AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-285
UNIT Fort Calhoun #1
DATE December 8, 1978
COMPLETED BY B. J. Hickle
TELEPHONE 402-536-4413

MONTH November, 1978

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0.0	17	0.0
2	0.0	18	0.0
3	0.0	19	0.0
4	0.0	20	0.0
5	0.0	21	0.0
6	0.0	22	0.0
7	0.0	23	0.0
8	0.0	24	0.0
9	0.0	25	0.0
10	0.0	26	0.0
11	0.0	27	0.0
12	0.0	28	0.0
13	0.0	29	0.0
14	0.0	30	0.0
15	0.0	31	
16	0.0		

INSTRUCTIONS

On this format, list t[illegible]ge daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole me[illegible].

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-285
DATE Fort Calhoun #1
COMPLETED BY B. J. Hickle
TELEPHONE 402-536-4413

OPERATING STATUS

1. Unit Name: Fort Calhoun Station Unit No. 1
2. Reporting Period: November, 1978
3. Licensed Thermal Power (MWt): 1420
4. Nameplate Rating (Gross MWe): 502
5. Design Electrical Rating (Net MWe): 457
6. Maximum Dependable Capacity (Gross MWe): 481
7. Maximum Dependable Capacity (Net MWe): 457

Notes

8. If Changes Occur in Capacity Ratings (Items Number 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	720.0	8,016.0	45,433.0
12. Number Of Hours Reactor Was Critical	0.0	6,432.0	35,695.3
13. Reactor Reserve Shutdown Hours	0.0	0.0	1,136.0
14. Hours Generator On-Line	0.0	6,403.7	34,887.6
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	0.0	8,872,237.9	41,534,760.2
17. Gross Electrical Energy Generated (MWH)	0.0	2,959,733.7	13,765,071.7
18. Net Electrical Energy Generated (MWH)	0.0	2,813,750.6	12,985,719.6
19. Unit Service Factor	0.0	79.9	76.8
20. Unit Availability Factor	0.0	79.9	76.8
21. Unit Capacity Factor (Using MDC Net)	0.0	76.9	63.2
22. Unit Capacity Factor (Using DER Net)	0.0	76.8	62.5
23. Unit Forced Outage Rate	0.0	3.9	5.0

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup: December 8, 1978
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH November, 1978

DOCKET NO. 50-285
UNIT NAME Fort Calhoun #1
DATE December 8, 1978
COMPLETED BY B. J. Hickle
TELEPHONE 402-536-4413

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
78-04	78111	S	720	C	1	N/A	N/A	N/A	N/A

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 (Explain)
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 I - Same Source

(9/77)

Refueling Information
Fort Calhoun - Unit No. 1

Report for the month ending November 30, 1978

1. Scheduled date for next refueling shutdown. — In progress

2. Scheduled date for restart following refueling. — December 9, 1978

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?

      Technical Specifications changes with reload application submitted to NRC on August 4, 1978.

   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. — _____

   c. If no such review has taken place, when is it scheduled? — _____

4. Scheduled date(s) for submitting proposed licensing action and support information. — Submitted Aug. 4, 1978

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	157	"
c) spent fuel pool storage capacity	483	"
d) planned spent fuel pool storage capacity	483	"

7. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity. — 1985

Prepared by R L Jaworski — Date December 6, 1978

OMAHA PUBLIC POWER DISTRICT
Fort Calhoun Station Unit No. 1

November 1978
Monthly Operations Report

I. OPERATIONS SUMMARY

During the month of November, Fort Calhoun Station was conducting refueling operations.

The actual fuel shuffling was completed with no significant deficiencies. In service testing and scheduled surveillance testing continued throughout the month.

The engineered safeguards actuation test was completed successfully after the offsite power undervoltage modification was completed.

The reactor vessel closure head was replaced and studs tensioned.

Preoperational valve line ups are being performed.

Cycle 5 training for the Operations staff was initiated.

A. PERFORMANCE CHARACTERISTICS

LER Number	Deficiency
78-033	While in a hot shutdown condition at the start of the 1978 refueling outage, it was noted that reactor coolant cold leg temperature indicator B/122C failed high off scale. The remaining cold leg temperature channels remained operable except for D channel.
78-034	Following repeated tripping of the stack particulate process monitor (RM-061), a review of Section 2.9 of the Tech. Specs. and the monitor set point calculations was conducted. It was determined that RM-061 was set to trip in accordance with Table 2.1 at 9.6×10^{-2} µCi/sec. rather than the more conservative release rate of 2×10^{-3} µCi/sec. as specified in Tech. Spec. 2.9(2)b. No release rates were exceeded since the more restrictive value of 2×10^{-3} µCi/sec. was used, and has been used, in determining all maximum release rates from containment.

