

# OPERATING DATA REPORT

DOCKET NO. 50-315  
 DATE 4-6-82  
 COMPLETED BY W. L. Gillett  
 TELEPHONE 616-465-5901

## OPERATING STATUS

1. Unit Name: Donald C. Cook 1
2. Reporting Period: March 1982
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
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	744	2160	63,528
12. Number Of Hours Reactor Was Critical	666.7	1169.9	47,443.1
13. Reactor Reserve Shutdown Hours	0	0	463
14. Hours Generator On-Line	646.6	1143.4	46,365.6
15. Unit Reserve Shutdown Hours	0	0	321
16. Gross Thermal Energy Generated (MWH)	2,024,073	3,593,590	133,956,779
17. Gross Electrical Energy Generated (MWH)	663,370	1,188,860	44,070,640
18. Net Electrical Energy Generated (MWH)	639,540	1,146,783	42,387,461
19. Unit Service Factor	86.9	52.9	75.5
20. Unit Availability Factor	86.9	52.9	75.5
21. Unit Capacity Factor (Using MDC Net)	82.9	50.9	68.0
22. Unit Capacity Factor (Using DER Net)	81.6	50.4	64.5
23. Unit Forced Outage Rate	13.1	47.1	8.5
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):

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

Forecast

Achieved

(4/77)

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315

UNIT 1

DATE 4-2-82

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH March 1982

DAY AVERAGE DAILY POWER LEVEL  
(MWE-Net)

1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>97</u>
5	<u>119</u>
6	<u>703</u>
7	<u>1031</u>
8	<u>1032</u>
9	<u>1033</u>
10	<u>1033</u>
11	<u>1032</u>
12	<u>1032</u>
13	<u>1025</u>
14	<u>1032</u>
15	<u>1031</u>
16	<u>1033</u>

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	<u>1032</u>
18	<u>1032</u>
19	<u>1031</u>
20	<u>1031</u>
21	<u>1031</u>
22	<u>1031</u>
23	<u>1033</u>
24	<u>1031</u>
25	<u>998</u>
26	<u>1030</u>
27	<u>1030</u>
28	<u>1028</u>
29	<u>1029</u>
30	<u>1026</u>
31	<u>1026</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 March, 1982

DOCKET NO. 50-315  
 UNIT NAME D.C. Cook - Unit 1  
 DATE 4-13-82  
 COMPLETED BY B.A. Svensson  
 TELEPHONE (616) 465-5901  
 PAGE 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
179 Cont'd.	820131	F	81.6	A	3	N.A.	HA	TURBIN	Turbine repair outage continued from previous month. The turbine was placed on turning gear on March 2 following reblading of both first stages. The unit was paralleled to the grid and brought to 25% on March 4, 1982. Total length of the outage was 770.9 hours.
180	820304	S	0.8	B	1	N.A.	ZZ	ZZZZZZ	Unit removed from service to perform turbine overspeed test.
181	820305	F	15.0	A	3	82-015/03L-0	CC	INSTRU	Unit tripped due to reactor trip from Low-Low Level in No. 1 Steam Generator. The low level in the steam generators was as a result of a 300 MW load rejection caused by problems with the Turbine Initial Pressure Limiter. The initial pressure limiter was removed from service and the unit returned to service the same day. 100% reactor power was reached on March 7, 1982.

<sup>1</sup>  
 F: Forced  
 S: Scheduled

<sup>2</sup>  
 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)

<sup>3</sup>  
 Method:  
 1-Manual  
 2-Manual Scram.  
 3-Automatic Scram.  
 4-Other (Explain)

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

<sup>5</sup>  
 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 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.: 50-315  
Unit Name: D. C. Cook Unit #1  
Completed By: D. R. Campbell  
Telephone: (616) 465-5901  
Date: April 8, 1982  
Page: 1 of 1

MONTHLY OPERATING ACTIVITIES - MARCH, 1982

Highlights:

The Unit entered the period in Mode 5 following an outage for Main Turbine repairs. The Unit was returned to service and paralleled to the grid on March 5, 1982.

