

FORD 2

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FACIL:50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316
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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating rept for Dec 1990 for Donald C Cook
Nuclear Plant.W/900104 ltr.

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Indiana Michigan
Power Company
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
616 465 5901



January 4, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

Pursuant to the requirements of Donald C. Cook Nuclear Plant
Unit 2 Technical Specification 6.9.1.10, the attached Monthly
Operating Report for the month of December 1990 is submitted.

Respectfully,



A.A. Blind
Plant Manager

Attachment

c: NRC Region III
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EPRI - Nuclear Safety Analysis Center
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S.L. Hall
J.G. Keppler
INPO Records Center
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E.C. Schimmel

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N.R.C. OPERATING DATA REPORT

DOCKET NO. 50-316
 DATE 03-Jan-91
 COMPLETED BY WT GILLETT
 TELEPHONE 616-465-5901

OPERATING STATUS

1. Unit Name D. C. Cook Unit 2
 2. Reporting Period DEC, 90
 3. Licensed Thermal Power (MWt) 3411
 4. Name Plate 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 no. 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 Mo.	Yr. to Date	Cumm.
11. Hours in Reporting Period	744.0	8760.0	113952.0
12. No. of Hrs. Reactor Was Critical	621.0	4958.9	75134.9
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator on Line	582.3	4856.4	73585.9
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Therm. Energy Gen. (MWH)	1887935	15289163	226167053
17. Gross Elect. Energy Gen. (MWH)	621030	4990730	73786840
18. Net Elect. Energy Gen. (MWH)	599299	4813309	71058967
19. Unit Service Factor	78.3	55.4	65.9
20. Unit Availability Factor	78.3	55.4	65.9
21. Unit Capacity Factor (MDC Net)	76.0	51.8	60.1
22. Unit Capacity Factor (DER Net)	73.2	50.0	58.5
23. Unit Forced Outage Rate	21.7	10.8	13.6
24. Shutdowns Scheduled over Next Six Months (Type, Date, and Duration):			

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		

NOTE: The NRC Report for December 1990, lines 12, 14, 19 and 20 for the Year to Date and Cumm. columns has been corrected for a 24 hour error made in November 1990.

AVERAGE DAILY POWER LEVEL (MWe-Net)

DOCKET NO. 50-316
UNIT TWO
DATE 03-Jan-91
COMPLETED BY WT GILLETT
TELEPHONE 616-465-5901

MONTH DEC, 90

DAY	AVERAGE DAILY POWER LEVEL	DAY	AVERAGE DAILY POWER LEVEL
1	1091	17	0
2	1090	18	0
3	1092	19	0
4	1095	20	418
5	1093	21	979
6	1091	22	923
7	1094	23	1031
8	1091	24	1033
9	1088	25	1088
10	1085	26	1098
11	1093	27	1097
12	152	28	1093
13	0	29	1095
14	226	30	1094
15	547	31	1094
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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1990

DOCKET NO: 50-316
 UNIT NAME: D.C. COOK UNIT 2
 DATE: January 4, 1990
 COMPLETED BY: E.C. Schimmel
 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 NO.	SYSTEM CODE ⁴	COMPONENT CODE ⁵	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
210	12/12/90	F	54.1	A	3	90-012-00	CH	INSTRU	The unit tripped from 100% RTP at 0318 hours on 901212, due to the malfunction of the west main feedwater pump thrust bearing wear detection device. The thrust bearing wear detector was repaired. The unit was returned to service at 0925 hours on 901214.
211	12/15/90	F	107.6	A	3	90-013-00	EC	BATTERY	A reactor shutdown per Technical Specification 3.8.2.3 action statement was initiated at 1245 hours on 901215 due to 2-AB battery being inoperable. During the shutdown a unit trip from 38% RTP occurred due to an AMSAC system initiation.

(continued on next page)

1	2	3	4	5
F: Forced S: Scheduled	Reason: A: Equipment Failure (Explain) B: Maintenance or Test C: Refueling D: Regulatory Restriction E: Operator Training and License Examination F: Administrative G: Operational Error (Explain) H: Other (Explain)	Method: 1: Manual 2: Manual Scram 3: Automatic Scram 4: Other (Explain)	Exhibit G - Instructions for preparation of data entry sheets for Licensee Event Report (LER) File (NUREG 0161)	Exhibit I: Same Source



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UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: December 1990

