

September 11, 2001

Mr. Harold W. Keiser
Chief Nuclear Officer and President
PSEG Nuclear LLC - X04
P. O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK NUCLEAR GENERATING STATION - NRC INSPECTION
REPORT 50-354/01-08

Dear Mr. Keiser:

On August 12, 2001, the NRC completed an inspection of your Hope Creek facility. The enclosed report documents the inspection findings which were discussed on August 15, 2001, with Mr. Lou Waldinger 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.

No findings of significance were identified.

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Sincerely,

/RA/

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

Enclosure: Inspection Report 50-354/01-08
Attachment 1: Supplemental Information

Mr. Harold W. Keiser

2

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D. Garchow, Vice President - Operations
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-354

License No: NPF-57

Report No: 50-354/01-08

Licensee: PSEG Nuclear LLC

Facility: Hope Creek Nuclear Generating Station

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

Dates: July 1 - August 12, 2001

Inspectors: Joseph G. Schoppy, Jr., Senior Resident Inspector
Christopher G. Cahill, PE, Resident Inspector
Joseph T. Furia, Senior Health Physicist
Ram S. Bhatia, Reactor Inspector
Stephen M. Pindale, Reactor Inspector

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

Summary of Findings

IR 05000354-01-08, on 07/01 - 08/12/2001, Public Service Electric Gas Nuclear LLC, Hope Creek Generating Station. Resident inspector report.

The inspection was conducted by resident inspectors, a regional radiation specialist, and two region-based inspectors. This inspection identified no significant findings. 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/NRR/OVERSIGHT/index.html>.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Violations

The inspectors did not review any PSEG Nuclear identified violations.

Report Details

SUMMARY OF PLANT STATUS

The Hope Creek plant operated continuously at or near full power for the duration of the inspection period with the following exceptions: (1) a short duration planned reduction to 87 percent power on July 14 for turbine control valve testing, (2) a reduction to 70 percent power on July 16 to repair an emergent main condenser tube leak, (3) a planned reduction to 91 percent power on July 20 for a Salem Deans line (5021) outage, (4) a short duration planned reduction to 81 percent power on July 26 to recover a scrambled rod, (5) a short duration planned reduction to 87 percent power on August 5 for a control rod pattern adjustment, and (6) a planned reduction to 60 percent power on August 12 for a control rod pattern adjustment.

1. REACTOR SAFETY

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

R01 Adverse Weather Protection

a. Inspection Scope

The electrical power grid operator (PJM Interconnection LLC) issued a hot weather alert for August 6 through August 10, 2001. The purpose of this alert was to prepare personnel and facilities for extreme hot weather, which may cause generating unit unavailability to be higher than normal. As a result of the extreme weather condition, PSEG Nuclear initiated a Transient Assessment Response Plan (TARP) team to identify heat related vulnerabilities and to recommend actions to ensure safe and reliable power generation. The inspectors attended the TARP meetings, reviewed the TARP report, and interviewed operators to verify that the design features and operating procedures protected mitigating systems from the adverse weather effects. The inspectors also reviewed several notifications involving adverse weather (20074170, 20074180, 20074191, 20074193, and 20074194).

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 system outage on the B 1E 408 supply air unit, panel room chiller, and chill water pump. These components are safety-related and supply conditioned air to the four battery rooms; nine inverter rooms; two heating, ventilating, and air conditioning (HVAC) rooms; and the control equipment room. The inspectors verified by plant walkdowns and main control room tours that the planned equipment outage did not adversely affect the supported equipment or the redundant components. In particular, the inspectors performed walkdowns of the following equipment and areas:

- Control equipment room
- An emergency diesel generator (EDG)
- Control room instrumentation and control panels
- A safety-related 408 supply air unit
- A panel room chiller and chill water pump
- A 4160 V vital switchgear room and 480V vital motor control center
- Battery rooms, inverter rooms, and HVAC rooms in the diesel/control building elevation 163'

Additionally, the inspectors reviewed various corrective action notifications associated with equipment alignment deficiencies (20071867, 20072382, 20072527, 20072740, 20072886, 20073006, and 20073339).

b. Findings

No findings of significance were identified.

R05 Fire Protection

a. Inspection Scope

The inspectors performed walkdowns of the reactor feed pump turbine lube oil reservoir rooms (1402, 1403, and 1404) and the recirculation pump motor generator set rooms (1516 and 1517). These rooms were selected for review because the Hope Creek Individual Plant Examination for External Events, Table 4.10 identifies these rooms as high hazard areas. Additionally, the inspectors reviewed several notifications associated with fire protection deficiencies (20071748, 20072637, 20073817, 20074049, 20074261, and 20074269).

b. Findings

No findings of significance were identified.

