AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 86-354

UNIT Hope Creek

DATE 3/15/88

COMPLETED BY H. Jensen

TELEPHONE (609) 339-5261

MONTH February 1988

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1005	17	0
2	1011	18	0
3	1018	19	0
4	1021	20	0
5	1014	21	0
6	1010	22	0
7	1011	23	0
8	1014	24	0
9	992	25	0
10	996	26	0
11	993	27	0
12	914	28	0
13	20	29	0
14	0		
15	0		
16	0		

IE24
1/1

OPERATING DATA REPORT

DOCKET NO. 86-354
UNIT Hope Creek
DATE 3/15/88
COMPLETED BY H. Jensen
TELEPHONE (609) 339-5261

OPERATING STATUS

1. REPORTING PERIOD Feb 1988 GROSS HOURS IN REPORTING PERIOD 696

2. CURRENTLY AUTHORIZED POWER LEVEL (MWt) 3293
MAX. DEPEND. CAPACITY (MWe-Net) 1067 * (MWe-Gross) 1118
DESIGN ELECTRICAL RATING (MWe-Net) 1067

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net) None

4. REASONS FOR RESTRICTION (IF ANY)

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NO. OF HOURS REACTOR WAS CRITICAL	301.0	1045.0	8903.1
6. REACTOR RESERVE SHUTDOWN HOURS	0	0	0
7. HOURS GENERATOR ON LINE	293.9	1037.9	8783.0
8. UNIT RESERVE SHUTDOWN HOURS	0	0	0
9. GROSS THERMAL ENERGY GENERATED (MWH)	937,997	3,378,284	27,186,852
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	314,464	1,133,985	9,045,682
11. NET ELECTRICAL ENERGY GENERATED (MWH)	296,858	1,085,075	8,650,113
12. REACTOR SERVICE FACTOR	43.2	72.6	84.9
13. REACTOR AVAILABILITY FACTOR	43.2	72.6	84.9
14. UNIT SERVICE FACTOR	42.2	72.1	83.7
15. UNIT AVAILABILITY FACTOR	42.2	72.1	83.7
16. UNIT CAPACITY FACTOR (Using Design MDC)	40.0	70.6	77.3
17. UNIT CAPACITY FACTOR (Using Design MWe)	40.0	70.6	77.3
18. UNIT FORCED OUTAGE RATE	0.0	0.0	8.0

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, & DURATION):
None

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
4/8/88

* Data obtained in August 1987 is under management review.

OPERATING DATA REPORT

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 86-354

UNIT Hope Creek

DATE 3/15/88

COMPLETED BY R. Ritzman

REPORT MONTH Feb. 1988 TELEPHONE (609) 339-3737

NO.	DATE	TYPE F FORCED S SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER (2)	CORRECTIVE ACTION/ COMMENTS
1	2/13	S	402.1	C	2	REFUEL OUTAGE

SUMMARY

HOPE CREEK GENERATING STATION
MONTHLY OPERATING SUMMARY
FEBRUARY 1988

Hope Creek entered the month of February operating at approximately 100% power. The unit did not experience any shutdowns or reportable power reductions until it was taken off-line for refueling on February 13 at 5:55 am. At that time, the plant had completed its 64th day of continuous power operation.

R-008
RAR:tlb

SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS

FOR THE HOPE CREEK GENERATING STATION

FEBRUARY 1988

The following Design Change Packages (DCPs) 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.

