



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038  
Hope Creek Generating Station

June 15, 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 **May 1995** are being forwarded to you with the summary of changes, tests, and experiments that were implemented during **May 1995** pursuant to the requirements of 10CFR50.59(b).

Sincerely yours,

Mark Reddemann  
General Manager -  
Hope Creek Operations

*DR*  
*WS*  
DR:WS:JC  
Attachments

C Distribution

9506160550 950531  
PDR ADDCK 05000354  
R PDR

The Energy People

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DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 6/15/95  
COMPLETED BY: D. W. Lyons  
TELEPHONE: (609) 339-3517

AVERAGE DAILY UNIT POWER LEVEL

MONTH MAY 1995

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1058</u>	17	<u>1035</u>
2	<u>1053</u>	18	<u>1033</u>
3	<u>1049</u>	19	<u>1038</u>
4	<u>1051</u>	20	<u>843</u>
5	<u>1047</u>	21	<u>1023</u>
6	<u>1049</u>	22	<u>1036</u>
7	<u>1036</u>	23	<u>1042</u>
8	<u>1050</u>	24	<u>1033</u>
9	<u>945</u>	25	<u>1032</u>
10	<u>1053</u>	26	<u>1040</u>
11	<u>1047</u>	27	<u>1040</u>
12	<u>1047</u>	28	<u>1025</u>
13	<u>1045</u>	29	<u>1029</u>
14	<u>1046</u>	30	<u>1036</u>
15	<u>1042</u>	31	<u>1028</u>
16	<u>1045</u>		

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

1. Reporting Period May 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>3463.6</u>	<u>63399.5</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>3442.0</u>	<u>62445.4</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>2424577</u>	<u>11163812</u>	<u>199578158</u>
10. Gross electrical energy generated (MWH)	<u>800633</u>	<u>3728982</u>	<u>66156648</u>
11. Net electrical energy generated (MWH)	<u>767051</u>	<u>3574351</u>	<u>63227667</u>
12. Reactor service factor	<u>100.0</u>	<u>95.6</u>	<u>85.6</u>
13. Reactor availability factor	<u>100.0</u>	<u>95.6</u>	<u>85.6</u>
14. Unit service factor	<u>100.0</u>	<u>95.0</u>	<u>84.3</u>
15. Unit availability factor	<u>100.0</u>	<u>95.0</u>	<u>84.3</u>
16. Unit capacity factor (using MDC)	<u>100.0</u>	<u>95.7</u>	<u>82.8</u>
17. Unit capacity factor (using Design MWe)	<u>96.6</u>	<u>92.5</u>	<u>80.0</u>
18. Unit forced outage rate	<u>0.0</u>	<u>5.0</u>	<u>4.7</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			

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

MONTH MAY 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				

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### REFUELING INFORMATION

MONTH MAY 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 244 bundle reloads every 18 months until then)  
(Does not allow for smaller reloads due to improved fuel)

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## MONTHLY OPERATING SUMMARY

### MONTH MAY 1995

The Hope Creek Generating Station remained on-line for the entire month and operated at essentially 100% power for the month of May 1995. At the end of the month the unit had been on-line for 65 days. The following occurred during May 1995:

- A marsh fire under the Keeney (5015) Electric Transmission line caused that line to trip out of service. The disturbance created by the tripping of the Keeney Line resulted in a Reactor runback to 78% power at 2341 hours on May 8, 1995. Based on grid stability curves, the System Operator requested Hope Creek go to and remain at 70% power until the line was returned to service. The unit was returned to full power at by 1000 hours on May 9, 1995.
- Scram timing, control rod swaps, feedwater heater maintenance and the weekly turbine valve surveillances were performed between 00:01 hours on May 20, 1995 and 09:00 hours on May 21, 1995.

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

**MONTH MAY 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.



## Design Changes      Summary of Safety Evaluations

- **4HE-00051 - REROUTE DIESEL BUILDING HVAC DRAINS** This configuration change makes minor changes to the condensate drain piping from the Diesel Building HVAC units. This change will allow removal of copper impurities from the wastewater by sending the water through the neutralization tank prior to returning it to the normal waste stream. If a failure occurs, the water will flow to the floor drain system where it will be processed as waste. UFSAR Figures 9.4-1 and 9.4-15 and text in UFSAR Section 9.3.3.2.2.b will have to be revised to reflect this change.