R06 Flood Protection Measures

a. Inspection Scope

The inspectors reviewed the Hope Creek Updated Final Safety Analysis Report (UFSAR), Individual Plant Examination, 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 performed a detailed review of reactor building rooms 4104 and 4105, which contain the B and D core spray trains, respectively. The rooms are located on elevation 54' of reactor building, and contain risk significant safety systems that could be quickly submerged during an internal flooding event. The inspectors toured the areas to determine whether flood vulnerabilities existed and to assess the physical and material condition of flood barriers. The inspectors also reviewed the associated plans and procedures to determine whether operators could mitigate the consequences of an internal flood. Finally, the inspectors reviewed preventive maintenance and surveillance of the associated

equipment designed to prevent and mitigate flood damage (e.g., room water level switches and floor drain system) and reviewed flood related problems identified and evaluated by PSEG Nuclear.

The inspectors also reviewed the following documents:

- *Acts of Nature* (HC.OP-AB.ZZ-0139)
- Technical Specifications
- *Hope Creek Individual Plant Examination*, Section 3.3.9.2 Individual Room Evaluations
- *Reactor Building and Radioactive Release Control* (HC.OP-EZ.ZZ-103/4)
- *Device/Equipment Calibration: Fluid Components INC. Liquid Level Switch, Model 8-66 and 8-66/R* (HC.IC-DC.ZZ-0212)
- WO 3005615 ACT 150: 1BLELSH-4581D1, dated 1/8/2001
- Corrective Maintenance History (Other than PM's): Found only failure of room 4105 level switch 1BELSH-4581D1 in 1988.

b. Findings

No findings of significance were identified.

R07 Heat Sink Performance

The service water (SW) system provides cooling water from the Delaware River (which serves as the ultimate heat sink) to the safety auxiliaries cooling system (SACS) heat exchangers. The SACS is a closed loop cooling system that provides cooling water to the engineered safety features equipment. The plant may be shut down under normal conditions with an average river water temperature as high as 88.0 degrees and safely shut down under Technical Specifications (TSs) permitted configurations with an average river water temperature as high as 89.0 degrees. With river water temperatures approaching 85 degrees, the inspectors verified that PSEG Nuclear took appropriate actions in accordance with TSs and plant procedures to ensure the plant continued to operate within the design and licensing bases. The inspectors also reviewed the results of a SACS heat exchanger performance monitoring functional test.

a. Inspection Scope

The inspectors reviewed the following documents:

- *Service Water System Malfunction* (HC.OP-AB.ZZ-0122)
- *Service Water System Operation* (HC.OP-SO.EA-0001)
- Hope Creek Generating Station License Amendment No. 120, *Ultimate Heat Sink Temperature Limits*
- Technical Specifications 3.7.1.1, 3.7.1.2, , 3.7.1.3, and 4.7.1.3
- UFSAR Sections 9.2.1, 9.2.2, and 9.2.5
- *Validating SSWS Flow Through SACS Hxs* (HC.OP-FT.EA-0001)

b. Findings

No findings of significance were identified.

R11 Licensed Operator Requalification

a. The inspectors observed one simulator training scenario to assess operator performance and training effectiveness. The scenario involved the loss of offsite power with an accompanying loss of one EDG and a safety-related battery. The inspectors assessed simulator fidelity and observed the simulator instructor's critique of operator performance. The inspectors also observed control room activities with emphasis on simulator identified areas for improvement. Additionally, the inspectors reviewed notification 20073153 associated with a simulator training issue.

b. Findings

No findings of significance were identified.

R12 Maintenance Rule Implementationa. Inspection Scope

The inspectors reviewed all corrective action notifications initiated from April 1 to May 15, 2001, for Maintenance Rule screening. The inspectors further reviewed six notifications that included system engineer functional failure determinations (20066565, 20065843, 20061207, 20065343, 20065036, and 20065144) and two notifications involving PSEG Nuclear's implementation of their Maintenance Rule program (20070476 and 20073965). The inspectors also reviewed the Hope Creek Maintenance Rule program (a)(1) goals and the System Checkbook.