None of the DCPs created a new safety hazard to the plant nor did they affect the safe shutdown of the reactor. These DCPs did not change the plant effluent releases and did not alter the existing environmental impact. The Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

DCP	Description of Design Change Package
4-EMC-86-0650	This DCP added support to floor penetration seals which had separated from their sleeve. These supports resolved seismic II/I concerns.
4-HMM-86-1152	This DCP made several modifications to the Solid Radwaste system. It changed the slope of the Centrifuge Metering Pump Discharge Lines to keep the flow meters filled in order to meter flow more accurately. It also removed Decant Screens from the Centrifuge Feed Tank, increased the size of a nozzle on the Centrifuge Feed Tank to improve system performance, and installed tubing and a vent to accommodate a 3-way manual valve in a low radiation area.
4-HMM-86-1282	This DCP relocated the Reactor Auxiliaries Cooling System Water Supply and Return piping for the Emergency Air Compressor from downstream of the Containment Isolation Valves to upstream of the valves. This will improve the reliability of the Emergency Instrument Air Compressor start-up during Loss of Offsite Power.
4EC-1030/02	This DCP installed monorails, lifting lugs, and rigging points for Torus Access Hatch Covers. This will facilitate removal of the hatch covers and increase cost effectiveness.
4EC-1055/03	This DCP installed a Motor Control Center, Control Console, and Sequence Controller to support the installation of the Semi-Automatic Control Rod Drive Removal and Installation Equipment. When complete this DCP will greatly reduce radiation exposure associated with Control Rod Drive changeout.
4EC-1082/09	This DCP revised the wiring to the Reactor Protection System "A" and "B" Out of Service Switches to provide the appropriate indication. These switches provide indication only. This discrepancy was identified during the Control Room Design Review process and is part of a commitment to improve human factors in the Control Room.
4HC-0054	This DCP provided a shielded Fuel Transport Chute and lifting equipment for use in the reactor cavity during refuel outages. The transfer chute is a temporary portable shielding device that is installed prior to the transfer of irradiated fuel bundles from the reactor to the spent fuel storage pool. The fuel bundles are passed through the transfer chute to reduce radiation levels in the upper drywell area, allowing continuous personnel access.

DCP	Description of Design Change Package
4-HC-0125/01	This DCP installed the mechanical equipment and piping required to support the installation of a third Reactor Auxiliaries Cooling System Pump. When the related instrument and controls DCP (4HC-0125/02) is installed, the additional pump will improve operating reliability of the Reactor Auxiliaries Cooling System and prevent forced shut-down of the plant. The additional pump will not increase the system pressure beyond its design pressure. The pump foundation and related piping are seismically supported and will maintain their integrity during a seismic event.
4-KM-0047	This DCP changed the .5 amp fuses on the Data Driver Cards with 1 amp fuses. This change will increase the availability of the Reactor Manual Control System. The change will prevent unnecessarily blowing the fuse to the transmitter cards in the Rod Select Module, while still providing adequate overload protection.
4HM-0066	This DCP changed out ASCO fixed deadband switches on the Emergency Diesel Generators with ASCO adjustable deadband switches. This change out will result in a substantial cost-savings over the life of the plant. The adjustable deadband switches maintain the necessary accuracy and are consistent with the vendors original design.
4HM-0136	This DCP increased the Standby Liquid Control Tank Sodium Pentaborate solution concentration and lowered the high level and low level alarm setpoints in the Standby Liquid Control Tank. These changes implement a Technical Specification amendment and ensure compliance with 10CFR50.62.
4HM-0191	This DCP modified the impingement plate at Steam Jet Air Ejector After Condensor Second Stage Steam Inlet Nozzles. The previous design resulted in tube failure due to the plate breaking away from the After Condenser Shell. This DCP will increase the strength at the impingement baffle to prevent similar failures.
4HM-0204	This DCP removed the cast steel plug in the upper inspection port of the Moisture Separator in the "A" and "B" loops and replaced it with a carbon steel plug and seal weld. This modification will improve the integrity of the Steam Jet Air Ejector system by providing absolute sealing of the Moisture Separators upper inspection port area.

