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

March 15, 1994
LIC-94-0057

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

Reference: Docket No. 50-285

Gentlemen:

SUBJECT: February 1994 Monthly Operating Report (MOR)

Enclosed is the February 1994 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,

W. G. Gates

W. G. Gates
Vice President

WGG/mah

Enclosures

c: LeBoeuf, Lamb, Greene & MacRae
L. J. Callan, NRC Regional Administrator, Region IV
S. D. Bloom, NRC Project Manager
R. P. Mullikin, NRC Senior Resident Inspector
R. T. Pearce, Combustion Engineering
R. J. Simon, Westinghouse
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INPO Records Center

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OMAHA PUBLIC POWER DISTRICT
Fort Calhoun Station Unit No. 1

FEBRUARY 1994
Monthly Operating Report

1. OPERATIONS SUMMARY

During the first week of February while Fort Calhoun Station operated at 100% power, scheduled Diesel Generator (DG) maintenance and modification outages were conducted for DG-1 and DG-2. Each was promptly completed and the diesel generators were returned to operable status.

On Friday, February 11, 1994, at 0340 hours, the plant experienced an unplanned automatic reactor trip from 100 percent power. The trip occurred following a failure of supervisory relay 86B/CPHSS which resulted in tripping the Containment Pressure High Signal (CPHS) lockout relay 86B/CPHS. The CPHS relay trip actuated the Safety Injection Actuation Signal (SIAS), Containment Isolation Actuation Signal (CIAS), Ventilation Isolation Actuation Signal (VIAS) and Steam Generator Isolation Signal (SGIS). SGIS automatically closed both main steam isolation valves, which resulted in a concurrent turbine and reactor trip. All systems functioned as designed to safely shut down the plant. Details of this event, including corrective actions, are included in Licensee Event Report 94-001.

Following completion of the post-trip assessment and replacement of the failed relay, 86B/CPHSS, the reactor was taken critical at 1324 on February 12. The generator was synchronized to the grid at 0415 on February 13. Power ascension commenced, and the station returned to 100 percent power on February 17.

On February 15, OP-ST-DG-0002, a monthly surveillance test on Diesel Generator DG-2 was conducted. A portion of the test requires a manual start from a local pushbutton; however, the diesel generator did not start. The root cause of the problem was identified as broken pieces within the local pushbutton switch. The problem was corrected and the diesel generator was then successfully tested. The corresponding local pushbutton on the other diesel generator is routinely tested at approximately the same frequency, and has not exhibited similar problems.

On February 16, low water levels in both steam generators occurred. Narrow range instrument readings reached below the 65% alarm setpoint, but remained well above the 31.2% Reactor Protection System trip (RPS) setpoint. It was determined that Condensate Recirculation Control Valve FCV-1172 had failed open, restricting feedwater flow to both generators. The valve was isolated, steam generator levels were returned to normal, and a maintenance work request was initiated. A pressure switch was repaired and the valve was returned to service later that day.

A one-hour report was made to the NRC on February 18 at 1101 hours because of the results of an engineering evaluation initiated after the February 11 reactor trip discussed above. The evaluation identified a concern involving a postulated premature actuation of either of two Safety Injection and Refueling Water Tank Low Signal (STLS) lockout relays, i.e., 86A/STLS or 86B/STLS, due to a coil-shorting failure of a supervisory relay. If such a failure were to occur coincident with certain accidents, i.e., a Loss of Coolant Accident (LOCA), a Steam Generator Tube Rupture (SGTR), or a Main Steam Line Break (MSLB), a premature Recirculation Actuation Signal (RAS) could be generated. Such a premature RAS could result in loss of water to the High Pressure Safety Injection (HPSI), Low Pressure Safety Injection (LPSI) and Containment Spray pumps due to the realignment of the suction header from the Safety Injection and Refueling Water Tank (SIRWT) to the containment sump. Details of this event, including corrective actions, are included in Licensee Event Report 94-001.

Power operation at 100 percent continued throughout the remainder of February 1994.

The following NRC inspection was completed during this reporting period:

IER No.	Description
94-03	Monthly Resident Inspection

The following LER was submitted during this reporting period:

LER No.	Description
93-020 Rev. 1	Ventilation Mode Requirement Not Met While Toxic Gas Monitors Inoperable

2. SAFETY VALVES OR PORV CHALLENGES OR FAILURES WHICH OCCURRED

During the month of February, no PORV or primary system safety valve challenges or failures occurred. The secondary system safety valves performed as designed during the February 11 transient, which precluded a challenge to the primary safety valves or PORVs.

3. RESULTS OF LEAK RATE TESTS

RCS leak rate was steady throughout the month except for two temporary increases in leakage attributed to the charging pumps. Both charging pumps were repacked. One charging pump required a new cylinder block and an overhaul. Leak rates returned to the nominal rate of approximately 0.10 gpm.

No degrading trends were noted during February. The reactor coolant system continued to have low leak rates.

