



Omaha Public Power District  
444 South 16th Street Mall  
Omaha NE 68102-2247

January 15, 1997  
LIC-97-0002

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, D.C. 20555

Reference: Docket No. 50-285

**SUBJECT: December 1996 Monthly Operating Report (MOR)**

Enclosed please find the December 1996 MOR for Fort Calhoun Station (FCS) Unit No. 1 as required by FCS Technical Specification 5.9.1.

If you should have any questions, please contact me.

Sincerely,

J. W. Tills  
Manager - Nuclear Licensing

JWT/mle

Enclosures

c: Winston & Strawn  
L. J. Callan, NRC Regional Administrator, Region IV  
L. R. Wharton, NRC Project Manager  
W. C. Walker, NRC Senior Resident Inspector  
R. J. Simon, Westinghouse  
INPO Records Center

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OMAHA PUBLIC POWER DISTRICT  
Fort Calhoun Station Unit No. 1

December 1996  
Monthly Operating Report

1. OPERATIONS SUMMARY

Following the 1996 refueling outage, from December 1 through December 6, the Fort Calhoun Station (FCS) increased power to 97%. On December 6 at 0902 hours, power was reduced to 92% to complete Moderator Temperature Coefficient testing. This testing was completed on December 8 at 1109 hours.

On December 8 at 1440 hours, power was reduced to 85% to facilitate turbine control valve testing. The testing was satisfactorily completed at 1800 hours and power ascension commenced.

Unreliable emergency response facility (ERF) computer operation caused reactor power to be maintained between 95% and 98% between December 9 and December 16. This was done to maintain Peak Linear Heat Rate (PLHR) at less than 90% of the limit (15.5 KW/ft as defined in Technical Specification 2.10.4 and the Core Operating Limits Report). Technical Specification 2.10.4(c)i would have required power to be reduced to 80% (rodded) or 85% (unrodded) if the ERF computer had failed while at a higher power level. Hardware problems were detected when the "C" host was running as the active computer. Circuit boards were reseated, power was cycled and the "D" host was selected as the active computer. This resolved the problem and on December 16 at 0910 hours, the ERF computer tested satisfactorily and reactor power was increased to 100%.

On December 31 at 1100 hours FCS entered Abnormal Operating Procedure AOP-05, Emergency Shutdown, due to a non-isolatable steam leak on a drain line going to the condensor. At 1128 hours, a Notification Of Unusual Event (NOUE) was declared per EAL 11.6, "Plant Conditions Warrant Increased Awareness By Plant Staff Or Government Authorities." Appropriate NRC, state and local authorities were notified of the NOUE. At 1330 hours, the turbine was manually tripped and the leak was isolated. The reactor remained critical at approximately 10% power during the repairs. At 1333 hours, AOP-05 was exited and at 1340 hours the NOUE was terminated. The leak was repaired and the turbine/generator was placed on line at 1821 hours. On December 31 at 2400 hours, FCS was at 30% power waiting to clear steam generator chemistry holds prior to increasing power.

2. SAFETY VALVES OR PORV CHALLENGES OR FAILURES WHICH OCCURRED

During the month of December, no power operated relief valves (PORV) or primary system safety valve challenges or failures occurred.

3. RESULTS OF LEAK RATE TESTS

The reactor coolant system (RCS) leak rate was steady throughout the month continuing the trend of minimal RCS leakage following the 1996 refueling outage. December daily leak rates were constant at approximately 0.2 gpm except for increases caused by a charging pump packing leak. The leak rate returned to normal following completion of each charging pump packing replacement. No degrading trends were noted this month and the RCS continues to operate with minimal leakage.

4. CHANGES, TESTS AND EXPERIMENTS REQUIRING NUCLEAR REGULATORY COMMISSION AUTHORIZATION PURSUANT TO 10CFR50.59

<u>Amendment No.</u>	<u>Description</u>
Amendment 179	Amendment 179 revises the Technical Specifications to increase the amount of trisodium phosphate (TSP) dodecahydrate located in the containment sump storage baskets.

5. SIGNIFICANT SAFETY RELATED MAINTENANCE FOR THE MONTH OF DECEMBER 1996

- Replaced a 2 micron filter in CH-17A (Purification Filter "A") with a 1 micron filter per ECN 94-568
- Replaced Breaker MCC-3B1-E2R (Battery Room Fan VA-71A) per ECN 96-444
- Removed gag on MS-282 (Main Steam Line "B" Relief Valve)
- Repaired compressor on VA-46A (Control Room Air Conditioning Unit)
- Replaced optics and master bulbs in YIT-6288A (Toxic Gas Monitor, Chlorine Gas)
- Replaced 5 General Electric CR120A relays per ECN 95-374

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6. OPERATING DATA REPORT

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7. AVERAGE DAILY UNIT POWER LEVEL

