TENNESSEE VALLEY AUTHORITY

5B Lookout Place
Chattanooga, Tennessee 37402-2801
December 17, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

SEQUOYAH NUCLEAR PLANT (SQN) - NOVEMBER 1990 MONTHLY OPERATING REPORT

Enclosed is the November 1990 Monthly Operating Report as required by SQN Technical Specification 6.9.1.10.

If you have any questions concerning this matter, please call M. A. Cooper at (615) 843-8422.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

M. A. Cooper

for E. G. Wallace, Manager
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Enclosure
cc (Enclosure):

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TENNESSEE VALLEY AUTHORITY

NUCLEAR POWER GROUP
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

TO THE

NUCLEAR REGULATORY COMMISSION

NOVEMBER 1990

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

OPERATIONAL SUMMARY
NOVEMBER 1990

UNIT 1

Unit 1 generated 828,860 megawatthours (MW_h) (gross) electrical power during November, with a capacity factor of 97.31 percent. Unit 1 operated at 100 percent reactor power level from the beginning of November until November 15, 1990. On November 15, 1990, at 0232 Eastern standard time (EST), Preferred Power Board 1 supply fuse opened, deenergizing the board. At approximately 0435 EST, a licensed operator placed the main feedwater pump (MFP) 1A oil pump handswitch in the position required to clear the alarm. Unexpectedly, the oil pump tripped, resulting in a trip of the MFP. The main turbine ran back automatically. The unit was stabilized at approximately 60 percent reactor power level while the incident was investigated. The cause of the event has been attributed to a faulty relay. The relay was replaced and Unit 1 was returned to 100 percent reactor power level on November 16, 1990, at 1205 EST, and continued to operate at 100 percent through the end of November.

UNIT 2

Unit 2 generated 56,620 MW_h (gross) electrical power for November, with a capacity factor of 6.65 percent. Unit 2 began November in Mode 5 with Unit 2 Cycle 4 refueling outage still in process. On November 3, 1990, at 0647 EST, Unit 2 entered Mode 4. On November 4, 1990, problems were discovered with the reactor coolant pump (RCP) 2 No. 1 seal leakage. At 1555 EST on November 5, 1990, Unit 2 cooldown was initiated, and the unit entered Mode 5 at 1910 EST. The No. 1 seal was replaced and Unit 2 entered Mode 4 on November 7, 1990, at 2146 EST and entered Mode 3 on November 8, 1990, at 0500 EST. On November 12, 1990, at 1730 EST, Unit 2 went critical. After experiencing problems with RCP 1 leakoff, Unit 2 entered Mode 3 on November 13, 1990, at 0507 EST, entered Mode 4 at 0930 EST, and entered Mode 5 at 1258 EST. The No. 1 seal was replaced and Unit 2 heatup was again initiated on November 16, 1990, at 0841 EST. Unit 2 entered Mode 4 at 1630 EST and entered Mode 3 at 2133 EST. On November 20, 1990, at 1232 EST, Unit 2 was again critical. Unit 2 entered Mode 1 on November 21, 1990, at 1948 EST; and on November 22, 1990, at 0241 EST, Unit 2 tied online. This marked the end of the Unit 2 Cycle 4 refueling outage.

Unit 2 was taken offline on November 22, 1990, at 1206 EST, for the turbine overspeed test and was back online at 1333 EST.

On November 23, 1990, with Unit 2 at approximately 30 percent reactor power level, Unit 2 tripped at 0432 EST, on low pressurizer pressure and entered Mode 3. The trip occurred as a result of the loss of an RCP caused from deenergization of its unit board and subsequent operator actions. The cause of the unit board deenergization resulted from a possible electrical switchgear malfunction of the 62-224 relay. Relay testing was conducted and the relay returned to service. The unit was taken critical on November 24, 1990, at 2151 EST, and entered Mode 1 on November 25, 1990, at 0621 EST. Unit 2 tied online again on November 25, 1990, at 1111 EST. Unit 2 was operating at approximately 61 percent reactor power level at the end of November.

POWER-OPERATED RELIEF VALVES (PORVs) AND SAFETY VALVES SUMMARY

There were no challenges to PORVs or safety valves in November.

OFFSITE DOSE CALCULATION MANUAL (ODCM) CHANGES

There were no changes to the ODCM during November.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327 UNIT No. One DATE: 12-06-90

COMPLETED BY: T. J. Hollomon TELEPHONE: (615) 843-7528

MONTH: NOVEMBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1127	17	1147
2	1127	18	1147
3	1127	19	1137
4	1128	20	1128
5	1122	21	1129
6	1129	22	1134
7	1128	23	1132
8	1127	24	1131
9	1128	25	1133
10	1125	26	1132
11	1126	27	1133
12	1125	28	1132
13	1125	29	1131
14	1126	30	1132
15	760	31	N/A
16	1027		

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328 UNIT No. Two DATE: 12-06-90

COMPLETED BY: T. J. Hollomon TELEPHONE: (615) 843-7528

MONTH: NOVEMBER 1990

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	- 4	17	- 8
2	- 5	18	- 8
3	- 4	19	- 10
4	- 8	20	- 10
5	- 7	21	- 10
6	- 4	22	123
7	- 6	23	39
8	- 7	24	- 10
9	- 10	25	70
10	- 8	26	233
11	- 10	27	235
12	- 8	28	231
13	- 7	29	257
14	- 5	30	525
15	- 9	31	N/A
16	- 7		

OPERATING DATA REPORT

DOCKET NO. 50-327
DATE Dec. 7, 1990
COMPLETED BY T. J. Hollomon
TELEPHONE (615) 843-7528

