

Omaha Public Power District  
444 South 16th Street Mail  
Omaha, Nebr., 68102-2247  
402/636-2000

May 14, 1992  
LIC-92-179R

Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop P1-137  
Washington, DC 20555

Reference: Docket No. 50-285

Gentlemen:

SUBJECT: April 1992 Monthly Operating Report (MOR)

Enclosed is the April 1992 MOR for Fort Calhoun Station (FCS) Unit No. 1 as required by FCS Technical Specification Section 5.9.1.

If you should have any questions, please contact me.

Sincerely,

*W. G. Gates*

W. G. Gates  
Division Manager  
Nuclear Operations

WGG/sel

Enclosures

c: LeBoeuf, Lamb, Leiby & MacRae  
R. D. Martin, NRC Regional Administrator, Region IV  
R. P. Mullikin, NRC Senior Resident Inspector  
D. L. Wigginton, NRC Senior Project Manager  
S. D. Bloom, NRC Project Engineer  
R. T. Pearce, Combustion Engineering  
R. J. Simon, Westinghouse  
Office of Management & Program Analysis (2)  
INPO Records Center  
American Nuclear Insurers

9205150170 920430  
PDR ADOCK 05000285  
R PDR

*JE24*

OPERATING DATA REPORT

DOCKET NO. 50-285  
 UNIT FORT CALHOUN STATION  
 DATE MAY 11 1992  
 COMPLETED BY G. R. CAVALAUGH  
 TELEPHONE (402)636-2474

OPERATING STATUS

1. Unit Name: FORT CALHOUN STATION  
 2. Reporting Period: APRIL 1992

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:

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.....       | 719.0      | 2903.0     | 163033.0    |
| 12. Number of Hours Reactor was Critical | .0         | 751.0      | 125569.7    |
| 13. Reactor Reserve Shutdown Hours.....  | .0         | .0         | 1309.5      |
| 14. Hours Generator On-line.....         | .0         | 746.0      | 124123.1    |
| 15. Unit Reserve Shutdown Hours.....     | .0         | .0         | .0          |
| 16. Gross Thermal Energy Generated (MWH) | .0         | 958856.1   | 162582581.8 |
| 17. Gross Elec. Energy Generated (MWH).. | .0         | 323236.0   | 53499362.2  |
| 18. Net Elec. Energy Generated (MWH).... | .0         | 306776.6   | 51040528.0  |
| 19. Unit Service Factor.....             | .0         | 25.7       | 76.1        |
| 20. Unit Availability Factor.....        | .0         | 25.7       | 76.1        |
| 21. Unit Capacity Factor (using MDC Net) | .0         | 22.1       | 68.1        |
| 22. Unit Capacity Factor (using DER Net) | .0         | 22.1       | 66.3        |
| 23. Unit Forced Outage Rate.....         | .0         | .0         | 3.9         |

24. Shutdowns scheduled over next 6 months (type, date, and duration of each):  
 THE THIRTEENTH REFUELING OUTAGE CONCLUDED AND THE PLANT WENT ON-LINE  
 MAY 3, 1992. NO OUTAGES ARE SCHEDULED OVER THE NEXT SIX MONTHS.

25. If shut down at end of report period, estimated date of startup: 05/03/92

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

INITIAL CRITICALITY  
 INITIAL ELECTRICITY  
 COMMERCIAL OPERATION

N/A

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-285  
 UNIT FORT CALHOUN STATION  
 DATE MAY 11 1992  
 COMPLETED BY G. R. CAVANAUGH  
 TELEPHONE (402)636-2474

