity-specific exposures and the intended dose outcome. The inspectors evaluated both dose rate and man-hour estimates for reasonable accuracy.

The inspectors reviewed PSEG's method for adjusting exposure estimates, or re-planning work when unexpected changes in scope or emergent work are encountered.

The inspectors determined if adjustments to estimated exposure (intended dose) were based on sound radiation protection and ALARA principles or just adjusted to account for failure to control the work.

Utilizing PSEG records, the inspectors determined the historical trends and current status of tracked plant source terms. The inspectors verified that PSEG made allowances or developed contingency plans for expected changes in the source term caused by changes in plant fuel performance issues or changes in plant primary chemistry.

The inspector evaluated PSEG's performance against the requirements contained in 10 CFR 20.1101 and UFSAR Section 12.1.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03 - 1 sample)

a. Inspection Scope

The inspectors reviewed the UFSAR to identify applicable radiation monitors associated with transient high and very high radiation areas including those used in remote emergency assessment.

The inspector evaluated PSEG performance against the requirements contained in 10 CFR 20.1501, 10 CFR 20.1703 and 10 CFR 20.1704.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 - 2 samples)

a. Inspection Scope

The inspectors reviewed PSEG's submittals for the two performance indicators listed below. The inspectors examined data from April 1, 2007, through March 31, 2008. The inspectors utilized the guidance in NEI 99-02, "Regulatory Assessment Indicator Guideline," Revision 5, to verify the accuracy of the PI data. Documents reviewed are listed in the Attachment.

Cornerstone: Barrier Integrity

- Reactor Coolant System (RCS) Specific Activity
- RCS Leakage

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152 - 3 samples)

.1 Review of Items Entered into the Corrective Action Program

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of all items entered into PSEG's corrective action program. This was accomplished by reviewing the description of each new notification and attending management review committee meetings.

.2 Semi-Annual Review to Identify Trends

a. Inspection Scope

Inspectors performed a semi-annual review of notifications in PSEG's corrective action program to identify trends that might indicate a more significant safety issue. The inspectors interviewed plant staff and management, and reviewed other related documentation. The inspectors' review covered the six-month period from January through June 2008. The inspectors focused on issues related to degraded conditions that could affect the operability of safety-related systems. Documents reviewed are listed in the Attachment.

b. Assessment and Observations

No findings of significance were identified.

The inspectors identified no significant trends in issues related to operability determinations for degraded equipment. However, there were two recent issues where notifications were not drafted in a timely manner and were not reported promptly to operations staff, contrary to station procedures. These issues were degraded conditions on the B traveling water screen support structure and a potential preconditioning concern with the scram discharge volume vent and drain valves. Both examples were performance deficiencies, but they were not of more than minor safety significance. The issues were entered into the corrective action program.

.3 Annual Sample: Corrective Actions Related to the Safety Conscious Work Environment

a. Inspection Scope

In 2004 through 2006, PSEG undertook a number of actions to improve the safety conscious work environment (SCWE) at the Salem and Hope Creek Generating Stations. The NRC reviewed these actions during two inspections, in August/September 2005 and June 2006. The inspection report for the second inspection (Inspection Report 05000272;311/2006012 and 05000354/2006011, dated July 31, 2006) documented that, while improvements to the SCWE were substantial and sustainable, PSEG had missed opportunities to address negative perceptions of the work environment in the Hope Creek Shift Operations work group. Subsequently, in NRC Inspection Report 05000354/2006005, dated January 31, 2007, the inspectors noted that progress had been made in this area through implementation of the Hope Creek Operations Excellence Plan.

In May and June 2008, the inspectors performed a problem identification and resolution sample inspection to review the status of corrective actions related to the SCWE, particularly in the area of Hope Creek Shift Operations. The inspectors interviewed several non-licensed and licensed operators, reviewed corrective action notifications, and examined other supporting documentation for PSEG's actions in this area. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified.

The inspectors observed that operations management has maintained a focus on improvements in the safety conscious work environment through various initiatives. For example, operations management has taken steps to increase staffing levels and enhance promotional opportunities for licensed operators. Additionally, operations management has initiated actions to improve union/management relations.

All personnel interviewed by the inspectors stated that they would raise nuclear safety concerns. Most individuals stated that progress was made in the work environment during the past several months.

However, some individuals indicated they may not raise some minor non-safety related issues because of their views on how supervision or management responded to issues in the past. Additionally, some individuals indicated that management could do more to build trust and respect.

