TENNESSEE VALLEY AUTHORITY

DIVISION OF NUCLEAR POWER

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

SEPTEMBER 1, 1982 - SEPTEMBER 30, 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

TABLE OF CONTENTS

Operations Summary

September 1982

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

Unit 1

Unit 1 was critical for 244.7 hours, produced 273,586 MWH (gross) with 4.10 percent station service use resulting in an average hourly gross load of 1,122,174 KW during the month. The net heat rate for the month was 10,700 BTU/KWH. The capacity factor for the month was 32.7 percent. The first refueling/modification outage started on September 10.

There were no reactor scrams, one manual shutdown, and no power reductions during September.

Unit 2

Unit 2 was critical for 657.3 hours, produced 688,770 MWH (gross) with 4.0 percent station service use, resulting in an average hourly gross load of 1,052,119 kW during the month. The net heat rate for the month was 10,770 BTU/KWH. There are 221.88 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 18, 1983. The capacity factor for the month was 82.3 percent.

There were no reactor scrams, one manual shutdown, and three power reductions during September.

Significant Operational Events

Unit 1

Date	Time	Event
09/01/82	0001	Reactor in mode 1 at 100% power producing 1145 MWe.
09/08/82	1825	To control axial power oscillation, the operator diluted the RCS with 23,000 gallons of water to move the rods in five steps. Reactor power was 96%.
09/10/82	2230	Reactor at 98% power. Began manual reactor shutdown for the first refueling/modification outage.

Significant Operational Events

(Continued)

Unit 1

Date	Time	Event
09/11/82	0349	Turbine off-line.
09/11/82	0450	Reactor entered mode 3.
09/12/82	1026	Reactor entered mode 5.
09/30/82	2359	Refueling/modification outage continues.

Unit 2

09/01/82	0001	Reactor in mode 1 at 100% power producing 1150 MWe.
09/04/82	2200	Reactor at 85% power producing 999 MWe. 3B heater drain tank pump casing drain line repairs in progress.
09/06/82	2338	Began power ascension.
09/07/82	0500	Reactor at 100% power producing 1140 MWe.
	1353	Reactor at 75% power producing 820 MWe. SSPS "B" train failed SI-90.82 due to problems with the logic board.
	1535	Began power ascension.
09/09/82	0100	Reactor at 65% power producing 740 MWe. Leak repairs on both main feedwater pump in progress.
09/10/82	2128	Reactor was reduced to 37% power producing 385 MWe. UHI N_2 concentration out of specification.
	2136	Began power ascension.
	2359	Reactor at 51% power, producing 560 MWe and holding while maintenance is being performed on MFPT 2B governor valve.
09/11/82	0315	Began power ascension.
	1108	Reactor at 100% power producing 1146 MWe.
09/12/82	0733	Reactor at 82% power producing 989 MWe. UHI N_2 concentration out of specification.

Significant Operational Events

(Continued)

Unit 2

Date	Time	Event
09/12/82	0910	Began power ascension.
	1224	Reactor at 100% power producing 1145 MWe.
09/14/82	2230	Began manual reactor shutdown to replace the UHI rupture diaphram.
09/15/82	0409	Turbine off-line.
	0450	Reactor entered mode 3.
09/17/82	1930	Reactor taken critical.
	2016	Reactor entered mode 1.
	2130	Turbine tied on-line.
09/18/82	0215	Reactor at 29% power producing 280 MWe and holding for secondary chemistry to come into specifications.
	0958	Began power ascension.
	1210	Reactor at 42% power, producing 430 MWe and holding due to an alarm concerning the ice condenser doors.
	1346	Began power reduction to visually inspect the ice condenser doors.
	1511	Reactor at 32% power producing 312 MWe. Ice condenser door inspection in progress.
	1636	Jarred ice condenser door fixed, began power ascension.
09/19/82	0750	Reactor at 100% power, producing 1145 MWe.
09/29/82	1420	Reactor at 100% producing 1158 MWe and losing vacuum - began power reduction.
	1717	MSR A-1 start-up vent line found broken at the condenser. The line was plugged.
	1758	Began power ascension.
09/30/82	2359	Reactor in mode 1 at 100% power, producing 1155 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 September 1982, to the Assistant Director of Nuclear Power (Operations) for reporting to the Nuclear Regulatory Commission.

Unit 1

LER	SUBJECT
SQRO-50-327/82106	Forty-five penalty minutes were accumulated when the axial flux difference was discovered outside the target band due to various power reductions.
SQRO-50-327/82107	Annulus door A65 and access door A65 opened at the same time due to interlock failure rendering both trains of EGTS inoperable.
SQRO-50-327/82108	RWST level channel LT-63-50 found out-of-tolerance during the performance of SI-70. Instrument drift was declared as the cause.
SQRO-50-327/82111	One containment pressure channel for remote shutdown monitoring was declared inoperable due to a closed isolation valve on the sensing line.
SQRO-50-328/82109	Hot leg sample valve 2-FCV-43-22 would not open because the open limit switch was out of adjustment.
SQRO-50-328/82110	One train of the automatic trip logic (SSPS) was declared inoperable because the testing time exceeded one hour due to problems clearing the first out annunciators.