MONTH APRIL 1992

| DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-Net) | DAY | AVERAGE DAILY POWER LEVEL<br>(MWe-Net) |
|-----|--|-----|--|
| 1   | 0                                      | 17  | 0                                      |
| 2   | 0                                      | 18  | 0                                      |
| 3   | 0                                      | 19  | 0                                      |
| 4   | 0                                      | 20  | 0                                      |
| 5   | 0                                      | 21  | 0                                      |
| 6   | 0                                      | 22  | 0                                      |
| 7   | 0                                      | 23  | 0                                      |
| 8   | 0                                      | 24  | 0                                      |
| 9   | 0                                      | 25  | 0                                      |
| 10  | 0                                      | 26  | 0                                      |
| 11  | 0                                      | 27  | 0                                      |
| 12  | 0                                      | 28  | 0                                      |
| 13  | 0                                      | 29  | 0                                      |
| 14  | 0                                      | 30  | 0                                      |
| 15  | 0                                      | 31  | 0                                      |
| 16  | 0                                      |     |  |

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.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-285  
 UNIT NAME Fort Calhoun St..  
 DATE May 11, 1992  
 COMPLETED BY G. R. Cavanaugh  
 TELEPHONE (402) 636-2474

REPORT MONTH April 1992

| No.   | Date     | Type <sup>1</sup> | Duration (Hours) | Reason <sup>2</sup> | Method of Shutting Down Reactor <sup>3</sup> | Licensee Event Report # | System Code <sup>4</sup> | Component Code <sup>5</sup> | Cause & Corrective Action to Prevent Recurrence                                |
|-------|----------|-------------------|------------------|---------------------|--|-------------------------|--------------------------|-----------------------------|--|
| 92-01 | 02/01/92 | S                 | 2157.0           | C                   | 1  |                         | XX                       | XXXXXX                      | On February 1, 1992, the 13th Fort Calhoun Station Refueling Outage commenced. |

- |  |   |   |   |
|--|---|---|---|
| <p><sup>1</sup><br/>F: Forced<br/>S: Scheduled</p> | <p><sup>2</sup><br/>Reason:<br/>A-Equipment Failure (Explain)<br/>B-Maintenance or Test<br/>C-Refueling<br/>D-Regulatory Restriction<br/>E-Operator Training &amp; License Examination<br/>F-Administrative<br/>G-Operational Error (Explain)<br/>H-Other (Explain)</p> | <p><sup>3</sup><br/>Method:<br/>1-Manual<br/>2-Manual Scram.<br/>3-Automatic Scram.<br/>4-Other (Explain)</p> | <p><sup>4</sup><br/>Exhibit G - Instructions<br/>for Preparation of Data<br/>Entry Sheets for Licensee<br/>Event Report (LER) File (NUREG-0161)</p> <p><sup>5</sup><br/>Exhibit 1 - Same Source</p> |
|--|---|---|---|

Refueling Information  
Fort Calhoun - Unit No. 1

Report for the month ending April 1992

1. Scheduled date for next refueling shutdown. Refueling outage began on February 1, 1992
2. Scheduled date for restart following refueling. May 3, 1992
3. Will refueling or resumption of operations thereafter require a technical specification change or other license amendment? Yes
- a. If answer is yes, what, in general, will these be? Incorporate specific requirements resulting from reload safety analysis.
- 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. N/A
- c. If no such review has taken place, when is it scheduled? N/A
4. Scheduled date(s) for submitting proposed licensing action and support information. Submitted November 27, 1991
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. New fuel supplier  
New LOCA analysis
6. The number of fuel assemblies:
- a) in the core 133 Assemblies
  - b) in the spent fuel pool 529 Assemblies
  - c) spent fuel pool storage capacity 729 Assemblies
  - d) planned spent fuel pool storage capacity Planned to be increased with higher density spent fuel racks.
7. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity. 1995\*

\* Capability of full core offload of 133 assemblies lost. Reracking to be performed between the 1993 and 1995 Refueling Outages.

