

Omaha Public Power District
444 South 16th Street Mall
Omaha, Nebraska 68102-2247
402/636-2000

March 14, 1991
LIC-91-106R

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

Reference: Docket No. 50-285

Gentlemen:

SUBJECT: February Monthly Operating Report (MOR)

Please find enclosed the February 1991 Monthly Operating Report for the Fort Calhoun Station Unit No. 1 as required by Technical Specification Section 5.9.1.

If you should have any questions, please contact me.

Sincerely,



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. Illikin, NRC Senior Resident Inspector
D. K. Stettin, Combustion Engineering
R. J. Simon, Westinghouse
Office of Management & Program Analysis (2)
INPO Records Center
American Nuclear Insurers

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-285
UNIT Fort Calhoun Station
DATE March 12, 1991
COMPLETED BY M. L. EDWARDS
TELEPHONE (402)636-2451

MONTH February 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	488	17	357
2	488	18	356
3	488	19	356
4	488	20	355
5	488	21	355
6	488	22	353
7	488	23	328
8	488	24	329
9	488	25	329
10	487	26	329
11	459	27	329
12	359	28	328
13	355		
14	355		
15	356		
16	356		

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.

OPERATING DATA REPORT

DOCKET NO. 50-285
UNIT Fort Calhoun Station
DATE March 12, 1991
COMPLETED BY M. L. EDWARDS
TELEPHONE (402)636-2451

OPERATING STATUS

Notes

1. Unit Name: Fort Calhoun Station
2. Reporting Period: February 1991
3. Licensed Thermal Power (Mwt): 1500
4. Nameplate Rating (Gross MWe): 502
5. Design Electrical Rating (Net MWe): 478
6. Maximum Dependable Capacity (Gross MWe): 502
7. Maximum Dependable Capacity (Net MWe): 478
8. If changes occur in Capacity Ratings (Item Numbers 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	672.0	1,416.0	152,786.0
12. Number of Hours Reactor was Critical	672.0	1,236.0	118,024.7
13. Reactor Reserve Shutdown Hours	0.0	0.0	1,309.5
14. Hours Generator On-Line	672.0	1,225.2	116,655.1
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	841,517.9	1,629,760.7	152,913,250.0
17. Gross Electrical Energy Generated (MWH)	284,356.0	544,322.0	50,294,448.2
18. Net Electrical Energy Generated (MWH)	269,380.5	517,017.4	48,001,793.7
19. Unit Service Factor	100.0	86.5	76.4
20. Unit Availability Factor	100.0	86.5	76.4
21. Unit Capacity Factor (Using MDC Net)	83.9	76.4	68.1
22. Unit Capacity Factor (Using DER Net)	83.9	76.4	66.6
23. Unit Forced Outage Rate	0.0	13.5	3.6
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): None			

25. If Shut Down at End of Report Period, Estimated Date of Startup: N/A
26. Units In Test Status (Prior to Commercial Operation): Forecast Achieved

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

N/A

Refueling Information
Fort Calhoun - Unit No. 1

Report for the month ending February 1991

1. Scheduled date for next refueling shutdown. January 31, 1992
2. Scheduled date for restart following refueling. May 1, 1992
3. Will refueling or resumption of operation 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. November 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 477 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.

Prepared by Ken Keith Date 3-8-91

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH February 1991

DOCKET NO. 50-285
 UNIT NAME Fort Calhoun Station
 DATE March 7, 1991
 COMPLETED BY M.L. Edwards
 TELEPHONE (402) 636-2451

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
91-01	910211	S	0	H	4	N/A	ZZ	ZZZZZZ	Power level reduced from 100% to 75% for fuel burnup conservation to allow extension of the fuel cycle to January 1992.

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
 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 1 - Same Source

OMAHA PUBLIC POWER DISTRICT
Fort Calhoun Station Unit No. 1

February 1991
Monthly Operating Report

I. OPERATIONS SUMMARY

Fort Calhoun Station operated at a nominal 100% power level until February 11, 1991, when power was reduced to 75% for fuel burn-up conservation. This was done to extend the fuel cycle to January 1992. On February 22, 1991 power was reduced to 70% for fuel cycle extension and to dampen feedwater regulating valve oscillations.

