

# OPERATING DATA REPORT

DOCKET NO. 5-315  
 DATE 1-31-82  
 COMPLETED BY A. MIGHT  
 TELEPHONE 616-465-5901

## OPERATING STATUS

1. Unit Name: Donald C. Cook Plant 1
2. Reporting Period: January, 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	744	62,112
12. Number Of Hours Reactor Was Critical	503.2	503.2	46,776.4
13. Reactor Reserve Shutdown Hours	0	0	463
14. Hours Generator On-Line	496.8	496.8	45,719.0
15. Unit Reserve Shutdown Hours	0	0	321
16. Gross Thermal Energy Generated (MWH)	1,569,517	1,569,517	131,932,706
17. Gross Electrical Energy Generated (MWH)	525,490	525,490	43,407,270
18. Net Electrical Energy Generated (MWH)	507,243	507,243	41,747,921
19. Unit Service Factor	66.8	66.8	76.3
20. Unit Availability Factor	66.8	66.8	76.3
21. Unit Capacity Factor (Using MDC Net)	65.3	65.3	68.6
22. Unit Capacity Factor (Using DER Net)	64.7	64.7	65.0
23. Unit Forced Outage Rate	32.4	32.4	7.1
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: 3/1/82

26. Units In Test Status (Prior to Commercial Operation):

Forecast

Achieved

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

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

(4/77)

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315  
 UNIT 1  
 DATE January 31, 1982  
 COMPLETED BY A. Might  
 TELEPHONE 616-465-5901

MONTH January, 1982

DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)
1	---
2	---
3	---
4	---
5	---
6	---
7	---
8	---
9	---
10	118
11	827
12	1052
13	1051
14	1053
15	1048
16	1033

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	1051
18	1049
19	1050
20	1052
21	1053
22	1054
23	1039
24	1053
25	1051
26	1056
27	1056
28	1055
29	1054
30	987
31	294

## 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 January, 1982

DOCKET NO. 50-315  
 UNIT NAME D.C. Cook - Unit 1  
 DATE 2-12-82  
 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
177 Cont'd	811229	F	229.9	A	1	81-062/03L-0	CB	VALVEX	The unit was shut down to repair RCS leak. The unit was kept in cold shutdown to complete work inside containment on NUREG-0737 items. The unit was returned to service on 820110 and reached 100% reactor power on 820111.
178	820130	F	0	B	4	N.A.	ZZ	ZZZZZZ	Reactor power was reduced to 75% for approximately 4 hours to permit repair of leak in the turbine control fluid system.
179	820131	F	17.3	A	3	N.A.	ZZ	ZZZZZZ	Unit tripped from high turbine vibration. Inspection revealed a blade failure in the "turbine end" first stage. The unit remained out of service at the end of the month. A five week outage is estimated.

<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

## 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:

- If a component failed, use the component directly involved.
- If not a component failure, use the related component: e.g., wrong valve operated through error; list valve as component.
- 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: February 8, 1982  
Page: 1 of 2

MONTHLY OPERATING ACTIVITIES - JANUARY, 1982

Highlights:

The Unit entered the reporting period in Mode 5. The Reactor Coolant System was drained to half loop in order to make repairs to NRV-164 (Pressurizer Spray Valve). NRV-164 had a ruptured bellows, this contributed to the valve blowing its stem packing. This was the source of our greater than 1 GPM Reactor Coolant leak.

Repairs were made to NRV-164 and the Unit was paralleled to the grid at 1356 hours on January 10, 1982. The Unit reached 100% power at 1430 hours on January 11, 1982.

On January 30, 1982 the power was reduced to 75% to work on the main turbine EHC system.

On January 31, 1982 the main turbine tripped from high vibration. The reactor was shutdown and cool-down started. Turbine repairs were started.

Total electrical generation for the month was 525,490 MWH.

Summary:

1-06-82 - Repairs to NRV-164 were completed and filling and venting of the Reactor Coolant System started at 2320 hours.

1-08-82 - Mode four was reached at 2250 hours.

1-09-82 - Mode three was reached at 1644 hours.

