

OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE January 31, 1982
 COMPLETED BY A. Micht
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook Plant 2
2. Reporting Period: January 1982
3. Licensed Thermal Power (MWt): 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	744	744	35,808
12. Number Of Hours Reactor Was Critical	736.1	736.1	24,761.1
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	733.1	733.1	23,954.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,295,944	2,295,944	76,356,765
17. Gross Electrical Energy Generated (MWH)	750,110	750,110	24,457,910
18. Net Electrical Energy Generated (MWH)	722,724	722,724	23,566,865
19. Unit Service Factor	98.5	98.5	71.9
20. Unit Availability Factor	98.5	98.5	71.9
21. Unit Capacity Factor (Using MDC Net)	89.8	89.8	67.2
22. Unit Capacity Factor (Using DER Net)	88.3	88.3	66.4
23. Unit Forced Outage Rate	1.5	1.5	13.8
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: _____

25. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-216
 UNIT 2
 DATE January 31, 1982
 COMPLETED BY Ann Might
 TELEPHONE 616-465-5901

MONTH January, 1982

DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	936	17	335
2	650	18	983
3	1024	19	1088
4	1067	20	1088
5	1065	21	1088
6	749	22	1089
7	662	23	1088
8	1061	24	1087
9	1062	25	1084
10	1056	26	1083
11	1049	27	1084
12	1067	28	1016
13	1067	29	508
14	1069	30	946
15	1070	31	1081
16	762		

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. 50-316
 UNIT NAME D.C. Cook - Unit 2
 DATE 2-12-82
 COMPLETED BY B.A. Svensson
 TELEPHONE (616) 465-5901
 PAGE 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
104	820101	F	0	B	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 56% to remove the West main feed pump turbine from service to check feed pump turbine condenser for tube leaks. One leaking tube was found and plugged. Reactor power returned to 100% on 820103.
105	820105	F	0	A	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 56% to remove the West main feed pump from service to repair weld leak in the feed pump suction strainer drain line. Reactor power was returned to 100% on 820108.
106	820116	F	10.9	H	3	N.A.	ZZ	ZZZZZZ	Unit tripped from a turbine trip. The exact cause has not been determined. It appears that the cause was a closed valve in the impulse line to the stator cooling water low-flow instrument combined with low ambient temperatures.

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

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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January, 1982

DOCKET NO. 50-316
 UNIT NAME D.C. Cook - Unit 2
 DATE 2-12-82
 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
107	820128	F	0	A	4	N.A.	ZZ	ZZZZZZ	Reactor power reduced to 42% due to failure of the North condensate booster pump motor and high vibration on the middle condensate booster pump motor. The middle pump motor was balanced and reactor power returned to 100% on 820130.

¹
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 S: Scheduled

²
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 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

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REASON. Categorize by letter designation in accordance with the table appearing on the report form. If category H must be used, supply brief comments.

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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: C. E. Murphy
Telephone: (616) 465-5901
Date: February 8, 1982
Page: 1 of 2

MONTHLY OPERATING ACTIVITIES - JANUARY, 1982

Highlights:

The Unit entered this reporting period operating at 100% power. At 0656 hours, on Friday, January 1, a reduction in power was started to remove the West Main Feed Pump from service to make repairs to a suspected leak in its condenser. The unit was at 56% power by 0510 on Saturday, January 2. The West Main Feed Pump was removed from service and one condenser tube was found to be leaking. After the leaking condenser tube was plugged a unit power increase was started at 1033 hours on Saturday, January 2, and the unit was at 100% power at 0855 on Sunday, January 3.

At 2243 hours on Tuesday, January 5, the unit was again started down in power to remove the West Main Feed Pump from service to repair a weld leak in the feed pump suction strainer drain line. The unit was at 56% power by 2030 hours on January 6. The necessary repairs were completed on the West Main Feed Pump Suction Strainer and a power increase was commenced at 1000 hours on January 7. The unit was returned to 100% power at 0125 hours on January 8.

At 1753 hours on January 8, both Essential Service Water trains were declared inoperable due to a missed 18 month surveillance on the Component Colling Water Heat Exchanger Outlet Valves. A power reduction was started to comply with the requirements in Technical Specifications. One of the CCW valves was tested satisfactorily at 1837 hours and the power reduction was stopped. The unit was returned to 100% power at 1847 hours.

