

OPERATING DATA REPORT

DOCKET NO. 50-315
 DATE 9-5-80
 COMPLETED BY W.T. Gillett
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: D. C. Cook Unit 1
2. Reporting Period: August 1980
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	5,855	49,679
12. Number Of Hours Reactor Was Critical	644.4	3,852.3	36,841.0
13. Reactor Reserve Shutdown Hours	0	0	463
14. Hours Generator On-Line	574.6	3,774.3	35,857.5
15. Unit Reserve Shutdown Hours	0	0	321
16. Gross Thermal Energy Generated (MWH)	1,501,561	11,620,492	100,686,797
17. Gross Electrical Energy Generated (MWH)	484,090	3,846,900	33,004,240
18. Net Electrical Energy Generated (MWH)	463,193	3,708,995	31,706,309
19. Unit Service Factor	77.2	64.5	75.4
20. Unit Availability Factor	77.2	64.5	75.4
21. Unit Capacity Factor (Using MDC Net)	59.6	60.7	66.2
22. Unit Capacity Factor (Using DER Net)	59.1	60.1	61.8
23. Unit Forced Outage Rate	4.4	10.6	7.2
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:

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

Forecast

Achieved

INITIAL CRITICALITY
 INITIAL ELECTRICITY
 COMMERCIAL OPERATION

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315

UNIT 1

DATE 9-5-80

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH AUGUST 1980

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

1	<u>0</u>
2	<u>0</u>
3	<u>0</u>
4	<u>0</u>
5	<u>0</u>
6	<u>12</u>
7	<u>200</u>
8	<u>391</u>
9	<u>391</u>
10	<u>498</u>
11	<u>634</u>
12	<u>508</u>
13	<u>781</u>
14	<u>903</u>
15	<u>939</u>
16	<u>530</u>

DAY AVERAGE DAILY POWER LEVEL
(MWe-Net)

17	<u>427</u>
18	<u>851</u>
19	<u>969</u>
20	<u>979</u>
21	<u>989</u>
22	<u>993</u>
23	<u>996</u>
24	<u>999</u>
25	<u>998</u>
26	<u>998</u>
27	<u>992</u>
28	<u>995</u>
29	<u>994</u>
30	<u>987</u>
31	<u>167</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 AUGUST, 1980

DOCKET NO. 50 - 315
 UNIT NAME D. C. Cook - Unit #1
 DATE 9-12-80
 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
160	800530	S	134.6	B&C	1	N.A.	ZZ	ZZZZZZ	The unit was removed for Cycle IV-V refueling outage on 800530. Following completion of the outage and low power physics testing the unit was returned to service on 800806 at 1435 hours. The total length of the outage was 1624.1 hours.
161	800806	F	7.1	H	3	N.A.	ZZ	ZZZZZZ	Turbine/Reactor trip due to extreme high level in right moisture separator shell during startup due to an alternate drain valve being closed.
162	800807	S	1.0	B	1	N.A.	ZZ	ZZZZZZ	Unit removed from service to perform turbine overspeed trip testing. Unit returned to service and the power escalation test program commenced.

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

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:

- 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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH AUGUST, 1980

DOCKET NO. 50 - 316
 UNIT NAME D. C. Cook - Unit #2
 DATE 9-12-80
 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
163	800816	F	6.2	G	3	N.A.	ZZ	ZZZZZZ	Reactor/Turbine trip from 93% power. Trip was due to a false steam flow/feedwater flow mismatch coincident with low level in No. 3 steam generator caused by operator error during instrument surveillance testing.
164	800816	F	2.2	H	1	N.A.	ZZ	ZZZZZZ	Tripped turbine-generator manually after 1.2 hours of operation due to high vibration on No. 3 turbine bearing. Unit returned to service and power increased to 92%.
165	800831	F	18.3	H	3	80-020/03-L-0	E0	ZZZZZZ	Reactor/Turbine trip due to failure of inverter for vital A.C. instrument bus Channel IV. Unit returned to service and power increased to 95%.

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)

3
 Method:
 1-Manual
 2-Manual Scram.
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(9/77)

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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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MONTHLY OPERATING ACTIVITIES -- AUGUST, 1980

Highlights :

During the reporting period, this Unit was returned to service from it's fourth Refueling Outage. This is detailed in the Summary.

Gross electrical generation for the month was 484,090 mwh.

Summary :

- 8/1/80 -- Heatup was initiated and the Reactor plant entered Mode 6 at 0644 hours.
- The East Main Feed Pump Turbine was overspeed trip tested.
- 8/2/80 -- The Reactor plant entered Mode 3 at 0310 hours. Full temperature and pressure were obtained at 0955 hours.
- 8/3/80 -- Following completion of rod position indication checks and adjustments and control rod drop testing dilution for criticality was initiated at 2105 hours.
- 8/4/80 -- Criticality was achieved at 0030 hours.
- 8/6/80 -- Following completion of Low Power Physics Testing the Reactor plant entered Mode 1 at 1235 hours.
- The Main Turbine was rolled at 1237 hours.
- The generator was paralleled to the system at 1435 hours.
- The Unit tripped from approximately 20% power at 1523 hours. Cause of trip was extreme high level in the right Moisture Separator.
- Reactor was returned to critical at 2055 hours.
- The Main Turbine was rolled at 2205 hours.
- The generator was paralleled to the system at 2228 hours and loaded to 30% power by 2400 hours.