Some individuals commented on two issues occurring in the latter half of 2007 that they believe had a negative impact on the work environment. First, they stated that the work environment had declined somewhat during the fall 2007 outage period, due to perceptions related to management response to schedule delays and human performance events. Additionally, some personnel discussed negative views of a personnel action in late 2007 involving an operations staff member. The inspectors noted that PSEG had taken steps to mitigate the potential chilling effects of this personnel action, but some negative perceptions remained.

Overall, the inspectors concluded that a safety conscious work environment exists in the Hope Creek operations work group. However, they noted that a range of perceptions of the general work environment persists.

4. Annual Sample: Procedure Use and Adequacy

a. Inspection Scope

The inspectors reviewed corrective actions related to a root cause investigation on procedure use and adherence completed in December 2007. Additionally, the inspectors reviewed the results and corrective actions for a common cause evaluation of NRC findings at Hope Creek specifically associated with procedure adequacy. The inspectors also reviewed notifications and self assessments in this area. This sample evaluated PSEG's activities for the period January through June 2008. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified.

The root cause evaluation confirmed that personnel did not consistently meet management expectations on procedure use. PSEG determined that the root cause was inadequate reinforcement and oversight of procedure use and adherence expectations. As a result of inadequate reinforcement and oversight, the organization tolerated substandard procedures, and some personnel exhibited a disregard for procedural steps perceived to be of low value. The common cause evaluation identified

procedure adequacy issues similar to the root cause evaluation and noted that some situations were not covered by procedures, work orders and security training material.

PSEG's corrective actions for the root cause and common cause evaluations included focused procedure reviews, dynamic learning activities, manager-in-field and fundamentals management program observations, and allocation of resources to support the procedure revisions. Additionally, department managers were tasked to monitor their department's progress in procedure revisions through performance indicators.

PSEG's self assessments indicated that the station has made progress in addressing procedure use and adequacy issues. During the week of June 16, 2008, PSEG conducted a focused self-assessment which concluded that workforce behavior related to procedure use has improved and is in compliance with the standard, HU-AA-104-101, "Procedure Use and Adherence." Several areas were observed and evaluated to make this determination. Results from 13 of 14 field observations were that the work force is adhering to procedures and work instructions, using placekeeping, stopping when encountering ambiguity, and engaging supervisors in resolving issues. Interviews with about 40 maintenance workers, security officers, engineers, operators, chemists, and radiological protection technicians confirmed that procedure use standards are well known and reinforced by station management personnel.

Inspectors independently checked for procedure adequacy issues while work was in progress. Technicians performing work are willing to discuss their compliance with procedures, and notifications are routinely written to document changes requested to procedures to improve procedure adequacy. The inspectors observed that PSEG has placed emphasis on procedure use and adequacy through communications, learning activities, management observations, and other means.

In the area of procedure adequacy, the inspectors noted that the station has not made significant progress in addressing a backlog of procedures needing revision, particularly in the operations and maintenance departments. However, as a result of increased emphasis on proper procedure use, station personnel have identified additional procedures needing revision, which increases the backlog. The inspectors also reviewed some notifications which indicated that some administrative procedures are not consistent with PSEG or station practices. Similar observations were documented in PSEG's self assessment activities. Additionally, the procedure change process sets a priority based on significance and ensures that procedures that need to be revised before the next use are not used until they are revised. PSEG management has allocated resources to improve the progress on the backlogs.

4OA3 Event Followup (71153 - 2 samples)

.1 1CD482 Inverter Failure

a. Inspection Scope

The inspectors responded to the site on May 25, 2008, following an emergent failure of the 1CD482 inverter. The inspectors reviewed operator actions, plant status, and equipment troubleshooting. The inspectors observed operator performance in the main

control room and attended a meeting on the troubleshooting efforts. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 (Closed) LER 05000354/2007-001-00, Low Reactor Water Level Scram

On January 29, 2007, during a plant startup from a planned outage at 21% reactor power, an automatic reactor scram occurred due to low reactor water level. The root cause of the scram was a failure of the instrument tap weld at the flow nozzle for the C reactor feed pump minimum flow line. This event was reviewed by the inspectors and documented in NRC Inspection report 05000354/2007002. The inspectors reviewed the LER and identified no new findings of significance. No violation of NRC requirements occurred. This LER is closed.

40A5 Other Activities

.1 Institute of Nuclear Power Operations (INPO) Plant Assessment Report Review

a. Inspection Scope

The inspectors reviewed the final report for the INPO plant assessment of the Hope Creek Generating Station conducted in March 2008. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC's perspectives of licensee performance and to identify significant safety issues that required further NRC follow-up.

b. Findings

No findings of significance were identified.