1-10-82 - Mode two was reached at 0940 hours.

The reactor was made critical at 1003 hours.

The Unit was paralleled at 1356 hours.

1-11-82 - The Unit reached 100% reactor power at 1430 hours.

1-14-82 - An unplanned gaseous release of about 3% of the Tech. Spec. limits occurred. The cause of the release could not be determined, but it is believed to be associated with valving on the Unit 2 Volume Control Tank. The event required a "Red Phone" call to the NRC.

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Summary (Cont.):

- 1-15-82 - Upper Containment air lock was inoperable for a short period to repair the door seal.
- 1-26-82 - R-11/12 Containment Sample pump failed and was out of service for about 5 hours.
- 1-30-82 - The Unit power was reduced to 75% for four hours to repair a leak on the main turbine EHC system.
- 1-31-82 - At 0641 hours the Unit tripped from 100% power due to high vibration on the main turbine.

At 1651 hours the reactor was taken critical again to roll the main turbine.

At 1800 hours the turbine was rolled up to 800 RPM, then it was manually tripped after the vibration problems were confirmed.

1930 hours the reactor was shutdown and cooldown begun.



DOCKET NO.	50 - 315
UNIT NAME	D. C. Cook - Unit No. 1
DATE	2-12-82
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
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MAJOR SAFETY-RELATED MAINTENANCE

JANUARY, 1982

- M-1 Pressurizer power operated relief valve, NRV-152, was leaking by. Replaced the plug, stem and seat. Repacked and had the valve adjusted and tested.
- M-2 Pressurizer power operated relief valve, NRV-151, was leaking by. Replaced all valve internals and had valve tested.
- M-3 No. 1 S/G stop valve dump valve, MRV-211, was leaking by. Replaced the valve seat, plug stem and gaskets. Had valve tested.
- M-4 Pressurizer PORV block valve, NMO-151, had a body-to-bonnet leak and had been sealed by Furmanite. Replaced the disc and stem. Repacked and reset limits. Had the valve tested.
- M-5 Pressurizer spray control valve, NRV-164, had a packing leak. The unit was shut down, cooled down, depressurized and drained to half loop. The trim assembly bellows had ruptured and the packing subsequently blew out. Replaced the trim assembly. Replaced the cage spacer. Repacked the valve and had it tested.
- M-6 The stem of the reactor coolant filter drain valve, CS-381, was broken. Replaced the valve bonnet assembly.
- M-7 The auxiliary feedpump turbine governor valve linkage was binding. Replaced the valve stem and bonnet gasket, and the turbine was tested for operability.
- M-8 The intake air filter screens for 1AB emergency diesel would not move. Cleaned oil reservoir, changed oil and replaced the shear pin.
- M-9 No. 2 boric acid transfer pump discharge pressure was low. Adjusted the impeller clearance and had the pump retested.
- M-10 The west ESW pump discharge valve, WMO-702, was not closing completely. Adjusted the limit switches of the motor operator and had the valve retested.
- M-11 The ESW outlet pipe from the east CCW heat exchanger had several pinhole leaks. Replaced a flange and 3' section of pipe. Had necessary NDE performed and completed hydrostatic test.

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MAJOR SAFETY-RELATED MAINTENANCE

JANUARY, 1982

- C&I-1 The Control Rod Position Recorder indicated control Bank C at 220 steps during shutdown with the control rods fully inserted. The low and low-low insertion limit alarms also were not received. The problem was traced to a BCD board in the analog rod position indication cabinet. The board was replaced and normal indication returned.
- C&I-2 Loop No. 3 reactor coolant RTD T-Cold failed high. The spare RTD was placed in service and the R/E module recalibrated to the spare RTD.
- C&I-3 Radiation Monitoring System Channels R-11 and R-12, containment air particulate and radio-gas monitors' sample pump tripped four times during a 30-minute period. The flow system of the monitors was tested. The flow rate was found to be operating at 9.5 CFM. The flow rate was adjusted for 10CFM. A filter paper problem was identified during the work. The filter paper was changed.