

OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE 11-4-80
 COMPLETED BY W.T. Gillett
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook 2
2. Reporting Period: October 1980
3. Licensed Thermal Power (MWe): 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	745	7,320	24,840
12. Number Of Hours Reactor Was Critical	429	6,160.4	17,240.3
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	429	6,068.6	16,570.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,414,143 *	19,906,496 *	52,130,876
17. Gross Electrical Energy Generated (MWH)	456,040	6,457,370	16,611,780
18. Net Electrical Energy Generated (MWH)	439,846	6,228,971	15,996,383
19. Unit Service Factor	57.6	82.9	74.4
20. Unit Availability Factor	57.6	82.9	74.4
21. Unit Capacity Factor (Using MDC Net)	54.6	78.7	69.0
22. Unit Capacity Factor (Using DER Net)	53.7	77.4	68.4
23. Unit Forced Outage Rate	42.4	** 6.3	** 11.1

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

* -1000 MWH due to error in April 1980 report

** Corrected to NRC outage printout

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-316

UNIT 2

DATE 11-4-80

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH OCTOBER 1980

DAY AVERAGE DAILY POWER LEVEL
(MWE-Net)

1	<u>1052</u>
2	<u>1051</u>
3	<u>1057</u>
4	<u>1057</u>
5	<u>1057</u>
6	<u>1063</u>
7	<u>1055</u>
8	<u>1059</u>
9	<u>1056</u>
10	<u>1053</u>
11	<u>861</u>
12	<u>858</u>
13	<u>1064</u>
14	<u>1065</u>
15	<u>1063</u>
16	<u>1065</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>1003</u>
18	<u>787</u>
19	<u>----</u>
20	<u>----</u>
21	<u>----</u>
22	<u>----</u>
23	<u>----</u>
24	<u>----</u>
25	<u>----</u>
26	<u>----</u>
27	<u>----</u>
28	<u>----</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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1980DOCKET NO. 50 - 316UNIT NAME D.C. Cook - Unit 2DATE 11-12-80COMPLETED BY B.A. SvenssonTELEPHONE (616) 465-5901PAGE 1 of 2

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
86	801011	F	0	A	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 55% to remove east main feedpump turbine from service to check feedpump turbine condenser for tube leaks. Two tubes were plugged. Reactor power returned to 100% the same day.
87	801012	F	0	A	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 55% to remove the east main feedpump turbine from service to check feedpump turbine condenser for tube leaks. One leaky tube was plugged. Reactor power returned to 100% the same day.
88	801017	F	0	A	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 55% to remove east main feedpump turbine from service to check feedpump turbine condenser for tube leaks. Four tubes were plugged. Reactor power returned to 100% 801018.

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

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.

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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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1980

DOCKET NO. 50 - 316
 UNIT NAME D.C. Cook - Unit 2
 DATE 11-12-80
 COMPLETED BY B.A. Svensson
 TELEPHONE (616) 465-5901
 PAGE 2 of 2

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
89	801018	F	316	A	3	N.A.	HA	GENERA	Unit trip. Cause of trip was main generator neutral ground relay actuation. The ground fault was located in one of the generator stator bars. Repairs are presently in progress. The Unit remained out of service at the end of the month.

¹
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 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.
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 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

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cket No.: 50-316
Unit Name: D. C. Cook Unit #2
Completed By: C. E. Murphy
Telephone: (616) 465-5901
Date: November 10, 1980
Page: 1 of 2

MONTHLY OPERATING ACTIVITIES -- October, 1980

Highlights:

The Unit operated at 100% power at the start of this reporting period and ended the period in Mode 5.

The Unit experienced a trip from 100% power when the Main Generator became grounded. Ground protection relays operated removing the Unit from service. The details are in the Summary.

Total electrical generation for the month was 456,040 mwh.

