

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT
AUGUST 1, 1982 - AUGUST 31, 1982

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted By:

C. Mason
Power Plant Superintendent

TABLE OF CONTENTS

Operations Summary	1
Significant Operational Events	1-2
PORV's and Safety Valves Summary	2
Licensee Events and Special Reports	3-4
Offsite Dose Calculation Manual Changes	5
Operating Data	
Unit 1	6-8
Unit 2	9-11
Plant Maintenance Summary	12

Operations Summary

August 1982

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 744 hours, produced 846,830 MWH (gross) with 3.30 percent station service use resulting in an average hourly gross load of 1,138,212 KW during the month. The net heat rate for the month was 10,600 BTU/KWH. There are 2.98 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 September 3, 1982. The capacity factor for the month was 97.9 percent.

There were no reactor scrams, no manual shutdowns, and one power reduction during August.

Unit 2

Unit 2 was critical for 736.3 hours, produced 811,640 MWH (gross) with 3.45 percent station service use, resulting in an average hourly gross load of 1,104,828 kW during the month. The net heat rate for the month was 10,430 BTU/KWH. There are 247.27 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 17, 1983. The capacity factor for the month was 93.8 percent.

There was one reactor scram, no manual shutdowns, and one power reduction during August.

Significant Operational Events

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
08/01/82	0001	Reactor in mode 1 at 100% power producing 1145 MWe.
08/21/82	0014	Reactor at 100% power producing 1145 MWe. 3A heater drain tripped due to a low cil level. The reactor power was reduced to 90% and the turbine was manually ran back to 85% power.

Significant Operational Events

(Continued)

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
08/21/82	0017	Auto turbine runback to \cong 75%. Manually ran back to 65%.
	0030	Began power ascension.
	0130	Reactor at 85% power and holding.
	0330	Began increasing power.
	0505	Reactor at 100% power producing 1145 MWe.
08/27/82	0440	Began reducing power to clear the hi-steam flow bistables for SI-90.6.
	0643	Reactor at 92.5% power.
	0905	Began power ascension.
	1430	Reactor at 100% power producing 1145 MWe.
08/31/82	2359	Reactor in mode 1 at 100% power producing 1145 MWe.
<u>Unit 2</u>		
08/01/82	0001	Reactor in mode 1 at 100% power producing 1140 MWe.
08/05/82	0640	Began reducing load for maintenance on #3A heater drain tank pump motor.
	0800	Reactor at 98% power, producing 1112 MWe.
	0825	Began power ascension.
	1000	Reactor at 100% power, producing 1140 MWe.
08/11/82	0841	Began reducing load to check the oil level of #1 reactor coolant pump.
	1300	Reactor at 25% power producing 230 MWe.
	1637	Began power ascension.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
08/11/82	1830	Reactor at 74% power, producing 847 MWe and holding for maintenance on #7A heater drain tank pump motor.
	2300	Reactor at 70% power, producing 843 MWe.
08/12/82	0229	Began power ascension.
	1325	Reactor at 100% power, producing 1150 MWe.
08/26/82	1041	Began power reduction for maintenance on #7B heater drain tank pump.
	1214	Reactor at 90% power.
	1425	Began power ascension.
	1610	Reactor at 100% power, producing 1150 MWe.
08/27/82	2001	Feedwater valve 3-48 failed closed due to water in the junction box causing the reactor to trip.
08/28/82	0345	Reactor taken critical.
	0523	Unit tied on line. Power increased to 30% and holding for secondary chemistry.
	1901	Began power ascension.
08/29/82	0618	Reactor at 100% power producing 1135 MWe.
	1235	Began load reduction to repair an oil leak on #3C heater drain tank pump.
	1300	Reactor at 93% power, producing 1080 MWe.
	1322	Began power ascension.
	1515	Reactor at 100% power.
08/31/82	2359	Reactor in mode 1 at 100% power, producing 1150 MWe.

