

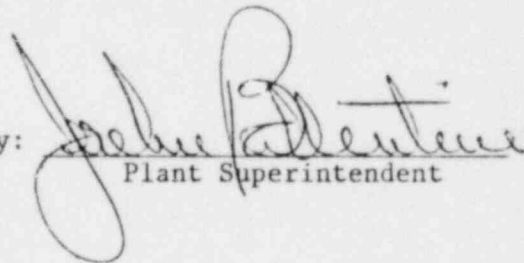
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT
APRIL 1, 1981 - APRIL 30, 1981

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

Submitted By:


Plant Superintendent

8195220 312

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Operations Summary

April, 1981

The following summary describes the significant operational activities for the month of April. In support of this summary, a chronological log of significant events is included in this report.

There were nineteen Licensee Event Reports and no Special Reports during April.

There were two scrams during April.

Unit 1 was critical for 576.7 hours, produced 633,923 MWH (gross) with 4.32 percent station use, resulting in an average hourly gross load of 1,102,187 KW during the month. The net heat rate for the month was 10,620 BTU/KWH. There are 308.87 full power days estimated remaining until the end of cycle 1 fuel. With a capacity factor of 85 percent the target EOC exposure would be reached April 28, 1982. The capacity factor for the month was 73.5 percent.

Unit 1 was in mode 1 at 96% reactor power, generating 1086 MW(e) at the beginning of April, 1981. The unit operated between 95% to 100% reactor power until 0715 Hrs, April 12, when the load was reduced for the Turbine Benchmark Test (STEAR-25). Reactor power was reduced to 63% to inhibit governor valve numbers 2 and 3. Reactor power was then increased and maintained at 78% for STEAR-25. At 1936 Hrs, April 12, governor valve numbers 2 and 3 were re-opened and reactor power was increased to 100%. The unit remained between 99%-100% reactor power until 0950 Hrs, April 23, when Start-Up Test 9.1, 10% load swing began. Start-Up Test 9.1 was completed at 1029 Hrs, April 23, and reactor power was increased to 100%. At 2240 Hrs, April 23, Start-Up Test 9.3 - 50% load rejection began. At 2242 Hrs, April 23, the reactor tripped (reactor trip #13) as a result of a low low steam generator level (#1) when two of the condensate booster pumps tripped during the 50% load rejection test. At 2341 Hrs, April 23, there was a safety injection caused by high steam flow with low Tavg indications. The unit was cooled down to the low end of mode 4 for required maintenance. At 2042 Hrs, April 29, the reactor was taken critical and 100% reactor power was obtained at 1932 Hrs, April 30. At 2241 Hrs, April 30, the reactor scrambled as a result of a manual turbine trip as required by Start-Up Test 9.4A.

At 2400 Hrs, April 30, the reactor was in mode 3.

PORV's and Safety Valves Summary

No pressure operated relief safety valves were challenged during the month.

Changes to the Offsite Dose Calculation Manual

There were no changes to the Offsite Dose Calculation Manual this month.

Significant Operational Events

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/01/81	0001	Unit in mode 1, 96% Rx Pwr, 1086 MW(e).
04/12/81	0715	Began reducing Rx Pwr for Turbine Benchmark Test (STEAR-25). Rx Pwr held at $\cong 78\%$, electrical generator not indicated.
04/12/81	1936	Increased Rx Pwr to 100%.
04/23/81	0950	Start-Up Test 9.1 - 10% load swing began.
04/23/81	1028	Start-Up Test 9.1 complete.
04/23/81	2240	Start-Up Test 9.3 - 50% load rejection.
04/23/81	2242	Reactor Trip #13 - Two condensate booster pumps tripped during the 50% load rejection test (SU-9.3) causing a low low steam generator (#1) level.
04/23/81	2341	Safety injection caused by high steam flow with low Tav _g indications.
04/29/81	2042	Reactor taken critical.
04/30/81	2241	Start-Up Test 9.4A - Reactor scrammed (#14) as a result of a turbine trip (manual trip) at 100% power.
04/30/81	2400	Unit 1 in mode 3.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327
 UNIT Sequoyah One
 DATE May 4, 1981
 COMPLETED BY David C. Dupree
 TELEPHONE (615) 842-0295

MONTH April

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1055</u>
2	<u>1072</u>
3	<u>1069</u>
4	<u>1057</u>
5	<u>1050</u>
6	<u>1084</u>
7	<u>1071</u>
8	<u>1063</u>
9	<u>1053</u>
10	<u>1115</u>
11	<u>1101</u>
12	<u>933</u>
13	<u>1105</u>
14	<u>1090</u>
15	<u>1097</u>
16	<u>1087</u>

