January 25, 2002

Mr. Harold W. Keiser
Chief Nuclear Officer and President
PSEG Nuclear LLC - N09
P. O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK NUCLEAR GENERATING STATION - NRC INSPECTION REPORT 50-354/01-11

Dear Mr. Keiser:

On December 29, 2001, the NRC completed an inspection of your Hope Creek facility. The enclosed report documents the inspection findings which were discussed on January 4, 2002, with Mr. Dave Garchow 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.

Based on the results of this inspection, the inspectors identified three issues of very low safety significance (Green). All issues were determined to involve violations of NRC requirements. However, because of their very low safety significance and because they have been entered into your corrective action program, the NRC is treating these issues as non-cited violations, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny these non-cited violations, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, 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 facility.

Immediately following the terrorist attacks on the World Trade Center and the Pentagon, the NRC issued an advisory recommending that nuclear power plant licensees go to the highest level of security, and all promptly did so. With continued uncertainty about the possibility of additional terrorist activities, the Nation's nuclear power plants remain at the highest level of security and the NRC continues to monitor the situation. This advisory was followed by additional advisories, and although the specific actions are not releasable to the public, they generally include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with law enforcement and military authorities, and more limited access of personnel and vehicles to the sites. The NRC has conducted various audits of your response to these advisories and your ability to respond to terrorist attacks with the capabilities of the current design basis threat (DBT). From these audits, the NRC has concluded that your security program is adequate at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Glenn W. Meyer, Chief
Projects Branch 3
Division of Reactor Projects

Enclosure: Inspection Report 50-354/01-11
Attachment: Supplemental Information

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

cc w/encl: E. Simpson, Senior Vice President and Chief Administrative Officer
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-354
License No:	NPF-57
Report No:	50-354/01-11
Licensee:	PSEG Nuclear LLC
Facility:	Hope Creek Nuclear Generating Station
Location:	P.O. Box 236 Hancocks Bridge, NJ 08038
Dates:	November 12 - December 29, 2001
Inspectors:	J. G. Schoppy, Jr., Senior Resident Inspector C. G. Cahill, PE, Resident Inspector R. S. Barkley, Senior Project Engineer N. T. McNamara, Emergency Preparedness Specialist J. T. Furia, Senior Health Physicist J. G. Caruso, Senior Operations Engineer
Approved By:	Glenn Meyer, Chief, Projects Branch 3 Division of Reactor Projects

Summary of Findings

IR 05000354-01-11, on 11/12 - 12/29/01, Public Service Electric Gas Nuclear LLC, Hope Creek Generating Station. Fire Protection, Flood Protection.

The inspection was conducted by resident inspectors, a regional reactor inspector, a regional project engineer, and a regional radiation specialist. This inspection identified one Green issue, which was also a non-cited violation. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/reactors/operating/oversight.html .

A. Inspector Identified Findings

Cornerstone: Initiating Events

- Green. 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. (Section 1RO5.1)

Cornerstone: Mitigating Systems

- Green. The inspectors identified a non-cited violation for failure to properly implement fire protection program requirements for an inoperable fire door. Specifically, the fire door adjoining the D emergency diesel generator (EDG) room and electrical access area room 5339 was tied open without establishing the required fire protection compensatory measures.

  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, the availability of detection, automatic suppression capability, and the relative short duration of the condition. (Section 1RO5.2)

- Green. The inspectors identified a non-cited violation for the failure to establish an adequate procedure to control watertight and high energy line break barrier doors in the HPCI and reactor core isolation cooling (RCIC) rooms.

  The safety significance of this finding was very low because of the low frequency of HPCI/RCIC pipe breaks for the limited amount of steam piping in the rooms and the relative short duration of the condition. (Section 1RO6)

B. Licensee Identified Violations

The inspectors reviewed three violations of very low significance which were identified by PSEG Nuclear. PSEG Nuclear's corrective actions, taken or planned, appeared reasonable. These violations are listed in Section 40A7 of this report.

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Report Details

SUMMARY OF PLANT STATUS

The Hope Creek plant operated at full power at the start of the inspection period. On November 24 operators performed an emergent, short duration, power reduction to 80 percent in response to high solar magnetic disturbance (SMD). At 10:10 p.m. on December 5, operators initiated a power reduction to 20 percent to facilitate a drywell entry to identify the source of increased drywell floor drain leakage (approximately 1.3 GPM). Plant personnel were unable to identify the leakage source and at 10:28 p.m. on December 6 operators inserted a manual reactor scram from 20 percent power to place the unit in Hot Shutdown. At 1:32 a.m. on December 8, operators placed the unit in Cold Shutdown. Following identification and repair of a leak on the inlet flange to the P safety relief valve (SRV), operators took the mode switch to Startup and commenced a reactor startup at 3:13 a.m. on December 10. At 9:41 a.m. on December 10, operators declared the reactor critical and at 4:46 a.m. on December 11 entered Mode 1 (Power Operation). At 1:03 p.m. on December 11, operators synchronized the main generator to the grid. Following turbine control valve (TCV) testing on December 13, operators reduced power from 85 percent to 62 percent in response to an emergent issue (No. 2 TCV degraded fast acting solenoid valve). Following satisfactory testing of No. 2 TCV, operators resumed the power ascension and on December 14 increased power to 100 percent. The Hope Creek plant operated continuously at or near full power for the duration of the inspection period except for a planned power reduction on December 17 for a rod pattern adjustment.

1. REACTOR SAFETY
Initiating Events, Mitigating Systems, and Barrier Integrity [REACTOR - R]

R01 Adverse Weather Protection

a. Inspection Scope

The inspector reviewed PSEG Nuclear's implementation of HC.OP-GP.ZZ-0003(Q), *Station Preparations for Winter Conditions*. The inspection focused on protection of key design features of the service water (SW) and fire protection systems as well as the condensate storage tank. The inspectors toured the above areas, as well as the switchyard control building and several outlying buildings, to confirm that freeze protection measures were energized and operating, and that previously identified problems with freeze protection had been, or were being, corrected. In addition, the inspectors reviewed notifications involving equipment problems related to adverse weather preparations (notifications 20078351 and 20078358).

b. Findings

No findings of significance were identified.