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.

- **4HE-00147 - FIRE EXTINGUISHER INSTALLATION IN ELEVATOR MACHINE ROOMS** This configuration change install eight carbon dioxide fire extinguishers in the elevator machine rooms at Hope Creek. These fire extinguishers are required by the New Jersey Administrative Code. The fire protection program currently addresses fire in the elevator machine rooms utilizing existing hose stations as the primary fire fighting feature. Therefore, any malfunction of these extinguishers is of no consequence to the fire protection program. These fire extinguishers are consistent with the existing carbon dioxide fire extinguishers provided in the station and as discussed in UFSAR Section 9.5.1.2.13. These fire extinguishers will have to be added to UFSAR Figures 9.5-2, 9.5-3 and 9.5-7.

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.

## Procedure      Summary of Safety Evaluation

- **HC.CH-EO.SH-0001(Q) - POST ACCIDENT SAMPLE PANEL OPERATION** The nitrogen pressure regulator setting is being changed from 120 psig to 100 psig to conform with General Electric's design specification and operating procedures. This will prolong the life of the pneumatic components supplied from this header. The reference to 120 psig found in UFSAR Section 9.3.2.3.2, Item 11, is believed to be typographical error because the several GE documents including design specification and the operating manual as well as the vendor manual for the diaphragm operated valves explicitly state the 100 psig setting.

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

## Temporary Modifications    Summary of Safety Evaluations

- **95-027 - JUMPER 1A-K-403 HIGH MOTOR TEMPERATURE SENSOR** This temporary modification installs an electrical jumper across the high motor temperature switch trip circuitry in the 1A-K-403 1E Panel Room Chiller until a replacement part can be installed. The chiller motor temperature will still be monitored by the CRIDS computer which will generate an alarm in the control room to alert the operators to take proper action should a high temperature condition occur. This high temperature trip is provided for machine protection only and does not affect the ability of the chiller to perform its intended function. The switch is identified in UFSAR Figure 9.2-15.

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

- **95-030 - OPENING 1" BYPASS VALVES AROUND 6" BACKWASH VALVE** This proposal will open the 1" bypass valves, 1EAHV-446/447, around the strainer backwash valves, 1EAHV-219A/C, for the purposes of evaluating if this configuration will reduce the amount of valve cycling occurring during river silt and debris excursions. The heavy spring silt and debris prevalent in the Delaware River has consistently caused excessive backwash operations in order to maintain the proper differential pressure across the strainer. This cycling has caused the motor duty cycle to be challenged and the thermal overloads to trip. Opening the 1" bypass lines will cause a continuous backwash which will reduce the strainer differential pressure. Should debris and silt become excessive, the normal backwash logic will still function as designed. The Service Water pumps are rated for 16,500 GPM at 150 Feet TDH, opening the 1" bypass valve will not impact the rated flow to the SACS Heat Exchangers or operating characteristics of the pump.

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

- **95-032 - JUMPER 1AK400 CONTROL ROOM CHILLER HI BEARING OIL TEMPERATURE TRIP** This temporary modification installs an electrical jumper across the high bearing oil temperature trip switch on the 1AK-400, Control Area Chiller until a replacement part can be installed. The chiller motor temperature will still be monitored both locally by equipment operators on rounds and by the CRIDS computer. The CRIDS computer will generate an alarm in the control room to alert the operators to take proper action should a high temperature condition occur. This high temperature trip is provided for machine protection only and does not affect the ability of the chiller to perform its intended function. The switch is identified in UFSAR Figure 9.2-15.

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

## Deficiency Reports   Summary of Safety Evaluations

- **950509099 - LEAK REPAIR OF 1AFV-045** This Deficiency Report addresses the leaking of 1AFV-045, the 6A Feedwater Heater Drain Line Valve. This is a normally closed valve but is leaking past its seat causing increased radwaste. To stop the leakage the valve will be injected on the upstream of the seat with a sealant. Precautions will be taken to prevent injection of the sealant into the shell side of the feedwater heater or the feedwater stream. However, the affect of this sealant on the system has been analyzed and found to be acceptable. This repair does not affect any equipment that is important to safety nor are there any previously evaluated accidents that are applicable.