A. PERFORMANCE CHARACTERISTICS (Continued)

LER Number	Deficiency
78-036	Although no tilting disc check valves have been identified at the Fort Calhoun Station (Reference IE Circular 78-15), another type of check valve which is orientation sensitive was inspected during the 1978 refueling outage. As a result of the inspection, Auxiliary Feedwater check valve FW-164 was found to be oriented in the wrong position. Maintenance Order 20429 was written to remove the valve and orient it correctly. Upon disassembly of the valve, one of the two valve disc plates was missing.

B. CHANGES IN OPERATING METHODS

None

C. RESULTS OF SURVEILLANCE TESTS AND INSPECTIONS

Surveillance tests as required by the Technical Specifications Section 3.0 and Appendix B, were performed in accordance with the annual surveillance test schedule. The following is a summary of the surveillance tests which resulted in Operations Incidents and are not reported elsewhere in the report:

Operations Incident #	Deficiency
OI 678 OI 691	ST-ENV-3 - Chemical Discharge Lagoon discharge pH value did not fall within the 6.0 - 9.0 limit.

C. RESULTS OF SURVEILLANCE TESTS AND INSPECTIONS (Continued)

The following is a list of surveillance tests which could not be performed during the 1978 refueling shutdown condition (Operating Mode 5):

NOTE: FLC 77-11 submitted previously to the Commission indicates that these surveillance tests need not be performed while in a refueling shutdown condition.

Number	Title	Section
ST-CEA-1	Regulating CEA Groups/Transient Insertion Limit Check	F.2
ST-CEA-1	Regulating CEA Groups/Transient Insertion Limit Check	F.3
ST-CEA-1	Control Element Assembly Check	F.4
ST-CEA-1	PDIL, DEV and SEQ Monitoring System Test	F.5
ST-CEA-1	Secondary CEA Position Indicating System PDIL, DEV, OOS and Overlap Monitoring System Test	F.6
ST-CLT-1	RCS Cold Leg Temperature Check	F.1
ST-CHEM-1	S/G Water Iodine-131 Concentration	F.1
ST-CHEM-1	Secondary Plant Blowdown and Leakage Releases Isotopic Activity Analysis	F.1
ST-CHEM-1	Secondary Plant Blowdown and Leakage Proportional Composite for Tritium Analysis and Gross Alpha Analysis	F.2
ST-DG-1	Diesel Fuel Inventory	F.1
ST-ENV-1	River Temperature Monitoring-Data Collection	F.1
ST-ENV-1	River Temperature Monitoring-Data Collection	F.2
ST-ENV-2	Surface Thermal Plume Measurements and Isotherm Plots	F.1
ST-ENV-2	Surface Thermal Plume Isotherm Reports	F.2
ST-ENV-2	Triple-depth Thermal Plume Measurements and Isotherm Plots	F.3
ST-ENV-2	Triple-depth Thermal Plume Isotherm Reports	F.4
ST-ENV-2	Thermal Plume Measurements (Infrared Scanning)	F.5
ST-ENV-2	Thermal Plume Isothermal Plots (Infrared Scanning)	F.6

C. RESULTS OF SURVEILLANCE TESTS AND INSPECTIONS (continued)

Number	Title	Section
ST-ENV-4	Traveling Screen Impingement (Not Required When Circulators Are Down)	F.1
ST-ENV-4	Processing of Impingement Data (Data Not Required when Circulators Are Down)	F.2
ST-ESF-1	Pressurizer Pressure Channel Check	F.1
ST-ESF-1	Pressurizer Pressure Channel Check	F.2
ST-ESF-2	Channel "A" Safety Injection Actuation Signal Test	F.1
ST-ESF-2	Channel "B" Safety Injection Actuation Signal Test	F.2
ST-ESF-3	Containment Pressure Channel Check	F.1
ST-ESF-4	Channel "A" Containment Spray Actuation Signal Test	F.1
ST-ESF-4	Channel "B" Containment Spray Actuation Signal Test	F.2
ST-ESF-5	Automatic Load Sequencer Check	F.1
ST-ESF-6	Diesel Generator Check	F.2
ST-ESF-7	SIRW Tank Level Channel Check	F.1
ST-ESF-7	SIRW Tank Level Channel Check	F.2
ST-ESF-8	Safety Injection Tank Level and Pressure Instruments Check	F.1
ST-ESF-9	Boric Acid Tank Level Check	F.1
ST-ESF-11	Steam Generator Pressure Channel Check	F.1
ST-ESF-12	SIRW Tank Temperature Check	F.1
ST-ESF-12	SIRW Tank Temperature Check	F.2
ST-ESF-13	Channel "A" Recirculation Actuation Signal Test	F.1
ST-ESF-13	Channel "B" Recirculation Actuation Signal Test	F.2
ST-FW-1	Pump and Remotely Operated Valve Check	F.1

