



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038-0236

Nuclear Business Unit

September 12, 1995

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Dear Sir:

MONTHLY OPERATING REPORT  
HOPE CREEK GENERATION STATION UNIT 1  
DOCKET NO. 50-354

In compliance with Section 6.9, Reporting Requirements for the Hope Creek Technical Specifications, the operating statistics for **August 1995** are being forwarded to you with the summary of changes, tests, and experiments that were implemented during **August 1995** pursuant to the requirements of 10CFR50.59(b).

Sincerely yours,

Mark Reddemann  
General Manager -  
Hope Creek Operations

DL:RS:JC  
Attachments

C Distribution

150120

The power is in your hands.

9509190245 950831  
PDR ADOCK 05000354  
R PDR

## INDEX

<u>SECTION</u>	<u>NUMBER OF PAGES</u>
Average Daily Unit Power Level .....	1
Operating Data Report .....	2
Refueling Information.....	1
Monthly Operating Summary.....	1
Summary of Changes, Tests, and Experiments.....	6

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 9/8/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

AVERAGE DAILY UNIT POWER LEVEL

MONTH AUGUST 1995

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1015</u>	17	<u>1016</u>
2	<u>1020</u>	18	<u>1024</u>
3	<u>1015</u>	19	<u>1025</u>
4	<u>1013</u>	20	<u>1008</u>
5	<u>1019</u>	21	<u>1026</u>
6	<u>1016</u>	22	<u>1023</u>
7	<u>1028</u>	23	<u>1041</u>
8	<u>1037</u>	24	<u>1011</u>
9	<u>1030</u>	25	<u>1031</u>
10	<u>1023</u>	26	<u>1027</u>
11	<u>1019</u>	27	<u>1017</u>
12	<u>1009</u>	28	<u>1029</u>
13	<u>1021</u>	29	<u>1030</u>
14	<u>1017</u>	30	<u>1026</u>
15	<u>1021</u>	31	<u>1024</u>
16	<u>1022</u>		

DOCKET NO.: 50-354  
 UNIT: Hope Creek  
 DATE: 9/8/95  
 COMPLETED BY: D. W. Lyons  
 TELEPHONE: (609) 339-3517

**OPERATING DATA REPORT**  
**OPERATING STATUS**

1. Reporting Period August 1995 Gross Hours in Report Period 744.
2. Currently Authorized Power Level (MWt) 3293  
 Max. Depend. Capacity (MWe-Net) 1031  
 Design Electrical Rating (MWe-Net) 1067
3. Power Level to which restricted (if any) (MWe-Net) None
4. Reasons for restriction (if any)

	<u>This Month</u>	<u>Yr To Date</u>	<u>Cumulative</u>
5. No. of hours reactor was critical	<u>744.0</u>	<u>5281.3</u>	<u>65217.2</u>
6. Reactor reserve shutdown hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
7. Hours generator on line	<u>744.0</u>	<u>5231.6</u>	<u>64235.0</u>
8. Unit reserve shutdown hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
9. Gross thermal energy generated (MWH)	<u>2444662</u>	<u>16995708</u>	<u>205410053</u>
10. Gross electrical energy generated (MWH)	<u>794061</u>	<u>5629015</u>	<u>68056681</u>
11. Net electrical energy generated (MWH)	<u>760021</u>	<u>5385940</u>	<u>65039256</u>
12. Reactor service factor	<u>100.0</u>	<u>90.6</u>	<u>85.5</u>
13. Reactor availability factor	<u>100.0</u>	<u>90.6</u>	<u>85.5</u>
14. Unit service factor	<u>100.0</u>	<u>89.7</u>	<u>84.2</u>
15. Unit availability factor	<u>100.0</u>	<u>89.7</u>	<u>84.2</u>
16. Unit capacity factor (using MDC)	<u>99.1</u>	<u>89.6</u>	<u>82.7</u>
17. Unit capacity factor (using Design MWe)	<u>95.7</u>	<u>86.6</u>	<u>79.9</u>
18. Unit forced outage rate	<u>0.0</u>	<u>10.3</u>	<u>5.2</u>