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

- **940119204 - USE-AS-IS FOR DEGRADED ELECTRIC HEATING COILS IN CERS SUPPLY FAN** This Deficiency Report addresses the 33% degradation of the electric heating coils in the CERS supply fan, 1A-VH407. The degradation was due to overheating. This fan supplies filtered and tempered air to the Lower Relay Room, control equipment mezzanine, cable spreading room, inverter rooms and HVAC equipment rooms. A portion is, also, supplied to both Q and non-Q battery rooms through Battery Room Duct Reheat coils. The original capacity of the heaters was 100 Kw, the reduced capacity will be 67 Kw. UFSAR Table 9.4-1 lists the heating capacity of this system as 341,300 BTU/hr. The reduced capacity will be 228,670 BTU/hr. The system is designed to warm 5000 cfm of 5°F air to 60°F. The reduced capacity of the heaters will still provide sufficient heat input to warm the unheated outside air from 5°F air to 47°F. When mixed with the recirculated 60°F air, the final temperature will be 58.9°F. Of all the areas to which this system supplies air, only the battery electrolyte has a specified minimum temperature and it is 60°F. Because this temperature is critical the battery rooms have Duct Reheat coils designed to take the 60°F air and heat it to 77°F, well above the minimum temperature. Similar equipment rooms in other HVAC systems at Hope Creek have minimum temperatures specified at 40°F. The 47°F capability of the system under the coldest temperatures would still be able to maintain this temperature.

Therefore, the disposition of this Deficiency Report 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

- **UFSAR CHANGE 95-11 - DIESEL FUEL OIL TANK SETTling TIME INITIATION** Each diesel engine has two fuel oil storage tanks associated with it. Per section 9.5.4.2.1 of the UFSAR, one fuel oil storage tank is designated as a fill tank, and the other fuel oil storage tank is designated as the diesel engine supply tank. In order to provide adequate time for sediment to settle after the last fuel oil delivery, a ten hour settling time is required before switching tank designations. Currently, this ten hour settling time is required when fuel oil level drops below 22,300 gallons prior to filling. This change to the UFSAR lowers the 10 hour settling time initiation point from 22,300 gallons to 19,000 gallons. Disturbance of any accumulated sediment would be a result of the turbulence introduced during filling of the tank and would be proportional to the axial velocity of the plume of fuel oil as it impinges on the sediment at the bottom of the tank. The change in axial velocity at the bottom of the tank when filled from the lower level is insignificant. This change will better allow the operators to conduct the standby diesel generator 24-hour run while operating at power. This change will result in no adverse effects on the standby diesel generator fuel oil storage system, nor the standby diesel generators.

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 95-12 - PORTABLE FIRE EXTINGUISHERS** This UFSAR change notice clarifies the applicability of UFSAR Section 9.5.1.2.13 for portable fire extinguishers and revises Section 9.5.1.5 to reflect use of NFPA 10 for guidance only. UFSAR section 9.5.1.2.13 indicates that portable fire extinguishers are provided in accordance with NFPA 10 and OSHA regulations and recommendations. The Class A fire fighting capability is provided by standpipes and hose stations. However, there is additional discussion in UFSAR section 9.5.1.2.13 concerning Class A fire fighting capability being provided by stand pipes and hose stations which conflicts with the requirements of NFPA 10 which requires fire extinguishers with a Class A rating regardless of the availability of stand pipes or other fire suppression systems. A second deviation concerns the maximum travel distance to a fire extinguisher. Deviations to NFPA standards are to listed in UFSAR Section 9.5.1.6. This item is not discussed there.

The lack of portable fire extinguishers with Class A ratings does not effect the ability to extinguish a fire of this type since the type of fire extinguishers installed are considered acceptable for use on a Class A hazard if used in the early stages of fire development. If a fire were to develop to a more deep seeded fire, fire hose stations which are provided throughout areas that contain, or could present a fire exposure to, safety-related equipment would be utilized. Our arrangement of fire suppression equipment is in consistent with BTP CMEB 9.5-1.

Exceeding the recommended travel distance to the installed fire extinguishers does not effect the ability to extinguish a fire. Travel distances are established in NFPA 10 on the assumption the building occupant is responsible for fire suppression. This is not the case at Hope Creek.

Therefore, the arrangements of portable fire extinguishers which results in deviations from NFPA 10 does not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire since adequate means for fire suppression are provided to ensure fire suppression within the area that the fire originated. 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.