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Robert A. Fenech  
Vice President, Sequoyah Nuclear Plant

April 14, 1993

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

Gentlemen:

In the Matter of  
Tennessee Valley Authority

)  
)

Docket Nos. 50-327  
50-328

SEQUOYAH NUCLEAR PLANT (SQN) - MARCH 1993 MONTHLY OPERATING REPORT

Enclosed is the March 1993 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) 843-8924.

Sincerely,

Robert A. Fenech

Enclosure  
cc: See page 2

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U.S. Nuclear Regulatory Commission

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TENNESSEE VALLEY AUTHORITY

NUCLEAR POWER GROUP  
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT  
TO THE  
NUCLEAR REGULATORY COMMISSION

MARCH 1993

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

OPERATIONAL SUMMARY  
MARCH 1993

UNIT 1

Unit 1 generated 32,680 megawatthours (MWh) (gross) electrical power during March with a capacity factor of 3.78 percent. On March 2 at 0016 Eastern standard time (EST), Unit 1 was shut down to evaluate the piping condition, following an extraction steam pipe rupture event on Unit 2. Unit 1 was removed from the grid at 0718 EST that day. A decision was subsequently made to take the reactor to Mode 5 and begin preparations for the scheduled Unit 1 refueling outage. Unit 1 entered Mode 5 on March 15 at 2036 EST and remained in the forced outage through the end of March.

UNIT 2

Unit 2 generated 15,702 MWh (gross) electrical power during March with a capacity factor of 1.82 percent. On March 1 at 1423 EST, the Unit 2 reactor was manually tripped as a result of an overvoltage condition induced from the effects of a rupture of the extraction steam pipe on the cubicle of the generator voltage regulator. As a result of the high voltage on the system and the inability to reduce the voltage, the reactor was manually tripped when the generator voltage increased to approximately 27 kilovolts. Unit 2 remained in the forced outage through the end of March to support ongoing piping evaluations and repairs/replacements.

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

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

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327 UNIT No. One DATE: 04-01-93

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

MONTH: MARCH 1993

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1136</u>	17	<u>-16</u>
2	<u>151</u>	18	<u>-19</u>
3	<u>-28</u>	19	<u>-19</u>
4	<u>-23</u>	20	<u>-19</u>
5	<u>-26</u>	21	<u>-19</u>
6	<u>-26</u>	22	<u>-14</u>
7	<u>-26</u>	23	<u>-12</u>
8	<u>-26</u>	24	<u>-14</u>
9	<u>-26</u>	25	<u>-12</u>
10	<u>-23</u>	26	<u>-12</u>
11	<u>-26</u>	27	<u>-14</u>
12	<u>-21</u>	28	<u>-12</u>
13	<u>-23</u>	29	<u>-12</u>
14	<u>-23</u>	30	<u>-9</u>
15	<u>-23</u>	31	<u>-14</u>
16	<u>-21</u>		

# AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328

UNIT No. Two

DATE: 04-01-93

COMPLETED BY: I. J. Hollomon

TELEPHONE: (615) 843-7528

MONTH: MARCH 1993

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	627	17	-7
2	-16	18	-9
3	-9	19	-9
4	-9	20	-12
5	-9	21	-9
6	-9	22	-7
7	-9	23	-9
8	-12	24	-5
9	-16	25	-7
10	-14	26	-7
11	-9	27	-7
12	-9	28	-7
13	-9	29	-7
14	-7	30	-5
15	-9	31	-7
16	-7		

## OPERATING DATA REPORT

DOCKET NO. 50-327  
DATE 04/08/93  
COMPLETED BY T. J. Holloman  
TELEPHONE (615) 843-7528

### OPERATING STATUS

- |   |                   |
|---|-------------------|
| 1. Unit Name:   | Sequoyan Unit One |
| 2. Reporting Period:  | March 1993        |
| 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):   | 1162.0            |
| 7. Maximum Dependable Capacity (Net MWe):   | 1122.0            |
| 8. If Changes Occur in Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons: |                   |