DCP	Description of Design Change Package
4HM-0246	This DCP moved the Main Hoist Normal Up Stop on the Refueling Bridge up 8 inches to provide adequate clearance for fuel bundles in transit across the fuel transfer chute. Raising the Up Stop by 8 inches does not exceed maximum allowable height, does not affect the bundle drop accident analysis, and maintains adequate radiation shielding.
4HM-0263	This DCP raises the "A" and "B" Steam Jet Air Ejector Steam Inlet High Pressure Alarm setpoints. The setpoint changes will eliminate spurious alarm indications caused by the previous setpoints proximity to the normal operating range. It will also provide the Control Room with a more accurate indication of Steam Jet Air Ejector trouble.
4HM-0291	This DCP recalibrated the core flow summer based on a new gain adjustment factor. The core flow indication was higher than actual core flow.

The following Temporary Modification Requests (TMRs) 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.

None of the TMRs created a new safety hazard to the plant nor did they affect the safe shutdown of the reactor. These TMRs did not change the plant effluent releases and did not alter the existing environmental impact. The Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

Safety Evaluation	Description of Temporary Modification Request (TMR)
87-0087	This TMR adds a Portable Arrowhead Flexmate Oil Removal System to the Chilled Water System. Oil removal will be accomplished through two Charcoal Filter Demineralizers and one Mixed Bed Demineralizer. Total failure of the supply and return hoses will induce a 1 1/4" diameter equivalent leak or loss of that quantity of coolant from the Chilled Water System. This would have little or no impact since this closed cooling system has a 4" diameter demineralized water make-up line to its head tank, thus having a greater capacity than the possible leak. Also, the 4" diameter floor drain piping system would allow adequate removal of water from the local area without causing flooding.
88-0009	This TMR connects a temporary power load center to a non-1E 480 volt AC unit substation. The load center will be supplied with 480 volt, 600 amp power by temporary cables connected to a spare breaker and will be used to support the Main Generator Retaining Ring work during the refuel outage. This installation was done in accordance with applicable standards and procedures. The addition of the temporary load center to the spare breaker does not exceed the capacity of the associated transformer.
88-0024	This TMR provides a 480 volt Non-1E temporary power source to a 125 volt DC Class 1E battery charger during the "C" 4.16 Kv Class 1E bus outage. This modification is to be used only when "C" Channel is inoperable and the plant is in operational conditions 4,5, and *. Therefore, this TMR is for convenience and is not being relied on to provide any safety function.
88-0026	This TMR provides a 480 volt Non-1E temporary power source to a 125 volt DC Class 1E battery charger during the "C" 4.16 Kv Class 1E bus outage. This modification is to be used only when "C" Channel is inoperable and the plant is in operational conditions 4,5, and *. Therefore, this TMR is for convenience and is not being relied on to provide any safety function.
88-0029	This TMR provides a 480 volt Non-1E temporary power source to a 120 volt AC Class 1E security inverter during the "C" 4.16 Kv Class 1E bus outage. This modification is to be used only when "C" Channel is inoperable and the plant is in operational conditions 4,5, and *. Therefore, this TMR is for convenience and is not being relied on to provide any safety function.

Safety Evaluation	Description of Temporary Modification Request (TMR)
88-0032	This TMR provides a 480 volt Non-1E temporary power source to a 480 volt AC Non-1E Motor Control Center during the "C" 4.16 Kv Class 1E bus outage. This modification is to be used only when "C" Channel is inoperable and the plant is in operational conditions 4,5, and *. Therefore, this TMR is for convenience and is not being relied on to provide any safety function.
88-0033	This TMR provides a 120 volt AC temporary source to a 24 volt DC battery charger during the "C" 4.16 kv Class 1E bus outage. This modification is to be used only when "C" Channel is inoperable and the plant is in operational conditions 4,5, and *. Therefore, this TMR is for convenience and is not being relied on to provide any safety function.
88-0037	The Reactor Vessel Water Level Transmitter normally provides control room indication on a scale of 0-400 inches (relative to vessel zero). This scale is normally satisfactory as the top of the vessel is at 372 inches. However, when the cavity is fully flooded, the level is at 492 inches. This TMR provides a new transmitter and indicator scale of 0-550 inches. The new transmitter is qualified to the same standards as the previous one and enhances the control room indication.
88-0043	This TMR provides a temporary power source to the Reactor Protection System "A" bus during the 4.16 kv switchgear maintenance outage. This TMR shall only be in place during operational conditions 4, 5, and * and shall be removed when normal power to the Reactor Protection System "A" bus is available.