R04 Equipment Alignment

a. Inspection Scope

The inspectors performed equipment alignment verifications on redundant equipment during a D EDG planned extended outage. By reviewing the technical specifications, plant walkdowns, and main control room tours, the inspectors verified that the planned equipment outage on the D EDG did not adversely affect the redundant AC electrical sources. In particular, the inspectors performed walkdowns of the following equipment and areas:

- A, B, and C EDGs
- Control room instrumentation and control panels
- 4160V vital switchgear rooms and 480V vital motor control centers
- Safety-related 125Vdc battery rooms
- Safety-related switchgear room supply air units

Additionally, the inspectors reviewed various corrective action notifications associated with equipment alignment deficiencies (20083315, 20083551, 20083626, 20083706, 20083844, 20084326, and 20084414).

b. Findings

No findings of significance were identified.

R05 Fire Protection

.1 High Pressure Coolant Injection and Reactor Core Isolation Cooling Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the HPCI pump room, HPCI electrical equipment room, RCIC pump room, and the RCIC electrical equipment room. Plant walkdowns included observations of combustible material control, fire detection and suppression equipment availability, and compensatory measures. The inspectors performed fire protection inspections due to the potential to impact mitigating systems in these areas. The inspectors reviewed Hope Creek's Individual Plant Examination for External Events (IPEEE) for risk insights concerning these areas. Additionally, the inspectors reviewed several notifications associated with fire protection deficiencies (20083340, 20083442, 20084024, 20084421, 20085027, 20085904, 20086323, and 20087092).

b. Findings

The inspectors identified a non-cited violation for the failure to comply with the transient combustible control requirements in the HPCI pump room, room No. 4111, in fire area RB1. 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.

Specifically, the inspector identified three fiberglass extension ladders, approximately 100 feet of rubber hose, a plastic bucket, and two work boxes with unknown contents that were not controlled in accordance with the Hope Creek transient combustible control requirements. The inspectors evaluated the area defense-in-depth (DID) elements and also reviewed the fire loading and fire impairments. The inspector identified two impairments that could potentially add to the severity of a fire condition in the HPCI pump room. The first fire impairment, No. 3584, allowed for fire doors 4110, 4111-A, and 4111-B to be left open to facilitate ventilation and heat removal during painting in the HPCI and RCIC rooms. Opening these three doors connected the HPCI electrical equipment room, HPCI pump room, RCIC pump room, and the RCIC electrical equipment room. The doors were typically opened between 7:30 a.m. and 3:30 p.m. to conduct painting activities, and PSEG Nuclear assigned a daily fire watch to compensate for this impairment. The impairment was in effect from approximately November 13 - 27, 2001. The second fire impairment, No. 3612, isolated standpipe 1A-HR200, in the RCIC electrical equipment room and was in effect from approximately November 27 to December 11, 2001. Additionally, transient combustible permit HTC-01 RB1-08, was in effect to account for 270,000 BTU's of paint being used in the HPCI and RCIC rooms.

Chemical Item Classification Permit (CICP) # 0200-0014 section 5, identifies unusual fire hazards associated with the paint being used in the HPCI and RCIC rooms. The CICP states "When this product is used, the overspray and other combustible materials such as paint booth filters, rags, masking materials, etc., contaminated by coating materials are subject to spontaneous combustion." Transient combustible permit HTC-01 RB1-08, did not contain any guidance on how to manage the risk associated with spontaneous combustion. The finding had a credible impact on safety due to the fact that there was an increased chance of ignition due to the spontaneous combustion risk of the paint-covered materials, there were multiple fire impairments in the area, and the additional uncontrolled combustibles could have increased the severity of a fire in this area.

The inspectors evaluated this finding in accordance with NRC Inspection Manual Chapter 0609, Appendix F. Based on the fire protection safe shutdown information described in Appendix 9A of the HCGS Updated Final Safety Analysis Report (UFSAR), for the HPCI pump and turbine room, the screening criteria for Figure 4-4, protection scheme 1, was used. Since the HCGS UFSAR identified safe shutdown capabilities that were physically independent of the fire area, the finding screened out as Green.

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. UFSAR Section 9.5.1.5.3, Administrative Controls, states in part that "Administrative controls will be implemented at Hope Creek for the purpose of controlling combustibles." NC.NA-AP.ZZ-0025, *Operational Fire Protection Program* Section 5.3.3, states that "All work activities requiring the introduction of transient combustibles materials into safety-related areas / rooms shall be identified and administratively controlled." Contrary to the above, PSEG Nuclear did not identify and administratively control transient combustibles materials in the HPCI pump and turbine room. However, because the violation is of very low significance and PSEG Nuclear entered the deficiency into their corrective action system (notification

20084806), this finding is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). **(NCV 50-354/01-11-01)**

.2 Impaired Fire Door in Risk Significant Area

a. Inspection Scope

During plant status walkdowns of the EDG, 4160 V vital switchgear, and electrical access area rooms, the inspectors observed combustible material control, fire detection and suppression equipment availability, and compensatory measures. The inspectors performed additional fire protection inspections for identified deficiencies due to the potential to impact mitigating systems in these areas. The inspectors reviewed Hope Creek's IPEEE for risk insights concerning these areas.

b. Findings

The inspectors identified a non-cited violation for failure to properly implement fire protection program requirements for an inoperable fire door. 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, the availability of detection, automatic suppression capability, and the relative short duration of the condition.

On the afternoon of December 3, the inspectors noted that the 3 hour rated fire door (door 5304B) adjoining the D EDG room and electrical access area room 5339 was tied open with no indication that appropriate compensatory measures were taken (fire protection impairment). The fire protection supervisor confirmed that no impairment had been obtained for door 5304B. The fire protection supervisor promptly generated a fire protection impairment, initiated a daily fire watch, and documented the condition via corrective action notification 20085181. Subsequent PSEG Nuclear investigation revealed that the door had been tied open late in the evening of December 2 to support planned D EDG maintenance.

