

TENNESSEE VALLEY AUTHORITY  
DIVISION OF NUCLEAR POWER  
SEQUOYAH NUCLEAR PLANT

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

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Prepared By:

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## Operations Summary

July 1982

The following summary describes the significant operational activities for the month of July. 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 850,930 MWH (gross) with 3.32 percent station service use resulting in an average hourly gross load of 1,114,723 KW during the month. The net heat rate for the month was 10,545 BTU/KWH. There are 33.92 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 9, 1982. The capacity factor for the month was 98.3 percent.

There were no reactor scrams, no manual shutdowns, and no power reductions during July.

### Unit 2

Unit 2 was critical for 744 hours, produced 836,720 MWH (gross) with 3.49 percent station service use, resulting in an average hourly gross load of 1,124,624 kW during the month. The net heat rate for the month was 10,600 BTU/KWH. There are 276.42 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 22, 1983. The capacity factor for the month was 96.7 percent.

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

## Significant Operational Events

### Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
07/01/82	0001	Reactor in mode 1 at 100% power producing 1145 MWe.
07/09/82	2345	Reactor reduced to 92% power, 1038 MWe for SI-90.1 - Reactor Trip Instrumentation Monthly Check.
07/10/82	0530	Reactor at 100% power producing 1145 MWe.

## Significant Operational Events

(Continued)

### Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
07/29/82	0625	Reactor at 96% power for SI-90.6 and SI-90.7 steam flow bistables.
	1700	Reactor at 100% power producing 1145 MWe.
07/31/82	2355	Reactor in mode 1 at 100% power producing 1145 MWe.

### Unit 2

07/01/82	0001	Reactor in mode 1 at 100% power producing 1140 MWe.
	0622	Reactor at 95% power producing 1120 MWe for SI-90.62 - Steam Flow Bistables.
	1400	Reactor at 100% power producing 1150 MWe.
07/13/82	2215	Began power reduction for an ice condenser inspection.
07/14/82	0345	Reactor at 23% power producing 189 MWe and holding while an inspection team is in the ice condenser.
	1749	Began power ascension.
	2130	Reactor at 100% power producing 1140 MWe.
07/30/82	0755	Reactor at 93% power for SI-90.72 - Steam Flow Deviation.
	1135	Reactor at 100% power producing 1140 MWe.
07/31/82	2359	Reactor in mode 1 at 100% power producing 1140 MWe.

Sequoyah Nuclear Plant had a station capacity factor of 97.5% with a combined gross output of 1,687,650 MWH's for the month.

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

<u>LER</u>	<u>Unit 1</u>	<u>SUBJECT</u>
SQRO-50-327/82074		AFW automatic control valve 1-LCV-3-171 failed to open on demand due to low controller output signal. AFW valve 1-LCV-3-122 inoperable due to a failed hydraulic pump motor caused by a deadheaded pump.
SQRO-50-327/82075		Steam generator blowdown containment isolation valve 1-FCV-1-7 failed closed and would not open. The valve operator diaphragm ruptured due to high temperatures.
SQRO-50-327/82076		The ice condenser ice bed temperature monitoring system was inoperable. A wire was broken when the recorder drawer was being pulled out.
SQRO-50-327/82078		The oxygen concentration in the waste gas decay tank J was found to be 8.1% by grab sample. The oxygen monitor was inoperable due to out of spec calibration gas.
SQRO-50-327/82079		RWST level channel 1-LT-63-51 bistable was left in the test position, therefore, the channel was inoperable.
SQRO-50-327/82080		Various room coolers and other equipment was inoperable when the control and auxiliary vent board tripped because of a short in the control transformer to the control building emergency pressurization fan.
SQRO-50-327/82082		AFW level control valve 1-LCV-3-164 failed to control in automatic due to the setpoint indicator control belt slipping.
SQRO-50-327/82086		AFW back pressure control valve 1-PCV-3-122 was leaking oil from a cracked tube tee fitting.
SQRO-50-327/82088		Containment hydrogen monitor 1-H <sub>2</sub> A-43-210 failed SI-287 due to a clogged sample line orifice.
SQRO-50-327/82089		Waste gas system oxygen analyzer 0-0 <sub>2</sub> A-43-5000 failed surveillance because of a faulty zero setpoint potentiometer.

Licensee Events and Special Reports

Unit 1

(Continued)

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-327/82092	AFW level control valve failed to open in auto during testing due to dirty handswitch contacts.

Unit 2

SQRO-50-328/82077	An ice condenser intermediate deck door was frozen closed due to a leaking drain line.
SQRO-50-328/82081	AFW automatic control valve 2-PCV-3-122 failed to open on demand due to leaking oil and servo valve failure. Dirty oil is believed to be the cause.
SQRO-50-328/82083	Loop 3 steam generator blowdown containment isolation valve would not open due to a grounded wire.
SQRO-50-328/82084	Containment pressure transmitter 2-PDT-30-43 bistable setting was out of limits due to instrument drift.
SQRO-50-328/82085	The ice condenser lower compartment average air temperature was greater than 27°F on two occasions due to leaking valves and air flow through an inoperable fan.
SQRO-50-328/82087	On July 9 at 2100C and July 13 at 0700C one point of the ice condenser ice bed exceeded 27°F. Missing floor drain papers, unsealed inlet doors and an open drain line were found as the cause.
SQRO-50-328/82090	AFW level control valve 2-LCV-3-171 would not open past two-thirds open due to a loose diaphragm spring tension adjustment nut.
SQRO-50-328/82091	Steam generator blowdown containment isolation valve 2-FCV-1-7 would not remain open. The upper limit switch was out of adjustment.

