

# OPERATING DATA REPORT

DOCKET NO. 50-316  
 DATE 3-2-82  
 COMPLETED BY W. T. Gillett  
 TELEPHONE 626-465-5901

## OPERATING STATUS

1. Unit Name: Donald C. Cook 2
2. Reporting Period: February 1982
3. Licensed Thermal Power (MWt): 3391
4. Nameplate Rating (Gross MWe): 1133
5. Design Electrical Rating (Net MWe): 1100
6. Maximum Dependable Capacity (Gross MWe): 1118
7. Maximum Dependable Capacity (Net MWe): 1082
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	672	1416	36,480
12. Number Of Hours Reactor Was Critical	661.5	1397.6	25,422.6
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	657.6	1390.7	24,611.7
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,196,190	4,492,134	78,552,955
17. Gross Electrical Energy Generated (MWH)	730,290	1,480,400	25,188,200
18. Net Electrical Energy Generated (MWE)	705,549	1,428,273	24,272,414
19. Unit Service Factor	97.8	98.2	72.4
20. Unit Availability Factor	97.8	98.2	72.4
21. Unit Capacity Factor (Using MDC Net)	97.0	93.2	67.8
22. Unit Capacity Factor (Using DER Net)	95.4	91.7	67.0
23. Unit Forced Outage Rate	2.1	1.8	13.5

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

2 Weeks in April 1982 for Surveillance Test

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

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
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# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-316  
 UNIT 2  
 DATE 3-2-82  
 COMPLETED BY W. T. Gillett  
 TELEPHONE 616-465-5901

MONTH February 1982

DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)
1	<u>1088</u>	17	<u>1091</u>
2	<u>1088</u>	18	<u>1090</u>
3	<u>1091</u>	19	<u>1092</u>
4	<u>1090</u>	20	<u>1090</u>
5	<u>1090</u>	21	<u>1092</u>
6	<u>1090</u>	22	<u>699</u>
7	<u>1090</u>	23	<u>372</u>
8	<u>1091</u>	24	<u>1082</u>
9	<u>1090</u>	25	<u>1094</u>
10	<u>1090</u>	26	<u>1093</u>
11	<u>1089</u>	27	<u>1093</u>
12	<u>1092</u>	28	<u>1093</u>
13	<u>1063</u>	29	<u>          </u>
14	<u>1090</u>	30	<u>          </u>
15	<u>1093</u>	31	<u>          </u>
16	<u>1091</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.

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February, 1982DOCKET NO. 50-316UNIT NAME D.C. Cook - Unit 2DATE 3-9-82COMPLETED BY B.A. SvenssonTELEPHONE (616) 465-5901PAGE 1 of 1

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
107	820222	F	14.4	G	3	N.A.	ZZ	ZZZZZZ	Unit tripped due to low vacuum. The low vacuum condition occurred when B-North condenser-half was removed from service to repair condenser tube leaks. The cause for the low vacuum was not apparent immediately, but a later investigation revealed the "B" condenser air take-off line shut-off valve to be closed. The unit was returned to service on 820223 with 100% reactor power being reached on 820224.

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

## 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 completely<sup>1</sup>. 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

<sup>1</sup>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 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: C. E. Murphy  
Telephone: (616) 465-5901  
Date: March 9, 1982  
Page: 1 of 1

## MONTHLY OPERATING ACTIVITIES - FEBRUARY, 1982

### Highlights:

The Unit entered this reporting period operating at 100% power. A reduction to 90% power for the purpose of removing the Heater Drain Pumps from service and allowing the Performance Department to collect data was started at 0423 on Saturday, February 13, 1982. A power increase was started at 0821 on Saturday and 100% power was reached at 1144.

On February 22, 1982, at 1532 hours the unit tripped due to low vacuum that occurred while removing "B" North Condenser from service to repair tube leaks. The reactor was returned to critical at 0204 hours on February 23, 1982 and paralleled with the grid at 0554 hours. 100% power was reached at 0333 hours on the 24th.

At 0024 on February 24, 1982, it was noticed that one of the Boron Injection Tank Inlet Valves (IMO-256) had no position indication. Investigation of the situation found the valve breaker racked out. The breaker was racked in and declared operable at 0059 hours.

Total electrical generation for this month was 730,290 mwh.

### Summary:

- 02-01-82 - Train A ECCS was removed from service for a 38.75 hour period to repair a leak in the ESW system.
- 02-02-82 - R11/12 (Containment Particulate and Gas Monitors) were inoperable for a 5 hour period to repair the filter paper drive.
- 02-04-82 - West CCW Heat Exchanger was inoperable for a 24.25 hour period due to the outlet valve (CMO-420) would not close.
- 02-08-82 - R11/12 (Containment Particulate and Gas Monitors) inoperable for a 9.25 hour period to repair the sample pump.
- 02-15-82 - Loop 3 <sup>T</sup>hot recorder was inoperable for a 6 hour period for calibration.
- 02-17-82 - R11/12 (Containment Particulate and Gas Monitors) inoperable for a 11.5 hour period due to low sample flow.
- 02-25-82 - At 1154 hours the APDMS was declared inoperable due to erratic scans. The Prodac-250 Computer is being used in its place.

DOCKET NO.	50 - 316
UNIT NAME	D. C. Cook - Unit No. 2
DATE	3-9-82
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

MAJOR SAFETY-RELATED MAINTENANCE

FEBRUARY, 1982

- M-1 The ESW pipe on the outlet of the east CCW heat exchanger had pinhole leaks. Replaced a three-foot section of pipe and a flange. Had necessary NDE performed. Completed hydrostatic test.
- M-2 WMO-714, ESW outlet isolation valve on the east CTS heat exchanger would not open. Replaced the circuit breaker which supplied power to the valve and had the valve tested.
- M-3 West CCW heat exchanger outlet valve, CMO-420, would not close. Re-aligned operator housing cover to eliminate binding. Had valve re-tested.
- M-4 Recent malfunction of CMO-420, the west CCW heat exchanger outlet valve indicated that the valve bushings might be worn. Replaced the valve. Adjusted the stroke and had it tested.
- M-5 2CD2 diesel jacket water pump discharge check valve, DG-154C, leaked by. Replaced the seat and split center discs. Tested valve.
- M-6 The sample pump for radiation monitors R-11 and R-12 failed. Replaced the pump and had it tested.
- C&I-1 Demineralizer water to CD diesel jacket water surge tank was found to have a broken float arm. The broken arm was replaced with a new one and proper operation was verified.
- C&I-2 Loop 3 hot and cold leg temperatures were both reading the same. The problem was found to be the I/I, TY433A on the hot leg. The I/I was replaced, calibrated and returned to service.