Hope Creek IPEEE, Table 4.11, Summary High Hazard Area Analysis and Results, states in part "a fire severe enough to breach the three hour fire barrier into 5339 and into the switchgear room above could result in loss of off-site power, loss of the 1E electrical channel corresponding to the diesel generator room in which the fire occurred, loss of Division I and loss of diesel generators A & C." At the time of discovery the inspectors noted that the D EDG and D EDG room CO_2 suppression system were out of service for planned maintenance. Maintenance technicians were actively engaged in the D EDG overhaul, and several bags of oily rags were located near the inoperable fire door. The availability of an automatic preaction sprinkler system in room 5339 and detection in the D EDG and 5339 rooms served as mitigating factors.

The finding had a credible impact on safety due to the fact that there was a credible ignition source (bags of oily rags adjacent to on-going maintenance), with degraded fire protection elements (impaired fire door and out of service D EDG room CO_2 suppression system), and within a risk significant area (electrical access area room

5339). The inspectors evaluated this finding in accordance with NRC Inspection Manual Chapter 0609, Appendix F. Based on the fire protection safe shutdown information described in Appendix 9A of the HCGS UFSAR for electrical access area room 5339, the screening criteria for Figure 4-4, protection scheme 1 was used. Since the B channel of Division II was unaffected by this issue, safe shutdown capabilities remained that were physically independent of the fire area. The finding screened out as Green.

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 final safety analysis report. UFSAR Section 9.5.1.5.3, Administrative Controls, states in part that "Administrative controls will be implemented at Hope Creek for the purpose of controlling fire protection system impairments." Fire protection procedure HC.FP-AP.ZZ-0004, *Actions For Inoperable Fire Protection*, requires the establishment of a daily fire watch patrol within one hour with fire door 5304B inoperable. Contrary to the above, fire protection personnel failed to establish a daily fire watch within one hour. However, because this procedure violation is of very low significance and the deficiency was entered into the corrective action system (notification 20085181), this finding is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). **(NCV 50-354/01-11-02)**

.3 Unannounced Fire Drill Performance

a. Inspection Scope

The inspectors observed an unannounced fire drill on December 12, 2001. The drill simulated a fire in the diesel control building 146' elevation in room 5540. The inspector utilized the guidance provided in MC 0609, Appendix F, Attachment 2, to evaluate the effectiveness of the fire brigade's performance.

b. Findings

No findings of significance were identified.

R06 Flood Protection Measures

a. Inspection Scope

During plant status walkdowns of reactor building emergency core cooling system (ECCS) rooms, the inspectors observed flood protection measures to determine whether flood vulnerabilities existed and to assess the physical and material condition of flood barriers. The inspectors performed additional flood protection inspections for identified deficiencies due to the potential to impact mitigating systems in these areas. The inspectors reviewed the Hope Creek UFSAR and plant procedures to verify that PSEG Nuclear's flooding mitigation plans and installed equipment were consistent with design bases and risk analysis assumptions. The inspectors also reviewed NRC Information Notice 2000-20, *Potential Loss of Redundant Safety-Related Equipment Because of the Lack of High-Energy Line Break Barriers*, for risk insights.

b. Findings

The inspectors identified a non-cited violation for PSEG Nuclear's failure to establish an adequate procedure to control watertight and high energy line break (HELB) barrier doors in the HPCI and RCIC rooms. The safety significance of this finding was very low because of the low frequency of HPCI/RCIC pipe breaks for the limited amount of steam piping in the rooms and the relative short duration of the condition.

On the afternoon of November 14, the inspectors noted that the fire doors (doors 4111-A and 4110) adjoining the HPCI pump room, RCIC pump room, and the RCIC electrical equipment room were impaired open under fire protection impairment No. 3584. The fire protection supervisor stated that impairment No. 3584 had been obtained to facilitate ventilation and heat removal during painting in the HPCI and RCIC rooms. The fire protection supervisor acknowledged that the fire door impairment controls do not address additional measures for dual function doors (fire doors that also serve as watertight or HELB barriers). The inspectors follow-up inquiries with operations personnel revealed that operations did not have procedural controls in place to maintain the design bases function of these doors. The inspectors follow-up inquiries with operations personnel revealed that operations did not have procedural controls in place to maintain the design bases function of these doors (UFSAR Figure 9.5-35, Drawing M-5101, Rev. 2, indicates that doors are designed to provide fire, flood, and steam protection).

Initial corrective actions to address this deficiency were limited in scope and not thorough. On the morning of November 15, the inspectors discussed the issue with an on-shift control room supervisor. The control room supervisor stated that he was unaware that the doors had been open the previous day and directed an equipment operator to ensure that the doors remained closed. This corrective action was limited in scope as the inspectors noted, on a subsequent tour of the area the following week, that door 4111-A was again opened to support room painting. Following additional inspector questioning, operations personnel stated that the watertight doors are controlled via signs posted on the doors that provide instructions to "maintain the doors closed except for normal passage and to continuously monitor if left open." On December 19 the inspectors informed operations that the above mentioned door postings were present on most watertight doors in the plant; however, three notable exceptions were for doors 4110, 4111-A, and 4111-B. In addition, two out of three of operations' planned corrective actions were not documented and tracked within corrective action order 70021516 until identified by the inspectors at the end of the inspection period.

The finding had a credible impact on safety as postulated HELB scenarios in the HPCI or RCIC rooms could lead to redundant safety-related mitigating system failures. The inspectors assessed the finding for significance, with assistance from the Region I Senior Reactor Analyst (SRA), using a Phase 2 SDP. The risk screening was a conservative estimate based on the following assumptions:

- A HELB in the HPCI room results in the unavailability of HPCI and the redundant high pressure injection system, RCIC, due to the inoperable steam barrier (open fire door 4111-A) between the HPCI and RCIC rooms.

