

OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE 11/3/84
 COMPLETED BY Climer
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook Unit 2
2. Reporting Period: October 1984
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1133
5. Design Electrical Rating (Net MWe): 1100
6. Maximum Dependable Capacity (Gross MWe): 1100
7. Maximum Dependable Capacity (Net MWe): 1060
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	59,904
12. Number Of Hours Reactor Was Critical	745	4,327.4	42,112.6
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	745	4,241.8	41,041.9
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,423,846	13,913,558	129,962,680
17. Gross Electrical Energy Generated (MWH)	792,100	4,525,650	42,752,260
18. Net Electrical Energy Generated (MWH)	763,916	4,367,243	41,220,614
19. Unit Service Factor	100	57.9	71.3
20. Unit Availability Factor	100	57.9	71.3
21. Unit Capacity Factor (Using MDC Net)	96.7	56.3	68.1
22. Unit Capacity Factor (Using DER Net)	93.2	54.2	66.8
23. Unit Forced Outage Rate	0	2.6	12.8

24. Shutdowns Scheduled Over Next 3 Months (Type, Date, and Duration of Each):

Surveillance and maintenance outage scheduled to start 12/22/84.
 Estimated duration - two weeks

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

8412120106 841031
 PDR ADOCK 05000316
 R PDR

(11/7)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-316

UNIT 2

DATE 11/3/84

COMPLETED BY Climer

TELEPHONE 616-465-5901

MONTH October 1984

DAY AVERAGE DAILY POWER LEVEL
(MWE-Net)

1	<u>1065</u>
2	<u>1035</u>
3	<u>1064</u>
4	<u>1068</u>
5	<u>1069</u>
6	<u>1072</u>
7	<u>1069</u>
8	<u>1067</u>
9	<u>1054</u>
10	<u>1066</u>
11	<u>1068</u>
12	<u>1073</u>
13	<u>1071</u>
14	<u>1074</u>
15	<u>1066</u>
16	<u>1053</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>1065</u>
18	<u>1072</u>
19	<u>1080</u>
20	<u>1077</u>
21	<u>1079</u>
22	<u>1074</u>
23	<u>1065</u>
24	<u>1076</u>
25	<u>1048</u>
26	<u>818</u>
27	<u>791</u>
28	<u>798</u>
29	<u>813</u>
30	<u>860</u>
31	<u>1082</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 1000.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH October, 1984

DOCKET NO. 50-316
 UNIT NAME D.C. Cook - Unit 2
 DATE 11-12-84
 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
151	841025	F	0	F	4	84-028-0	ZZ	ZZZZZZ	Reactor power was reduced to 80% as a precautionary measure due to a 17% deficiency in available auxiliary feedwater flow under certain accident conditions involving a feedwater line break. A further reduction to 75% for additional conservatism occurred on 841026. On 841029 the Unit was released to increase reactor power to 80% based on analysis performed by Westinghouse. Following the NRC's review of the analysis, the NRC authorized the Unit to be returned to 100% power. The reactor power was restored to 100% on 841031.

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

(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: D. A. Bruck
Telephone: (616) 465-5901
Date: 11-14-84
Page: 1 of 2

MONTHLY OPERATING ACTIVITIES - OCTOBER, 1984

HIGHLIGHTS:

The Unit entered the reporting period in Mode 1 at 100% of reactor thermal power. A major power reduction occurred because of a discrepancy in the Auxiliary Feedwater flow calculations resulting in a deficiency of approximately 17% in auxiliary feedwater flow under certain accident conditions. The Unit ended the reporting period at 100% rated thermal power.

Total electrical generation for the month was 763,916 MWH.

SUMMARY:

- 10-01-84 #2 CD Diesel was inoperable at 0507 hours due to a failed inverter. The diesel was returned to service at 1844 hours on 10-01-84.
- 10-01-84 #2 AB Diesel was inoperable at 1853 hours due to an injector problem. The diesel was returned to service at 0328 hours on 10-02-84.
- 10-09-84 #2 E Essential Service Water Pump was inoperable at 1300 hours due to low discharge pressure. The pump was returned to service at 1540 hours on 10-11-84.
- 10-13-84 Turbine Driven Auxiliary Feed Pump was inoperable at 0350 due to trip and throttle valve not latching. The pump was returned to service at 0912 on 10-13-84.
- 10-19-84 Turbine Driven Auxiliary Feed Pump was inoperable at 0608 hours due to steam leaks. The pump was returned to service at 1356 hours on 10-19-84.
- 10-25-84 At 2039, power was reduced to 80% as a precautionary measure due to a 17% discrepancy in available auxiliary feedwater flow under certain accident conditions involving a feedwater line break.
- 10-26-84 A further reduction to 75% occurred at 1814 for the same reason.
- 10-26-84 At 1855, power was reduced because #24 accumulator boron concentration was out of specification. The accumulator was declared operable at 0055 on 10-27-84.
- 10-27-84 Power reduction stopped at 63% at 0123. Power then returned to 75% at 0435.

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10-29-84 At 1630, the Unit was released to increase power to 80%.

10-30-84 At 1800, the NRC authorized the Unit to return to 100% power. The power increase started at 2048, delayed due a chemistry hold.

10-31-84 At 0025, power was returned to 100%.

The Control Room Cable Vault Halon System remains inoperable as of 1707 hours on 4-14-83. The backup CO₂ system remains operable.

DOCKET NO.	<u>50 - 316</u>
UNIT NAME	<u>D. C. Cook - Unit No. 2</u>
DATE	<u>11-13-84</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, 1984

- M-1 Replaced fuel injector and fuel line on #1-F cylinder of 2-AB Emergency Diesel Generator. The engine was test run to verify oil leakage had been eliminated.
- M-2 No. 3 B. A. Transfer Pump was replaced by a rebuilt unit. Defective pump will be rebuilt and returned to stock for spare.
- C&I-1 The CD diesel inverter failed and C&I found one diode and two SCR's shorted. Replaced all four diodes and all four SCR's. Tested on load bank and placed in service.
- C&I-2 An intermediate range trip signal was being received from the Solid State Protection System. An isolation board and memory board were replaced in the demultiplexing cabinet of SSPS.
- C&I-3 Terry turbine trip and throttle valve solenoid operator would not latch up. The coils on trip solenoid 20X TDTV were found open preventing the latch up. The coils were replaced.



INDIANA & MICHIGAN ELECTRIC COMPANY

Donald C. Cook Nuclear Plant
P.O. Box 458, Bridgman, Michigan 49106

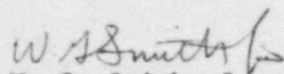
November 13, 1984

Director, Office Of Management Information
and Program Control
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Gentlemen:

Pursuant to the requirements of Donald C. Cook Nuclear Plant Unit 2
Technical Specification 6.9.1.6, the attached Monthly Operating
Report for the Month of October, 1984 is submitted.

Sincerely,



W. G. Smith, Jr.

Plant Manager

WGS:ab

Attachments

cc: J. E. Dolan
M. P. Alexich
R. W. Jurgensen
NRC Region III
B. L. Jorgensen
R. O. Bruggee (NSAC)
R. C. Callen
S. J. Mierzwa
R. F. Kroeger
B. H. Bennett
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PNSRC File
INPO Records Center
ANI Nuclear Engineering Department

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