TENNESSEE VALLEY AUTHORITY

DIVISION OF NUCLEAR POWER

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

OCTOBER 1, 1982 - OCTOBER 31, 1982

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted By: _____
Power Plant Superintendent

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Operations Summary

October 1982

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

Unit 1

The refueling/modification outage continued during the month.

Unit 2

Unit 2 was critical for 731.98 hours, produced 771,050 MWH (gross) with 3.74 percent station service use, resulting in an average hourly gross load of 1,069,922 kW during the month. The net heat rate for the month was 10,540 BTU/KWH. There are 193.98 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 June 16, 1983. The capacity factor for the month was 89.0 percent.

There was one reactor scram, no manual shutdowns, and three power reductions during October.

Significant Operational Events

Unit 1

Date	Time	Event
10/01/82	0001	Refueling modification outage continues.
10/02/82	0400	Reactor entered mode 6.
10/18/82	0530	The reactor head assembly removed.
10/23/82	2230	First fuel assembly removed from the core.
10/27/82	0608	The last fuel assembly removed from the core - no fuel in the core.
10/31/82	2959	Reactor in mode 6, no fuel in the core. The refueling/modification outage continues.

Significant Operational Events

(Continued)

Unit 2

Date	Time	Event
10/01/82	0001	Reactor in mode 1 at 100% power producing 1155 MWe.
10/03/82	0230	Began load reduction to repair a cracked pump casing drain line on main feedwater pump turbine 2B.
	0600	Reactor at 58% power producing 710 MWe.
	1330	MFPT 2B repairs completed, began power ascension.
	1630	Reactor at 100% power producing 1155 MWe.
	2200	2A-1 high pressure heater removed from service to work on a valve operator. Reactor at 100% power producing 1144 MWe.
10/04/82	1235	2A-1 heater back in service, load increased to 1150 MWe.
10/07/82	2339	The reactor tripped when the generator tripped due to a voltage regulator problem in the generator.
10/08/82	1240	Reactor taken critical.
	1455	Reactor in mode 1 at 5% power.
	1643	No. 3 governor valve stuck closed.
	2359	Unit tied on line.
10/09/82	0200	Reactor at 30% power, producing 275 MWe and holding waiting for the secondary water chemistry to come into specification.
	2000	Unit released to go to 100% power.
10/10/82	1200	Reactor at 97% power producing 1120 MWe, maximum power and load with #3 governor valve closed.
10/12/82	0911	2B-2 condenser water box taken out of service for tube leak testing. Unit load 1115 MWe.

Significant Operational Events

(Continued)

Unit 2

Date	Time	Event
10/12/82	1917	2B-2 water box back in service, unit load 1140 MWe.
10/13/82	0530	2B-1 water box taken out of service for tube leak testing, unit load 1115 MWe.
	0950	2B-1 water box back in service, unit load 1140 MWe.
	1045	2A-2 water box taken out of service for tubing leak testing, unit load 1115 MWe.
10/15/82	0045	2A-2 water box back in service after leaking tubes were repaired. Unit load 1135 MWe.
	0550	2A-1 water box taken out of service for tube leak testing, unit load 1120 MWe.
	1314	2A-1 water box back in service, unit load 1135 MWe.
10/16/82	0740	Began power reduction to perform SI-90.102.
	0800	Reactor at 92% power producing 1110 MWe.
	1130	Began power ascension.
	1300	Reactor at 97% power producing 1138 MWe.
10/18/82	0546	2C-2 water box taken out of service for tube leak testing, unit load 1123 MWe.
	0915	2C-2 water box back in service, unit load 1135 MWe.
	1010	2C-1 water removed from service for tube leak testing, unit load 1120 MWe.
	1523	2C-1 water box back in service, unit load 1140 MWe.
10/21/82	0212	Began power reduction to repair an oil leak on the condensate booster pump.
	0335	Reactor at 80% power producing 950 MWe.

