

OPERATING DATA REPORT

DOCKET NO. 50-315
 DATE 11-1-79
 COMPLETED BY W. T. Gillett
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name: Donald C. Cook 1
2. Reporting Period: October 1979
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	745	7,296	*42,360
12. Number Of Hours Reactor Was Critical	638.7	4,708.8	31,920.5
13. Reactor Reserve Shutdown Hours	0	0	463
14. Hours Generator On-Line	638.7	4,637.9	31,051.2
15. Unit Reserve Shutdown Hours	0	0	321
16. Gross Thermal Energy Generated (MWH)	2,067,631	14,481,826	85,819,617
17. Gross Electrical Energy Generated (MWH)	685,240	4,788,790	28,078,450
18. Net Electrical Energy Generated (MWH)	661,623	4,618,915	26,956,092
19. Unit Service Factor	85.7	63.6	75.3
20. Unit Availability Factor	85.7	63.6	75.3
21. Unit Capacity Factor (Using MDC Net)	85.1	60.6	66.9
22. Unit Capacity Factor (Using DER Net)	84.3	60.0	61.8
23. Unit Forced Outage Rate	14.3	3.9	5.8
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:

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

Forecast

Achieved

INITIAL CRITICALITY

INITIAL ELECTRICITY

COMMERCIAL OPERATION

* -20 to correct error on March Report
 Dated 4-4-79

(9/77)

3911200 400

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315

UNIT 1

DATE 11-1-79

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH October 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1039</u>
2	<u>1041</u>
3	<u>1041</u>
4	<u>1039</u>
5	<u>1039</u>
6	<u>1039</u>
7	<u>1038</u>
8	<u>1038</u>
9	<u>1040</u>
10	<u>1039</u>
11	<u>1038</u>
12	<u>1037</u>
13	<u>1041</u>
14	<u>1038</u>
15	<u>1040</u>
16	<u>1039</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>1036</u>
18	<u>1038</u>
19	<u>1038</u>
20	<u>1032</u>
21	<u>1020</u>
22	<u>1038</u>
23	<u>1040</u>
24	<u>1037</u>
25	<u>1041</u>
26	<u>1040</u>
27	<u>570</u>
28	<u>0</u>
29	<u>0</u>
30	<u>0</u>
31	<u>0</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, 1979

DOCKET NO. 50-315
 UNIT NAME D.C. Cook-Unit 1
 DATE 11-13-79
 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
152	791027	F	105.3	B	1/3	N.A.	ZZ	ZZZZZZ	Unit removed from service to repair No. 4 Inverter and add oil to No. 4 Reactor Coolant Pump Motor Upper Oil Reservoir. Unit brought to cold shutdown condition to permit investigation/repair of cause for high vibration on R.C. Pump No. 12. Unit remained out of service at the end of the month.

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)

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

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.

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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.: 50-315
Unit Name: D. C. Cook Unit #1
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: November 14, 1979
Page: 1 of 3

MONTHLY OPERATING EXPERIENCES -- OCTOBER, 1979

Highlights

The Unit entered the reporting period operating at 100% power and continued to do so except as noted in the summary. The Unit was removed from service for a scheduled outage 10/27/79 and remained out of service the remainder of the reporting period.

Total electrical generation for the month was 685,240 Mwh.

Summary

- 10/02/79 -- The Diesel Driven Fire Pump was returned to service at 1440 hours. This pump had been removed from service at 0858 hours 9/19/79 for overhaul.
- 10/08/79 -- Containment Recirculation Sump started showing an accumulation of water. Pump-out and analysis of this water indicated it to be secondary side leakage rather than primary. Reactor coolant leakage remained the same at 0.4 gpm. Leakage into the sump was calculated to be 0.4 gpm.
- 10/11/79 -- The Spent Fuel Pit Ventilation Exhaust System was made inoperable at 0950 hours for replacement of the charcoal filter material. This system was returned to operable at 1850 hours 10/17/79.
- 10/12/79 -- The normal reserve power source to Auxiliary Transformer 101AB was out of service for an 8 hour period to make repairs to an underground cable. This cable had been dug into while making an excavation in the plant yard. The actual cable damage was minor but did require repairs. This source also supplies the 201AB Transformer on Unit 2 so it was also inoperable the same length of time.
- 10/13/79 -- The #4 Reactor Coolant Pump low level oil alarm started annunciating. This was identified to be the upper reservoir of the motor. The oil level was monitored by installed television and was still adequate.

Docket No.: 50-315
Unit Name: D. C. Cook Unit #1
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: November 14, 1979
Page: 2 of 3

10/16/79 -- The #2 Steam Generator Stop Valve Dump Valve MRV-221 was inoperable for a 4 hour period to repair a steam leak.

