TENNESSEE VALLEY AUTHORITY

DIVISION OF NUCLEAR POWER

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

AUGUST 1, 1981 - AUGUST 31, 1981

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted By: James M McGuff
Power Plant Superintendent

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Operations Summary

AUGUST, 1981

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

Unit 1

Unit 1 was critical for 496.6 hours, produced 501,970 MWH (gross) with 4.98 percent station use, resulting in an average hourly gross load of 1,038,845 KW during the month. The net heat rate for the month was 11,100 BTU/KWH. There are 237.6 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 June 6, 1982. The capacity factor for the month was 57.0 percent.

There was one reactor scram, one manual shutdown, and three power reductions during August.

Unit 2

Preoperational and pre-criticality testing continued during the month.

Significant Operational Events

Unit 1

Date	Time	Event
08/01/81	0001	Reactor in mode 1 at 100% power producing 1100 MWe.
08/07/81	2000	Began manual shutdown to repair steam leaks.
	2214	Turbine tripped off line.
	2230	Reactor entered mode 2.
08/08/81	2220	Reactor entered mode 5.
08/16/81	2348	Reactor entered mode 4.

Significant Operational Events

Unit 1

(Continued)

Date	Time	Event
08/18/81	0202	Reactor taken critical.
	1155	Reactor tripped when FCV-3-103A failed close, resulting in a low steam generator level in loop 4. The reactor was at 1% power.
	1530	Reactor taken critical.
	1902	Turbine tied on line.
	2200	Reactor holding at 30% for steam generator chemistry to come into specification.
08/19/81	1530	Reactor at 100% power producing 1100 MWe.
08/23/81	1520	Turbine load reduced to 50% when letdown was lost due to valve 62-81 closing causing RV-62-662 to lift.
08/24/81	0550	Starting increasing load - repairs completed on letdown.
	1420	Reactor at 100% power.
08/29/81	2030	Turbine load reduced to ≅ 70% power for repairs on Condensate Booster Pump 1B.
08/30/81	0730	Repairs to CBP 1B completed.
	1100	Reactor at 100% power.
08/31/81	1002	Two condenser circulating water pumps out of service - reactor power reduced to 30%.
	1010	Condenser backpressure satisfactory. Reactor power increased to 90%.
	2359	Reactor in mode 1, 90% power producing 971 MWe.

Significant Operational Events

Unit 2

(Continued)

Date	Time	Event
08/01/81	0001	Reactor in mode 5.
08/06/81	0854	Containment sump suction valve FCV-74-72 inadvertently opened while RHR pump suction valve closed. Approximately 5 inches water dumped into lower containment.
08/23/81	0100	Reactor entered mode 4.
08/25/81	0440	Reactor entered mode 3.
08/31/81	2359	Reactor in mode 3 at 547°F and 2235 psig.

PORV's and Safety Valves Summary

No PORV's or safety valves were challenged during the month.

Licensee Events and Special Reports

The following Licensee Event Reports (LER's) were sent during August, 1981, to the Assistant Director of Nuclear Power (Operations) for reporting to the Nuclear Regulatory Commission.

SQRO-50-327/078	D/G 1A-A inoperable when two relief valves were removed from service in the ERCW system.
SQRO-50-327/082	Ice condenser ice bed temperature exceeded 27°F.
SQRO-50-327/083	Control building emergency air clean-up system train A inoperable due to failure to meet 99% methyl iodine removal efficiency.
SQRO-50-327/086	Pressurizer pressure transmitter 1-PT-68-354 out of calibration.
SQRO-50-327/087	Shield building exhaust rad monitor inoperable due to failed shaft on moving filter.