C. RESULTS OF SURVEILLANCE TESTS AND INSPECTIONS (Continued)

Number	Title	Section
ST-ICI-1	Calculation of Total Integrated Radial Peaking Factor and Total Planar Radial Peaking Factor	F.1
ST-ICI-2	Incore Detector Alarm Limits Verification	F.1
ST-ISI-CVCS-3	CVCS Pump Test	F.1
ST-PL-1	Pressurizer Level Channel Check	F.1
ST-PL-1	Pressurizer Level Channel Check	F.2
ST-RA-1	Reactivity Balance	F.1
ST-RA-1	Normalization of Computed Boron Concentration vs. Burnup Curve	F.2
ST-RCF-1	Reactor Coolant System Flow Rate Determination	F.1
ST-RLT-3	Reactor Coolant System Leak Rate Calculation	F.1
ST-RPS-1	Power Range Safety Channels Check	F.1
ST-RPS-1	Power Range Safety Channel Adjustment	F.2
ST-RPS-1	Power Range Safety Channels Test	F.3
ST-RPS-2	Wide Range Logarithmic Channel Functional Check	F.2
ST-RPS-3	Reactor Coolant Flow Check	F.1
ST-RPS-3	Reactor Coolant Low Flow Trip Check	F.2
ST-RPS-4	Thermal Margin/Low Pressure Channels Check	F.1
ST-RPS-4	Thermal Margin/Low Pressure Channels Check	F.2
ST-RPS-5	High Pressurizer Pressure Channels Check	F.1
ST-RPS-5	High Pressurizer Pressure Channels Check	F.2
ST-RPS-6	Steam Generator Level Channels Test	F.2
ST-RPS-7	Steam Generator Pressure Check	F.1
ST-RPS-7	Steam Generator Pressure Channels Test	F.2

C. RESULTS OF SURVEILLANCE TESTS AND INSPECTION (Continued)

Number	Title	Section
ST-RPS-8	High Containment Pressure Channels Check	F.1
ST-RPS-9	Turbine Loss of Load Channel Check	F.1
ST-RPS-10	Manual Trip Check	F.1
ST-RPS-11	RPS Logic Units Test	F.1
ST-RPS-12	Axial Power Distribution Channels Check	F.1
ST-RPS-12	Axial Power Distribution Channels Test	F.2
ST-SCEAPIS-1	Calibration Secondary CEA Positioning	F.1
ST-SCEAPIS-1	Calibration of Secondary CEA Interlocks and Alarms	F.2
ST-SI/CS-1	Engineered Safeguards Mechanical Checks	F.1
ST-SI/CS-1	SI Tank Check Valve Check	F.2
ST-TR-1	Turbine Runback Circuit Check	F.1
ST-CHEM-1	RM-057 Condenser Air Ejector Releases Gross Gamma and Individual Gamma Emitters Activity Analysis	F.2

D. CHANGES, TESTS AND EXPERIMENTS CARRIED OUT WITHOUT COMMISSION APPROVAL

Procedure	Description
SP-VA-7	Safety Injection Pump Room Temperature Rise Test (with no ventiliation). Test completed preliminary evaluation temperature rise insufficient to have adverse effects on Safety Injection & Cont. spray pumps. Technical Services will supply final evaluation.
SP-FE-5	Spent Fuel Inspection Stand Installation
SP-FE-8	Eddy Current Testing of Irradiated Fuel Assembly Guide Tubes. Testing revealed no significant guide tube wear.

E. RESULTS OF LEAK RATE TESTS

The Refueling Leak Rate Testing program continued this month and will continue throughout the outage in accordance with ST-CONT-2 and 3. A follow up report will be submitted within 90 days of the completion of the Leak Rate Testing Program conducted during the 1978 Refueling Outage.

F. CHANGES IN PLANT OPERATING STAFF

The security force at Fort Calhoun was changed from a contract guard force to a District guard force. The security force will now be under the direct control and supervision of the District.

G. TRAINING

November training consisted of procedural review and O.J.T. during overhaul by both Operations and Maintenance. Major activities performed in the overhaul were reviewed prior to starting by the crafts involved including construction personnel.

H. CHANGES, TESTS AND EXPERIMENTS REQUIRING NUCLEAR REGULATORY COMMISSION AUTHORIZATION PURSUANT TO 10 CFR 50.59.

Changes to Operating License DPR-40

1) Amendment No. 44 dated November 27, 1978
The amendment added Technical Specification requirements for the emergency power system and authorized modification to the emergency power system.