Summary:

03-02-82 Unit entered Mode 4 at 0447 hours.

03-03-82 Unit entered Mode 3 at 0002 hours.

Reactor was made critical and entered Mode 2 at 1703 hours.

The Reactor tripped at 1806 hours when the number two main turbine stop valve went shut with the turbine first stage pressure above P-13 setpoint during shell warming.

The Reactor was restarted and entered into Mode 2 at 1910 hours.

03-04-82 The Reactor entered Mode 1 and the turbine was rolled at 0045 hours. The turbine was manually tripped at 0214 hours to investigate an oil flow problem with a turbine bearing. The problem was resolved and the turbine rolled at 0424 hours. The turbine generator was removed from the grid after holding 25% power for three hours in preparation for overspeed testing. The overspeed tests were successful and the Unit was paralleled to the grid at 1614 hours.

03-05-82 The Reactor tripped at 0339 hours due to a low-low Steam Generator level. The low-low level resulted from a problem with the turbine control system.

The problem was resolved and the Reactor was again taken critical at 1554 hours. The Unit entered Mode 1 at 1730 hours and was paralleled to the grid at 1838 hours.

03-07-82 The Unit reached 100% power at 0300 hours and remained there, except for brief periods each week when power was reduced ~5% for turbine valve checks. Also,



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Summary (cont.):

Moderator temperature testing was conducted for ~5 hour period at 95% Reactor power.

03-11-82 CD Diesel Generator was out of service for 15 hours to check the starting air valves.

03 12-82 Plant vent radiation monitors R-25 and R-26 were inoperable for 4 hours for repair.

Generation:

663,370 MWH

DOCKET NO.	50 - 315
UNIT NAME	D. C. Cook - Unit No. 1
DATE	4-13-82
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

## MAJOR SAFETY-RELATED MAINTENANCE

MARCH, 1982

- M-1 During inspection of the "N" train battery, low electrolyte specific gravity was noted. Corrected the electrolyte specific gravity and performed battery service test.
- M-2 The reciprocating charging pump had a stuffing box leak. Replaced the stuffing box on No. 4 cylinder. Repacked No. 3 and No. 4 cylinders. Had pump tested.
- M-3 No. 4 steam generator stop valve dump valves, MRV-241 and MRV-242 had seat leakage. Replaced the valves' stem, plug and seat and had the valves tested.
- M-4 Suction valves on the north and south waste gas compressors, RRV-378 and 388 were leaking by. Replaced the valve diaphragms and had valves tested.
- C&I-1 Auxiliary Spray Valve, QRV-51 would not close. A new Asco solenoid valve was installed and proper operation verified.
- C&I-2 Source range detector, N-32, when blocking a P-6 high voltage did not turn off. Troubleshooting revealed a faulty capacitor on the high voltage cut-off board. The board was replaced and the unit was checked for proper operation.
- C&I-3 Loss of the UV coil output on the Solid State Protection System Train "A". Troubleshooting revealed a bad UV card. The card was replaced and required surveillance tests were performed on Train "A" to verify proper operation.
- C&I-4 Group 2 on Shutdown and Control Banks B and Group 2 on Control Bank D would not move. Troubleshooting revealed a defective supervisory card. This was replaced with a spare. The equipment was then verified operable and returned to service.
- C&I-5 The west RHR heat exchanger outlet flow instrument, IFI-321 was reading 2900 gpm flow with the RHR pump not operating. The flow sensor strain gauge and its associated electronics card were replaced to restore proper indication to IFI-321.
- C&I-6 Diesel generator 1AB had a damaged voltage regulator relay mounting. The relay was resoldered in its mounting and was checked to be sure the mounting was secure. The diesel generator was tested successfully after completing repairs to the relay.