The Motor Driven Auxiliary Feed Pump was inoperable for a 2.75 hour period for lubrication.

10/18/79 -- The 150 Foot Wind Direction Recorder was out of service for a 0.75 hour period for repairs. This outage was common to both units.

10/19/79 -- The 150 Foot Wind Direction Recorder was out of service for a 7 hour period for repairs. This outage was common to both units.

10/21/79 -- Power was reduced to 85% for testing of Main Turbine Control Valves. Total time below 100% level was 6 hours.

10/22/79 -- The 150 Foot Wind Direction Recorder was out of service for a 3.5 hour period for repairs. This outage was common to both units.

10/27/79 -- The Unit was released for a scheduled outage at 1330 hours. Intentions were for a normal load reduction outage; however, the Unit tripped from 50% power at 1440 hours due to a high level in the right Moisture Separator.

Reason for the outage was to add oil to the upper reservoir of the #4 Reactor Coolant Pump, locate and repair the source of secondary leakage reported 10/08/79 and to investigate excessive vibration in the #2 Reactor Coolant Pump. Also intended during the outage was to replace the oscillator card in the #4 instrument bus inverter and to repair a leak in the stator cooling water system of the Main Generator.

Condenser Air Ejector Radiation Monitor R-15 was inoperable for a 5.5 hour period.

103-31591

Docket No.: 50-315
Unit Name: D. C. Cook Unit #1
Completed By: R. S. Lease
Telephone: (616) 465-5901
Date: November 14, 1979
Page: 3 of 3

10/28/79 -- It was decided it was necessary to cool down and drain down the Reactor Coolant System to make repairs to the #2 Reactor Coolant Pump. Degassing of the system was initiated at 1230 hours and cool down at 1910 hours.

10/29/79 -- The Reactor Plant entered Mode 5 at 1940 hours.

10/30/79 -- The Reactor Coolant System was drained to 1/2 loop.

The 34.5 KV power source to Transformers 101AB and 101CD was de-energized at 0831 hours. This also removed the power from Unit 2 Transformers 201AB and 201CD. Both units at this time were receiving 4KV auxiliary power from their normal power source. This was accomplished by removing links between the Main Generator and the Main Transformer. The reason for this outage was to make modifications to the 34.5 KV switchyard that supplies this normal reserve power. Modifications were completed and the reserve power source of both units was returned to operable at 1718 hours 11/01/79.

The source of secondary leakage was identified to be on a 3/4" level tap of #1 Steam Generator. Welding repairs were made.

100-2-100
100-2-100

DOCKET NO.	50 - 315
UNIT NAME	<u>D. C. Cook - Unit No. 1</u>
DATE	<u>11-13-79</u>
COMPLETED BY	<u>B. A. Svensson</u>
TELEPHONE	<u>(616) 465-5901</u>

MAJOR SAFETY-RELATED MAINTENANCE

OCTOBER, 1979

- M-1 No. 2 steam generator stop valve dump valve, MRV-221 was leaking. Replaced valve seat, machined plug and reassembled with new gaskets. Had valve tested.
- M-2 Oil was found in the AB diesel generator "AB2" starting air receiver. Investigation determined oil to be coming from the air compressor. Replaced the "1AB2" air compressor.
- M-3 The root valve for #1 steam generator level instrument, BLI-110V1 was leaking at a socket weld. Repaired by welding and had required NDE performed.
- C&I-1 MRV-233, No. 3 steam generator power-operated relief valve was leaking when in auto. The valve could be closed manually. The valve's stroke was tested and indicated a problem with the pneumatic relays. The pneumatic relays required disassembly and cleaning. Following re-assembly and installation of the relays, calibration was performed, and correct valve operation was achieved.
- C&I-2 BLP-130, No. 3 steam generator pressure channel failed low. Problem was traced to the penetration feed-throughs. The penetration feed-throughs were changed, and proper operation verified.
- C&I-3 $\Delta T/T_{avg}$, Loop 2 was found to be out of spec. when performing surveillance test. TY-421A, bistable was found to be out of spec.; it was replaced and calibrated. Proper operation was verified, and the loop was returned to service.
- C&I-4 A non-urgent failure alarm on the rod control system was received in the control room. A power supply fuse in the logic cabinet had opened. The blown fuse indicator on the opened fuse failed to indicate the condition. A spare fuse was installed. Loose contacts on the alarm circuit board in the power cabinet also produced the non-urgent failure alarm. The contacts were cleaned and tightened.
- C&I-5 Steam Generator No. 4 level protection channel III indicated 6% greater than the adjacent channels. BLP-142, Barton reverse-acting equalized transmitter was replaced with a spare transmitter.