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 1982, to the Assistant Director of Nuclear Power (Operations) for reporting to the Nuclear Regulatory Commission.

Unit 1

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-327/82093	The ice condenser intermediate deck doors were iced over and would not pass SI-108 (Lift Test) due to a ruptured drain line leaking water.
SQRO-50-327/82094	Diesel generator 1A-A was inoperable due to a broken oil sight glass.
SQRO-50-327/82095	A Westinghouse review discovered that an undetectable failure could exist in the on-line test system of the solid state protection system (SSPS) due to the possible failure of the switch contacts to close.
SQRO-50-327/82097	The upper containment personnel airlock inner door locking mechanism failed due to a broken pin on the door latch bar connecting rod. This was caused by a weld failure during normal operation.
SQRO-50-327/82098	Waste gas decay tank C oxygen concentration indicated 2.74%. This was due to air in-leakage and the monitor was reading high due to a zero shift in the calibration of the indicator.
SQRO-50-327/82099	Refueling water storage tank level channel 1-LT-63-50 failed low due to a faulty circuit board in the transmitter.
SQRO-50-327/82100	AFW automatic control valve 1-LCV-3-174 would not operate in manual due to a leaking diaphragm at the operator flange.
SQRO-50-327/82101	The neutron instrumentation power range channel N41 failed low due to a defective high range power supply.
SQRO-50-327/82102	1A1-A control and auxiliary vent boards tripped rendering various ventilation equipment and rad monitors inoperable. They tripped due to a burned out phase bus link caused by a loose connection.

Licensee Events and Special Reports

Unit 2

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-328/82096	Safety injection pump 2A-A failed to start due to an improperly locked locking ring on a plug connector in the back of the handswitch.
SQRO-50-328/82103	Pressurizer relief tank level channel 2-LT-68-312C failed due to a malfunction in the loop transmitter section. This instrument has been deleted by a Tech Spec change.
SQRO-50-328/82104	Overpower delta temperature channel 2-TI-68-2D failed low due to the resistance to voltage converters having an instrument span shift. This resulted in the out-of-tolerance indications.
SQRO-50-328/82105	Refueling water storage tank level channel 2-LT-63-52 failed low due to a faulty amplifier card.

Special Reports

There were no special reports sent during the month of August.

Offsite Dose Calculation Manual Changes

There were no changes to the Sequoyah Nuclear Plant ODCM during August.

OPERATING DATA REPORT

DOCKET NO. 50-327
 DATE September 4, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah One Notes _____
 2. Reporting Period: August 1982
 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): 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: _____

 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	5831	10248
12. Number of Hours Reactor Was Critical	744	4,489.7	7,291
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	744	4,385.3	7,075.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,533,093	14,397,772	22,462,726
17. Gross Electrical Energy Generated (MWH)	846,830	4,838,000	7,483,950
18. Net Electrical Energy Generated (MWH)	818,626	4,646,486	7,173,510
19. Unit Service Factor	100	75.2	69.0
20. Unit Availability Factor	100	75.2	69.0
21. Unit Capacity Factor (Using MDC Net)	97.5	70.6	62.1
22. Unit Capacity Factor (Using DER Net)	95.9	69.4	61.0
23. Unit Forced Outage Rate	0	18.0	18.3
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling/Modification Outage, September 10 (Scheduled), 6 Months			

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327
 UNIT Sequoyah One
 DATE September 4, 1982
 COMPLETED BY M. Bradford
 TELEPHONE (615) 751-0343