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

Amendment No. Description

NONE

5. SIGNIFICANT SAFETY RELATED MAINTENANCE

- Changed the oil for the inboard and outboard bearings of raw water pump motor AC-10C due to high silicon content in an oil sample.
- Replaced the steam chest on charging pump CH-1C.
- Replaced the cylinder block and overhauled charging pump CH-1C.
- Replaced the governor on DG-1.
- Replaced a broken governor arm on DG-1.
- Repaired the emergency start pushbutton PB-4 on DG-2.
- Rebuilt the actuator for the shutdown heat exchanger component cooling water outlet valve HCV-484-0.
- Rebuilt main steam relief valve operators MS-291-0 and MS-292-0.
- Replaced starting air valves SA-115, SA-116, SA-150, SA-165, SA-166 and SA-170.
- Replaced the Containment High Pressure Signal supervisory relay 86B/CPHS.
- Replaced the DG-1 lube oil cooler outlet temperature switch TA-3341.

6. OPERATING DATA REPORT

Attachment I

7. AVERAGE DAILY UNIT POWER LEVEL

Attachment II

8. UNIT SHUTDOWNS AND POWER REDUCTIONS

Attachment III

9. REFUELING INFORMATION, FORT CALHOUN STATION UNIT NO. 1

Attachment IV

ATTACHMENT I
OPERATING DATA REPORT

DOCKET NO. 50-285
UNIT FORT CALHOUN STATION
DATE MARCH 08,1994
COMPLETED BY M. A. HOWMAN
TELEPHONE 402-533-6939

OPERATING STATUS

1. Unit Name: FORT CALHOUN STATION
2. Reporting Period: FEBRUARY 1994

NOTES

3. Licensed Thermal Power (MWt): 1500
4. Nameplate Rating (Gross MWe): 502
5. Design Elec. Rating (Net MWe): 473
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.....	672.0	1416.0	179090.0
12. Number of Hours Reactor was Critical	638.2	1382.2	139073.9
13. Reactor Reserve Shutdown Hours.....	.0	.0	1309.5
14. Hours Generator On-line.....	623.1	1367.1	137430.3
15. Unit Reserve Shutdown Hours.....	.0	.0	.0
16. Gross Thermal Energy Generated (MWH)	864409.8	1936022.4	181221822.0
17. Gross Elec. Energy Generated (MWH)..	292192.0	655208.0	59743232.2
18. Net Elec. Energy Generated (MWH)....	278033.4	624538.9	56997601.8
19. Unit Service Factor.....	92.7	96.5	76.7
20. Unit Availability Factor.....	92.7	96.5	76.7
21. Unit Capacity Factor (using MDC Net)	86.6	92.3	69.0
22. Unit Capacity Factor (using DER Net)	86.6	92.3	67.3
23. Unit Forced Outage Rate.....	7.3	3.5	4.2

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: _____

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

		Forecast	Achieved
INITIAL CRITICALITY			
INITIAL ELECTRICITY	N/A		
COMMERCIAL OPERATION			

ATTACHMENT II
AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-285
UNIT	FORT CALHOUN STATION
DATE	MARCH 08,1994
COMPLETED BY	M. A. HOWMAN
TELEPHONE	402-533-6939

MONTH FEBRUARY 1994

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	486	17	482
2	486	18	486
3	486	19	486
4	486	20	486
5	486	21	487
6	486	22	486
7	485	23	486
8	485	24	486
9	486	25	486
10	487	26	486
11	65	27	486
12	0	28	486
13	73	29	N/A
14	106	30	N/A
15	198	31	N/A
16	450		

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 March 8, 1994
COMPLETED BY M. A. Howman
TELEPHONE (402) 533-6939

REPORT MONTH February 1994

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
94-03	940211	F	48.9	A	3	94-001	IB	RELAYX	On February 11, 1994, the plant experienced an unplanned automatic reactor trip following the failure of the supervisory relay 86B (Containment High Pressure Supervisory Circuit). The failed relay is categorized by its manufacturer (General Electric) to be an alarm relay. The component code for relays not listed in NUREG-0161, item 15 is (RELAYX). See LER 94-001 for corrective actions that have been or will be completed.

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

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Attachment IV
Refueling Information
Fort Calhoun - Unit No. 1

Report for the month ending February 28, 1994

1. Scheduled date for next refueling shutdown.	March 11, 1995
2. Scheduled date for restart following refueling.	April 29, 1995
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 April 1995
4. Scheduled date(s) for submitting proposed licensing action and support information.	No submittal planned
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.	**
6. The number of fuel assemblies: a) in the core	133 Assemblies
b) in the spent fuel pool	570 Assemblies
c) spent fuel pool storage capacity	729 Assemblies
d) planned spent fuel pool storage capacity	1083 Assemblies
7. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.	1995 Outage*

* Capability of full core offload of 133 assemblies lost. Reracking to be performed in 1994.

** OPPD is planning to utilize CASMO-3/SIMULATE-3 codes for reactor physics related analyses for Cycle 16. Additionally, if NRC approval of the CENTS code is obtained by May 1994, it will also be employed.

Prepared by Kevin Hobbet Date 3-7-94