.2 Power Uprate, Inspection Procedure 71004 - 1 sample

a. Inspection Scope

On May 16, 2008, PSEG implemented Amendment 174 to the Hope Creek Facility Operating License, which revised the maximum power level from 3339 to 3840 megawatts thermal. On May 22, operators began power ascension activities above 3339 megawatts thermal in accordance with an extended power uprate (EPU) test plan. The inspectors performed portions of NRC procedure 71004, "Power Uprate," during May and June to verify that equipment performance, procedures, and processes were adequate to support operations at an increased power level. At the conclusion of the inspection period, the station was operating at 97% of the new maximum power level, which was consistent with PSEG's planned implementation of the EPU.

The inspectors reviewed PSEG's implementation of procedure HC.OP-FT.ZZ-0004, "Extended Power Uprate Power Ascension Testing," and associated documents to verify that systems affected by physical parameter changes or modifications due to the power uprate were appropriately tested. The inspectors discussed various aspects of the test procedure with plant management and staff. The inspectors observed several portions

of the testing and power ascension toward the new maximum licensed power level. Specifically, the inspectors observed feedwater pump testing, reactivity manipulations, pressure regulator testing, and data collection. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.3 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted the following observations of security force personnel and activities to ensure that the activities were consistent with PSEG security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

- Tours of operations within the Central and Secondary Security Alarm Stations
- Tours of selected security towers/security officer response posts
- Direct observation of personnel entry screening operations within the plant's Main Access Facility

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

The resident inspectors presented the inspection results to Mr. Barnes on July 9, 2008. None of the material reviewed by the inspectors during this period was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION**KEY POINTS OF CONTACT**Licensee Personnel

G. Barnes, Site Vice President
 B. Booth, Operations Director
 R. Canziani, Maintenance Director
 E. Casulli, Shift Operations Superintendent
 P. Davison, Engineering Director
 M. Gaffney, Regulatory Assurance Manager
 J. Perry, Plant Manager
 H. Trimble, Radiation Protection Manager
 L. Wagner, Work Management Director

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSEDOpened/Closed

05000354/2008003-01	NCV	Inadequate Corrective Actions for Traveling Water Screen Support Structure (Section 1R15)
05000354/2007-001-00	LER	Low Reactor Water Level Scram (Section 4OA3.2)

LIST OF DOCUMENTS REVIEWED

In addition to the documents identified in the body of this report, the inspectors reviewed the following documents and records:

Hope Creek Generating Station (HCGS) Updated Final Safety Analysis Report
 Technical Specification Action Statement Log (SH.OP-AP.ZZ-108)
 HCGS Operations Narrative Logs
 HCGS Plant Status Reports
 Weekly Reactor Engineering Guidance to Hope Creek Operations
 Hope Creek Operations Night Orders and Temporary Standing Orders

Section 1R01: Adverse Weather ProtectionProcedures

HC.OP-AB.BOP-0004(Q), Grid Disturbances, Revision 14
 OP-SH-108-107-1001, Electric System Emergency Operations and Electrical Systems Operator Interface, Revision 0

OP-SH-101-112-1002, Online Risk Assessment, Revision 1
OP-AA-108-107-1001, Electric System Emergency Operations and Electrical Systems Operator Interface, Revision 3
WC-AA-107, Seasonal Readiness, Revision 7
HC.OP-AB.COOL-0001(Q), Station Service Water, Revision 14

Notifications

20366127 20373921 20370244

Other Documents

Summer Readiness Preparations, Hope Creek Work Management Presentation Material
Summer Readiness Monitoring Points Spreadsheet
2008 Hope Creek Summer Readiness Template – June 1st through August 31st

Section 1R04: Equipment Alignment

Calculations

H-1-KB-MDC-1007, Backup Pneumatic Supply for 1GSHV-4964 and 1GSHV-11541 Valves, Revision 1

Procedures

HC.OP-ST.BC-0001, RHR System Piping and Flow Path Verification – Monthly, Revision 15
HC.OP-IS.BC-0004, D Residual Heat Removal Pump In-Service Test, Revision 29
HC.OP-SO.BC-0001(Q), Residual Heat Removal System Operation, Revision 42
HC.OP-EO.ZZ-0318(Q), Containment Venting, Revision 5
HC.OP-IS.BJ-0001(Q), HPCI Main and Booster Pump Set In-Service Test, Revision 50