MONTH August

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1,102</u>	17	<u>1,097</u>
2	<u>1,101</u>	18	<u>1,105</u>
3	<u>1,103</u>	19	<u>1,103</u>
4	<u>1,099</u>	20	<u>1,104</u>
5	<u>1,099</u>	21	<u>1,076</u>
6	<u>1,100</u>	22	<u>1,107</u>
7	<u>1,100</u>	23	<u>1,105</u>
8	<u>1,099</u>	24	<u>1,102</u>
9	<u>1,099</u>	25	<u>1,102</u>
10	<u>1,101</u>	26	<u>1,099</u>
11	<u>1,101</u>	27	<u>1,084</u>
12	<u>1,103</u>	28	<u>1,100</u>
13	<u>1,105</u>	29	<u>1,099</u>
14	<u>1,105</u>	30	<u>1,100</u>
15	<u>1,102</u>	31	<u>1,101</u>
16	<u>1,101</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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
 UNIT NAME Sequoyah One
 DATE September 4, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

REPORT MONTH August

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	82/08/21	F		A	5				#3 heater drain tank pump trip on Lo oil level. Turbine ran back to 65%.

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

OPERATING DATA REPORT

DOCKET NO. 50-328
 DATE September 4, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

OPERATING STATUS

- | | |
|---|-------|
| 1. Unit Name: <u>Sequoyah Two</u> | Notes |
| 2. Reporting Period: <u>August, 1982</u> | |
| 3. Licensed Thermal Power (Mwt): <u>3411</u> | |
| 4. Nameplate Rating (Gross MWe): <u>1220.58</u> | |
| 5. Design Electrical Rating (Net MWe): <u>1148</u> | |
| 6. Maximum Dependable Capacity (Gross MWe): <u>1163</u> | |
| 7. Maximum Dependable Capacity (Net MWe): <u>1128</u> | |
| 8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: | |

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	2208	2208
12. Number of Hours Reactor Was Critical	736.3	2177.6	2177.6
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	734.6	2137.6	2137.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,386,212.4	6,802,570.4	6,802,570.4
17. Gross Electrical Energy Generated (MWH)	811,640	2,294,770	2,294,770
18. Net Electrical Energy Generated (MWH)	783,678.6	2,211,259.6	2,211,259.6
19. Unit Service Factor	98.7	96.8	96.8
20. Unit Availability Factor	98.7	96.8	96.8
21. Unit Capacity Factor (Using MDC Net)	93.4	88.8	88.8
22. Unit Capacity Factor (Using DER Net)	91.7	87.2	87.2
23. Unit Forced Outage Rate	1.3	2.2	2.2

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Ice Weighing, 11-4-82, Per Technical Specifications

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

	Forecast	Achieved
INITIAL CRITICALITY	<u>11-5-81</u>	<u>11-5-81</u>
INITIAL ELECTRICITY	<u>12-31-81</u>	<u>12-31-81</u>
COMMERCIAL OPERATION	<u>6-1-82</u>	<u>6-1-82</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328
 UNIT Sequoyah Two
 DATE September 3, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

MONTH August 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1,104	17	1,101
2	1,104	18	1,099
3	1,105	19	1,104
4	1,103	20	1,107
5	1,099	21	1,107
6	1,100	22	1,105
7	1,100	23	1,106
8	1,100	24	1,104
9	1,101	25	1,103
10	1,101	26	1,085
11	762	27	915
12	1,008	28	241
13	1,105	29	1,058
14	1,105	30	1,103
15	1,105	31	1,096
16	1,103		

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-328
 UNIT NAME Sequoyah Two
 DATE September 4, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

REPORT MONTH August

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
4	82/08/11	F	0	B	5				Reduce load to 25% for maintenance on #1 R.C.P. oil level.
6	82/08/27	F	9.4	A	3				Water in junction box caused a short in solenoid circuit. Valve 3-48 (loop #2) failed closed caused unit to trip.

-11-

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 1982:

Mechanical Maintenance

1. Allis-Chalmer concentrate pumps were installed on the boric acid evaporator package A.
2. Both Unit 1 and 2 positive displacement charging pumps were repacked and their plungers replaced.

Electrical Maintenance

1. Rebuilding of the spare reactor coolant pump motor continues.
2. 1A-A control and auxiliary vent board phase bus link was replaced.

Instrument Maintenance

None reportable.