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

- *System Function Level Maintenance Rule vs Risk Reference* (SE.MR.HC.02)
- 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 reviewed maintenance risk evaluations, work schedules, recent corrective action notifications, and control room logs to evaluate PSEG Nuclear's on-line risk management. The inspectors reviewed the following notifications involving risk assessment and emergent work: 20072235, 20072647, 20072655, 20072716, 20073237, 20073771, 20073850, 20073965, and 20074043.

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

- HCGS PSA Risk Evaluation Forms for Work Week Nos. 26 - 31
- *On-Line Risk Assessment* (SH.OP-AP.ZZ-108)
- 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.

R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

On December 1, 2000, PSEG Nuclear submitted a request (LCR H00-05) to increase the licensed power level by approximately 1.4 percent, from 3,293 megawatts thermal (MWt) to 3,339 MWt. The NRC approved this request and issued Amendment 131 to the Facility Operating License (FOL) No. NPF-57 for the Hope Creek Generating Station on July 30, 2001. The inspectors attended the pre-evolution briefings and observed the control room operations during the ascent to the new 100 percent power level of 3,339 MWt.

The inspectors reviewed the following documents:

- 1.4% Power Uprate IPTE Plan (01-005)
- *Conduct of Infrequently Performed Test or Evolutions* (NC.NA-AP.ZZ-0084)
- Notes of Telecon Regarding the Errors in the SER for Hope Creek Power Uprate Amendment 131 (LRI-01-0250)
- *Power Changes During Operation* (HC.OP-IO.ZZ-0006)
- *Core Thermal Limits Surveillance* (HC.RE-ST.ZZ-0001)
- *APRM Setpoint Surveillance* (HC.RE-ST.SE-0001)

b. Findings

No findings of significance were identified.

R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the operability determination for the control room in-leakage tracer gas testing (notification 20073191) and the structural steel fireproofing in plant canceled areas (notification 20073249). 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.

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.

R17 Permanent Plant Modifications

a. Inspection Scope

On May 21, 2001, PSEG Nuclear requested a Technical Specification Amendment (LRN-01-152) for an increase in the allowable Main Steam Isolation Valve (MSIV) Leakage from 46 standard cubic feet per hour (scfh) to 250 scfh and deletion of the MSIV Sealing System. In this amendment, PSEG Nuclear also resolved the control room unfiltered in-leakage issue by increasing the design value from the existing 10 cubic feet per minute (cfm) to 900 cfm. PSEG Nuclear further stated in this letter that a plant specific calculation was currently being finalized and that tracer gas testing would be performed to ensure that the 900 cfm control room in-leakage assumed in the calculation was bounding.

On July 25, 2001, PSEG Nuclear and its contractor (Lagus Applied Technology, Inc.) conducted a constant injection tracer ventilation test to determine unfiltered air in-leakage into the Hope Creek main control room envelope (CRE). The inspector reviewed the UFSAR, test work order No. 60017600, and the associated vendor test procedure used to perform the CRE test. The inspector also observed the temporary test installation (including the instruments used, a sample tester and its calibration, the sampling method used, and the gas injection setup) to assure the instructions were in accordance with the established process and the vendor specified procedure. The inspector also observed the preliminary test results of three initial samples taken after the tracer gas was injected to assure that the test results were reasonable and as expected under this mode of operation and condition.

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 repairs conducted on C SW system 1C-P-502 lubrication water line. The inspectors reviewed SH.MD-GP.ZZ-0240, *System Pressure Test at NOP/NOT* and NC.NA-TS.ZZ-0050, *Maintenance Testing Program Matrix*, to verify that the PMTs were adequate for the scope of maintenance performed. The inspectors also reviewed notifications concerning problems associated with PMTs (20071103, 20071315, 20072508, and 20073172).

The inspectors also reviewed the following documents:

- Weld Joint Notice No. 4308 and 4309
- Nuclear Welding Engineering, NWP-37

b. Findings

No findings of significance were identified.

R20 Refueling and Outage Activities

a. Inspection Scope

In preparation for their Fall refueling outage (RF10), PSEG Nuclear received, transported, and inspected new fuel. The inspectors observed a fueling handling pre-job brief in the control room and witnessed several fuel moves from the new fuel vault to the spent fuel storage pool. The inspectors verified that the fuel handling operations were performed in accordance with approved procedures and that foreign material exclusion was maintained in the refueling area. The inspectors also reviewed corrective action notifications concerning problems related to fuel handling or outage preparation (20071570, 20072014, 20072093, 20072501, 20072656, 20073762, 20073981, 20073985, and 20074155).

