OPERATING DATA REPORT

DOCKET NO. 50-315
DATE 12-3-79
COMPLETED BY W. T. Gillett
TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook 1
2. Reporting Period: November 1979
3. Licensed Thermal Power (MWt): 3250
4. Nameplate Rating (Gross MWe): 1089
5. Design Electrical Rating (Net MWe): 1054
6. Maximum Dependable Capacity (Gross MWe): 1080
7. Maximum Dependable Capacity (Net MWe): 1044

Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

9. Power Level To Which Restricted, If Any (Net MWe):
10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	8016	43,080
12. Number Of Hours Reactor Was Critical	483.3	5192.1	32,403.8
13. Reactor Reserve Shutdown Hours	0	0	463
14. Hours Generator On-Line	476.3	5114.2	31,527.5
15. Unit Reserve Shutdown Hours	0	0	321
16. Gross Thermal Energy Generated (MWH)	1,522,934	16,004,760	87,342,551
17. Gross Electrical Energy Generated (MWH)	505,800	5,294,590	28,584,250
18. Net Electrical Energy Generated (MWH)	488,172	5,107,087	27,444,264
19. Unit Service Factor	66.2	63.8	75.2
20. Unit Availability Factor	66.2	63.8	75.2
21. Unit Capacity Factor (Using MDC Net)	64.9	61.0	66.9
22. Unit Capacity Factor (Using DER Net)	64.3	60.4	61.9
23. Unit Forced Outage Rate	33.8	7.8	6.5

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH November, 1979

DOCKET NO. 50-315
UNIT NAME D.C.Cook-Unit 1
DATE 12-13-79
COMPLETED BY B.A. Svensson
TELEPHONE (616) 465-5901

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
152	791027	F	243.7	B	1/3	N.A.	CB	PUMPXX	The Unit was out of service at the beginning of the month to perform repair on reactor coolant pump No. 12 to eliminate cause for high pump vibration. Cause was found to be coupling misalignment. The Unit returned to service at 0345 on 791111. Reactor power at 100% at 1803 on 791111. Total outage time was 350.0 hours.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)

INSTRUCTIONS

This report should describe all plant shutdowns during the report period. In addition, it should be the source of explanation of significant dips in average power levels. Each significant reduction in power level (greater than 20% reduction in average daily power level for the preceding 24 hours) should be noted, even though the unit may not have been shut down completely[1]. For such reductions in power level, the duration should be listed as zero, the method of reduction should be listed as 4 (Other), and the Cause and Corrective Action to Prevent Recurrence column should explain. The Cause and Corrective Action to Prevent Recurrence column should be used to provide any needed explanation to fully describe the circumstances of the outage or power reduction.

NUMBER. This column should indicate the sequential number assigned to each shutdown or significant reduction in power for that calendar year. When a shutdown or significant power reduction begins in one report period and ends in another, an entry should be made for both report periods to be sure all shutdowns or significant power reductions are reported. Until a unit has achieved its first power generation, no number should be assigned to each entry.

DATE. This column should indicate the date of the start of each shutdown or significant power reduction. Report as year, month, and day. August 14, 1977 would be reported as 770814. When a shutdown or significant power reduction begins in one report period and ends in another, an entry should be made for both report periods to be sure all shutdowns or significant power reductions are reported.

TYPE. Use "F" or "S" to indicate either "Forced" or "Scheduled," respectively, for each shutdown or significant power reduction. Forced shutdowns include those required to be initiated by no later than the weekend following discovery of an off-normal condition. It is recognized that some judgment is required in categorizing shutdowns in this way. In general, a forced shutdown is one that would not have been completed in the absence of the condition for which corrective action was taken.

DURATION. Self-explanatory. When a shutdown extends beyond the end of a report period, count only the time to the end of the report period and pick up the ensuing down time in the following report periods. Report duration of outages rounded to the nearest tenth of an hour to facilitate summation. The sum of the total outage hours plus the hours the generator was on line should equal the gross hours in the reporting period.

REASON. Categorize by letter designation in accordance with the table appearing on the report form. If category H must be used, supply brief comments.