19. Shutdowns scheduled over next 6 months (type, date, & duration):  
 Refueling Outage, November 11, 1995, 30 days
20. If shutdown at end of report period, estimated date of start-up:  
 N/A

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 9/8/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

**OPERATING DATA REPORT**  
**UNIT SHUTDOWNS AND POWER REDUCTIONS**

**MONTH AUGUST 1995**

NO.	DATE	TYPE F=FORCED S=SCHEDULE	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTION/COMMENTS
1.		NONE				

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 9/8/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

### REFUELING INFORMATION

MONTH AUGUST 1995

1. Refueling information has changed from last month:  
Yes  No
2. Scheduled date for next refueling: 11/11/95
3. Scheduled date for restart following refueling: 12/10/95
- 4A. Will Technical Specification changes or other license amendments be required?  
Yes  No
- B. Has the Safety Evaluation covering the COLR been reviewed by the Station Operating Review Committee (SORC)?  
Yes  No

If no, when is it scheduled? October 25, 1995

5. Scheduled date(s) for submitting proposed licensing action:  
Not required.
6. Important licensing considerations associated with refueling:  
N/A
7. Number of Fuel Assemblies:
- |   |             |
|---|-------------|
| A. Incore                                     | <u>764</u>  |
| B. In Spent Fuel Storage (prior to refueling) | <u>1240</u> |
| C. In Spent Fuel Storage (after refueling)    | <u>1472</u> |
8. Present licensed spent fuel storage capacity: 4006  
Future spent fuel storage capacity: 4006
9. Date of last refueling that can be discharged 5/3/2006  
to spent fuel pool assuming the present licensed capacity: (EOC13)

(Does allow for full-core off-load)  
(Assumes 2.44 bundle reloads every 18 months until then)  
(Does allow for smaller reloads due to improved fuel)

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 9/8/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

## MONTHLY OPERATING SUMMARY

MONTH AUGUST 1995

- The Hope Creek Generating Station remained on-line for the entire month and operated at essentially 100% power for the month of August 1995.
- Four planned power reductions for turbine valve testing occurred this month. During the power reduction on August 20, 1995, rod swaps were performed.
- At the end of the month the unit had been on-line for 38 days.



DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 9/8/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION**

MONTH AUGUST 1995

The following items have been evaluated to determine:

1. If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; or
2. If a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or
3. If the margin of safety as defined in the basis for any technical specification is reduced.

The 10CFR50.59 Safety Evaluations showed that these items did not create a new safety hazard to the plant nor did they affect the safe shutdown of the reactor. These items did not change the plant effluent releases and did not alter the existing environmental impact. The 10CFR50.59 Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

**Temporary Modifications**    **Summary of Safety Evaluations**

- There were no changes, tests or experiments in this category this month.

**Deficiency Reports**    **Summary of Safety Evaluations**

- There were no changes, tests, or experiments in this category this month.

**Design Changes**    **Summary of Safety Evaluations**

- **4EA-00049 - REFINE HOPE CREEK EHC P&ID FROM SIMPLIFIED TO DETAILED AND ADDED COMP ID'S** P&ID PM003-TK-0001 partially incorporated into UFSAR Figure 10.2-9 depicted only two accumulators with reference to two banks of three at the power unit. The revised drawing shows the two banks of three and gives them individual component identification numbers. Therefore this proposal modifies the plant as described in the UFSAR.

There are no credible failure modes or changes accidents previously evaluated in the UFSAR introduced by revising the P&ID from simplified to detailed or adding component identification numbers. No hardware, materials, or design parameters are affected by this change. This is a document clarification only.

Therefore, this DCP does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.



## Design Changes    Summary of Safety Evaluations (continued)

- **4HE-0195 - INSTALLATION OF SPECTACLE FLANGE UPSTREAM OF 0HBFI-5681** This change installed a spectacle flange on the service air line for the regeneration skid upstream of flow indicator FI-5681. UFSAR Figure 11.2-4 will be revised to show the spectacle flange. This modification corrects the design deficiency concerning the 65 psig rated Flow Indicator installed in a service air line with 95 psig pressure. Because Hope Creek is not regenerating resins the service air is only used for transfer functions where it is not necessary to measure flow.