Licensee Events and Special Reports

(Continued)

SQRO-50-327/088	Ice condenser inlet doors open due to high differential pressure.
SQRO-50-327/089	Rod position indicator for shutdown rod G13 and B12 indicated fully inserted with rods fully withdrawn.
SQRO-50-327/090	Rad monitor 0-RM-90-122 inoperable due to contaminated chamber.
SQRO-50-327/092	AFW level control valve 1-LCV-3-164 inoperable due to clogged metering orifice.
SQRO-50-327/093	1-LCV-3-164A failed to respond rendering 1A-A AFW train inoperable.
SQRO-50-327/095	Shaft seal on ERCW strainer 1B-B failed.
SQRO-50-327/096	Containment purge isolation valves 1-FCV-30-56, -57, -37, and -40 not tested within time requirements.
SQRO-50-327/097	Main steam line hanger could damage ERCW piping during line break.
SQRO-50-327/098	Ice condenser temperature recorder inoperable due to faulty selector switch.
SQRO-50-327/099	RHR check valve 1-74-514 and -515 not tested within 92 day requirements.
SQRO-50-327/100	RCS average temperature dropped below 541°F due to secondary side steam load during controlled shutdown.
SQRO-50-328/091	Train A and Train B source range detectors inoperable.
SQRO-50-328/094	During SI-9, primary water drained into sump due to reversed relay contacts.

Special Reports

No special reports were sent during the month of August.

Offsite Dose Calculation Manual Changes

There were no changes in the Sequoyah Nuclear Plant ODCM during the month.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327

UNIT SEQUOYAH 1

DATE AUGUST, 1981

COMPLETED BY MIKE EDDINGS

TELEPHONE (615) 842-0295

MONTH AUGUST, 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1074	17	0
2	1078	18	23
3	1077	19	685
4	1078	20	1069
5	1078	21	1070
6	1078	22	1071
7	939	23	910
8	0	24	849
9	0	25	1062
10	0	26	1068
11	0	27	1059
12	0	28	1046
13	0	29	1013
14	0	30	958
15	0	31	807
16	0		

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.

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OPERATING DATA REPORT

DOCKET NO. 50-327
DATE 9/1/81
COMPLETED BY MIKE EDDINGS
TELEPHONE (615) 842-0295

OPERATING STATUS

1. Unit Name: Sequoyah One
2. Reporting Period: August, 1981
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1220.58
5. Design Electrical Rating (Net MWe): 1128
6. Maximum Dependable Capacity (Gross MWe): 1163
7. Maximum Dependable Capacity (Net MWe): 1128
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	744	1488	1488
12. Number of Hours Reactor Was Critical	496.6	1079.4	1079.4
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	483.2	1028.2	1028.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,549,085	3,252,320	3,252,320
17. Gross Electrical Energy Generated (MWH)	501,970	1,060,760	1,060,760
18. Net Electrical Energy Generated (MWH)	478,176	1,013,703	1,013,703
19. Unit Service Factor	64.9	69.1	69.1
20. Unit Availability Factor	64.9	69.1	69.1
21. Unit Capacity Factor (Using MDC Net)	57.0	60.4	60.4
22. Unit Capacity Factor (Using DER Net)	57.0	60.4	60.4
23. Unit Forced Outage Rate	35.1	30.9	30.9

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Sept., 1981 Tech. Spec. Ice Weighing & Containment Isolation Valve Testing 27 Days

25. If Shut Down At End Of Report Period, Estimated Date of Startup:
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	7/1/81	7/1/81

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
UNIT NAME Sequoyah One
DATE August, 1981
COMPLETED BY Mike Eddings
TELEPHONE 615-842-0295

REPORT MONTH August, 1981

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
2	81/08/07	F	260.8	B	1				Repair Steam Leaks
1	81/08/23	F	0	A	4				Letdown Relief Valve Replaced
2	81/08/29	F	0	A	4				Maintenance on Condensate Booster Pump
3	81/08/31	F	0	A	4				(2) Condenser Circulating Water Pumps Taken Out of Service for Maintenance

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)

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Exhibit I-Same Source

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328
UNIT SEQUOYAH 2
DATE 9/3/81
COMPLETED BY MIKE EDDINGS
TELEPHONE (615) 842-0295

MONTH AUGUST, 1981

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (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 format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

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OPERATING DATA REPORT

DOCKET NO. 50-328
DATE 9/3/81
COMPLETED BY MIKE EDDINGS
TELEPHONE (615) 842-0295

OPERATING STATUS

1. Unit Name: Sequoyah Two
2. Reporting Period: August, 1981
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1220.58
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): Five Percent Power
10. Reasons For Restrictions, If Any: Low Power License (5%) Granted By The NRC for Start-Up and Low Power Testing