- The frequency of pipe ruptures is ~ 3E-10/hr-ft. Assuming ~ 100ft of RCIC/HPCI steam pipe that could cause a HELB problem, the frequency of a HELB that would affect RCIC/HPCI is ~ 3E-10/hr-ft *8760 hr/yr * 100 ft ~ 3E-4/yr.
- The resultant estimated likelihood rating (E) was based on an exposure time of 3 to 30 days (time door was left open). Fire impairment No. 3584 was in effect from approximately November 13 - 27, 2001, and the doors were generally opened during the day only.
- HELB results in a reactor scram and a loss of feedwater (power conversion system). This is a very conservative assumption as the HELB may not result in an automatic main steam isolation valve (MSIV) closure. However, the operators might unnecessarily isolate the MSIVs in response to the steam leak.
- The SRVs are unaffected and remain available.
- The low pressure ECCS systems (RHR and core spray) are unaffected and remain available.

Based on the remaining mitigation capability and the estimated likelihood rating, all sequences screened to Green. Based on the above risk assessment, the finding is characterized as Green by the SDP.

Appendix B, Criterion V, *Instructions, Procedures, and Drawings*, requires that activities affecting quality be prescribed by documented instructions, procedures, or drawings. PSEG Nuclear failed to establish an adequate procedure to control watertight and high energy steam barrier doors to the HPCI and RCIC rooms. However, because the violation is of very low significance and the deficiency was entered into the corrective action system (order 70021516), this finding is being treated as a non-cited violation, consistent with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368). **(NCV 50-354/01-11-03)**

R11 Licensed Operator Requalification

a. Inspection Scope

During an in-office review, a region-based inspector reviewed PSEG Nuclear requalificaiton exam results for the biennial testing cycle. The inspector assessed whether pass rates were consistent with the guidance of NUREG-1021, Revision 8, Operator Licensing Examination Standards for Power Reactors, and NRC Manual Chapter 0609, Appendix I, *Operator Requalification Human Performance Significance Determination Process (SDP)*.

The inspector verified that:

- Crew pass rate was greater than 80%. (Pass rate was 100%)
- Individual pass rate on the written exam was greater than 80%. (Not applicable - not administered in 2001)
- Individual pass rate on the walk-through (JPMs) was greater than 80%. (Pass rate was 100%)
- More than 75% of the individuals passed all portions of the exam. (100% of the individuals passed all portions of the exam)

b. Findings

No findings of significance were identified.

R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed all corrective action notifications initiated between August 16, 2001, and September 30, 2001, for maintenance rule screening. The inspectors further reviewed four notifications that included system engineers' functional failure determinations (2006393, 20077825, 20077902, and 20077962), notification 20077560 involving a preventable system functional failure (PSFF) evaluation, and two notifications involving PSEG Nuclear's implementation of their Maintenance Rule program (20075455 and 20083595). The inspectors also reviewed the PSEG Nuclear (a)(1) system goals database, the PSFF database, and Hope Creek Expert Panel Meeting Minutes (HCEP 01-09 and HCEP 01-10).

To assess PSEG Nuclear's implementation of 10CFR 50.65 *Maintenance Rule* requirements, the inspectors reviewed the following documents:

- SE.MR.HC.02, *System Function Level Maintenance Rule VS Risk Reference*
- NRC Regulatory Guide 1.160, *Monitoring the Effectiveness of Maintenance at Nuclear Power Plants*, Revision 2
- NUMARC 93-01, *Industry Guideline For Monitoring the Effectiveness of Maintenance at Nuclear Power Plants*, Revision 2

b. Findings

No findings of significance were identified.

R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors evaluated on-line risk management for the following configurations: (1) the concurrent extended planned outage of B SW pump and the D EDG jacket water keepwarm pump troubleshooting; (2) the concurrent planned maintenance on the B SW pump, the C RHR pump, and the A core spray room coolers; and (3) a planned HPCI

outage. The inspectors reviewed maintenance risk evaluations, work schedules, recent corrective action notifications, and control room logs to verify that other concurrent planned and emergent maintenance or surveillance activities did not adversely affect the plant risk already incurred with the out of service components. The inspectors also used PSEG Nuclear's on-line risk monitor (Equipment Out Of Service workstation) to evaluate the risk associated with the plant configuration and to assess PSEG Nuclear's risk management. In addition, the inspectors reviewed other notifications involving risk assessment and emergent work (20083186, 20083284, 20083781, 20084365, 20085038, 20085574, 20085959, 20086485, 20086865, and 20087141).

To assess PSEG Nuclear's risk management, the inspectors reviewed the following documents:

- SE.MR.HC.02, *System Function Level Maintenance Rule VS Risk Reference*
- HCGS PSA Risk Evaluation Forms for Work Week Nos. 45 - 51
- SH.OP-AP.ZZ-108, *On-Line Risk Assessment*
- NRC Regulatory Guide 1.182, *Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants*
- Section 11, *Assessment of Risk Resulting from Performance of Maintenance Activities,* dated February 11, 2000, of NUMARC 93-01, *Industry Guideline For Monitoring the Effectiveness of Maintenance at Nuclear Power Plants*

b. Findings

No findings of significance were identified.

R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the operability determinations for (1) rod block monitor channel A with respect to control rod exercise for rod 06-43 (NFS 01-212), (2) main turbine control valve No. 2 degraded fast acting solenoid valve (70021790), and (3) C RHR pump oil leakage (20086865). The inspectors also reviewed all other PSEG Nuclear identified safety-related equipment deficiencies during this report period and assessed the adequacy of the operability screenings.

The inspectors reviewed the following documents:

- *LPRM/APRM Malfunction* (HC.OP-AB.ZZ-0108)
- *Operability Assessment and Equipment Control Program* (SH.OP-AP.ZZ-0108)

b. Findings

No findings of significance were identified.

R16 Operator Workarounds

a. Inspection Scope

The inspectors reviewed corrective action notifications, operator logs, and instrument panel status to evaluate potential impacts on the operators' ability to implement abnormal or emergency operating procedures.

The inspectors also reviewed the following documents:

- Condition Resolution Operability Determination Notebook
- Inoperable Instrument/Alarm/Indicators/Lamps/Device Log
- Inoperable Computer Point Log
- Hope Creek Operator Workarounds List
- Hope Creek Operator Concerns List

b. Findings

No findings of significance were identified.