The installation of the spectacle flange meets the design requirements of ANSI B31.1 and will not change, degrade, or prevent actions described or assumed in the UFSAR. Resin regeneration has no safety related function nor is it located in the vicinity of any safety related equipment. The radwaste regeneration system is neither safety related or important to safety nor is it located near or adjacent to any safety related equipment.

Therefore, this DCP does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

- **4HE-0262 - REPLACEMENT OF THE RCIC PUMP STRAINER AND ASSOCIATED SUCTION PIPING** This change replaced the 1 inch Y-strainer and associated piping for the RCIC Jockey Pump suction line shown on UFSAR Figure 5.4-9 with a two inch strainer and piping. This was necessary because the pump cavitated when suction was taken from the Torus. This proposal affects the RCIC System but does not change the design parameters. The operating characteristics of the RCIC System are enhanced by increasing the Net Positive Suction Head (NPSH) for the RCIC Jockey pump.

The change did not install any new equipment or components of a different type or design than already used in the system. As such, this proposal does not change the failure mechanisms or initiating events and does not introduce any new credible failure scenarios nor adversely impact the existing failure modes. The RCIC system is not part of the Emergency Core Cooling System described in Section 6.3 of the UFSAR. Except for initiation upon loss of feedwater flow, the UFSAR accident analysis does not take credit for operation of the RCIC System following any design basis accidents. This change does not affect the performance of any other system or component required to mitigate the consequences of an accident nor the initiating event mechanisms. The consequences of the postulated cracking of the new larger two inch moderate energy line are bounded by the original analysis of the postulated cracking of the existing six inch RCIC pump suction line. The new piping and components are designed and installed to the original design standards.

Therefore, this DCP does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

## Design Changes    Summary of Safety Evaluations (continued)

- **4HC-0265 - REDESIGNED DRAIN LINES OFF THE FILTER AID TANK, 00-T-310, AND THE FUEL POOL RESIN TANK, 00-T-306** This change redesigns the drain lines from the Filter Aid and Fuel Pool Resin tanks in the Radwaste Building. The change includes the addition of hydraulic eductors, new valves and fittings interconnecting a condensate supply line to the drain line from the tanks. Although this modification does not change the Fuel Pool Cooling and Clean Up system, Torus Water Clean Up system, or Condensate and Refueling Water Storage and Transfer system as described in the UFSAR, UFSAR Figures 9.1-6 and 11.2-1 need to be updated to show these changes. The installation of hydraulic eductors, new valves and fittings on the drain and condensate lines of the tanks to facilitate the flushing of residual water will in no way create the possibility of an accident or malfunction of a different type than previously evaluated in the UFSAR. The components, valves and fittings are designed and installed in accordance with ANSI B31.1, and are in compliance with Regulatory Guide 1.143 criteria.

Therefore, this DCP does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve any Unreviewed Safety Question.

- **4EC-3534, PACKAGES 1 & 2 - MODIFICATION OF VENT CONNECTION FROM OVERFLOW TANK, 10-T-128, TO HVAC DUCTWORK** This change which was revised after initial installation resulted in placement of four parallel pleated cartridge filters and associated air and drain lines in the four inch vent line connecting the Refill Overflow Tank to the HVAC Turbine Building ductwork. UFSAR Figure 10.4.4 will be revised to show this change. The filters will remove particulates and moisture in the vent line. Pressure gauges will be installed to monitor differential pressure across the filters to provide for timely filter change outs. Service air will be connected to the Condensate Demineralizer Vent Header to blow out water that remains in the vent header after fill and vent evolutions. The impact of this new load on the Service Air system capacity was assessed and found satisfactory. It is an intermittent load of approximately the same size as many of the pneumatic tools used in the plant.

The addition of filters in the system overflow tank and the use of service air will improve the operation of the system and not have any negative effects on its operation. In the unlikely event of pipe and/or filter rupture, air and/or water would be released into the Resin Regeneration room. The air would vent to the turbine Building HVAC system where it will be monitored prior to exiting the South Plant Vent. The water would drain to the Acid Radwaste system. The design pressure of the components exceeds the Service Air pressure that could be applied if the regulator were to fail. There are no previously evaluated transients or postulated design basis accidents associated with this change. The Condensate Demineralizer, the Turbine Building Ventilation systems, and the Station Service Air system are neither safety related, important to safety nor located adjacent to any safety related equipment. The Condensate Demineralizer, the Turbine Building Ventilation systems, and the Station Service Air system are not considered in the accident analysis because they are not needed for safe shutdown and cannot cause any credible design basis accidents. These systems do not have any accident mitigation functions and are not included in UFSAR Chapter 15 Accident Analyses. The radwaste inputs are not changed by this modification.