Drawings

M-51-1 Sheet 1, RHR System PID, Revision 37
M-55-1, High Pressure Coolant Injection, Revision 39
Training Drawing 068-02, EDG Fuel Oil System, Revision 0
Training Drawing 068-03, EDG Starting Air, Revision 1
Training Drawing 068-05, EDG Lube Oil System, Revision 1
Training Drawing 026-01, HPCI System, Revision 1

Notifications

20367213 20367215 20305386 20367107 20335480 20365359
20317546

Section 1R05: Fire Protection

Procedures

NC.FP-AP.ZZ-0005, Fire Protection Surveillance and Periodic Test Program, Revision 14
NC.FP-AP.ZZ-0025, Operational Fire Protection Program, Revision 7
OP-AA-201-009, Control of Transient Combustible Material, Revision 1
HC.FP-SV.ZZ-0026(F), Flood and Fire Barrier Penetration Seal Inspection, Revision 4

Other Documents

Hope Creek Generating Station Pre fire plan, M10-FRH-II-512, HPCI and RCIC Battery Rooms
Hope Creek Generating Station Pre fire plan, M10-FRH-II-522, Cable Spreading Room
Hope Creek Generating Station Pre fire plan, M10-FRH-II-532, Lower Control Equipment Room

Hope Creek Generating Station Pre fire plan, M10-FRH-II-542, Control Equipment Room
Hope Creek Generating Station Pre fire plan, M10-FRH-II-541, Class IE Switchgear Rooms
Hope Creek Generating Station Pre fire plan, M10-FRH-II-551, Battery Rooms

Section 1R07: Heat Sink Performance

Procedures

ER-AA-340, GL 89-13 Program Implementing Procedure, Revision 3
HC.OP-FT.EA-0001(Q), Validating SSWS Flow Through SACS HXs, Revision 7
HC.SE-PR.EG-0001(Q), Safety and Auxiliary Cooling System Annual Biofouling Monitoring, Revision 5

Notifications

20359815 20323162 20357211

Orders

30160192 30157395 30160533

Other Documents

EPRI NP-7552, Heat Exchanger Performance Monitoring Guidelines
Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment

Section 1R11: Licensed Operator Regualification Program

Procedures

HC.OP-AB.MISC-0001, Acts of Nature, Revision 12
HC.OP-EO.ZZ-0101, Reactor Pressure Vessel Control, Revision 11
HC.OP-EO.ZZ-0101A, ATWS-RPV Control, Revision 3
HC.OP-EO.ZZ-0102, Containment Control, Revision 12

Other Documents

Hope Creek Generating Station Emergency Classification Guide
Scenario Guide SG-634, "Earthquake, Loss of 10A110, LOP, LOCA

Section 1R12: Maintenance Effectiveness

Procedures

HC.OP-AB.COOL-0001(Q), Station Service Water, Revision 14
HC.OP-ST.ZZ-0001(Q), Power Distribution Lineup –Weekly, Revision 29

Notifications

20367587 20326620 20282662 20282725 20282724
20356234 20305949 20356234

Orders

70070364 30152893 70057192 70071190 70080720

Other Documents

Prompt Investigation – Failure of the B Emergency Diesel Generator K1 Relay PM Test

Section 1R13: Maintenance Risk Assessments and Emergent Work ControlProcedures

OP-SH-101-112-1002, On-Line Risk Assessment, Revision 1
 WC-AA-101, On-Line Work Management Process, Revision 16

Drawings

E-0012-1, 120V AC Instrumentation and Misc. Systems, Revision 13

Notifications

20364942	20365278	20364703	20366755	20366748
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Orders

60076075	70081096	70084495	60076370
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Section 1R15: Operability EvaluationsProcedures

OP-AA-108-115, Operability Determinations, Revision 1
 HC.OP-IS.BJ-0001(Q), HPCI Main and Booster Pump Set In-Service Test, Revision 50
 HC.IC-SC.BJ-0003(Q), HPCI - Division 1 Channel E41-N653, Pump Suction Pressure,
 Revision 7
 HC.OP-AR.ZZ-0006(Q), Overhead Annunciator Window Box B1, Revision 23
 ER-AA-310-1009, Condition Monitoring of Structures, Revision 0
 ER-AA-10, Equipment Reliability Process Description, Revision 0