R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the post maintenance testing (PMT) data for the following components:

- B SW pump following pump and motor replacement
- P SRV following replacement of the gasket seal for the valve
- D EDG pressure switches following their replacement during EDG maintenance work that also involved modification of the air starting system
- D EDG lube oil and jacket water temperature switches following identification of a prior measurement and test equipment (M&TE) calibration error

The inspectors reviewed NC.NA-TS.ZZ-0050, *Maintenance Testing Program Matrix,* and verified that the PMTs were adequate for the scope of maintenance performed. The inspectors also reviewed notifications concerning problems associated with PMTs (20082123, 20084059, 20084234, 20084616, 20084619, 20084620, 20084935, 20085737, 20086291, 20086809, and 20086941).

b. Findings

No findings of significance were identified.

R22 Surveillance Testing

a. Inspection Scope

The inspectors observed portions of and reviewed the results of the RCIC jockey pump inservice test, the technical specification (TS) 4.4.1.2 reactor recirculation jet pump operability surveillance, and the TS 4.4.1.3 reactor recirculation loop flow mismatch verification. The inspectors observed a chemistry technician sample and analyze the reactor coolant system (RCS) to demonstrate that the specific activity was within TS 3.4.5 limits. The inspectors reviewed the test procedures to verify that applicable system requirements for operability were incorporated correctly into the test procedures, test acceptance criteria were consistent with the TS and UFSAR requirements, and the systems were capable of performing their intended safety functions. The inspectors also reviewed notifications concerning problems encountered during surveillance testing (20083514, 20083657, 20084056, 20084298, 20084330, 20084411, and 20087209).

The inspectors reviewed the following documents:

- *Reactor Core Isolation Cooling Jockey Pump - BP228 - Inservice Test* (HC.OP-IS.BD-0002)
- *Recirculation Jet Pump Operability - Daily* (HC.OP-ST.BB-0001)

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness [EP]

EP2 Alert and Notification System (ANS)

a. Inspection Scope

An onsite review of PSEG Nuclear's ANS was performed to ensure prompt notification of the public to take protective actions. The inspector reviewed: (1) PSEG Nuclear's design basis document submitted to the Federal Emergency Management Agency in 1986; (2) siren testing data; and (3) maintenance records for correcting siren failures. In addition, the inspector interviewed the ANS program manager and reviewed the following procedures: (1) *NRD Productions, Alert and Notification System Daily Operational Guidelines*; (2) NC.EP-DG.ZZ-0001, *Maintenance of EP Performance Indicator Data*, Rev. 01; and (3) ND-EP-AP-ZZ-0002(Q), *Alert Notification System*, Rev. 01. The review was conducted in accordance with NRC Inspection Procedure 71114, Attachment 02, and the applicable planning standard, 10 CFR 50.47(b)(5) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

One Condition Report (CR) was reviewed that was generated and entered into the corrective action program to address inspector observations during the ANS portion of this inspection. The CR is identified in the supplemental information section of this report.

b. Findings

No findings of significance were identified.

EP3 Emergency Response Organization (ERO) Augmentation

a. Inspection Scope

An onsite review of PSEG Nuclear's ERO augmentation staffing requirements and the process for notifying the ERO was conducted to ensure the readiness of key staff for responding to an event and timely facility activation. The inspector reviewed the Emergency Plan qualification records for key ERO positions, monthly communication pager test records, associated trending charts and 13 condition reports regarding ERO qualification lapses. Also, two unannounced off-hours augmentation call-in drill reports (2001) were reviewed to determine if PSEG Nuclear identified ERO augmentation deficiencies. The inspector reviewed Emergency Plan Administrative Procedure, No. 1014, *Training Program*; (2) NC.EP-DG.ZZ-0005(Z), *ERO Callout Tests*, Rev. 0; (3) EPIP 204S/H, *Emergency Response/Personnel Callout*, Rev. 50; and (4) Self-Assessment NEP-PER-01-003A, *Performance Based Training*, dated 8/01. The review was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03, and the applicable planning standard, 10 CFR 50.47(b)(2) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

Three CRs were reviewed that were generated and entered into the corrective action program to address concerns regarding ERO qualification lapses and are identified in the supplemental information section of this report.

b. Findings

No finding of significance were identified.

EP4 Emergency Action Level Revisions

a. Inspection Scope

A regional in-office review of revisions to the Emergency Plan, implementing procedures and EAL changes was performed to determine if changes affected the effectiveness of the Plan. The revisions covered the period from July through December 2001. Onsite, the inspector reviewed the associated 10 CFR 50.54(q) reviews and Procedure No. NC.EP-AP.ZZ-1003(Q), *10 CFR 50.54(q) Effectiveness Review Guide*, Rev. 0. The review was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, and the applicable requirements in 10 CFR 50.54(q) were used as reference criteria.

Two CRs were reviewed that were generated and entered into the corrective action program to address inspector observations identified during this inspection. These CRs are identified in the supplemental information section of this report.

b. Findings

No findings of significance were identified.

EP5 Correction of Emergency Preparedness (EP) Weaknesses and Deficiencies

a. Inspection Scope

The inspector reviewed corrective actions identified by PSEG Nuclear pertaining to findings from drill/exercise reports for 2000 and 2001, self-assessment reports for 2001, and from problems resulting from surveillances and actual events. Problem reports assigned to the EP department were also reviewed to determine the significance of the issues and to determine if repeat problems were occurring. In addition, the inspector reviewed the 2001 quarterly Quality Assessment audit reports and the associated audit checklists to determine if PSEG Nuclear had met the 10 CFR 50.54(t) requirements and if any repeat issues were identified. This review was conducted according to NRC Inspection Procedure 71114, Attachment 05, and the applicable planning standard, 10 CFR 50.47(b)(14) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Public Radiation Safety [PS]

PS2 Radioactive Material Processing and Shipping

a. Inspection Scope

The inspector reviewed PSEG Nuclear's facilities, processes and programs for the collection, processing, treatment, shipping, storage and disposal of radioactive materials and radwaste. The inspector reviewed the following: in-plant liquid and solid waste systems; waste processing and sampling program; shipment activities and records; assurance of quality, including corrective action reports; and training.