At 1336 hours on January 10, the condenser de-icing outlet temperature limit of 56°F was reached and power was reduced several times by 2 to 4% to maintain this temperature within limits. Some difficulty was encountered in getting out of the de-icing mode due to the problems with circulating water discharge valves. The unit was returned to 100% power at 0830 hours on January 11.

On January 16, at 1717 hours, the unit tripped from an unknown cause. Following the unit trip the dose equivalent I-131 spiked to 2.04 mci/gm which exceeded the T/S limit of 1.0 mci/gm. This necessitated declaring an "Unusual Event", which was secured at 0740 hours on January 17. The reactor was taken critical at 0112 hours on January 17, the unit paralleled with the system at 0412 and 100% power was achieved at 1230 on January 18.

At 1910 hours on January 28, a power reduction was commenced on the unit due to high vibration on the Middle Condenser Booster pump. At 0648 hours on January 29, the power was leveled off at 42% and repairs were started

Highlights: (continued)

on the Middle Booster pump. At 1430 hours on January 29, the balancing of the middle pump was completed and power was increased to 100% by 1400 hours on January 30.

Total electrical generation for this month was 750,110 mwh.

Summary:

- 01-17-82 - The No. 3 Steam Generator Flow Channel MFC-131 was inoperable for a 33.5 hour period for calibration.
- 01-19-82 - The West Containment Spray pump was inoperable for a 47 hour period to repair a cracked weld in the pump suction piping.
- 01-21-82 - R-15 (Condenser Air Ejector Monitor) was inoperable for a 1.5 hour period to replace the detector.
- 01-22-82 - The West Component Cooling Water Train was inoperable for a 35 hour period for repairs to CMO-420 and CMO-429.

R-33 (Gland Seal Exhauster Monitor) was inoperable for a 7 hour period due to a stuck check source.
- 01-27-82 - The No. 3 Boric Acid Transfer Pump was inoperable for a 2.5 hour period to unplug a pressure gauge line.
- 01-30-82 - The No. 3 Steam Generator Flow Channel I was inoperable for a 20.5 hour period due to instrument malfunction.
- 01-31-82 - The SG-21 (Circulating Water Temperature Recorder) was inoperable for a 2 hour period due to skipping points.

DOCKET NO.	50 - 316
UNIT NAME	D. C. Cook - Unit No. 2
DATE	2-12-82
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

MAJOR SAFETY-RELATED MAINTENANCE

JANUARY, 1982

- M-1 The air line to the upper containment volume airlock door (for testing the seals) was leaking at a fitting. Cut the line, rethreaded the line, installed threaded line and rewelded. Had necessary NDE performed.
- M-2 The west CCW heat exchanger outlet valve, CMO-420, would not close. The valve stem was binding. Machined the valve housing cover to provide sufficient clearance. Had the valve tested.
- M-3 The west CTS pump suction strainer had a weld leak. Had NDE (PT, UT and RT) performed to determine extent of problem. A 6" circumferential crack was indicated. Ground out the affected portion of the weld and rewelded. Had necessary NDE performed and completed a hydrostatic test. A "boat" sample of the cracked area was sent out for lab analysis.
- M-4 The west RHR heat exchanger CCW outlet valve, CMO-429, would not function properly. The valve was binding. The butterfly valve was replaced, tested and returned to service.
- C&I-1 Channel IV steam pressure indicator (516A) for No. 21 Steam Generator was indicating 29 PSI lower than the other two channels. The loop was recalibrated and returned to service.
- C&I-2 MFC-131, Steam Generator No. 3 protection set steam flow did not provide indication at 2.5% reactor power. The protection set bistables associated with MFC-131 were placed in the trip mode. The transmitter's output signal was monitored for a 30 hour period. During the monitoring period the reference legs appeared to have refilled and normal signal levels returned. The output signals were verified and the channel's bistables were returned to normal.
- C&I-3 Circulating Water Pump No. 23 would trip following 11 minutes of operation. Relay 51B3 RLY420 (IAC66A1A) was tested and found to actuate with a test current of 4.5 amps. The relay was recalibrated to the correct value of 5.5 amps.
- C&I-4 Heat Tracing Circuit 235, Boron Injection Tank (BIT) inlet piping, alarm sensing bulb was found detached from the piping. The bulb was relocated and mounted properly and the pipe reinsulated.