Drawings

M-55-1, High Pressure Coolant Injection, Revision 39
 M-41-1, Hope Creek Generating Station Nuclear Boiler, Revision 35
 Training Drawing 026-01, HPCI System, Revision 1
 C-0214-0, Service Water Intake Structure
 C-0115-0, Service Water Intake Structure Steel Framing Details

Notifications

20363989	20366969	20366963	20357802	20357794
20369937	20362620	20369579	20351361	20372487
20202207	20370435	20370786	20202206	20370787
20371775	20190943	20371392	20372364	20372384
20352549	20371431			

Orders

70080738	70083045	80095833	70023885	20124351
20156133	70033205	20294202	20335486	60076873
30118664	70085846	60049593	30087567	70041555
60046645	30073960	70039561	30118663	70085713

Other Documents

Work Group Evaluation for A EDG Lube Oil Keepwarm Pump Vibrations
 Data for A EDG Lube Oil Keepwarm Pump Vibrations
 D Traveling Water Screens Work Schedule, May 2008

Section 1R18: Permanent Plant Modifications

50.59 Evaluation

HC-08-106, DCP 80095554 – Removal of Auto-Close Function for HPCI to FW Discharge Valve HV-8278, Revision 0

50.59 Screen

HC-08-125, 80095870 (TCCP 08-012) – Add a Time Delay to the HPCI Pump Low Suction Pressure Trip Circuitry, Revision 0

Procedures

HC.OP-SO.BJ-0001, High Pressure Coolant Injection System Operation, Revision 34
HC.OP-IS.BJ-0101, High Pressure Coolant Injection System Valves – In-service Test, Revision 54
HC.OP-ST.BJ-0003, HPCI System Valve Actuation Functional Test, Revision 0

Drawings

M-55-1, High Pressure Coolant Injection, Revision 39
M-41-1, Hope Creek Generating Station Nuclear Boiler, Revision 35

Notifications

20374973 20374972

Orders

60075922 70071901 80095554

Other Documents

DCP 80095554, Removal of Auto-Close Function for HPCI to FW Discharge Valve HV-8278, Revision 0
TCCP 08-012, Add a Time Delay to the HPCI Pump Low Suction Pressure Trip Circuitry, Revision 0

Section 1R19: Post-Maintenance Testing

Procedures

HC.IC-TR.SM-0009, NSSSS System A, Logic C B21-N681C (B21-N684C) Main Steam Line Isolation Reactor Vessel Low Level, Revision 15
MA-AA-716-004, Conduct of Troubleshooting, Revision 7
MA-AA-716-012, Post Maintenance Testing, Revision 10
NC.MD-AP.ZZ-0050(Q), Maintenance Testing Program Matrix, Revision 10
HC.RL-PM.ZZ-0001(Q), Relay Testing and Troubleshooting, Revision 3
HC.OP-IS.BC-0002(Q), C Residual Heat Removal Pump In-Service Test, Revision 32
HC.OP-IS.BD-0001(Q), Reactor Core Isolation Cooling Pump In-Service Test, Revision 42
HC.IC-LC.FC-0001(Q), RCIC Turbine Speed Control System, Revision 10
SH.RA-AP.ZZ-0114(Z), Thermography Program, Revision 0

Drawings

M-41-1, Nuclear Boiler, Revision 35
M-55-1, High Pressure Coolant Injection, Revision 39

Notifications

20364703	20364942	20369243	20365474	20374538
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Orders

60076075	50112147	60068915	30147011	50101628	30073851
70083847	70083045				

Other Documents

Prompt Investigation for Incorrect PMT for C MSIV Isolation Relay
 Prompt Investigation for Core Spray Injection During HPCI DCP Testing

Section 1R22: Surveillance TestingCompleted Surveillances

HC.OP-ST.KJ-0004(Q), Emergency Diesel Generator 1DG400 Operability Test, Revision 66
 HC.OP-IS.EA-0001(Q), A Service Water Pump-AP502-Inservice Test, Revision 41
 HC.OP-IS.BC-0001, AP202, A Residual Heat Removal Pump In-Service Test, Revision 35
 HC.OP-IS.EA-0002(Q), B Service Water Pump-BP502-Inservice Test, Revision 47
 ER-AA-321, Administrative Requirements for Inservice Testing, Revision 9
 HC.OP-IS.BJ-0101(Q), High Pressure Coolant Injection System Valves – Inservice Test,
 Revision 54
 HC.OP-LR.FC-1004(Q), Containment Isolation Valve Water Leak Rate Test CIVs 1FCHV-F060
 and 1FCHV-010, Revision 0