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Attachment IV

ATTACHMENT I  
OPERATING DATA REPORT

DOCKET NO.	50-285
UNIT	FORT CALHOUN STATION
DATE	JANUARY 07 1997
COMPLETED BY	M. L. EDWARDS
TELEPHONE	402-533-6929

OPERATING STATUS

1. Unit Name: FORT CALHOUN STATION
2. Reporting Period: DECEMBER 1996

NOTES

3. Licensed Thermal Power (MWt): 1500
4. Nameplate Rating (Gross MWe): 502
5. Design Elec. Rating (Net MWe): 478
6. Max. Dep. Capacity (Gross MWe): 502
7. Max. Dep. Capacity (Net MWe): 478

8. If changes occur in Capacity Ratings (3 through 7) since last report, give reasons:  
N/A

9. Power Level to which restricted, if any (Net MWe): N/A

10. Reasons for restrictions, if any:  
N/A

	THIS MONTH	YR-TO-DATE	CUMULATIVE
11. Hours in Reporting Period.....	744.0	8784.0	203978.0
12. Number of Hours Reactor was Critical	744.0	6983.6	160691.6
13. Reactor Reserve Shutdown Hours.....	.0	.0	1309.5
14. Hours Generator On-line.....	739.1	6887.3	158867.8
15. Unit Reserve Shutdown Hours.....	.0	.0	.0
16. Gross Thermal Energy Generated (MWH)	1064592.8	9817571.7	212503880.0
17. Gross Elec. Energy Generated (MWH)..	361226.0	3284507.9	70218233.1
18. Net Elec. Energy Generated (MWH)....	344367.7	3128752.5	66986121.3
19. Unit Service Factor.....	99.3	78.4	77.9
20. Unit Availability Factor.....	99.3	78.4	77.9
21. Unit Capacity Factor (using MDC Net)	96.8	74.5	70.9
22. Unit Capacity Factor (using DER Net)	96.8	74.5	69.3
23. Unit Forced Outage Rate.....	.0	5.3	4.0

24. Shutdowns scheduled over next 6 months (type, date, and duration of each):  
N/A

25. If shut down at end of report period, estimated date of startup: \_\_\_\_\_

26. Units in test status (prior to comm. oper.):      Forecast      Achieved

INITIAL CRITICALITY  
INITIAL ELECTRICITY  
COMMERCIAL OPERATION

N/A

ATTACHMENT II  
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-285  
UNIT FORT CALHOUN STATION  
DATE JANUARY 07, 1997  
COMPLETED BY M. L. EDWARDS  
TELEPHONE 402-533-6929

MONTH DECEMBER 1996

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

1	321
2	411
3	465
4	471
5	471
6	458
7	444
8	435
9	468
10	470
11	470
12	470
13	472
14	475
15	476
16	481

DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)

17	486
18	488
19	488
20	488
21	488
22	488
23	488
24	488
25	488
26	488
27	488
28	488
29	488
30	488
31	261

INSTRUCTIONS

On this form, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

ATTACHMENT III  
UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-285  
UNIT NAME Fort Calhoun St.  
DATE January 9, 1997  
COMPLETED BY M. L. Edwards  
TELEPHONE (402) 533-6929

REPORT MONTH December 1996

No.	Date	Type	Duration (Hours)	Reason	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
96-07	961231	F	4.9	A	1	N/A	CC	PIPEXX	On December 31, 1996 at 1100 hours, a non-isolatable steam leak on a drain line going to the condenser developed. The turbine was manually tripped and the leak was isolated. The reactor remained critical at approximately 10% power during the repairs. Following repairs, the generator was placed online at 1821 hours.

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  
H-Other (Explain)

3  
Method:  
1-Manual  
2-Manual Scram  
3-Automatic Scram  
4-Other (Explain)

4  
Exhibit F - Instructions  
for Preparation of Data  
Entry Sheets for Licensee  
Event Report (LER) File (NUREG-0161)

5  
Exhibit H - Same Source

(9/77)



Attachment IV  
Refueling Information  
Fort Calhoun Station Unit No. 1

Report for the month ending: <u>December 31, 1996</u>	
1. Scheduled date for next refueling shutdown.	March 27, 1998
2. Scheduled date for restart following refueling.	May 2, 1998
3. Will refueling or resumption of operations thereafter require a technical specification change or other license amendment?	No
a. If answer is yes, what, in general, will these be?	N/A
b. If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload?	No
c. If no such review has taken place, when is it scheduled?	Prior to May 2, 1998
4. Scheduled date(s) for submitting proposed licensing action and support information.	No submittal required
5. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.	None
6. The number of fuel assemblies: a) in the core b) in the spent fuel pool c) spent fuel pool storage capacity	133 Assemblies 662 Assemblies 1083 Assemblies
7. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.	2007 Outage
Prepared by: <u>Thomas J. King</u> Date: <u>1/8/96</u>	