Approved by _____
Manager-Fort Calhoun Station

II. MAINTENANCE (Significant Safety Related)

M. O. #	Date	Description	Corrective Action
16989	11-22-78	Manual isol. valve for containment spray header hard to operate	Repacked valve SI-178
17523	11-1-78	Control Room charcoal filters	Replaced filters per MP-VA-64
18246	11-17-78	Internals of raw water strainer worn	Turned lower 3 ins. down and pressed on stainless steel ring
19674	11-12-78	Replace six incore detectors	Replaced per SP-IC-5
19690	11-10-78	Perform reactor vessel internal inspection	Inspected vessel per ISI plan
20076	11-18-78	"A" RC pump seal leaking	Rebuilt seal per MP-RC-3-3A&B
20116	11-4-78	Rebuilt spare RC pump seal	Refueling maintenance
20246	11-1-78	Radiation survey of fuel transfer canal before moving fuel	Performed survey per Standing Order T-8.
20272	11-6-78	Radiation survey of fuel transfer canal during fuel movement	Performed survey per Standing Order T-8.
20318	11-13-78	Pin hole leak at penetration M-93 of 260 cc/min.	Repaired leak and retested.
20348	11-17-78	Submarine hull leaking 0.5 SCFM	Repaired leak per approved procedure and retested.
20349	11-6-78	Penetration M-58 leaking 500 cc/min.	Repaired HCV-884B and retested
20369	11-8-78	Spent containment carbon filter	Changed filters
20382	11-7-78	Penetration HCV-1387A/B leaking 3800 cc/min.	Repaired S/G isol. valves and retested
20384	11-17-78	Flange leak on SI-VLV-190	Replaced pressure gasket & relief gasket
20456	11-2-78	Determine temperature rise in Room 21/22 with maximum available SI & Cont. spray flow	Test completed per SP-VA-7
20466	11-4-78	Emergency feedwater control valve for S/G B leaks thru	Repaired valve and retested.
20513	11-6-78	Aux. Feedwater inlet check valve for S/G A leaks	Repaired valve per maintenance order

II. MAINTENANCE (Significant Safety Related)

M. O. #	Date	Description	Corrective Action
20514	11-2-78	Backwash drain isol. valve for "A" raw water strainer badly erroded.	Valve replaced.
20522	11-1-78	Faulty temp. transmitter for C/122H-1	Replaced transmitter
20534	11-1-78	Radiation monitor out of spec's	Recalibrated RM056A
20548	11-2-78	Bent actuating arm on 4160V Breaker	Reshaped and welded arm on Breaker SI-1A
555	11-2-78	Radiation Monitor Out of Spec.	Recalibrated log count ratemeter RM-051.
20558	11-3-78	Paper jammed on Radiation Monitor RM-050	Realigned paper
20560	11-3-78	Alarm board faulty on RM-051	Replaced alarm and rate meter boards
20563	11-7-78	Flushing valves on south end of raw water heat exchangers will not shut	Cleaned valves and installed new gaskets
20571	11-6-78	Grind weld surface for UT exam per 10 year ISI plan	Refueling maintenance
20572	11-3-78	Drain valve on diesel fire pump strainer leaking	Repair per maintenance order
20586	11-16-78	Filter paper not moving correctly on Radiation Monitor RM-050	Repaired paper take up roll and replaced detector.
20632	11-18-78	Leaking incore instrument flange	Replaced per plant approved procedure
20654	11-9-78	Pressurizer spray valve failed calibration	Replaced relay and recalibrated
20658	11-9-78	Outer PAL door failed leak test	Cleaned seal and retested.
20670	11-11-78	Breaker 1B4A trip setting out of spec.	Installed new EC-1 devices and recalibrated
20677	11-10-78	Channel "A" Wide Range RPS fluctuating	Replaced power supply and recalibrated
20685	11-11-78	Performed Leak Test on Submarine Hulls	Refueling maintenance
20750	11-15-78	Scratch in outer reactor vessel "O" ring grove	Blend out scratch

II. MAINTENANCE (Significant Safety Related)

M. O. #	Date	Description	Corrective Action
20755	11-14-78	Packing leak containment isolation valve	Tightened stem packing
20758	11-14-78	Filter failure switch not working RM-061	Replaced light and reseated capstem
20761	11-16-78	Gouge on seating surface of pressurizer safety valve RC-142	Machined valve surface per plant approved procedure
20776	11-17-78	Gouge on seating surface of pressurizer safety valve RC-141	Machined valve surface per plant approved procedure
20789	11-17-78	Penetration SI-HCV-383-3 leaking 0.4 SCFM	Installed new gasket and retested.