

OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE 9-5-84
 COMPLETED BY W.T. Gillett
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook 2
2. Reporting Period: August 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	744	5855	58,439
12. Number Of Hours Reactor Was Critical	697.9	2881.6	40,666.8
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	693.2	2805.7	39,605.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,341,526	9,163,987	127,636,955
17. Gross Electrical Energy Generated (MWH)	748,680	2,988,240	41,214,850
18. Net Electrical Energy Generated (MWH)	722,391	2,884,206	39,737,577
19. Unit Service Factor	93.2	47.9	70.6
20. Unit Availability Factor	93.2	47.9	70.6
21. Unit Capacity Factor (Using MDC Net)	91.6	46.3	67.4
22. Unit Capacity Factor (Using DER Net)	88.3	44.8	66.1
23. Unit Forced Outage Rate	6.8	2.9	13.2

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

Surveillance and Maintenance Outage scheduled to start on December 22, 1984.
 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

8410160207 840831
 PDR ADDCK 05000316
 R PDR

DES 410-771
 11 11

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-316

UNIT 2

DATE 9/4/84

COMPLETED BY A. Might

TELEPHONE (616) 465-5901

MONTH August 1984

DAY AVERAGE DAILY POWER LEVEL
(MWE-Net)

1	<u>1058</u>
2	<u>1048</u>
3	<u>1070</u>
4	<u>1066</u>
5	<u>583</u>
6	<u>-</u>
7	<u>100</u>
8	<u>952</u>
9	<u>1038</u>
10	<u>1038</u>
11	<u>1085</u>
12	<u>1091</u>
13	<u>1084</u>
14	<u>1071</u>
15	<u>1046</u>
16	<u>1039</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>1033</u>
18	<u>1037</u>
19	<u>1065</u>
20	<u>1078</u>
21	<u>1060</u>
22	<u>1050</u>
23	<u>1057</u>
24	<u>1052</u>
25	<u>1042</u>
26	<u>1047</u>
27	<u>1051</u>
28	<u>1049</u>
29	<u>1041</u>
30	<u>1040</u>
31	<u>1037</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 number.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH AUGUST, 1984

DOCKET NO. 50-316
 UNIT NAME D.C. Cook - Unit 2
 DATE 9-13-84
 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
148	840805	F	50.8	A	3	84-020-00	EF	INSTRU	A reactor trip occurred from 100% power due to a failure of vital instrument, CRID II, Inverter. The inverter failure was due to a blown fuse. The blown fuse, the silicon controlled rectifiers and diodes were replaced. The Unit was returned to service on 840807 and 100% reactor power was restored on 840808.

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 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: G. J. Peak
Telephone: (616) 465-5901
Date: 09/07/84
Page: 1 of 1

MONTHLY OPERATING ACTIVITIES - AUGUST, 1984

HIGHLIGHTS:

The unit entered the reporting period in Mode 1 at 100% of rated thermal power. The unit tripped on 8-5-84 due to the failure of Crid II. Crid II was repaired and the unit was returned to service and subsequently loaded to 100% power. No major power reductions occurred during the reporting period.

Total electrical generation for the month was 748,680 MWH.

SUMMARY:

- 8-05-84 The unit tripped at 1414 hours due to the failure of Crid II.
- 8-06-84 Crid II was declared operable at 0615 hours.
- 8-07-84 The reactor was critical at 1220 hours and mode 1 was entered at 1400 hours. The main turnbine was rolled at 1510 hours and the main generator was paralleled at 1700 hours.
- 8-08-84 Power reached 100% at 0935 hours.
- 8-10-84 Engineering safety features ventilation unit HV-AES-2 was inoperable for a five hour period for coupling work.
- 8-29-84 AB diesel generator was inoperable for a nine hour period for maintenance.
- 8-30-84 AB diesel generator was inoperable from 0553 hours on 8-30-84 to 1819 hours on 8-31-84 to repair a broken bolt on the generator.

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.	50 - 316
UNIT NAME	D. C. Cook - Unit No. 2
DATE	9-13-84
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

MAJOR SAFETY-RELATED MAINTENANCE

AUGUST, 1984

- M-1 Repaired 2CD diesel starting air compressor discharge check valve, DG-104C. Valve was stuck open. Lapped seat and re-installed internals.
- C&I-1 CR1D II, power inverter failed. After replacement of a blown 150A fuse, the inverter operated for 5 minutes when the fuse again blew. All switching diodes and silicon controlled rectifiers were replaced. The inverter then operated satisfactorily for 3½ hours on a load box, after which it was returned to service.
- C&I-2 Steam flow channel II, FI-513 read 0.65×10^6 lb/hr with no steam flow. Multiplier module FY-513B was replaced and the flow channel was recalibrated to correct the problem.
- C&I-3 CD-2 battery charger oscillated about 270 volts when on equalize charge. Replaced C-1 on the gate filter and a defective firing board #4. Adjusted the float setting to 260.5 vdc and equalize to 277 vdc. The current limit (P5) was set at 110 amps.
- C&I-4 Replaced and calibrated Dynalco Tachometer on 2AB diesel generator.



INDIANA & MICHIGAN ELECTRIC COMPANY

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

September 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 August, 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
E. R. Swanson
R. O. Bruggee (NSAC)
R. C. Callen
S. J. Mierzwa
R. F. Kroeger
B. H. Bennett
J. D. Huebner
J. H. Hennigan
Z. Cordero
R. F. Hering
J. F. Stietzel
PNSRC File
INPO Records Center
ANI Nuclear Engineering Department

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