METHOD OF SHUTTING DOWN THE REACTOR OR REDUCING POWER. Categorize by number designation in accordance with the table appearing on the report form. If category 4 must be used, supply brief comments.

LICENSEE EVENT REPORT #. Reference the applicable reportable occurrence pertaining to the outage or power reduction. Enter the first four parts (event year, sequential report number, occurrence code and report type) of the five part designation as described in Item 17 of Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161). This information may not be immediately evident for all such shutdowns, of course, since further investigation may be required to ascertain whether or not a reportable occurrence was involved.) If the outage or power reduction will not result in a reportable occurrence, the positive indication of this lack of correlation should be noted as not applicable (N/A).

SYSTEM CODE. The system in which the outage or power reduction originated should be noted by the two digit code of Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161).

Systems that do not fit any existing code should be designated XX. The code ZZ should be used for those events where a system is not applicable.

COMPONENT CODE. Select the most appropriate component from Exhibit I - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161), using the following critieria:

A. If a component failed, use the component directly involved.

B. If not a component failure, use the related component: e.g., wrong valve operated through error: list valve as component.

C. If a chain of failures occurs, the first component to malfunction should be listed. The sequence of events, including the other components which fail, should be described under the Cause and Corrective Action to Prevent Recurrence column.

Components that do not fit any existing code should be designated XXXXXX. The code ZZZZZZ should be used for events where a component designation is not applicable.

CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE. Use the column in a narrative fashion to amplify or explain the circumstances of the shutdown or power reduction. The column should include the specific cause for each shutdown or significant power reduction and the immediate and contemplated long term corrective action taken, if appropriate. This column should also be used for a description of the major safety-related corrective maintenance performed during the outage or power reduction including an identification of the critical path activity and a report of any single release of radioactivity or single radiation exposure specifically associated with the outage which accounts for more than 10 percent of the allowable annual values.

For long textual reports continue narrative on separate paper and reference the shutdown or power reduction for this narrative.

[1]Note that this differs from the Edison Electric Institute (EEI) definitions of "Forced Partial Outage" and "Scheduled Partial Outage." For these terms, EEI uses a change of 50 MW as the break point. For larger power reactors, 50 MW is too small a change to warrant explanation.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315

UNIT 1

DATE 12-3-79

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH NOVEMBER - 1979

DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	----	17	1009
2	----	18	1043
3	----	19	1043
4	----	20	1042
5	----	21	1042
6	----	22	1043
7	----	23	1045
8	----	24	1023
9	----	25	1044
10	----	26	1043
11	581	27	1044
12	1040	28	1044
13	1043	29	1042
14	1042	30	1043
15	1042	31	
16	1042		

INSTRUCTIONS

On this format list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

Docket No.: 50-315
Unit Name: D. C. Cook Unit #1
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: December 6, 1979

MONTHLY OPERATING EXPERIENCES -- NOVEMBER, 1979

Highlights

The Unit entered the reporting period in Mode 5 with Reactor Coolant Pump #12 undergoing repairs. The Unit was started up and power generation commenced Sunday, November 11, 1979 as detailed in the summary.

Total electrical generation for the month was 505,800 Mwh.

Summary

11/06/79 -- The Reactor Coolant System was filled and pressurized to allow manual rotation of the #12 Reactor Coolant Pump. This hand rotation indicated excessive runout and the Reactor Coolant System was again drained to 1/2 loop.

11/07/79 -- Fill and Vent of the Reactor Coolant System commenced and was completed 11/09/79.

11/09/79 -- Heat-up of the Reactor Coolant System was initiated at 1126 hours and entry into Mode 4 was at 1208 hours.

11/10/79 -- The Reactor Coolant System entered Mode 3 at 0615 hours. Full temperature was obtained at 1500 hours. The Reactor was critical at 2040 hours.

11/11/79 -- The Main Turbine was rolled at 0040 hours and paralleled to the system at 0345 hours. The Unit was loaded to 100% power by 1803 hours.

11/13/79 -- The Turbine Driven Auxiliary Feedwater Pump was inoperable at 0527 hours to make repairs to leaking safety valves to the cooling water system. This pump was again operable at 1252 hours 11/15/79.

11/17/79 -- Unit power was reduced to 85% for testing of Turbine Control Valves. Total time below 100% power was 9 hours.