DOCKET NO: 50-316
 UNIT NAME: D.C. COOK UNIT 2
 DATE: January 4, 1990
 COMPLETED BY: E.C. Schimmel
 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 NO.	SYSTEM CODE ⁴	COMPONENT CODE ⁵	CAUSE AND CORRECTIVE ACTION TO PREVENT RECURRENCE
211	12/12/90	(continued)							<p>The 2-AB battery was declared inoperable due to a greater than allowable decrease in an individual cell voltage. The battery was restored to operable condition by electrically removing the cell from the battery.</p> <p>Investigation of the AMSAC system revealed that the feedwater low flow trip was set to an incorrect setpoint. The AMSAC system was recalibrated to the correct setpoint and declared operable. The unit was returned to service at 0237 hours on 901220.</p>

1	2	3	4	5
F: Forced S: Scheduled	Reason: A: Equipment Failure (Explain) B: Maintenance or Test C: Refueling D: Regulatory Restriction E: Operator Training and License Examination F: Administrative G: Operational Error (Explain) H: Other (Explain)	Method: 1: Manual 2: Manual Scram 3: Automatic Scram 4: Other (Explain)	Exhibit G - Instructions for preparation of data entry sheets for Licensee Event Report (LER) File (NUREG 0161)	Exhibit I: Same Source

DOCKET NO: 50-316
UNIT NAME: D.C. Cook Unit 2
COMPLETED BY: E.C. Schimmel
TELEPHONE: (616) 465-5901
DATE: January 4, 1991
PAGE: 1 of 3

MONTHLY OPERATING ACTIVITIES - December 1990

HIGHLIGHTS

The unit entered the reporting period at 100% Rated Thermal Power. The unit tripped at 0318 hours on December 12, 1990 due to low feedwater flow coincident with low level on steam generator loop 4. The low feedwater flow condition was caused by a trip of the west main feedpump turbine due to a false initiation of the feedpump turbine thrust bearing wear detection device. The unit was returned to service at 0925 hours on December 14, 1990. 100% Rated Thermal Power was reached at 0825 hours on December 15, 1990.

A forced unit shutdown commenced beginning 1245 hours on December 15, 1990 due to the AB train battery being inoperable. The reactor tripped during the shutdown due to an incorrect AMSAC system initiation. The unit was brought to Mode 5, cold shutdown. The reactor was returned critical At 0525 hours on December 18, 1990. The reactor was shutdown at 1530 hours on December 18, 1990 to allow repair of the containment sump system. The unit remained in mode 3 for containment sump system repairs. The main generator was paralleled to the grid at 0237 hours on December 20, 1990. The unit reached 100% Rated Thermal Power at 0133 hours on December 25, 1990.

Gross electrical generation for the month of July was 621030 MWH.

DETAILS

12/12/90	0318	The reactor tripped due to low feedwater flow coincident with low level on steam generator #4.
12/13/90	1111	Commenced reactor startup.
	1147	The reactor is critical.
12/14/90	0607	The unit is in Mode 1.
	0925	The main generator is paralleled to the system grid.
12/15/90	0825	The unit is at 100% Rated Thermal Power.
	1245	Commenced unit shutdown due to the AB battery being inoperable.
	1501	The reactor tripped at approximately 38% Rated Thermal Power due to an incorrect AMSAC system initiation.

12/15/90 1912 Commenced RCS cooldown to Mode 5.

12/16/90 0014 The RCS entered Mode 4.
0600 The RCS entered Mode 5.

12/17/90 0330 Commenced RCS heatup to Mode 3.
0748 The RCS is in mode 3.

12/18/90 0430 Commenced reactor startup.
0525 The reactor is critical.
1426 Commenced reactor shutdown to allow repair of
containment sump system.
1530 The RCS entered Mode 3.

12/19/90 1851 Commenced reactor startup.
1934 The reactor is critical.
2144 The reactor entered Mode 1.

12/20/90 0237 The main generator is paralleled to the system
grid.
0245 Commenced unit power increase to 48% Rated
Thermal Power.
1110 The unit is holding at 48% Rated Thermal Power
for calorimetrics testing and quadrant power
tilt ratio stabilization.
1230 Commenced unit power increase to 95% Rated
Thermal Power.

12/21/90 0412 The unit is at 95% Rated Thermal Power.
2115 Commenced unit power reduction due to a
misaligned control rod.
2155 The misaligned control rod is within
specification. Stopped unit power reduction at
76% Rated Thermal Power.

12/22/90	0420	Commenced unit power increase to 95% Rated Thermal Power.
12/22/90	1735	The unit is at 95% Rated Thermal Power.
12/24/90	1600	Placed moisture separator reheaters in service.
12/25/90	0133	The unit is at 100% Rated Thermal Power.

DOCKET NO: 50-316
UNIT NAME: D.C. Cook Unit 2
COMPLETED BY: E.C. Schimmel
TELEPHONE: (616) 465-5901
DATE: January 4, 1990
PAGE: 1 of 1

MAJOR SAFETY-RELATED MAINTENANCE - December 1990

There were no major safety-related maintenance items during the month of December.