Therefore, this DCP does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

## Procedure Summary of Safety Evaluation

- **NC.NA-AP.ZZ-0014(Q), REV 3 - TRAINING, QUALIFICATION, AND CERTIFICATION** This revision incorporates recent Nuclear Business Unit (NBU) organizational changes which affect administrative training issues and implements corrective actions identified in the Salem Operations Accreditation Self Evaluation Final report. Specifically, Salem UFSAR Sections 12.3.5.2 and 13.2 describe access training as being administered by the Nuclear Training Department and the procedures that oversee General Employee Training as being contained in the "Training Procedures Manual." The NBU has transferred these responsibilities to the Director - Human Resources and Administration. The Hope Creek UFSAR Section 13.1.1.2.1.1 identifies the Manager - Nuclear Training as responsible for "coordinating, managing, and directing all departmental training programs offered through the Nuclear Training Center." Although access training is not offered by the Nuclear Training Center because it is not specifically addressed anywhere else in the Hope Creek UFSAR, a common mistake is to assume it is under the control of the Manager - Nuclear Training. Oversight of access training is not included in the list of responsibilities of the General Manager (Director) - (Nuclear) Human Resources and Administration contained in Hope Creek UFSAR Section 13.1.12.1.6. This revision to NC.NA-AP.ZZ-0014(Q) specifically assigns the responsibility for access training to the Director - Human Resources and Administration. Because of the administrative nature of this change there is no affect on consequences, probability or frequency of operational transients, design basis accidents or malfunctions of equipment important to safety either previously evaluated or different from any previously evaluated in the UFSAR.

Therefore, this procedure revision does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

## Other Summary of Safety Evaluations

- **ENGINEERING EVALUATION H-1-AN-MEE-0989 - DCP EXCLUSION ZONE FOR MAKEUP DEMINERALIZER FOR UFSAR CHANGE 95-13** The purpose of this safety evaluation is to identify systems, structures and components (SSC) of the Makeup Demineralizer System as being outside of the scope of nuclear jurisdiction and justify creation of a design change exclusion zone for these SSCs. The Design Change Process (DCP) will no longer apply to modifications to these SSCs. This, also, removes Figure 9.2-7 from the UFSAR.

The Makeup Demineralizer has no safety related function, and failure will not compromise operation of safety related systems. Any equipment that communicates directly with the Makeup Demineralizer is either not important to safety, or the failure of the Makeup Demineralizer has already been evaluated. Failure of the Makeup Demineralizer, as described in UFSAR Section 9.2.3.3, will not compromise operation of safety related systems.

Therefore, implementation of this Engineering Evaluation and corresponding UFSAR change do not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

## Other Summary of Safety Evaluations (continued)

- **UFSAR CHANGE NOTICE CN 91 - 031, STANDARDS FOR NON-COMBUSTIBLE COATINGS** This change notice introduces into the UFSAR an additional fire test, CAN/ULC-S102.2-M88, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor covering, and Miscellaneous Materials and Assemblies," to be used to qualify surface coatings and interior finishes for use at Hope Creek. Hope Creek is currently committed to the requirements of the Standard Review Plan (SRP) 9.5-1 which recognizes only the American Society for Testing Materials (ASTM) Test E-84, "Standard Test Method for Surface Burning Characteristics of Building Materials," for qualifying surface coatings. Engineering Evaluation S-5-ZZ-PEE-0611-0, "Equivalency of Canadian Flame Spread Test CAN/ULC-S102.2-M88 to ASTM (Flame Spread Test) E-84," concludes that both tests measure the same flame spread behavior of building materials and as such, the results of the tests can be compared.