Special Reports

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

Offsite Dose Calculation Manual Changes

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

OPERATING DATA REPORT

DOCKET NO. 50-327
DATE October 5, 1982
COMPLETED BY M. Eddings
TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah One
2. Reporting Period: September 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	720	6551	10968
12.	Number of Hours Reactor Was Critical	244.7	4734.4	7535.7
13.	Reactor Reserve Shutdown Hours	0	0	0
14.	Hours Generator On-Line	243.8	4629.1	7319.4
15.	Unit Reserve Shutdown Hours	0	0	0
16.	Gross Thermal Energy Generated (MWH)	820,056	15,217,828	23,282,782
17.	Gross Electrical Energy Generated (MWH)	273,586	5,111,586	7,757,536
18.	Net Electrical Energy Generated (MWH)	262,493	4,908,979	7,436,003
19.	Unit Service Factor	33.9	70.7	66.7
20.	Unit Availability Factor	33.9	70.7	66.7
21.	Unit Capacity Factor (Using MDC Net)	32.3	66.4	60.1
22.	Unit Capacity Factor (Using DER Net)	31.8	65.3	59.1
23.	Unit Forced Outage Rate		17.1	17.8

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: 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

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
UNIT NAME Sequoyah One
DATE October 3, 1982
COMPLETED BY M. Eddings
TELEPHONE (615) 751-0343

REPORT MONTH September

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	476.2	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

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-327
UNIT	One
DATE	October 5, 1982
COMPLETED BY	M. Jordan
TELEPHONE	(615) 751-0343

MONTH September

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1099	17	0
2	1099	18	0
3	1099	19	0
4	1105	20	0
5	1099	21	0
6	1078	22	0
7	1070	23	0
8	1057	24	0
9	1099	25	0
10	1099	26	0
11	80	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	---
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.

(9/77)

OPERATING DATA REPORT

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

OPERATING STATUS

1. Unit Name: Sequoyah Two
2. Reporting Period: September, 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	720	2928	2928
12. Number of Hours Reactor Was Critical	657.3	2834.9	2834.9
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	654.6	2832.2	2832.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,079,585	8,882,155.4	8,882,155.4
17. Gross Electrical Energy Generated (MWH)	688,770	2,983,540	2,983,540
18. Net Electrical Energy Generated (MWH)	661,270	2,872,529.6	2,872,529.6
19. Unit Service Factor	90.9	96.7	96.7
20. Unit Availability Factor	90.9	96.7	96.7
21. Unit Capacity Factor (Using MDC Net)	81.4	87.0	87.0
22. Unit Capacity Factor (Using DER Net)	80.0	85.5	85.5
23. Unit Forced Outage Rate	0	1.6	1.6

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

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

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

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

REPORT MONTH September

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
5	82/09/07	F	0	B	5				Logic board failure on SSPS while performing channel calibrations, SI-90.82. (Hi-Hi containment pressure channel).
6	82/09/08	F	0	B	5				Maintenance on "A" and "B" main feed pumps (repair leaks).
7	82/09/10	F	0	D	5				N_2 concentration on UHI out of specifications, reduce load to 37%.
7	82/09/14	F	65.35	B	1				Manual shutdown, repair diaphram on UHI.

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)

AVERAGE DAILY UNIT POWER LEVEL

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

MONTH September

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1088	17	8
2	1086	18	413
3	1085	19	1094
4	1075	20	1097
5	945	21	1010
6	944	22	1098
7	1021	23	1072
8	1087	24	1103
9	694	25	1101
10	657	26	1106
11	971	27	1107
12	1076	28	1106
13	1098	29	1081
14	1099	30	1106
15	85	31	---
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.

(9/77)

Plant Maintenance Summary

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

Mechanical Maintenance

1. Inspected reactor coolant pump #1 seals and replaced seal runners #2 and #3 and replaced #3 seal (Unit 1).

2. Replaced #2 and #3 seals on reactor coolant pump 3 (Unit 1).

3. Weighed and added ice to the top of the ice baskets.

Electrical Maintenance

1. Completed repairs on the spare reactor coolant pump motor.

2. Began repairs and modifications to Unit 1 reactor coolant pump motors #2 and #3.

Instrument Maintenance

Instrumentation work was started du ng the Unit 1 refueling outage on modifying the Foxboro I/I modules which is now approximately 35% complete. New steam flow transmitters were received, calibrated, and installed. Refuel cycle instrument surveillance test and calibrations are proceeding.