OPERATING STATUS

Notes

1. Unit Name: Sequoyah Unit One
2. Reporting Period: November 1990
3. Licensed Thermal Power (MWt): 3411.0
4. Nameplate Rating (Gross MWe): 1220.6
5. Design Electrical Rating (Net MWe): 1148.0
6. Maximum Dependable Capacity (Gross MWe): 1183.0
7. Maximum Dependable Capacity (Net MWe): 1148.0
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A
9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	720	8,016	82,561
12. Number of Hours Reactor Was Critical	720.00	5,832.8	39,328
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	720.0	5,662.6	38,352.0
15. Unit Reserve Shutdown Hours	0.0	0	0
16. Gross Thermal Energy Generated (MWH)	2,420,581.9	18,439,485.1	124,775,405
17. Gross Electrical Energy Generated (MWH)	828,860	6,236,540	42,260,296
18. Net Electrical Energy Generated (MWH)	792,504	5,993,293	40,465,322
19. Unit Service Factor	100.0	70.6	46.5
20. Unit Availability Factor	100.0	70.6	46.5
21. Unit Capacity Factor (Using MDC Net)	95.9	65.1	42.7
22. Unit Capacity Factor (Using DER Net)	95.9	65.1	42.7
23. Unit Forced Outage Rate	0.0	8.2	45.8

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: N/A

OPERATING DATA REPORT

DOCKET NO. 50-328
DATE Dec. 7, 1990
COMPLETED BY T. J. Hollomon
TELEPHONE (615) 843-7528

OPERATING STATUS

Notes

1. Unit Name: Sequoyah Unit Two
2. Reporting Period: November 1990
3. Licensed Thermal Power (MWt): 3411.0
4. Nameplate Rating (Gross MWe): 1220.6
5. Design Electrical Rating (Net MWe): 1148.0
6. Maximum Dependable Capacity (Gross MWe): 1183.0
7. Maximum Dependable Capacity (Net MWe): 1148.0
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:
N/A
9. Power Level To Which Restricted, If Any (Net MWe): N/A
10. Reasons for Restrictions, If Any: N/A

	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	720	8,016	74,521
12. Number of Hours Reactor Was Critical	221.8	6,196.8	39,727
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	157.2	6,120.6	38,816.4
15. Unit Reserve Shutdown Hours	0.0	0	0
16. Gross Thermal Energy Generated (MWH)	180,336.0	19,449,130.2	119,859,390
17. Gross Electrical Energy Generated (MWH)	56,620	6,645,120	40,665,916
18. Net Electrical Energy Generated (MWH)	48,281	6,385,243	38,833,577
19. Unit Service Factor	21.8	76.4	52.1
20. Unit Availability Factor	21.8	76.4	52.1
21. Unit Capacity Factor (Using MDC Net)	5.8	69.4	45.4
22. Unit Capacity Factor (Using DER Net)	5.8	69.4	45.4
23. Unit Forced Outage Rate	25.8	1.5	40.9

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: N/A

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: November 1990

DOCKET NO: 50-327
UNIT NAME: One
DATE: 11/07/90
COMPLETED BY: T. J. Hollomon
TELEPHONE: (615) 843-7528

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report No.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
12	901115	F		A	5	327/90030	BA	RLY	November 15, 1990, at 0232 (EST) Preferred Power Board 1 supply fuse opened, de-energizing the board. At approximately 0435 (EST), a licensed operator placed the MFP 1A oil pump handswitch in the position required to clear the alarm. Unexpectedly, the oil pump tripped, resulting in a trip of the MFP. The main turbine ran back automatically. The unit was stabilized at approximately 60 percent reactor power level while the incident was investigated. The cause of the event has been attributed to a faulty mechanical latch on the operating coil of the relay for the oil pump. The relay was replaced. Unit 1 was operating at 100 percent reactor power level again on November 16, 1990, at 1205 EST, and continued to operate at 100 percent through the end of November.

[1] F: Forced
S: Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

[4] Exhibit G-Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) File (NUREG-1022)

[5] Exhibit I-Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: November 1990

DOCKET NO: 50-328
UNIT NAME: Two
DATE: 11/07/90
COMPLETED BY: T. J. Hollomon
TELEPHONE: (615) 843-7528

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report No.	System Code[4]	Component Code[5]	Cause and Corrective Action to Prevent Recurrence
5	900908	S	1800.	C	1				Unit 2 Cycle 4 (U2C4) refueling outage continued until November 22, 1990, at 0241 EST, when Unit 2 tied online. This marked the end of the U2C4 refueling outage.
6	901122	S	1.5	B	1				Unit 2 was taken offline on November 22, 1990, at 1206 EST, for the turbine overspeed test and was back online at 1333 EST.
7	901123	F	54.65	G	3	328/90017			On November 23, 1990, Unit 2 tripped at 0432 EST on low-pressurizer pressure and entered Mode 3. The trip occurred as a result of the loss of an RCP caused by deenergization of its unit board and subsequent operator actions. The cause of the deenergization of the unit board was a possible electrical switchgear malfunction of the 62-224 relay. The relay was tested and returned to service. Operational personnel involved have received additional training. Unit 2 was again critical on November 24, 1990, at 2151 EST, and entered Mode 1 on November 25, 1990, at 0621 EST. Unit 2 tied online again on November 25, 1990, at 1111 EST. Unit 2 was operating at approximately 61 percent reactor power level at the end of November.

[1] F: Forced
S: Scheduled

[2] Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restruction
E-Operator Training and License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

[3] Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation of Existing Outage
5-Reduction
9-Other

[4] Exhibit G-Instructions for Preparation of Data Entry sheets for Licensee Event Report (LER) File (NUREG-1022)

[5] Exhibit I-Same Source