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
17	<u>1101</u>
18	<u>1091</u>
19	<u>1111</u>
20	<u>1102</u>
21	<u>1098</u>
22	<u>1087</u>
23	<u>1029</u>
24	<u>0</u>
25	<u>0</u>
26	<u>0</u>
27	<u>0</u>
28	<u>0</u>
29	<u>0</u>
30	<u>542</u>
31	<u>#</u>

INSTRUCTIONS

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

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-327
 DATE May 1, 1981
 COMPLETED BY David C. Dupree
 TELEPHONE (615) 842-0295

OPERATING STATUS

1. Unit Name: Sequoyah 1
2. Reporting Period: April 1981
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1220.5
5. Design Electrical Rating (Net MWe): 1148
6. Maximum Dependable Capacity (Gross MWe): 1183
7. Maximum Dependable Capacity (Net MWe): 1148
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

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	2879	10224
12. Number of Hours Reactor Was Critical	576.7	1604.6	3143.2
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	575.15	1446.85	1190.84
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,887,471	4,399,798	6,071,828
17. Gross Electrical Energy Generated (MWH)	633,923	1,507,723	2,065,044
18. Net Electrical Energy Generated (MWH)	606,568	1,436,062	1,954,902
19. Unit Service Factor	80.0	50.3	22.4
20. Unit Availability Factor	80.0	50.3	22.4
21. Unit Capacity Factor (Using MDC Net)	73.5	43.4	16.7
22. Unit Capacity Factor (Using DER Net)	73.5	43.4	16.2
23. Unit Forced Outage Rate	20.0	49.7	77.6

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
 2 weeks Outage in September, 1981 for ice weighting and Type C cntmt penetration leak testing.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: May 1, 1981
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	7-4-80	7-5-80
INITIAL ELECTRICITY	8-21-80	7-22-80
COMMERCIAL OPERATION	5-1-80	

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
 UNIT NAME Sequoyah One
 DATE May 4, 1981
 COMPLETED BY David C. Dupree
 TELEPHONE (615) 842-0295

REPORT MONTH April

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
13	810412	S	11.8	B	5				Unit derated for turbine base test (STEAR 25)
11	810423	F	142.55	A	3				Reactor Trip; Low Low Steam General Level (#1) During 50% Load Rejection when Cnd. Bstr Pmps 1B & 1C Tripped
12	810430	B	1.3	B	2				Start-Up Test 9.4A, Turbine Trip at 100% Pwr, (Plant Trip Test)

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-Cont. of Existing
 Outage
 5-Reduction
 9-Other

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

5
 Exhibit I-Same Source

Plant Maintenance Summary

The following significant maintenance items were completed during the month of April, 1981:

Mechanical Maintenance

1. Repaired residual heat removal isolation valve 1-FCV-74-2.
2. Replaced vacuum pump in 1-RM-90-119.

Electrical Maintenance

1. Changed out the motor on 1-FCV-74-2.
2. Checked the clutches on the incore detector drives.
3. Replaced bad cables to the ice condenser temperature recorder.
4. Cleared the grounds on the vital battery boards.
5. Adjusted the frequency on the vital inverters.

Instrument Maintenance

1. Repair the containment sump level transmitter 1-LT-63-178.

Outage Maintenance

Unit 1

1. Work continues on hanger repairs and inspections as per IE Bulletin 79-14.
2. In an effort to resolve level instrumentation problems, modifications were made to the pressurizer level indication instrumentation and associated tubing.
3. During the outage significant progress was made to the installation of a surge suppression network modules to all solid-state Caydon Controls, Incorporated relays.

Unit 2

1. The Outage Section's portion of the Unit 2 IE Bulletin 79-14 hanger work was completed.

Outage Maintenance

(Continued)

2. Work began on the fabrication of piping for additional Unit 2 fire sprinklers. This work is required to meet an NRC commitment and must be completed by Unit 2 fuel loading.

Unit 0 or Items Affecting Unit 1 and 2

1. Work progressed to revise piping to the HVAC equipment serving the main control room. This revision will increase ERCW flow and avoid corrosion problems.
2. Work started to provide security access screens to the auxiliary building exhaust fan housings.
3. Additional auxiliary control capability for the station fire pumps is 75% complete.
4. Work was completed to provide vital power for the NRC phones in the main control rooms.
5. The installation of the perimeter Alert II detection system was completed.
6. Hnager work resulting from the re-analysis of support systems for piping with insulation loading continues.
7. Work began to add over/under voltage annunciation and protection for the 6.9 kilovolt shutdown boards.