OPERATING DATA REPORT

DOCKET NO. 50-315
DATE 4/3/84
COMPLETED BY W. T. Gillett
TELEPHONE 616-465-590

OPERATING STATUS

1. Unit Name: Donald C. Cook 1
2. Reporting Period: March 1984
3. Licensed Thermal Power (MWt): 3250
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1030
6. Maximum Dependable Capacity (Gross MWe): 1056
7. Maximum Dependable Capacity (Net MWe): 1020
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	2,184	81,072
12. Number Of Hours Reactor Was Critical	744	2,007.1	59,625.1
13. Reactor Reserve Shutdown Hours	-	-	463
14. Hours Generator On-Line	744	1,992.9	*58,336.6
15. Unit Reserve Shutdown Hours	-	-	321
16. Gross Thermal Energy Generated (MWH)	2,279,795	5,962,963	170,307,013
17. Gross Electrical Energy Generated (MWH)	749,350	1,962,040	55,888,330
18. Net Electrical Energy Generated (MWH)	721,900	1,888,530	53,768,870
19. Unit Service Factor	100	91.3	73.8
20. Unit Availability Factor	100	91.3	73.8
21. Unit Capacity Factor (Using MDC Net)	95.1	84.8	66.7
22. Unit Capacity Factor (Using DER Net)	94.2	83.9	63.9
23. Unit Forced Outage Rate	0	8.8	7.8

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		

Includes 129.3 hours error on February 1984 Report

(NRC)

IE24

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-315

UNIT 1

DATE 4/3/84

COMPLETED BY W. T. Gillett

TELEPHONE 616-465-5901

MONTH March 1984

DAY	AVERAGE DAILY POWER LEVEL (MWE-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	961	17	1022
2	912	18	1023
3	949	19	1022
4	1027	20	1021
5	1028	21	1016
6	1027	22	991
7	1028	23	736
8	1025	24	572
9	1026	25	912
10	1026	26	1033
11	746	27	1032
12	1024	28	1032
13	1025	29	797
14	1023	30	1017
15	1023	31	979
16	1023		

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 MARCH, 1984

DOCKET NO. 50-315
UNIT NAME D.C. Cook - Unit 1
DATE 4-6-84
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
214	840311	F	0	H	4	N.A.	HF	HTEXCH	Reactor power reduced to 55% to remove the main feed pumps from service (one at a time) to clean the feed pump turbine condenser water boxes. Power returned to 99% the same day.
215	840322	F	0	H	4	N.A.	HF	HTEXCH	Reactor power reduced to 71% to remove turbine condenser halves from service for cleaning of condenser water boxes. Power further reduced to 55% to permit removal of one feed pump at a time to clean the feed pump turbine condensers. Power increased to 100% on 840325.
216	840329	F	0	B	4	N.A.	HC	HTEXCH	Reactor power reduced to 70% to remove C-South condenser half from service for a tube leak check. One tube was plugged. Power returned to 100% on 840330.

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 completely[1]. 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 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.

[1] Note 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 50 MW as the break point. For larger power reactors, 50 MW is too small a change to warrant explanation.

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH MARCH, 1984

DOCKET NO. 50-315
UNIT NAME D.C. Cook - Unit 1
DATE 4-6-84
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
217	840331	F	0	B	4	N.A.	HC	HTEXCH	Reactor power reduced to 70% to remove B-North condenser half from service for a tube leak check. Reactor power was at 70% at the end of the month. One tube was plugged in B-North condenser.

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:
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2-Manual Scram.
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(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

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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.

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Docket No.: 50-315
Unit Name: D. C. Cook Unit 1
Completed By: G. J. Peak
Telephone: (616) 465-5901
Date: 4/4/84
Page: 1 of 2

MONTHLY OPERATING ACTIVITIES - MARCH 1984

Highlights:

The Unit entered the reporting period in Mode 1, holding at 99% of rated thermal power due to the Allowable Power Limit Restriction. Major power reductions occured to remove the main feed pumps from service (one at a time) to clean their condenser water boxes and to remove from service main condenser halves (one at a time) for cleaning and tube leak inspections. As the reporting period came to an end, the Unit was operating at 70% of rated thermal power due to a main condenser half being out of service for a tube leak check.

Total electrical generation for the month was 749,350 MWH.