		This Month	Yr-to-Date	Cumulative
11.	Hours in Reporting Period	N/A	N/A	N/A
12.	Number of Hours Reactor Was Critical	N/A	N/A	N/A
13.	Reactor Reserve Shutdown Hours	N/A	N/A	N/A
14.	Hours Generator On-Line	N/A	N/A	N/A
15.	Unit Reserve Shutdown Hours	N/A	N/A	N/A
16.	Gross Thermal Energy Generated (MWH)	N/A	N/A	N/A
17.	Gross Electrical Energy Generated (MWH)	N/A	N/A	N/A
18.	Net Electrical Energy Generated (MWH)	N/A	N/A	N/A
19.	Unit Service Factor	N/A	N/A	N/A
20.	Unit Availability Factor	N/A	N/A	N/A
21.	Unit Capacity Factor (Using MDC Net)	N/A	N/A	N/A
22.	Unit Capacity Factor (Using DER Net)	N/A	N/A	N/A
23.	Unit Forced Outage Rate	N/A	N/A	N/A

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:
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	9/4/81	N/A
INITIAL ELECTRICITY	9/14/81	N/A
COMMERCIAL OPERATION	12/1/81	N/A

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-328
UNIT NAME Sequoyah Two
DATE 9-3-81
COMPLETED BY Mike Eddings
TELEPHONE 615-842-0295

REPORT MONTH August, 1981

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
	81/08/01	S	744	B	4				Pre-Criticality Testing & Maintenance

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

(9/77)

Plant Maintenance Summary

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

Mechanical Maintenance

1. Repacked Unit 1 main steam check valves and set the counterweights.
2. Completed the Masonielon valve stem rotation inspection.
3. Replaced the defective governor to control rod level assembly on 1A-A diesel generator.

Electrical Maintenance

1. Inspected all cooling tower lift pump motors. Replaced upper guide bearing on pump 1A.
2. Replaced the main feedwater pump turbine coil 1-FSV-46-15A.
3. Repaired the control circuit on MSIV 1-FCV-1-22A.
4. Installed Unit 2's generator buss links.

Instrument Maintenance

None reportable.

Outage Maintenance

Unit 1

1. Completed repairs of steam cuts on #3 steam generator inboard manway cover.
2. Removed the safety injection input signal to the centrifugal charging pump mini-flow valves 1-FCV-62-98 and -99.
3. Four-hundred-thirty-one hanger repairs are completed as per IE Bulletin 79-14. This leaves 84 repairs to be completed.

Unit 2

1. To prevent overspeed/overload operation of the primary water pumps, PS-81-5A, -5B, -9A, and -9B were changed from pressure switches to pressure differential indicating switches.

Unit 2

(Continued)

2. A degraded accident radiation monitor was installed near the Unit 2 shield building vent.

3. EGTS room coolers fans AA and BB flow switches 2-FS-30-200 and -207 were replaced with environmentally qualified flow switches.

4. A crack in the seal on the divider barrier seal was repaired.

5. A visual inspection of the containment vessel and shield building was performed.

6. Fabrication of lifting rig platforms to facilitate safer handling of the reactor head and internals is in progress.

7. Refuel floor work:

   A. Indexing of the flux mapping probe system was completed.

   B. The six incore detectors have been installed.

   C. Fifty-nine of 65 incore thermocouples have been terminated.

Unit 0 or Items Affecting Unit 1 and 2

1. Work continues on coating all exposed surfaces of cable with Flamastic in areas outside primary containments.

2. Work is in progress to add a temperature monitoring system for the various class IE electrical equipment located throughout the plant.

3. Work continues on the replacement of the 1-inch carbon steel ERCW piping going to the EGTS room coolers with stainless steel.

4. The installation of a supplementary battery operated phone circuit in the main control room is in progress.

5. The changeout of the present freon leak detector system in the main control to an electronic, pressure-type system continues.

6. Twenty of twenty-nine fire deluge valves have been replaced with 3-way alarm test valves.

7. To allow response time testing of the level transmitters sensors with a hydraulic ramp generator, response time testing cables to the refueling water storage tank level transmitters LT-63-50, -51, -52, and -53 are being installed.

Outage Maintenance

Unit 0 or Items Affecting Unit 1 and 2

(Continued)

8. To meet the requirements of 10CFR50, Appendix A, Criteria 3, ceiling panels in the control room are being replaced.