The inspectors reviewed the following documents:

- *Conduct of Fuel Handling* (NC.NA-AP.ZZ-0049)
- *Refueling Platform and Fuel Grapple Operation* (HC.OP-SO.KE-0001)
- *Irradiated Fuel Damage* (HC.OP-AB.ZZ-0101)

b. Findings

No findings of significance were identified.

R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the results of the control rod drive (CRD) accumulator operability check and independently verified the accumulator pressure for each hydraulic control unit. The inspectors also reviewed the results of the residual heat removal (RHR) system piping and flow path verification and the high pressure coolant injection (HPCI) main and booster pump test. 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 (20071374, 20071392, 20071612, 20072586, 20072884, 20073460, 20073975, 20074053, and 20074055).

The inspectors reviewed the following documents:

- *Control Rod Drive Accumulator Operability Check* (HC.OP-ST.BF-0002)
- *Individual CRD Operation* (HC.OP-SO.BF-0002)
- *Overhead Annunciator Window C6-D4, CRD ACCUM TROUBLE* (HC.OP-AR.ZZ-0011)
- *Loss of CRD Regulating Function* (HC.OP-AB.ZZ-0105)
- *RHR System Piping and Flow Path Verification* (HC.OP-ST.BC-001)
- *HPCI Main and Booster Pump Test* (HC.OP-IS.BJ-0001)

b. Findings

No findings of significance were identified.

R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed Hope Creek T-MOD 01-004, *Implement Continuous Drain of Inboard MSIV Sealing System*. The objectives of this review were to verify that (1) the design bases, licensing bases, and performance capability of risk significant structures systems or components had not been degraded through this modification, and (2) that implementation of the modification did not place the plant in an unsafe condition. In

addition, the inspectors verified the modified equipment alignment through control room instrumentation and plant walkdowns of accessible portions of the MSIV sealing system. Additionally, the inspectors reviewed notification 20073437 associated with a temporary modification issue.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Public Radiation Safety [PS]

PS1 Gaseous and Liquid Effluent

a. Inspection Scope

The inspector reviewed the following documents to evaluate the effectiveness of PSEG Nuclear's radioactive gaseous and liquid effluent control programs. The requirements of the radioactive effluent controls were specified in the Technical Specifications/Offsite Dose Calculation Manual (TSs/ODCM):

- *2000 Radiological Annual Effluent Release Report and Radiation Dose Assessment Report*, dated May 2001;
- ODCM, Revision 19, March 2001;
- analytical results for charcoal cartridges, particulate filters, noble gases, and radioactive liquid effluent samples for the period April - June 2001;
- radioactive liquid release permits for the period April - June 2001 (two batch liquid release and 11 continuous release permits);
- monthly radioactive gas releases including quantification techniques and projected dose calculation results to the public for the period April - June 2001 (twenty-three continuous and/or batch release permits);
- associated effluent control procedures, including analytical laboratory procedures;
- calibration records for laboratory measurements equipment (gamma spectrometry system using four independent intrinsic germanium detectors and one liquid scintillation counter for tritium analysis);
- Quality Assurance Assessment Reports 2000-0393 (Offsite Dose Calculation Manual) and 2000-0106 (REMP/RETS Training Program) [No licensee self-assessments were conducted for the RETS program during 2000 or 2001];
- TS surveillance testing results performed in 1999, 2000, and 2001 for: (1) control room emergency filtration (CREF) system, (2) filtration, recirculation and ventilation monitoring system (FRVS) recirculation and vent modes; and (3) reactor building ventilation exhaust.

RMS Channel Calibration

- Liquid Radwaste Discharge Line to the Cooling Tower Discharge Line

- Cooling Tower Blowdown Effluent
- FRVS Noble Gas Activity Monitor
- South Plant Vent Noble Gas Activity Monitor
- North Plant Vent Noble Gas Activity Monitor

Flow Monitor Calibration

- Liquid Radwaste Discharge Line to Cooling Tower Blowdown Line
- Cooling Tower Blowdown Weir
- Turbine Building Circulating Water Dewatering Sump Discharge Line to the Cooling Tower
- FRVS Sampler Flow Rate Monitor
- South Plant Vent Flow Rate Monitor
- South Plant Vent Sampler Flow Rate Monitor
- North Plant Vent Flow Rate Monitor
- North Plant Vent Sampler Flow Rate Monitor

The inspector also performed system walkdowns to determine the availability of radioactive liquid/gaseous effluent RMS and air cleaning systems and to determine the equipment material condition.