Summary:

3/1/84 Power was reduced to 90% at 1112 hours to repair a leak in the piping from the MSR drain tank to the 5B heater.

3/3/84 Power was returned to 99% at 1739 hours following repairs to the MSR drain tank piping.

3/7/84 The North Safety Injection pump was inoperable from 0604 hours on 3/7/84 to 0147 hours on 3/8/84 to repair a reach rod.

3/11/84 The CD Diesel Generator was inoperable for a 19 hour period for trouble shooting of the Electro-Pneumatic Tachometer.

Power was reduced to 55% at 0625 hours to remove both main feed pumps from service (one at a time) to clean their condenser water boxes. Power was returned to 99% at 2355 hours following water box cleaning.

3/21/84 Power was reduced to 96% at 2020 hours in order to be in a conservative position with respect to core hot channel factors.

3/22/84 A power reduction began at 2245 hours to clean condenser water boxes.

3/23/84 The power reduction stopped at 71.5% at 0601 hours due to a rod control failure. The failure was determined to be caused by a blown fuse and rod control was returned at 0955 hours. The cleaning of condenser water boxes then continued.

3/24/84 Power was further reduced to 55% at 0535 hours in order to remove both main feed pumps from service (one at a time) to clean their condenser water boxes. Both main feed pumps were back in service at 2101 hours and a power increase began at 2115 hours.

3/25/84 Power reached 100% at 1335 hours as a new Allowable Power Limit went into effect which permitted operation at 100% of rated thermal power.

3/29/84 Power was reduced to 70% at 0638 hours in order to remove C South Condenser half from service for a tube leak check. One tube was plugged in C South Condenser and a power increase back to 100% started at 1805 hours.

3/30/84 Power reached 100% at 0542 hours.

3/31/84 Power was reduced to 70% at 2254 hours in order to remove B North Condenser half from service for a tube leak check.

The Control Room Cable Vault Halon System remains inoperable as of 1400 hours on 4/5/83. The backup CO_2 System for the Control Room Cable Vault remains operable.

DOCKET NO.	50 - 315
UNIT NAME	D. C. Cook - Unit No. 1
DATE	4-6-84
COMPLETED BY	B. A. Svensson
TELEPHONE	(616) 465-5901
PAGE	1 of 1

MAJOR SAFETY-RELATED MAINTENANCE

MARCH, 1984

M-1 Starting air compressor (1-CD-2) discharge check valve #1-DG-101C for Unit 1 CD Emergency Diesel was leaking by. The valve was disassembled, cleaned, seats lapped and re-assembled.

M-2 Starting air compressor (1-AB-1) discharge check valve #1-DG-103A for Unit 1 AB Emergency Diesel was leaking by. The valve was disassembled, cleaned, seats lapped and re-assembled.

M-3 Charcoal filter face damper inside of 1-HV-AES-2 fan filter housing would not close properly. The damper was adjusted and linkage lubricated. Testing was completed satisfactorily following repairs.

M-4 North waste gas compressor continuously tripped on low moisture separator pressure. The diaphragm on the compressor inlet valve #RRV-378N was replaced. Testing was completed and the compressor was returned to service.

M-5 Investigated abnormal noise in the east component cooling pump. The rotating assembly was found damaged by pieces of the broken suction strainer. The rotating assembly was replaced. The pump tested satisfactorily and was returned to service.

C&I-1 Auxiliary building ventilation system 1-HV-AES-1 "roll-a-matic" filter advance timer was inoperable. Wiring errors in the timer motor circuit were corrected to provide proper filter motion.

C&I-2 Emergency diesel generator "AB" starting-air valve "L's" quick-exhaust valve leaked air. The leaking valve was replaced.

C&I-3 Post-accident containment hydrogen monitoring system train "A" would not hold a constant reading when tested with reagent-grade H_2. The detector cell was found to be defective and was replaced. The sample pressure regulator was set too low and was readjusted to specifications. The system was tested and declared operable.

American Electric Power System
INDIANA & MICHIGAN ELECTRIC COMPANY
DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106
(616) 465-5901

April 6, 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 1 Technical Specification 6.9.1.6, the attached Monthly Operating Report for the Month of March, 1984 is submitted.

Sincerely,

for 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
A. F. Kozlowski
R. F. Hering
J. F. Stietzel
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1/1