

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-316

UNIT 2

DATE 3-1-79

COMPLETED BY W.T. Gillett

TELEPHONE 616-465-5901

MONTH February

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1070</u>
2	<u>1063</u>
3	<u>1070</u>
4	<u>1070</u>
5	<u>1073</u>
6	<u>1070</u>
7	<u>1070</u>
8	<u>1067</u>
9	<u>1066</u>
10	<u>1014</u>
11	<u>735</u>
12	<u>1062</u>
13	<u>1056</u>
14	<u>1066</u>
15	<u>1055</u>
16	<u>1057</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>1044</u>
18	<u>877</u>
19	<u>1060</u>
20	<u>1067</u>
21	<u>1004</u>
22	<u>1001</u>
23	<u>1025</u>
24	<u>1013</u>
25	<u>948</u>
26	<u>1067</u>
27	<u>1067</u>
28	<u>1068</u>
29	<u>----</u>
30	<u>----</u>
31	<u>----</u>

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.

(9/77)

7903210214

OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE 3-1-79
 COMPLETED BY W.T. Gillett
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook 2
2. Reporting Period: February 1979
3. Licensed Thermal Power (MWt): 3,391
4. Nameplate Rating (Gross MWe): 1,133
5. Design Electrical Rating (Net MWe): 1,100
6. Maximum Dependable Capacity (Gross MWe): 1,118
7. Maximum Dependable Capacity (Net MWe): 1,082
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report. Give Reasons:

Notes

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	<u>672</u>	<u>1416</u>	<u>10,176</u>
12. Number Of Hours Reactor Was Critical	<u>672</u>	<u>1382.5</u>	<u>6,613.2</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>672</u>	<u>1362.6</u>	<u>6,090.2</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,220,562</u>	<u>4,461,276</u>	<u>17,566,383</u>
17. Gross Electrical Energy Generated (MWH)	<u>719,370</u>	<u>1,444,110</u>	<u>5,429,640</u>
18. Net Electrical Energy Generated (MWH)	<u>693,958</u>	<u>1,393,039</u>	<u>5,207,038</u>
19. Unit Service Factor	<u>100</u>	<u>96.2</u>	<u>81.8</u>
20. Unit Availability Factor	<u>100</u>	<u>96.2</u>	<u>81.8</u>
21. Unit Capacity Factor (Using MDC Net)	<u>95.4</u>	<u>90.9</u>	<u>71.6</u>
22. Unit Capacity Factor (Using DER Net)	<u>93.9</u>	<u>89.4</u>	<u>70.4</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>3.8</u>	<u>6.0</u>
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

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February, 1979

DOCKET NO. 50-316
 UNIT NAME D.C. Cook-Unit 2
 DATE 3-8-79
 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
50	790210	S	0	B	4	N/A	HH	VALVEX	Reactor power reduced to 51% to remove east main feed pump from service to permit repacking the pump emergency leak-off valves. Reactor power returned to 100% 790211.
51	790218	S	0	B	4	N/A	ZZ	ZZZZZZ	Reactor power reduced to 80% to conduct moisture separator tests. Reactor power returned to 100% 790218.

1 F: Forced
S: Scheduled

2 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of 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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

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 completely¹. 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

¹Note 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 30 MW as the break point. For larger power reactors, 30 MW is too small a change to warrant explanation.

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 criteria:

- 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.

Docket No.: 50-316
Unit Name: D. C. Cook Unit #2
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: March 5, 1979

OPERATING EXPERIENCES -- FEBRUARY, 1979

Highlights

This Unit has operated at 100% power the entire period except for reductions for normal maintenance.

Summary

02/02/79 -- Loading was reduced to 90% (980 MWe) for testing of Turbine valves. Total time below 100% power was 3.75 hours.

02/10/79 -- Loading was reduced to 51% (550 MWe) starting down at 2110 hours for removal of the East Main Feed Pump from service to repack one of its Emergency Leak-Off Valves. Power was returned to 100% (1110 MWe) by 1820 hours 2/11/79.

02/18/79 -- Loading was reduced to 80% (850 MWe) starting down at 0045 hours for Moisture Carryover Testing of the Steam Generators. Loading was returned to 100% (1110 MWe) by 2245.

The Reheater Coils were removed from service at 0440 hours and returned to service at 2310 hours. One of the conditions of the Moisture Carryover Test was to be non-reheat.

02/23/79 -- Power was reduced to 90% (980 MWe) for testing of Turbine Valves. Total time below 100% was 4 hours.

02/24/79 -- Unit loading was reduced to 85% (890 MWe) at 1715 hours due to one of the safety valves on a Moisture Separator/Reheater lifting prematurely. The safety was gagged being there are 3 other safeties on the same vessel. Power was returned to 100% at 1700 hours on 2/25/79.

DOCKET NO.	50 - 316
UNIT NAME	D. C. Cook - Unit No. 2
DATE	3-14-79
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901

MAJOR SAFETY-RELATED MAINTENANCE

FEBRUARY, 1979

- M-1 Unit #2 650' elevation outer airlock door had a broken gear tooth. Replaced broken gear and tested door and interlock.
- M-2 ESW supply check valve to 2AB diesel, ESW-143, failed to seat during test. Valve was disassembled and rebuilt using new parts. Due to improper certification, parts were removed until proper documentation could be obtained. The parts were accepted by subsequent receipt inspection. The valve was reassembled, tested and returned to service.
- M-3 The 2W CCW pump outboard bearing was running hot. Replaced bearing. Inspected oil pump, pump shaft and housing. Tested CCW pump and returned to service.
- M-4 During inspection of aux. feedwater motor operated valves, FM0-222 was found to have a broken wire on switch terminal #49. Repaired wire, had valve tested and returned to service.
- M-5 East ESW pump performance data indicated some degradation. Adjusted impeller clearances and had pump retested.
- M-6 Circuit breaker 21PHC6 for pressurizer variable heaters was tripping. Replaced solid state trip device with a new one and tested breaker.
- C&I-1 The containment fire detection system would not test or alarm. A 3 mfd capacitor in the 12 volt power supply was replaced and the 15 volt power supply was adjusted for the correct output level.
- C&I-2 The "Nuclear Instrumentation System Tilt or Rod Sequence Violated" alarm was received. The computer indication for Control Bank B was lower than 228 steps. The Nuclear Section reset the computer to the correct indication. The computer error was caused by the Rod Control Logic Cabinet. A job order is presently on hold for an outage, to repair the problem within the logic cabinet.
- C&I-3 Radiation monitoring system channel R-25, paper drive failed. The filter paper drum was tightened and a rubber clutch gromet repaired.
- C&I-4 During the performance of the monthly surveillance test 2PB-935B, containment pressure high bistable, was determined to be out of specifications. The instrument was removed and replaced with a spare duplex bistable. The removed instrument is currently being observed to determine the cause of the set point drift.

DOCKET NO.	<u>50 - 316</u>
UNIT NAME	<u>D. C. Cook - Unit No. 2</u>
DATE	<u>3-14-79</u>
COMPLETED BY	<u>B. A. Svensson</u>
TELEPHONE	<u>(616) 465-5901</u>
PAGE	<u>2</u>

MAJOR SAFETY-RELATED MAINTENANCE

FEBRUARY, 1979

C&I-5

IFI-265, recirculation flow indication of the safety injection pumps to the RWST, failed. The flow instrument was removed, cleaned and flange tightened. The instrument was returned to service and verified operational.