Prepared by Jeri Holt Date 5-14-92

OMAHA PUBLIC POWER DISTRICT  
Fort Calhoun Station Unit No. 1

APRIL 1992  
Monthly Operating Report

I. OPERATIONS SUMMARY

Fort Calhoun Station (FCS) remained shutdown for its thirteenth Refueling and Maintenance Outage. Major activities that occurred during April included the following:

- Reactor Core Mapping and Fuel Reload Verification
- Engineered Safeguards Surveillance Testing
- Draining and Refilling of Steam Generators
- Blacklighting of the Condenser
- Replacement of Station Battery No. 2
- Reestablishment of the RCS Pressure Boundary by Reinstalling the Pressurizer Manway and the Reactor Vessel Head

Fifteen of the twenty-eight Rhodium Incore Nuclear Instrumentation Detectors in the reactor were replaced. The replacements were necessary due to normal deviation of the detectors, and in one case, a detector failure. During that process, a flashlight end cap was accidentally dropped through a tool access hole on the Upper Guide Structure (UGS) lift rig into the Reactor core. Removal of the cap required draining the Reactor cavity and removing the UGS lift rig. Operations located the cap lodged in the bottom of the shroud of CEA No. 3. Operations removed the cap by vacuuming it with the suction hose of the cavity filter.

On April 12, 1992, with the plant in an off-normal electrical lineup, 480 VAC feeder breaker 1B3A tripped. This resulted in a loss of Shutdown Cooling Flow indication and control power to FCV-326. Upon loss of control power, FCV-326 failed open. The pump providing shutdown cooling flow was appropriately secured by Operations to protect it from possible runout. The operating crew determined the cause of the loss of power, restored power, placed the FCV-326 controller in manual, throttled the valve and restarted the pump within seven minutes. This event was reported under Licensee Event Report 92-15.

On April 23, 1992 the RCS was taken water solid for the performance of the cold hydrostatic (200 psia) leak test. Performance of this test is completed prior to plant heatup to detect any gross leakage. No significant leakage was detected.

On April 26, 1992 plant heatup commenced to 395 F in preparation for plant startup. The hot hydrostatic test was conducted at 395 F and 2250 psia. The test yielded several minor valve and fitting leaks. Fort Calhoun Station maintenance personnel repaired these leaks. A small flange leak on RC-142 (Pressurizer Code Safety Valve) was also discovered during this test. The leak was Furmanite sealed prior to power operation. With the hydrostatic test successfully completed, plant heatup to Mode 3 (Hot Shutdown: Tavg > 515 F, and 4% shutdown margin) was accomplished on April 28, 1992.

Surveillance testing required prior to Mode 2 was successfully performed in preparation for taking the reactor critical in early May 1992.

The following NRC inspections took place during April 1992:

| <u>IER No.</u> | <u>Title</u>                              |
|----------------|---|
| 92-03          | Fuel integrity and Reactor Subcriticality |
| 92-09          | Monthly Resident Inspection               |
| 92-10          | Closeout Items Inspection                 |

The following LERs were submitted during April 1992:

| <u>LER No.</u> | <u>LER Date</u> | <u>Description</u>   |
|----------------|-----------------|--|
| 92-09          | 04/01/92        | VIAS During Fuse Replacement in 36B/CRHS   |
| 92-11          | 04/20/92        | Unacceptable Valve Arrangement for Service Air System Containment Penetration M-74 |
| 92-12          | 04/24/92        | Non-conservative Steam Generator Differential Pressure Trip Setpoints              |

A. SAFETY VALVES OR PORV CHALLENGES OR FAILURES WHICH OCCURRED

None.

B. RESULTS OF LEAK RATE TESTS

Due to the 1992 Refueling Outage, only two RCS leakrate tests were performed in April 1992. The first test was performed on April 29, 1992 and the leakrate was 0.156 gpm total (0.125 gpm known and 0.031 gpm unknown). The second leakrate test was performed under Surveillance Test OP-ST-RC-0001 and the results were 0.258 gpm total (0.068 gpm known and 0.190 gpm unknown).

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

| <u>Amendment No.</u> | <u>Description</u>   |
|----------------------|--|
| 143                  | This amendment makes changes to the Technical Specifications to revise the negative limit for the Moderator Temperature Coefficient required for the Cycle 14 Reload.  |
| 144                  | This amendment makes changes to the Technical Specifications to incorporate the latest NRC approved revisions to the Core Operating Limits Report (COLR) required for the Cycle 14 Reload. The changes are administrative in nature. |

| <u>Amendment No.</u> | <u>Description</u>   |
|----------------------|--|
| 145                  | This amendment makes changes to the Technical Specifications by implementing Generic Letter 90-09 concerning Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Action. |

D. SIGNIFICANT SAFETY RELATED MAINTENANCE FOR THE MONTH OF APRIL 1992

Significant safety related work performed during April 1992 included:

Rebuilt and reinstalled "B" raw water pump (AC-10B).