Special Reports

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

Offsite Dose Calculation Manual Changes

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

OPERATING DATA REPORT

DOCKET NO. 50-327  
 DATE August 3, 1982  
 COMPLETED BY M. Eddings  
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah One
2. Reporting Period: July 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:

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	5087	9504
12. Number of Hours Reactor Was Critical	744	3745.7	6547
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	744	3641.3	6331.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,532,497	11,864,679	19,929,633
17. Gross Electrical Energy Generated (MWH)	850,930	3,991,170	6,637,120
18. Net Electrical Energy Generated (MWH)	822,710	3,827,860	6,354,884
19. Unit Service Factor	100	71.6	66.6
20. Unit Availability Factor	100	71.6	66.6
21. Unit Capacity Factor (Using MDC Net)	98.0	66.7	59.3
22. Unit Capacity Factor (Using DER Net)	96.3	65.5	58.2
23. Unit Forced Outage Rate	0	21.0	20.0

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 One  
 DATE August 3, 1982  
 COMPLETED BY M. Eddings  
 TELEPHONE (615) 751-0343

MONTH July 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1096</u>	17	<u>1100</u>
2	<u>1094</u>	18	<u>1098</u>
3	<u>1093</u>	19	<u>1098</u>
4	<u>1096</u>	20	<u>1098</u>
5	<u>1097</u>	21	<u>1099</u>
6	<u>1091</u>	22	<u>1098</u>
7	<u>1098</u>	23	<u>1099</u>
8	<u>1099</u>	24	<u>1096</u>
9	<u>1093</u>	25	<u>1098</u>
10	<u>1086</u>	26	<u>1097</u>
11	<u>1098</u>	27	<u>1096</u>
12	<u>1100</u>	28	<u>1097</u>
13	<u>1101</u>	29	<u>1075</u>
14	<u>1100</u>	30	<u>1096</u>
15	<u>1099</u>	31	<u>1099</u>
16	<u>1102</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

August 3, 1982

COMPLETED BY

M. Eddings

TELEPHONE

(615) 751-0343

REPORT MONTH July 1982

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
									No Shutdowns or Power Reductions Greater Than 20% During the Month

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)

OPERATING DATA REPORT

DOCKET NO. 50-328  
 DATE August 1, 1982  
 COMPLETED BY David Dupree  
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah Two
2. Reporting Period: July 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:  
Turbine will not meet design specifications. Unit two is rated the same as Sequoyah One.
9. Power Level To Which Restricted, If Any (Net MWe): \_\_\_\_\_
10. Reasons For Restrictions, If Any: \_\_\_\_\_

Notes

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	744	1464	1464
12. Number of Hours Reactor Was Critical	744	1441.3	1441.3
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	744	1402.95	1402.95
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,498,076.8	4,416,358	4,416,358
17. Gross Electrical Energy Generated (MWH)	836,720	1,483,130	1,483,130
18. Net Electrical Energy Generated (MWH)	807,539	1,427,581	1,427,581
19. Unit Service Factor	100	95.8	95.8
20. Unit Availability Factor	100	95.8	95.8
21. Unit Capacity Factor (Using MDC Net)	96.2	86.4	86.4
22. Unit Capacity Factor (Using DER Net)	94.55	84.9	84.9
23. Unit Forced Outage Rate	0.0	4.2	4.2
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Ice weighing, 11-4-82, per Technical Specifications.</u>			

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	11-5-81	11-5-81
INITIAL ELECTRICITY	12-31-81	12-31-81
COMMERCIAL OPERATION	6-1-82	6-1-82

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH July 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1,110</u>	17	<u>1,105</u>
2	<u>1,098</u>	18	<u>1,102</u>
3	<u>1,096</u>	19	<u>1,102</u>
4	<u>1,108</u>	20	<u>1,102</u>
5	<u>1,109</u>	21	<u>1,103</u>
6	<u>1,110</u>	22	<u>1,104</u>
7	<u>1,109</u>	23	<u>1,105</u>
8	<u>1,107</u>	24	<u>1,103</u>
9	<u>1,100</u>	25	<u>1,103</u>
10	<u>1,102</u>	26	<u>1,102</u>
11	<u>1,045</u>	27	<u>1,102</u>
12	<u>1,101</u>	28	<u>1,100</u>
13	<u>1,096</u>	29	<u>1,100</u>
14	<u>500</u>	30	<u>1,090</u>
15	<u>1,103</u>	31	<u>1,102</u>
16	<u>1,105</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. 50-328  
 UNIT NAME Sequoyah Two  
 DATE August 4, 1982  
 COMPLETED BY David Dupree  
 TELEPHONE (615) 751-0343

REPORT MONTH July

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report #	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause & Corrective Action to Prevent Recurrence
3	82/07/13	F	0	B	5				Unit derated to 25% reactor power for ice condenser inspection.

-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 July 1982.

### Mechanical Maintenance

1. Replaced the turbochargers on diesel generators 2A1 and 2A2.

### Electrical Maintenance

1. Repairs continue on the spare reactor coolant pump.

### Instrument Maintenance

None reportable.

### Field Services Maintenance

1. ECN 5158, WP 9119 R1 - Diesel Generator Batteries and Racks Replacement - Diesel generator 2A-A batteries and racks were changed out. This ECN is complete.
2. ECN 5466, WP 9759 - Roof Hatch Alarm - 480v rooms 2A and 1A - Diesel Generator Building - All work is complete except for painting. The alarms are operational.
3. ECN 5464, WP 9761 - Vehicle Gate and PA System - The ECN is complete.
4. ECN 5216 - Replacement of Check Valve 1-77-956 With a Diaphragm Valve - This ECN is complete.
5. ECN 5376, WP 9715 - Fire Protection Valve Post Indicators - This ECN is complete.