Summary:

- 10/01/80 - MRV-242, one of the Steam Dump Valves for the #4 Steam Generator Stop Valve was removed from service, for a period of 2.25 hours to repair leaks.
- 10/02/80 - AB Diesel Generator was removed from service, for a period of 8 hours to change oil in the Turbo Charger.
- 10/07/80 - The Containment Dew Point Recorder (MR-50) was removed from service for a period of 1 hour, to replace a cable.
- 10/11/80 - Unit loading was reduced to 55% power over a 2.25 hour ramp starting at 0845 hours, to remove the East Main Feed pump from service. This was for checking and repairs of a Condenser leak.

The East Main Feed pump was returned to service and the Unit reloaded to 100% over a 7 hour ramp starting at 1522.
- 10/12/80 - Unit loading was again reduced to 55% power over a 1.5 hour ramp, to remove the East Main Feed pump from service. This was to plug a leaking Condenser tube. The East Main Feed pump was returned to service and the Unit reloaded to 100% over a 8 hour ramp starting at 1055.
- 10/17/80 - Unit loading was again reduced to 55% power over a 1.25 hour ramp starting at 2130 hours, to remove the East Main Feed pump from service for plugging of Condenser tube leaks.

Packet No.: 50-316
Unit Name: D. C. Cook Unit #2
Completed By: C. E. Murphy
Telephone: (616) 465-5901
Date: November 10, 1980
Page: 2 of 2

Summary:
(cont.)

10/18/80 - The East Main Feed pump was returned to service and the Unit reloaded to 100% power over a 7 hour ramp, starting at 0215.

The Unit tripped from 100% power at 2057, a Generator Neutral Ground Relay Actuation was the cause of the trip. A Ground has been identified within the generator and repairs are underway at this time.

10/19/80 - Cooldown and degassing of the Reactor Coolant System was started at 2115, for an investigation of a tube leak in #21 Steam Generator.

10/20/80 - Unit entered Mode 4 at 0200.

10/21/80 - Unit entered Mode 5 at 0200.

10/23/80 - Reactor Coolant System at $\frac{1}{2}$ loop operation at 0938.

10/29/80 - #21 Steam Generator was pressurized to 900 lbs. with Nitrogen to check for tube leak. There was no visible leakage at this pressure. Eddy Current Testing was performed and it was decided to plug 6 tubes.

10/31/80 - "AB" Emergency Diesel was returned to service at 1350 and successfully tested to the Load Bank after Modifications were made for RFC 2039.

DOCKET NO.	<u>50 - 316</u>
UNIT NAME	<u>D. C. Cook - Unit No. 2</u>
DATE	<u>11-12-80</u>
COMPLETED BY	<u>B. A. Svensson</u>
TELEPHONE	<u>(616) 465-5901</u>
PAGE	<u>1 of 1</u>

MAJOR SAFETY-RELATED MAINTENANCE

OCTOBER, 1980

- M-1 No. 1 steam generator stop valves dump valves, MRV-211, MRV-241 and MRV-242 were leaking by. Replaced the seat ring and gaskets. Had valves tested.
- M-2 A flow instrument flange in the RHR system between valves IRV-310 and ICM-311 was leaking. Replaced the flange gasket.
- C&I-1 Main turbine stop valve B and control valve C would not test as required. The limit switch on stop valve B was inspected. A bushing in the limit switch was replaced. The proximity switch for stop valve B had vibrated loose. The proximity switch was remounted. The limit switch arm on control valve C was sticking. The switch was disassembled and the mechanism was lubricated. A retest of the valves verified operability.
- C&I-2 Main turbine stop valve C would not test to the closed position. The coil of the control valve test solenoid failed and was replaced. The shaft and bushing on stop valve A, open limit switch, also required replacement.
- C&I-3 CD Diesel 60 psi reducing valve to the turbo charger failed to the open position, producing 100 psi pressure, opening the relief valve. The valve was removed and a spare was installed and adjusted to provide 60 psi air supply.
- C&I-4 Axial power distribution monitor system, power level actuation bistable No. 1 trip setpoint was found to be 88% reactor power, while bistable No. 2 actuated at 92% reactor power. The input voltage required to trip bistable 1 was recorded as 3.81 volts with the required setpoint at 3.83 V DC. The bistable was recalibrated to trip at the correct voltage and power level.