The inspector performed system reviews, which included system descriptions, control panel review, facilities tours, and a review of system changes in accordance with 10 CFR 50.59. Systems/subsystems reviewed included: reactor water clean-up; spent fuel pool clean-up; floor drain; equipment drain; miscellaneous waste; and solid waste processing. The inspector also toured current and abandoned in-place radwaste equipment and facilities, and interim storage locations used for processed radwaste. The inspector toured the following areas:

- Service/Radwaste Building elevation 54', cubicles containing:

  Waste surge tank and pumps
  Floor drain sample tanks A & B and pumps

Waste sample tanks A & B and pumps
Waste evaporator packages A & B
Neutralizer tanks A & B and pumps
Concentrator tanks A & B and pumps
Waste collector tanks A & B and pumps
Clean-up phase separators A & B and pumps
Cation and anion vessel and pumps
Decon solutions concentrated waste tank and pumps
Decon solutions concentrator package
Waste sludge phase separator and pumps
Spent resin tank and pumps
Chemical waste tank and pumps
Floor drain collector tanks A & B and pumps
Detergent drain tank and pumps

- Service/Radwaste Building elevation 102', cubicles containing:

  Fuel pool filter hold pumps
  Floor drain hold pumps
  Waste filter hold pumps
  Dry waste compactor
  Extruder evaporators A & B
  Centrifuge feed tank
  Crystalizer bottoms tank
  Crystalizer recirculation pump room
  Extruder evaporator turntable rooms
  Extruder evaporator drum processing aisle

- Service/Radwaste Building elevation 132', cubicles containing:

  Vapor compressor and pumps
  Crystalizer heater and pumps
  Crystalizer condenser cooler and pumps

- Turbine Building, cubicles containing:

  Condensate demineralizers A & G

The inspector reviewed PSEG Nuclear's Process Control Program (PCP), including: PCP procedure (NC.RP-AP.ZZ-0900[Q], rev 0, *Process Control Program Administration*); process documentation; scaling factor derivation, sampling type, sampling frequency, and effect of changing plant conditions (NC.RP-RW.ZZ-0902[Q], rev. 0, *Radioactive Waste Sampling and Classification*); and determination of waste characteristics and waste classification.

The inspector selected five solid radwaste shipping records for detailed review against the requirements contained in 10 CFR Parts 20, 61 and 71, and 49 CFR Parts 100-177. The shipments selected included spent resin, laundry, and dry active waste, and were

Nos. HC-01-90; HC-01-91; HC-01-92; HC-01-93; and HC-01-94. The inspector also observed portions of the following shipping activities: HC-01-95 and HC-01-96.

The inspector reviewed PSEG Nuclear's program for assurance of quality in the radwaste processing and radioactive materials transportation program by reviewing: quality assurance assessment reports (2000-0155; 2000-0247; 2001-0003); quality assurance assessment monitoring feedbacks (2001-0039; 2001-0039; 2001-0456; 2001-0067; 2001-0123 2001-0128; 2001-0439); audits of vendors providing waste processing services and/or certified shipping containers (Nuclear Utilities Procurement Issues Council Audit Nos. 16587 and 17038); departmental self-assessments (80033665-0040; 80030976; and RP4Q-01-002); and event reports involving the radwaste and transportation program in 2001.

The inspector reviewed PSEG Nuclear's program of training for personnel involved in the radwaste and radioactive materials transportation program with regard to the requirements contained in NRC IE Bulletin 79-19 and 49 CFR, Subpart H. Records reviewed included training requirements, course outlines/training modules (Lesson plan #0499-98B.01B-LES001-00, *Radioactive Materials Shipping*), test questions, examinations and examination scores. Reviewed records were for PSEG Nuclear personnel in materials handling, radiation protection and radwaste.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

OA1 Performance Indicator Verification

.1 Safety System Functional Failures

a. Inspection Scope

The inspectors verified the accuracy and completeness of the data that PSEG Nuclear used to calculate and report the *Safety System Function Failure* (SSFF) performance indicator (PI). The inspectors reviewed all Hope Creek licensee event reports (LERs) dated October 1, 2000, through September 30, 2001, to determine whether issues meeting the SSFF definition in NEI 99-02 (Revision 0 or Revision 1, as applicable) *Regulatory Assessment Performance Indication Guideline*, were included in the data set. The inspectors also used NRC NUREG-1022 (Revision 1 or Revision 2 as applicable) *Event Reporting Guidelines 10 CFR 50.72 AND 50.73*, to assess reportability for the PI.

b. Findings

No findings of significance were identified.

.2 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors verified the methods used to calculate the PI on the *Reactor Coolant System (RCS) Specific Activity* and reviewed the accuracy of the PI data submitted for the months of July, August, and September 2001. The inspector observed a chemistry technician sample and analyze the RCS (see also Section 1R22).

b. Findings

No findings of significance were identified.

.3 Emergency Preparedness Program Performance Indicators

a. Inspection Scope

The inspector reviewed PSEG Nuclear's procedure for developing the data for the EP PIs which are: (1) Drill and Exercise Performance (DEP), (2) ERO Drill Participation and (3) ANS Reliability. The inspector also reviewed PSEG Nuclear's drill/exercise reports, training records and ANS testing data for 2001 to verify the accuracy of the reported data. The review was performed in accordance with NRC Inspection Procedure 71151. The acceptance criteria are 10 CFR 50.9 and Nuclear Energy Institute (NEI) 99-02, Revision 1, Regulation Assessment Performance Indicator Guideline.

A CR was reviewed that was generated and entered into the corrective action program to address an inspector observation identified during this inspection. The CR is identified in the supplemental information section of this report.

b. Findings

No findings of significance were identified.