The inspector reviewed the following notifications, related to the radiological effluents program, to ensure that PSEG Nuclear's problems were being identified, characterized, prioritized, entered to a corrective action system, and resolved: 20071813, 20071803, 20071393, 20067239, 20067093, 20065756, 20064621, 20063748, 20058552, 20054959, 20047350, and 20044992.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

OA1 Performance Indicator Verification

.1 Residual Heat Removal System Unavailability

a. Inspection Scope

The inspectors verified the methods used to calculate the *Residual Heat Removal System Unavailability* performance indicator (PI) and reviewed the data for the period July 1, 2000, through June 30, 2001. The inspectors reviewed limiting condition for operation logs, control room operating logs, corrective action program notifications, surveillance logs, and Maintenance Rule electronic data bases.

b. Findings

The inspectors identified an apparent reporting inaccuracy in PSEG Nuclear's RHR unavailability PI data for the second quarter of 2001. The finding is significant in that it impacted NRC's ability to assess plant performance.

The inspectors noted that PSEG Nuclear did not report 17 days worth of unavailability resulting from an A SACS functional failure (see NRC Inspection Report 50-354/01-07 Section 4OA3.1). The inspectors determined that the SACS unavailability time should have been charged to the safety systems that it supports: RHR train A, the A and C EDGs, and the high pressure coolant injection system in accordance with the guidance in NEI 99-02, *Regulatory Assessment Performance Indicator Guide*.

PSEG Nuclear licensing stated that they considered the SACS relief valve issue, however, they determined that the system remained available based on credit given for operator action to provide SACS makeup from SW. PSEG Nuclear licensing referenced NEI 99-02 FAQ ID 247, dated 2/8/01 (now included in NEI 99-02, Revision 1, effective July 1, 2001). The FAQ response stated:

Operator actions to recover from an equipment malfunction or an operating error can be credited if the function can be promptly restored from the control room by a qualified operator taking an uncomplicated action (a single action or a few simple actions) without diagnosis or repair (i.e., the restoration actions are virtually certain to be successful during accident conditions). (Note that under stressful, chaotic conditions, otherwise simple multiple actions may not be accomplished with the virtual certainty called for by the guidance.)

The inspectors disagreed with PSEG Nuclear's interpretation of the FAQ guidance based on the following:

- Operator action to provide SACS makeup from the service water system following a loss of offsite power would not be assured of occurring (probability equal to 1.0). Operator action would be dependent upon receiving the A SACS trouble alarm in the control room and recognizing its importance during a time of high activity and commotion as operators respond to the loss of offsite power event. In addition, operators would have to diagnose the condition as a loss of SACS inventory, enter abnormal procedure HC.OP-AB.ZZ-0124, choose to inject with SW, and correctly implement the actions involving the manipulation of three valves.
- Operator action upon receipt of a "SACS Loop A Trouble" alarm requires some operator diagnosis of the condition. The alarm response directs operators to refer to HC.OP-AB.ZZ-0124 and to evaluate any accompanying digital computer point alarms. Digital point D4703 (SACS Expansion Tank AT205 LVL) alarm response directs operators to dispatch an operator to the local SACS panel to ensure the normal makeup valve is open, and if caused by SACS loop A leakage then 1) locate the leakage and 2) request OS/CRS initiate corrective actions. Procedure HC.OP-AB.ZZ-0124 directs operators to provide makeup from the fire water system if time permits (see above). Operators would have to diagnose the source of the leakage, evaluate the leak rate, and then decide on a source of makeup water. Makeup from the fire water system is aligned from outside of the control room and can not be credited for operator action in accordance with NEI 99-02 guidance.
- Operator action would not be prompt. Following a loss of offsite power and the subsequent start of all SACS pumps, A SACS loop inventory would be lost at a rate of 13 gpm through the lifting SACS relief valve. Eventually, the A SACS head tank low-low level alarm would alert control room operators of a SACS deficiency through the A SACS trouble alarm. However, providing emergency makeup via SW is not an immediate operator action in response to this alarm. In addition, if operators do not recognize the loss of SACS inventory and provide makeup, recovery of the A SACS loop would involve the more time intensive process of filling and venting the loop.

PSEG Nuclear licensing initiated notification 20074100 to enter the issue into their corrective action program and planned to submit a FAQ to resolve the issue. PSEG Nuclear's RHR unavailability determination based on credit for operator action is an unresolved item pending NEI and NRC concurrent FAQ response.