The following Deficiency Requests (DRs) 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.

None of the DRs created a new safety hazard to the plant nor did they affect the safe shutdown of the reactor. These DRs did not change the plant effluent releases and did not alter the existing environmental impact. The Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

Safety Evaluation	Description of Deficiency Report (DR)
88-0014	The results of a dye penetrant check performed on a Reactor Building Nitrogen Supply Valve were not properly documented. This valve was purchased as an ASME N-stamped component, but is being used in a non-ASME system. In the event of a failure of the valve disc, the valve could be isolated. Therefore, this the valve could be isolated. Therefore, this DR may be dispositioned "use-as-is".
88-0017	A Code Job Package Liquid Penetrant Test was performed on a valve in the Reactor Core Isolation Cooling Turbine Steam system. At the time that this test was performed, there was no block on the form for recording the valves surface temperature. However, the technician verified that the temperature was within the required range, therefore, this valve may be "used-as-is".
88-0018	A Code Job Package Liquid Penetrant Test was performed on a check valve in the Core Spray system. At the time that this test was performed, there was no block on the form for recording the valves surface temperature. However, the technician verified that the temperature was within the required range, therefore, this valve may be "used-as-is".
88-0019	A Code Job Package Liquid Penetrant Test was performed on a check valve in the Core Spray system. At the time that this test was performed, there was no block on the form for recording the valves surface temperature. However, the technician verified that the temperature was within the required range, therefore, this valve may be "used-as-is".
88-0041	During operational conditions, one of the Hydraulic Control Units exhibited frequent High Level Alarms. These alarms were caused by water leaking past the piston seals into the Nitrogen side of the accumulator. During disassembly of the Hydraulic Control Unit, it was discovered that the leaks could be attributed to blemishes in the cylinder wall at the bottom end cap "O" ring seating surface. The Hydraulic Control Unit may be "used-as-is" because both High Water Level and Low Nitrogen Pressure provide an alarm. The alarm can be cleared by draining the water and/or recharging the Nitrogen in the accumulator.

Safety Evaluation	Description of Deficiency Report (DR)
88-0042	During operational conditions, one of the Hydraulic Control Units exhibited frequent High Level Alarms. These alarms were caused by water leaking past the piston seals into the Nitrogen side of the accumulator. During disassembly of the Hydraulic Control Unit, it was discovered that the leaks could be attributed to blemishes in the cylinder wall at the bottom end cap "O" ring seating surface. The Hydraulic Control Unit may be "used-as-is" because both High Water Level and Low Nitrogen Pressure provide an alarm. The alarm can be cleared by draining the water and/or recharging the Nitrogen in the accumulator.
88-0044	The proper baseline data was not taken during the pre-operational testing of the Solid Radwaste Slurry Metering Pumps. This missing data was baseline data only and did not affect acceptance criteria. Additionally, the missing data deals with pump speeds significantly faster than the Slurry Metering Pumps' operating speeds.
88-0045	While drilling a hole through the disc nut and bolt of a check valve in the Feedwater system the drill broke, damaging a thread on the bolt. The remainder of the bolt is long enough for satisfactory engagement and may be "used-as-is".

PSEG

Public Service Electric and Gas Company P.O. Box L Hancocks Bridge, New Jerse, 08038

Hope Creek Operations

March 15, 1988

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

Dear Sir:

MONTHLY OPERATING REPORT
HOPE CREEK GENERATING 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 February are being forwarded to you. In addition, the summary of changes, tests, and experiments for February 1988 are included pursuant to the requirements of 10CFR50.59(b).

Sincerely yours,

S. LaBruna
General Manager -
Hope Creek Operations

RAR:tlb
Attachment

C Distribution

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