.4 Occupational Radiation Safety Cornerstone

a. Inspection Scope

The inspector reviewed a listing of LERs for the period April 1, 2001, through November 30, 2001, for issues related to the occupational radiation safety PI. The information contained in these records was compared against the criteria contained in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 1, to verify that all conditions that met the NEI criteria were recognized, identified, and reported as a performance indicator.

b. Findings

No findings of significance were identified.

OA2 Identification and Resolution of Problems

Inspection findings in previous sections of this report also had implications regarding PSEG Nuclear's identification, evaluation, and resolution of problems, as follows:

- Section 1RO5.1 - Failure to comply with the transient combustible control requirements in the HPCI pump room. This demonstrated weak identification of a transient combustible control problem.
- Section 1RO5.2 - Failure to properly implement fire protection program requirements for an inoperable EDG fire door. This demonstrated weak identification of a fire barrier deficiency.
- Section 1RO6 - Failure to establish an adequate procedure to control watertight and high energy steam barrier doors to the HPCI and RCIC rooms. Initial corrective actions to address this deficiency were limited in scope and not thorough.
- Section 4OA3.5 - As-found values for SRV lift setpoints exceed technical specification allowable limits. Corrective actions, to date, have not been effective in preventing recurrence.

Additional items associated with PSEG Nuclear's corrective action program were reviewed without findings and are listed in Sections 1R01, 1R04, 1RO5.1, 1R12, 1R13, 1R15, 1R16, 1R19, 1R22, 1EP2, 1EP3, 1EP4, 1EP5, 2PS2, and 4OA1.3 of this report.

OA3 Event Follow-up

.1 (Closed) Special Report 354/2001-003-00: Potential to Exceed Licensed Power Level Due to Reactor Heat Balance Calculation Error. Due to a non-conservative assumption for moisture carryover used to calculate core thermal power (CTP), Hope Creek potentially operated at power levels in excess of 100 percent of rated power as stated in License Condition 2.C (1). PSEG Nuclear determined that the magnitude of the impact (0.08 percent CTP) was such that nuclear instrumentation calibration would not be affected and there was no impact on core operating limits as reactor power was maintained within power measurement uncertainties. PSEG Nuclear captured this issue in their corrective action program as notification 20078788. This failure to ensure operation within License Condition 2.C (1) constitutes a violation of minor significance and is not subject to formal enforcement action in accordance with Section IV of the NRC's Enforcement Policy.

.2 (Closed) LER 354/2001-004: Reactor Building Differential Pressure Controller Incorrectly Set. This LER discussed a failure to meet the acceptance criteria during a reactor building integrity functional test. This PSEG Nuclear identified issue was documented in NRC Inspection Report 354/01-10 Section 4OA7.4. The inspectors determined that this LER was complete and accurate.

.3 (Closed) LER 354/2001-005: Reactor Vessel Level - Low (Level 3) SCRAM. This LER discussed a reactor scram signal due to low water level that was received subsequent to a manual reactor scram with the unit in a shutdown condition with all rods inserted. The inspectors observed this scram and operators' actions from the control room in conjunction with refueling outage activities (see NRC Inspection Report 354/01-10 Section R20). The inspectors reviewed this event report and did not identify any findings of significance.

.4 (Closed) LER 354/2001-006: Discovery of a Pressure Boundary Leak During the Outage. This LER discussed the leak on the A reactor recirculation pump suction pipe elbow tap discovered during Hope Creek refueling outage No. 10. The inspector's description, follow-up, and assessment of this event was documented in NRC Inspection Report 354/01-10 Sections 1R08, 1R13, 1R14.3, 1R19, and 1R20. The inspectors determined that this LER was complete and accurate.

.5 (Closed) LER 354/2001-007: As Found Values for Safety Relief Valve Lift Setpoints Exceed Technical Specification Allowable Limits. Refueling outage SRV testing identified that 3 of the 14 SRVs experienced setpoint drift outside of the TS 3.4.2.1 limit of +/- 3 percent. This PSEG Nuclear identified issue is documented in Section 4OA7.2 of this report as a licensee-identified violation. Similar problems with previous SRV lift setpoints were described in LER 354/00-003, LER 354/99-003, and NRC Inspection Report 354/99-02. Corrective actions, to date, have not been effective in preventing recurrence.

.6 (Closed) LER 354/2001-008: Unplanned Nuclear Steam Supply Shutoff System Isolation during Functional Testing. This LER described an unplanned NSSSS actuation caused by a human error during refueling outage testing. Instrumentation & Control technicians failed to properly implement procedure HC.IC-FT.CH-0002, *Main Turbine Trips*, while electronically resetting the turbine logic. PSEG Nuclear captured this issue in their corrective action program as notification 20083082. This procedure non-compliance constitutes a violation of minor significance and is not subject to formal enforcement action in accordance with Section IV of the NRC's Enforcement Policy.

OA4 Cross-cutting Issues

The unplanned NSSSS actuation during refueling outage testing directly involved human performance. (Section 4OA3.6)

OA6 Management Meetings

Exit Meeting Summary

On January 4, 2002, the inspectors presented their overall findings to members of PSEG Nuclear management led by Mr. Dave Garchow. PSEG Nuclear management stated that none of the information reviewed by the inspectors was considered proprietary.

OA7 Licensee Identified Violations. The following findings of very low significance were identified by PSEG Nuclear and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as Non-Cited Violations (NCV).

Cornerstone: Initiating Events

.1 **NCV 50-354/01-11-04:** 10CFR50, Appendix B, Criterion XVI, *Corrective Action*, requires, that measures be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition. Contrary to the above, PSEG Nuclear did not take adequate corrective action taken to preclude repetition of an SRV inlet flange leak. PSEG Nuclear identified a D SRV inlet flange leak during the refueling outage hydrostatic test (notification 20082123); however, they failed to identify and correct a similar condition on the other 13 SRVs. PSEG Nuclear entered this issue into their problem identification and corrective action system as notification 20085574. This is being treated as a Non-Cited Violation.