Significant Operational Events

(Continued)

Unit 2

Date	Time	Event
10/21/82	0700	Began power ascension.
	1006	Reactor at 97% power producing 1150 MWe, #3 governor valve closed.
10/23/82	0030	Began power reduction to repair leaks on the drain line on 2B MFPT.
	0320	Reactor at 60% power, producing 720 MWe.
	2304	Began power ascension.
10/24/82	0235	Reactor at 97% power, producing 1140 MWe.
10/27/82	1030	1030 water box removed from service for tube leak testing, unit load 1131 MWe.
	1227	Began load reduction due to sodium concentration out of specification.
	1558	Reactor at 40% power producing 465 MWe.
	1735	2A-2 water box returned to service unit load 484 MWe.
	1945	Began power ascension.
10/28/82	0030	Reactor at 97% power producing 1145 MWe, #3 governor valve closed.
	0410	2A-1 water box removed from service for tube leak testing, unit load 1136 MWe.
	1200	2A-1 water box back in service, unit load 1143 MWe.
	1250	2B-1 water box removed from service for tube leak testing, unit load 1140 MWe.
	1900	2B-1 water box returned to service, unit load 1145 MWe.
10/29/82	0440	2C-2 water box removed from service for tube leak testing, unit load 1130 MWe.

Significant Operational Events

(Continued)

Unit 2

Date	Time	Event
10/29/82	1115	2C-2 water returned to service, unit load 1133 MWe.
	1115	2C-1 water removed from service for tube leak testing, unit load 1133 MWe.
	1650	2C-1 water box returned to service, unit load 1141 MWe.
10/31/82	2359	Reactor in mode 1 at 97% power producing 1140 MWe, #3 governor valve closed.

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

Unit 1

LER	SUBJECT
SQRO-50-327/82112	The dissolved air and nitrogen concentrations in the upper head injection accumulator exceeded the technical specification limits due to the rupture diaphragm being ruptured.
SQRO-50-327/82115	Auxiliary building ventilation radiation monitor RE-90-101 was inoperable due to loss of sample flow caused by the failure of the sample flow vacuum pump drive belt.
SQRO-50-327/82116	Both trains of RHR was inoperable due to the inadvertant closing of the RHR suction valve 1-FCV-74-2 when a fuse was removed during modification work.
SQRO-50-327/82117	The time delay setpoint on fire pump 1B-B start circuit was found out of tolerance.
SQRO-50-327/82121	Auxiliary feedwater automatic valve 1-LCV-3-175 would not fully stroke during testing.

Licensee Events and special Reports

(Continued)

Unit 2

LER	SUBJECT
SQRO-50-328/82113	The dissolved air and nitrogen concentration in the upper head injection accumulators exceeded the technical specification limits due to the rupture diaphragm being ruptured.
SQRO-50-328/82115	Both upper containment personnel airlock doors were opened at the same time because the door swing operating chain was out of adjustment.
SQRO-50-328/82118	ERCW valves 1-FCV-67-66 and -68 would not open on diesel generator 1A-A start signal because of an open circuit.
SQRO-50-328/82119	Unit 2 containment isolation valve 2-FCV-30-17 would not open during performance of SI-166.1.
SQRO-50-328/82120	The lower containment personnel airlock was inoperable due to a broken cam-roller in the gear box.

Special Reports

There were three special reports sent during the month of October.

82-03 Fire detector 74F was inoperable for a period in excess of 14 days.

82-04 The biological shield blocks have been removed from the Unit 1 reactor building equipment hatch which is a breach of a fire barrier penetration and will remain non-functional for the duration of the refueling outage.

82-05 Door A-64 to the Unit 1 lower containment personnel airlock has been opened and will remain open during the refueling outage.

Offsite Dose Calculation Manual Changes

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

OPERATING DATA REPORT

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

OPERATING STATUS

1. Unit Name: Sequoyah One
2. Reporting Period: October 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	745	7,296	11,713
12. Number of Hours Reactor Was Critical	0	4,734.4	7,535.7
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	0	4,629.1	7,319.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	0	15,217,828	23,282,782
17. Gross Electrical Energy Generated (MWH)	0	5,111,586	7,757,536
18. Net Electrical Energy Generated (MWH)	0	4,908,979	7,436,003
19. Unit Service Factor	0	63.4	62.5
20. Unit Availability Factor	0	63.4	62.5
21. Unit Capacity Factor (Using MDC Net)	0	59.6	56.3
22. Unit Capacity Factor (Using DER Net)	0	58.6	55.3
23. Unit Forced Outage Rate	0	17.1	17.8

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Modification Outage (September 11) (Scheduled)

25. If Shut Down At End Of Report Period, Estimated Date of Startup: 12-25-82
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 November 7, 1982
COMPLETED BY M. Eddings
TELEPHONE (615) 751-0343

REPORT MONTH October

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
3	82/09/11	S	745	C	1				Refueling Outage.