Drawings

M-41-1, Nuclear Boiler, Revision 35
 M-55-1, High Pressure Coolant Injection, Revision 39

Notifications

20290741	20243786	20246665	20268983	20272836	20276614
20365821	20370090	20370021	20374314	20374202	20373701

Orders

50111062	50111423	50112609	50111745	70085313
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Other Documents

Hope Creek A Station Service Water Pump Differential Pressure and Flow IST Data 1999-2007
 Hope Creek A Residual Heat Removal Pump Differential Pressure and Flow IST Data 1996-
 2007
 Hope Creek B Station Service Water Pump Differential Pressure and Flow IST Data 1997-2007
 NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants
 Information Notice 97-16, Preconditioning of Plant Structures, Systems, and Components
 before ASME Code Inservice Testing or Technical Specification Surveillance Testing
 NRC Inspection Manual Part 9900 Technical Guidance, Maintenance – Preconditioning of
 Structures, Systems, and Components before Determining Operability
 ER-AA-321, Administrative Requirements for Inservice Testing, Revision 9

Sections 2OS1: Access Control to Radiologically Significant Areas; 2OS2: ALARA Planning and Controls; and 2OS3: Radiation Monitoring InstrumentationOther Documents

NOS Audit NOSA-HPC-07-06, Hope Creek Generating Station Radiation Protection
 NOS Audit NOSA-HPC-05-06, Hope Creek Generating Station Radiation Protection Functional
 Area

Section 4OA1: Performance Indicator Verification

Procedures

LS-AA-2100, Monthly Data Elements for NRC Reactor Coolant System (RCS) Leakage,
 Revision 5

Other Documents

NEI 99-02, Performance Indicator Guidelines, Revision 5
 Hope Creek Technical Specifications

Section 4OA2: Identification and Resolution of Problems

Procedures

LS-AA-3, Nuclear Policy – Safety Conscious Work Environment, Revision 0
 HR-AA-1001, Executive Review Board, Revision 1
 HR-AA-1000, Consensus Decision Making, Revision 1
 LS-AA-120, Issue Identification and Screening Process, Revision 8
 LS-AA-125, Corrective Action Program Procedure, Revision 12
 OP-AA-108-115, Operability Determinations, Revision 1

Notifications

20354561	20373783	20374095	20362741	20362418
20350627	20355608	20357483	20358396	20360913
20362592	20364649	20364703	20365575	20366748
20366755	20368140	20369558	20370390	20370974
20371864	20372091	20372313	20372487	20374094
20374306	20374672	20374823	20335119	20357123
20375210				

Orders

70079893	70079744	70073823	70080030
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Other Documents

Hope Creek Operations Department Excellence Plan
 Procedure Quality, Use and Adherence White Paper, Dated January 28, 2008
 Focused Area Self Assessment, Procedure Use and Adherence
 Hope Creek Operations Procedure Data Chart, June 2008
 Hope Creek Maintenance Procedure Data Chart, May 2008
 Hope Creek 100 Day Excellence Plan Metrics, June 25, 2008
 PSEG Procedure Use and Adherence Bulletins, various dates
 Procedure Use and Adherence Effectiveness Reviews

Section 4OA3: Event Followup

Notifications

20371864	20371315	20371949
----------	----------	----------

Orders

70085747 70085777

Other Documents

Prompt Investigation, 1CD482 Technical Specification Entry
Lessons Learned from 1CD482 Inverter

Section 4OA5: Other Activities

Procedures

HC.OP-FT.ZZ-0004(Q), Extended Power Uprate Power Ascension Testing, Revision 4

Notifications

20370905 20371140 20370643 20370123 20368162 20368083
20368228

Other Documents

Power Ascension Roadmap Diagram
Various Site-Wide Communications for EPU
Amendment 174 to Facility Operating License
NRC Safety Evaluation Related to Extended Power Uprate License Amendment Request

LIST OF ACRONYMS

EDG	Emergency Diesel Generator
EPU	Extended Power Uprate
HCGS	Hope Creek Generating Station
HPCI	High Pressure Coolant Injection
INPO	Institute of Nuclear Power Operations
NCV	Non-cited Violation
NRC	Nuclear Regulatory Commission
PSEG	Public Service Enterprise Group Nuclear LLC
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
RHR	Residual Heat Removal
SACS	Safety Auxiliary Cooling System
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SSCs	Structures, Systems, and Components
ST	Surveillance Testing
TWS	Traveling Water Screen
UFSAR	Updated Final Safety Analysis Report