Cornerstone: Mitigating Systems

.2 **NCV 50-354/01-11-05:** TS 3.4.2.1 requires the safety valve function of at least 13 of the 14 SRVs with the lift setpoint within +/- 3 percent of the specified code safety valve function lift setting. Contrary to this requirement, PSEG Nuclear identified that 3 of the 14 SRVs experienced setpoint drift outside of the TS 3.4.2.1 limit. PSEG Nuclear entered this issue into their problem identification and corrective action system as orders 70020566, 70020567, and 70020568. This is being treated as a Non-Cited Violation.

.3 **NCV 50-354/01-11-06:** Technical Specification 6.8.1 requires, in part, that written procedures shall be established, implemented and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33. Regulatory Guide 1.33 requires, in part, that procedures be developed for performing maintenance. PSEG Nuclear procedure NC.NA-TS.ZZ-0050, *Maintenance Testing Program Matrix,* specifies the minimum testing requirements commensurate with the type and extent of maintenance performed. PSEG Nuclear failed to perform a PMT following maintenance that affected the stroke time of two air-operated RCIC steam drain isolation valves. PSEG Nuclear entered this issue into their problem identification and corrective action system as notification 20084935. This is being treated as a Non-Cited Violation.

ATTACHMENT
SUPPLEMENTAL INFORMATION

a. Key Points of Contact

C. Banner, EP Supervisor
J. Buchanan, Radwaste Supervisor
D. Burgin, EP Manager
M. Conroy, Maintenance Rule Supervisor
M. Dammann, Maintenance Manager - Controls & Power Distribution
J. Frick, Radiation Protection Specialist - Shipping
R. Gary, Radiation Protection Operations Superintendent
K. Krueger, Operations Manager
R. Keupa, Training Instructor
M. Moser, Licensing
K. O'Hare, Acting Radiation Protection Manager
D. Price, Assistant Operations Manager
G. Salamon, Nuclear Safety & Licensing Manager
L. Wagner, Director - Site Work Integration & Management

b. List of Items Opened, Closed, and Discussed

Opened/Closed

50-354/01-11-01	NCV	PSEG Nuclear did not identify and administratively control transient combustibles materials in the HPCI pump and turbine room. (Section R05.1)
50-354/01-11-02	NCV	PSEG Nuclear did not properly implement fire protection program requirements for an inoperable fire door. (Section R05.2)
50-354/01-11-03	NCV	PSEG Nuclear did not establish an adequate procedure to control watertight and high energy line break barrier doors in the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) rooms. (Section R06)
50-354/01-11-04	NCV	PSEG Nuclear did not take adequate corrective action taken to preclude repetition of an SRV inlet flange leak. (Section OA7.1)

50-354/01-11-05	NCV	PSEG Nuclear identified that 3 of the 14 SRVs experienced setpoint drift outside of the TS 3.4.2.1 limit. (Section OA7.2)
50-354/01-11-06	NCV	PSEG Nuclear failed to perform a PMT following maintenance that affected the stroke time of two air-operated RCIC steam drain isolation valves. (Section OA7.3)
50-354/01-03-00	Special Report	Potential to exceed licensed power level due to reactor heat balance calculation error. (Section 4OA3.1)
50-354/2001-004-00	LER	Reactor building differential pressure controller incorrectly set. (Section 4OA3.2)
50-354/2001-005-00	LER	Reactor vessel level - low (level3) scram. (Section 4OA3.3)
50-354/2001-006-00	LER	Discovery of a pressure boundary leak during the outage. (Section 4OA3.4)
50-354/2001-007-00	LER	As found values for safety relief valve lift setpoints exceed technical specification allowable limits. (Section 4OA3.5)
50-354/2001-008-00	LER	Unplanned nuclear steam supply shutoff system isolation during functional testing. (Section 4OA3.6)

c. 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 NCO Narrative
HCGS Plant Status Report
Weekly Reactor Engineering Guidance to Hope Creek Operations
Core Thermal Power Evaluation (HC.RE-RA.ZZ-0001)
Core Thermal Limits Surveillance (HC.RE-ST.ZZ-0001)
B & D Core Spray Pumps - BP206 and DP206 - In-service Test (HC.OP-IS.BE-0002)

CR 80038006-0080	Revise siren testing/maintenance procedure to adequately describe current testing program and for consistency with design basis document and E-Plan.
CR 80038006-0020	Revise EPIP 204S/H to indicate it's a backup procedure and describe the initial callout process.
CR 80038006-0030	Create Media Training Package to media contacts for 2001

CR 80038006-0060	Create Monthly EP ERO qualification PI and correct NRC minor violation regarding ERO qualification lapses
CR 80038006-0070	Enhancement revisions to NC.EP-ZZ-1003(Q), Effectiveness Reviews
CR 80038006-0040	Revise E-Plan, Section 8, to reflect how annual media awareness training will be given.
CR 80038006-0090	Review ENC critiques and evaluate repeat findings for correction
CR 80038006-0050	Ensure DEP PI original data is maintained from LOR drills for NRC review.

d. List of Acronyms

ANS	Alert and Notification System
BTU	British Thermal Unit
CFR	Code of Federal Regulations
CICP	Chemical Item Classification Permit
CR	Condition Report
CTP	Core Thermal Power
DEP	Drill and Exercise Performance
DID	Defense-in-Depth
EAL	Emergency Action Level
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
ERO	Emergency Response Organization
GPM	Gallons Per Minute
HCGS	Hope Creek Generating Station
HELB	High Energy Line Break
HPCI	High Pressure Coolant Injection
IPEEE	Individual Plant Examination for External Events
LER	Licensee Event Report
M&TE	Measurement and Test Equipment
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
NSSSS	Nuclear Steam Supply Shutoff System
PARS	Publicly Available Records
PCP	Process Control Program
PI	Performance Indicator
PMT	Post Maintenance Testing
PSEG	Public Service Electric Gas
PSFF	Preventable System Functional Failure
RCIC	Reactor Core Isolation Cooling
RCS	Reactor Coolant System
RHR	Residual Heat Removal
SDP	Significance Determination Process
SMD	Solar Magnetic Disturbance
SRV	Safety Relief Valve
SSFF	Safety System Functional Failure
SW	Service Water
TCV	Turbine Control Valve
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report