Calibrations and repairs were performed on the following bus-tie breakers:

BT-1B4A  
BT-1B4C

Removed CA-555 (containment service air supply header, in-board isolation valve) and associated piping and replaced with a blank flange.

A cracked cam follower was discovered on a SBM type switch (to be discussed further in LER 92-017). As a result, an inspection of safety significant SBM control switches throughout the plant was performed.

Repaired/replaced the following SBM control switches in the Control Room:

C/TS-120 (Test switch for Channel "C" of DSS)  
CS/1A13 (Control switch for 4.16 kV incoming breaker 1A13)  
CS/1A44 (Control switch for 4.16 kV incoming breaker 1A44)  
CS1/1A-D1 (Control switch for D1 breaker 1AD1)  
HC-258 (Control switch for HCV-258)

The following SBM type switches were replaced in breakers/cubicles in the plant:

1A33 (Feeder for Bus 1A3)  
1A3-12 (Feeder for Transformer T1B-3B)  
1A3-16 (Feeder for Auxiliary Feedwater Pump FW-6)  
1A3-5 (Feeder for Reactor Coolant Pump RC-3C)  
1A4-1 (DG-2 Feed to Bus 1A4)  
1A4-1D (Breaker for Transformer T1B-4A)  
1A4-11 (Feeder for Raw Water Pump AC 10B)  
1A4-14 (Feeder for LPSI Pump SI-1B)  
1A4-15 (Feeder for Lighting Transformer T1C-4A)  
1A4-16 (Feeder for Reactor Coolant Pump RC-3D)  
1A4-18 (345 kV Standby Feed to Bus 1A4)  
1A4-20 (161 kV Normal Feed to Bus 1A4)



1A4-3 (Feeder for Circulating Water Pump CW-1C)  
1A4-4 (Feeder for Heater Drain Pump FW-5C)  
1A4-5 (Feeder for Feed Pump FW-4C)  
1A4-8 (Feeder for Transformer T1B-4C)  
1A4-6 (Feeder for Condensate Pump FW-2C)  
1A4-12 (Feeder for Raw Water Pump AC-10D)

Replaced rotor retaining bolts and cooling fan blades for DG-2.

Refurbished and tested the following motor operated valves (MOV) as part of the MOV testing program:

HCV-1041C (Main Steam Bypass Valve)  
HCV-1042C (Main Steam Bypass Valve)  
HCV-1384 (Main and Auxiliary feed water cross-connect valve)  
HCV-150 (Pressurizer RC-4 relief isolation valve)  
HCV-151 (Pressurizer RC-4 relief isolation valve)  
HCV-308 (Charging Pump CH-1A/BIC discharge to HPSI header isolation valve)  
HCV-311 (HPSI to RC Loop 1B Isolation Valve)  
HCV-315 (HPSI to RC Loop 1A Isolation Valve)  
HCV-317 (HPSI to RC Loop 2A Isolation Valve)  
HCV-320 (HPSI to RC Loop 2B Isolation Valve)  
HCV-490A (Comp. Cooling Heat Exchanger AC-1B CCW Inlet Valve)

Replaced/repared the following "86" type (lockout) relays:

86A/CPHS (Channel "A" Containment Pressure High Signal Lockout Relay)  
86A/PPLS (Channel "A" Pressurizer Low Pressure Signal Lockout Relay)  
86A/VIAS (Channel "A" Safety Injection Actuation Signal Lockout Relay)  
86A/VIAS (Channel "A" Ventilation Isolation Actuation Signal Lockout Relay)  
86B/CRHS (Channel "B" Containment High Radiation Signal Lockout Relay)  
86B1/VIAS (Channel "B" Ventilation Isolation Actuation Signal Lockout Relay)