On February 12, 1991, Design Engineering Nuclear (DEN) and Plant Management determined a condition existed outside the design basis in the station's Offsite Power Low Signal (OPLS) degraded voltage protection system. The concern was that under a certain accident scenario, adequate voltage may not be present to assure long-term operation of some safety-related 480 volt equipment. New OPLS setpoints were immediately installed and administrative measures were initiated to limit the operation of certain plant equipment. These steps will ensure that the plant remains within the design basis of the degraded voltage protection system. The administrative measures recently initiated are being revised to allow more flexibility in operating plant electrical loads.

On February 4, 1991 a discrepancy was identified concerning containment penetration M-3, Chemical and Volume Control System (CVCS) injection header to the Reactor Coolant System (RCS). It was discovered that the justification for excluding the penetration from 10CFR50 Appendix J Type C leak rate testing was incorrect. The justification is documented in a Safety Evaluation Report (SER) dated January 1, 1986 and states that the CVCS header will remain pressurized above containment pressure following a design basis accident. Reevaluation of the containment pressure transient following an accident showed that containment pressure could exceed CVCS system pressure when the charging pumps are secured after emergency boration. A 1-hour notification was made to the NRC, and Safety Analysis for Operability (SAO) 91-01 was processed to support continued plant operation with operator actions implemented to ensure containment integrity. Long term actions to address the discrepancy are currently being evaluated.

During the week of February 4, new solenoid valves were installed on emergency diesel generator (DG)-1 for the inlet air dampers. This cleared a temporary modification and resolved the historical problem of sluggish operation of the dampers during cold weather. DG-2 inlet air damper solenoid valves were also replaced during the week of February 25.

Testing was performed on DG-1 which verified the design adequacy of the starting air system. This included setpoint verification and the capability of each starting air system to provide at least five engine starts from the minimum expected receiver tank pressure.

A modification to the DG-2 radiator ductwork was installed which allowed for steam cleaning the radiator as well as inspection and fin combing. This work was performed to increase the cooling capability of the engine. Further testing was performed on the radiator fan blades to determine the optimum fan blade pitch for maximum air flow.

A modification was completed on DG-2 which replaced the obsolete speed sensing device. The DG-1 speed sensing device will be replaced at a later date.

The following NRC inspections took place in February:

IR-91-04 Radiation Protection
IR-91-03 Monthly Inspection (From January 15, 1991 to February 26, 1991)

The following LERs were submitted:

		<u>Date</u>
LER-91-01	Containment Tendon Surveillance not in Accordance with Technical Specifications	02/08/91
LER-91-S01	Security Door Inadvertently Left in Access Mode	02/04/91
LER-90-22	Rev. 2 Nonfunctional Fire Barrier Penetrations	02/06/91

A. SAFETY VALVES OR PORV CHALLENGES OR FAILURES WHICH OCCURRED

None

B. RESULTS OF LEAK RATE TESTS

Results of the Reactor Coolant Leak Rate tests for February, 1991 show that the RCS and CVCS had a very low average leak rate during the month. Total RCS leakage averaged 0.08 gpm divided equally between "known" and "unknown" leakage.

A few instances of negative leak rates occurred due to normal random variation of the test data. Reactor power reductions may also have contributed to the negative leak rate occurrences. RCS leak rate test accuracy is reduced whenever the plant undergoes any departure from equilibrium conditions. Maximum leak rate for the month was recorded on February 4, when the total leak rate was 0.128 gpm, known leakrate was 0.032 gpm, and the unknown leakrate was 0.096 gpm.

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

<u>Amendment No.</u>	<u>Description</u>
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NONE	
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D. SIGNIFICANT SAFETY RELATED MAINTENANCE FOR THE MONTH OF FEBRUARY 1991

Significant maintenance activities during the month of February included the following:

Component Cooling Water/Raw Water Heat Exchanger (AC-1C) was taken out of service to replace the lifting lugs on the end bell flanges.

During Surveillance Testing the lockout relay (86A/RAS) failed to trip in the Engineering Safeguards Panel (AI-30A). The coil burn' due to the lockout relay binding up and was replaced.

Reset several OPLS relays to trip at a higher voltage. This was necessary due to recalculation of the Engineered Safeguards bus voltage during a transient.