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

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AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-327
UNIT	One
DATE	October, 1982
COMPLETED BY	Marlene Jordan
TELEPHONE	(615) 751-0421/345

MONTH October

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

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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Refueling modification outage continues.

OPERATING DATA REPORT

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

OPERATING STATUS

1. Unit Name: Sequoyah Two
2. Reporting Period: October 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

Item 14 corrected from last month's report.

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	745	3,673	3,673
12.	Number of Hours Reactor Was Critical	732	3,566.9	3,566.9
13.	Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14.	Hours Generator On-Line	720.7	3,512.9	3,512.9
15.	Unit Reserve Shutdown Hours	0.0	0.0	0.0
16.	Gross Thermal Energy Generated (MWH)	2,282,698	11,164,853.4	11,164,853.4
17.	Gross Electrical Energy Generated (MWH)	771,050	3,754,590	3,754,590
18.	Net Electrical Energy Generated (MWH)	742,187	3,614,716.6	3,614,716.6
19.	Unit Service Factor	96.7	95.6	95.6
20.	Unit Availability Factor	96.7	95.6	95.6
21.	Unit Capacity Factor (Using MDC Net)	88.3	87.2	87.2
22.	Unit Capacity Factor (Using DER Net)	86.8	85.7	85.7
23.	Unit Forced Outage Rate	3.3	2.2	2.2

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Ice weighing, 11/13/82, 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	11/5/81	11/5/81
INITIAL ELECTRICITY	12/23/81	12/23/81
COMMERCIAL OPERATION	6/1/82	6/1/82

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UNIT SHUTDOWNS AND POWER REDUCTIONS

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

REPORT MONTH October

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
15	82/10/03	F	0	A	5				Reduced load to repair a cracked line on "B" main feed pump turbine.
16	82/10/07	F	24.3	A	3				Unit tripped due to a voltage regulator problem on the generator.
17	82/10/23	F	0	A	5				Oil leak on the "2B" main feed pump turbine drain pipe.
18	82/10/27	F	0	A	5				Chemistry out of specifications, high sodium content caused by putting a faulty polisher in service.

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.
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4-Cont. of Existing Outage
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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)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-328
UNIT	Two
DATE	October, 1982
COMPLETED BY	M. Jordan
TELEPHONE	(615) 751-0343

MONTH October

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1106	17	1086
2	1103	18	1081
3	920	19	1092
4	1072	20	1092
5	1104	21	1056
6	1106	22	1096
7	1090	23	742
8	0	24	1080
9	227	25	1091
10	946	26	1095
11	1106	27	906
12	946	28	1091
13	1071	29	1087
14	1072	30	1096
15	1082	31	1088
16	1071		

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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Plant Maintenance Summary

The following significant maintenance items were completed during the month of October 1982:

Mechanical Maintenance

1. Replaced the UHI rupture disk in the Unit 2 UHI system.
2. Replaced the shafts in centrifugal charging pumps 1A-A and 1B-B.
3. Inspected the pump seals on Unit 1 reactor coolant pumps #2 and #4.
4. Weighed ice baskets and added ice as required in the Unit 1 ice condenser.
5. Centrifugal charging pump 1B-B casing was changed out.
6. Grinded out a rack in the casing of 1A-A centrifugal charging pump.
7. Installed a pump in the boric acid evaporator package A.

Electrical Maintenance

1. Electrical modifications continues on Unit 1 reactor coolant pump motors #2 and #4.
2. Began modifications and additions to the technical support center.
3. Repaired the Unit 2 generator after the unit tripped due to generator voltage regulator problems.

Instrument Maintenance

None reportable.