8/7/80 -- The generator unit was removed from service at 0420 hours for overspeed testing.

The Unit was again paralleled to the system at 0518 hours and loaded to 30% power by 0900 hours.

The Unit was loaded to 48% power over a 5 hour ramp starting at 1910 hours.

8/8/80 -- The West Main Feed Pump Turbine was overspeed tested.

8/10/80 -- The Unit was loaded to 68% power over a 8 hour ramp starting at 1025 hours.

8/12/80 -- The Unit was loaded to 78% power over a 7 hour ramp starting at 0725 hours.

The West Motor Driven Auxiliary Feed Pump was inoperable for an 11 hour period to repair a leaking Discharge Check Valve.

8/13/80 -- The Unit was loaded to 88% power over a 4 hour ramp starting at 2238 hours.

8/14/80 -- The Unit was loaded to 91% power over a 1.5 hour ramp starting at 1825 hours.

8/15/80 -- The Unit was loaded to 93% power over a 5 hour ramp starting at 2354 hours.

8/16/80 -- The Unit tripped from 93% power at 1340 hours. The cause of trip was Steam Flow Feed Flow mismatch coincident with low level on No. 3 Steam Generator. Instruments Surveillance was being performed at the time and proper Control Channels for this generator had not been selected. The Reactor was returned to criticality at 1825 hours.

The Unit was rolled and paralleled to the system at 1950 hours.

The Turbine was unloaded and removed from service at 2105 hours due to excessive bearing vibration. The Reactor remained critical at this time.

Following lubricating oil temperature adjustment, the Unit was rerolled and paralleled to the system at 2315 hours.

1945

Docket No.: 50-315
Unit Name: D. C. Cook Unit #1
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: September 5, 1980
Page: 3 of 3

8/17/80 -- The Unit was loaded to 48% power by 0505 hours.
Loading was held at this point due to an Indicated
Quadrant power tilt.

The Unit was loaded to 92% power over a 16 hour
ramp starting at 2310 hours.

8/19/80 -- The Unit was loaded to 93% power at 1332 hours.

8/20/80 -- The Unit was loaded to 94% power at 2155 hours.

8/21/80 -- The AB Emergency Diesel Generator was inoperable
for a 39.5 hour period starting at 0930 hours
for flushing and renewal of control fluid in
the governor.

8/23/80 -- Power was increased to 95% at 1456 hours.

8/25/80 -- The AB Emergency Diesel Generator was inoperable
for a 9.5 hour period for repair of a fuel oil
leak and replacement of an exhaust thermocouple.

8/27/80 -- The West Containment Spray Pump was inoperable for
a 12 hour period to repair a leaking weld.

8/29/80 -- The AB Diesel Emergency Generator was inoperable
for a 7.5 hour period to check the engine timing.

The West Residual Heat Removal Pump was inoperable
for a 3.75 hour period to clean the air screens
on the motor.

8/31/80 -- The Reactor tripped from 95% power at 0447. Cause
of trip was loss of power on vital Instrument Bus
#4.

With the loss of this Bus Safety Injection and
Steam Line Isolation were also initiated. Safety
Injection was terminated 12 minutes later. The
loss of the Instrument Bus coincided with a lightning
strike in the close vicinity of the plant.

The Reactor was returned to critical at 2139 hours.

The Unit was rolled and paralleled to the system at
2308 hours.

The Unit was loaded to 45% power by 0355 hours 9-1-80.
Loading was held at this point due to an indicated
Quadrant power tilt.

DOCKET NO.	50 - 315
UNIT NAME	D. C. Cook - Unit No. 1
DATE	9-12-80
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

MAJOR SAFETY-RELATED MAINTENANCE

AUGUST, 1980

- M-1 The east centrifugal charging pump outboard mechanical seal was leaking. Disassembled pump, rebuilt seal, reassembled and tested.
- M-2 The emergency leakoff line check valve for the west motor driven auxiliary feedpump was leaking by. Lapped the seat and replaced the disc.
- C&I-1 Incore detector flex drive Unit 'F' forward reverse contactor would not pick up at voltages less than 100. The contactor was replaced and the detector drive was checked for operation in both forward and reverse modes.
- C&I-2 Resistance to voltage converters on $\Delta T/TAVE$ Loops 2, 3, and 4 were out of specification. These loops were recalibrated.
- C&I-3 Lower Containment Pressure Channel, PPP-301, indicated -0.5 PSIG. Channels PPP-300, 302 and 303 were indicating zero. The indicator for Channel, PPP-301, was found to be reading low and was recalibrated. The values for all channels then were cross-checked and are in agreement.
- C&I-4 Wind Speed Recorder, SG-19, failed. A new chart drive motor was installed.