11/19/79 -- The Turbine Driven Auxiliary Feedwater Pump was inoperable for 16 hours to replace and test the Governor.

11/24/79 -- Unit power was reduced to 85% for testing of Turbine Control Valves. Total time below 100% power was 5 hours.

11/27/79 -- The Boric Acid Transfer System was inoperable for a 17.3 hour period for unplugging the Emergency Boration Line.

DOCKET NO. 50 - 315
UNIT NAME D. C. Cook - Unit No. 1
DATE 12-13-79
COMPLETED BY B. A. Svensson
TELEPHONE (616) 465-5901
PAGE 1 of 2

MAJOR SAFETY-RELATED MAINTENANCE

NOVEMBER, 1979

M-1 Loops 2 and 3 safety injection containment isolation valve, ICM-111, would not operate. Investigation revealed condensation in limitorque control box had caused failure of the torque switch. The motor heater wires were broken. Repaired broken wires and sealed housing. Valve operability was verified.

M-2 The west centrifugal charging pump mechanical seal was leaking. The mechanical seal was replaced and the pump tested.

M-3 Pressurizer power operated relief valve, NRV-151, was leaking by. Replaced the seat ring, plug, stem, all gaskets and the air operator diaphragm. Valve operability was verified.

M-4 Pressurizer power operated relief valve, NRV-152, was leaking by. Replaced the plug, stem, all gaskets and the air operator diaphragm. Valve operability was verified.

M-5 Pressurizer power operated relief valve, NRV-153, air operator diaphragm leaked. Replaced diaphragm and had valve tested.

M-6 CVCS holdup tank vent header isolation valve, CS-151, would not close. Valve bonnet was replaced.

M-7 Unit 1 emergency boration line was clogged. Removed bonnet from CS-484 and purged the line. Flow was restored.

C&I-1 A resistance thermal device (RTD) on reactor coolant pump No. 2 required replacement after being damaged during disassembly of the motor.

C&I-2 Charging flow control valve, QRV-251, would not open. The high and low limits of the controller were found misadjusted which prevented operation of the controller in auto or manual. The limits were adjusted to the correct values to allow correct valve operation.

C&I-3 Delta T-Tavg Protection Channel I, had previously been producing spikes which required placing the spare RTD of the cold leg into service. During the Mode 5 operation, the sporadic RTD was removed and replaced with a new Rosemount RTD. The resistance to voltage converter calibration was completed and the protection channel was returned to normal operation.

DOCKET NO. 50 - 315
UNIT NAME D. C. Cook - Unit No. 1
DATE 12-13-79
COMPLETED BY B. A. Svensson
TELEPHONE (616) 465-5901
PAGE 2 of 2

MAJOR SAFETY-RELATED MAINTENANCE

NOVEMBER, 1979

C&I-4 Radiation Monitoring System Channel R-2, containment personnel air lock area monitor, failed low. The cable at the detector was found loose. The connector was retightened and sealed. Correct operation of Channel R-2 was verified following resolution of the connector problem.

C&I-5 DCR-610 and DCR-611, ice condenser air handling units' drain containment isolation valves, would not remain open when operated from the control room. The limit switches on both valves were incorrectly positioned, preventing the control circuit seal-in from operating properly. The limit switches were adjusted and lubricated. The valves were functionally tested to verify correct operation.

C&I-6 Protection Set I, Delta T-Tavg Hot Leg RTD, had a leak on the bypass manifold. The RTD was removed and a spare installed. The backing ring on the RTD was missing which resulted in the leakage. The resistance to voltage converter was calibrated and surveillance test was performed.

C&I-7 Containment isolation valve, ECR-31, would not close. The solenoid valve would not allow the air pressure to bleed off and close the valve. The solenoid was replaced and correct valve operation was verified.

C&I-8 Accumulator No. 1, level indication channels, were not indicating the same values. The transmitters were recalibrated and the instrument loops placed in service.

C&I-9 Steam generator No. 4, level indicator BLP-141 read 10% higher than BLP-140 and BLP-142. Recalibration of BLP-141 Barton transmitters was attempted, but the transmitter shifted during calibration. A new transmitter was installed and calibrated.