The results of each test are represented numerically by a flame spread index. The flame spread index using CAN/ULC-S102.2-M88 will be 9% higher for an identical sample than using ASTM E-84 due to a variance in the formula derivation. Therefore, since the index of 50 currently required by SRP 9.5-1 is selected as the maximum allowable index regardless of test methodology, the results when CAN/ULC-S102.2-M88 is used are more conservative. PSE&G's commitment to use only those building materials and coatings that exhibit a certain flame spread behavior as specified in SRP 9.5-1 has not been compromised. The consequences of a fire will not increase having interior finishes and coatings qualified to CAN/ULC-S102.2-M88 rather than ASTM E-84. This test will be an alternative to and NOT a replacement for ASTM E-84.

Therefore, this UFSAR change does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

- **UFSAR CHANGE NOTICE CN 93 - 06, OPERATIONS MANAGER AND LICENSED OPERATOR QUALIFICATIONS AND TRAINING REQUIREMENTS (AMENDMENT 56)** This change notice modifies the qualification requirements for the Operations Manager specified in UFSAR Section 13.1.3.1 to be consistent with Technical Specification Amendment #56. The Operations Manager will no longer be required to hold an active Senior Reactor Operator (SRO) license for Hope Creek Generating Station (HCGS). Instead, he may hold or have held an SRO license for HCGS or a similar unit (BWR).

All transients and accidents require proper response from on-shift personnel. These personnel will continue to report to the operating Engineer, a management position requiring an SRO license on HCGS. Insofar as this change brings the UFSAR into agreement with the Technical Specifications, it cannot reduce the margin of safety in the Technical Specifications.

Therefore, this UFSAR change does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

## Other Summary of Safety Evaluations (continued)

- **UFSAR CHANGE NOTICE HSAR 90-51, UFSAR FIGURE 6.2-27 - TYPO'S** This change notice corrects typographical errors in UFSAR Figure 6.2-27 to agree with other approved FSAR figures (P&IDs) and approved test procedures. UFSAR Figure 6.2-27 shows primary containment piping penetrations and their isolation valves and the associated piping arrangements and valves that are used to test the leak tightness on the containment isolation valves. The systems or configurations shown include parts of the Main Steam, Feedwater, HPCI, RCIC, RHR, Reactor Auxiliaries Cooling, Core Spray, Containment Atmosphere Control, and RWCU systems.

These changes to correct typographical errors and system details to be consistent with other approved UFSAR Figures have no effect on the licensed basis of the plant. Therefore, this UFSAR change does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.

- **UFSAR CHANGE NOTICE NLR 190504 - UFSAR CHANGES - SECTION 9 AND SECTION 11** This change notice supports a change to the licensing commitment statement in UFSAR Section 9.3.32, Item 2, which states that "There are no areas in the Hope Creek plant which contain both radioactive and non-radioactive drains." As a result of interdepartmental reviews for a Design Change it was noted that there are six areas in the plant where radioactive and non-radioactive drains co-exist. This change adds a new table to Section 9.0 of the UFSAR which tabulates the exceptions to the statement in Section 9.3.3.2. The proposed changes do not physically alter or modify the existing plant equipment. The UFSAR changes are provided for clarification purposes to address as found conditions. System functions or design will not be effected by the changes.

The acceptance criteria outlined in Standard Review Plan 9.3.3, "Equipment and Floor Drainage System," is satisfied for all six conditions. The six areas satisfy the condition that the system be designed to prevent the inadvertent transfer of contaminated fluids to a non-contaminated drainage system. Also, for the area where a physical connection is made between the Normal Waste system and the Dirty Radwaste system, the criteria that requires the interconnection to be safety related is considered to be non-applicable since appropriate design configuration precludes inadvertent transfer of contaminants. In all cases where a nonradioactive drain is co-located in an area with radioactive drains, existing design and plant procedures provide equivalent physical separations, as compared to radiologically and nonradiologically controlled areas of the plant. As stated in UFSAR Section 9.3.3.5, the plant drainage systems have no safety related function. The existence of co-located radioactive and nonradioactive drains does not alter the flooding potential or severity of flooding in areas of the plant containing equipment important to safety.

Therefore, this UFSAR change does not increase the probability or consequences of an accident previously described in the UFSAR and does not involve an Unreviewed Safety Question.