(URI 050000354/01-08-01)

.2 Occupational Radiation Safety Cornerstone

a. Inspection Scope

The inspector reviewed a listing of all PSEG Nuclear notification reports for the period January 1, 2001, through July 12, 2001, for issues related to the RETS/ODCM

Radiological Effluent Occurrence PI, which measures radioactive gaseous and liquid releases that were above TS and/or Offsite Dose Calculation Manual limits.

b. Findings

No findings of significance were identified.

OA2 Identification and Resolution of Problems

The inspectors reviewed numerous notifications associated with PSEG Nuclear's identification, evaluation, and resolution of problems without findings and are listed in Sections 1R01, 1R04, 1R05, 1R06, 1R11, 1R12, 1R13, 1R15, 1R16, 1R019, 1R20, 1R22, 1R23, and 2PS1 of this report.

OA3 Event Follow-up

(Closed) LER 354/2001-001: Plant Shutdown due to Main Steam Isolation Valve Sealing System Inoperability. On May 8, operators declared the outboard main steam isolation valve (MSIV) sealing system inoperable when they discovered that an emergent issue (a failed primary potential transformer on the C 4160V vital bus) impacted the subsystem's emergency power supply. Operators concurrently entered TS 3.0.3 because they had previously declared the inboard MSIV sealing system inoperable on May 4 due to excessive moisture intrusion into the system. The inspector's description, follow-up, and assessment of this event was documented in NRC Inspection Report 354/01-06, Sections 1R13, 1R14, 1R15, 1R20, and the Summary of Plant Status. The inspectors reviewed this LER and identified no findings of significance.

OA6 Management Meetings

.1 Exit Meeting Summary

On August 15, 2001, the inspectors presented their overall findings to members of PSEG Nuclear management led by Lon Waldinger. PSEG Nuclear management stated that none of the information reviewed by the inspectors was considered proprietary.

.2 PSEG Nuclear/NRC Management Meeting

The NRC conducted the annual end of cycle review meeting with PSEG Nuclear on July 9, 2001. During the meeting, the NRC discussed the status of the performance indicators, inspection findings, and performance trends for the past year. PSEG Nuclear provided a brief synopsis of ongoing initiatives to address areas of concern. The meeting was conducted in the PSEG Nuclear Access Center and was open for public observation. A copy of the slide presentation can be found in ADAMS under ML012350153.

Attachment 1

Supplemental Information

a. Key Points of Contact

Terry Cellmer, Radiation Protection Manager
 Matt Conroy, Maintenance Rule Supervisor
 Mike Dammann, Maintenance Manager - Controls & Power Distribution
 Kurt Krueger, Operations Manager
 John Materazo, Lead Engineer I&C
 Devon Price, Assistant Operations Manager
 Gabor Salamon, Nuclear Safety & Licensing Manager
 Larry Wagner, Director - Site Work Integration & Management

b. List of Items Opened, Closed, and Discussed

Opened

05000354/01-08-01	URI	PSEG Nuclear's RHR unavailability performance indicator calculated value. (Section 4OA1.1)
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Opened/Closed

05000354/2001-001	LER	Plant Shutdown due to Main Steam Isolation Valve Sealing System Inoperability. (Section 4OA3)
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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) UFSAR
 TS Action Statement Log (SH.OP-AP.ZZ-108)
 B & D Core Spray Pumps - BP206 and DP206 - In-service Test (HC.OP-IS.BE-0002)
 HCGS NCO Narrative
 HCGS Plant Status Report
 Weekly Reactor Engineering Guidance to Hope Creek Operations

d. List of Acronyms

CFM	Cubic Feet per Minute
CRD	Control Rod Drive
CRE	Control Room Envelope
CREF	Control Room Emergency Filtration
EDG	Emergency Diesel Generator
FAQ	Frequently Asked Question
FOL	Facility Operating License
FRVS	Filtration, Recirculation and Ventilation Monitoring System
HCGS	Hope Creek Generating Station
HPCI	High Pressure Coolant Injection
HVAC	Heating, Ventilating, and Air Conditioning
LER	Licensee Event Report
MSIV	Main Steam Isolation Valve
MWt	Megawatts Thermal
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PI	Performance Indicator
PMT	Post Maintenance Testing
PSEG	Public Service Electric & Gas
RETS	Radiological Effluent Technical Specifications
RHR	Residual Heat Removal
SACS	Safety Auxiliaries Cooling System
SCFH	Standard Cubic Feet per Hour
SW	Service Water
TARP	Transient Assessment Response Plan
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item