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	744	2,160	103,009
12. Number of Hours Reactor Was Critical	31.4	1,281.3	56,029
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	31.3	1,220.6	54,828.5
15. Unit Reserve Shutdown Hours	0.0	0	0
16. Gross Thermal Energy Generated (MWH)	97,366.3	3,915,909.5	178,893,754
17. Gross Electrical Energy Generated (MWH)	32,680	1,358,540	60,702,654
18. Net Electrical Energy Generated (MWH)	17,441	1,290,507	58,212,729
19. Unit Service Factor	4.2	56.5	53.2
20. Unit Availability Factor	4.2	56.5	53.2
21. Unit Capacity Factor (Using MDC Net)	2.1	53.2	50.4
22. Unit Capacity Factor (Using DER Net)	2.0	52.0	49.2
23. Unit Forced Outage Rate	95.8	43.5	38.6
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: July 1, 1993

# OPERATING DATA REPORT

DOCKET NO. 50-328  
 DATE 04/08/93  
 COMPLETED BY T. J. Hollomon  
 TELEPHONE (615) 843-7528

## OPERATING STATUS

- |   | Notes |
|---|-------|
| 1. Unit Name: <u>Sequoyah Unit Two</u>  |       |
| 2. Reporting Period: <u>March 1993</u>  |       |
| 3. Licensed Thermal Power (MWt): <u>3411.0</u>  |       |
| 4. Nameplate Rating (Gross MWe): <u>1220.6</u>  |       |
| 5. Design Electrical Rating (Net MWe): <u>1148.0</u>  |       |
| 6. Maximum Dependable Capacity (Gross MWe): <u>1162.0</u>   |       |
| 7. Maximum Dependable Capacity (Net MWe): <u>1122.0</u>   |       |
| 8. If Changes Occur in Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons: |       |
|   |       |

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	<u>744</u>	<u>2,160</u>	<u>94,969</u>
12. Number of Hours Reactor Was Critical	<u>14.4</u>	<u>1,291.9</u>	<u>57,505</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>14.4</u>	<u>1,158.2</u>	<u>56,235.6</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>48,363.2</u>	<u>3,773,305.1</u>	<u>176,955,084</u>
17. Gross Electrical Energy Generated (MWH)	<u>15,702</u>	<u>1,283,783</u>	<u>60,006,902</u>
18. Net Electrical Energy Generated (MWH)	<u>8,484</u>	<u>1,226,045</u>	<u>57,441,320</u>
19. Unit Service Factor	<u>1.9</u>	<u>53.6</u>	<u>59.2</u>
20. Unit Availability Factor	<u>1.9</u>	<u>53.6</u>	<u>59.2</u>
21. Unit Capacity Factor (Using MDC Net)	<u>1.0</u>	<u>50.6</u>	<u>53.9</u>
22. Unit Capacity Factor (Using DER Net)	<u>1.0</u>	<u>49.4</u>	<u>52.7</u>
23. Unit Forced Outage Rate	<u>98.1</u>	<u>46.4</u>	<u>33.5</u>
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: June 15, 1993



## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: MARCH 1993DOCKET NO: 50-327UNIT NAME: OneDATE: 04/05/93COMPLETED BY: T. J. HollomanTELEPHONE: (615) 843-7528

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause and Corrective Action to Prevent Recurrence
3	930302	F	712.7	B	1				On March 2 at 0016 Eastern standard time (EST), Unit 1 was shut down to evaluate the piping condition, following an extraction steam pipe rupture event on Unit 2. The cause of this event was a programmatic failure of the erosion/corrosion (E/C) program, resulting from insufficient management oversight and review of the program. Corrective actions include E/C program review and engineering evaluation of other piping susceptible to erosion, including inspections and repairs/replacements and review of other site technical programs. Unit 1 entered Mode 5 on March 15 at 2036 EST to begin preparations for the scheduled refueling outage and remained in the forced outage through the end of the month.

<sup>1</sup>F: Forced  
S: Scheduled

<sup>2</sup>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)

<sup>3</sup>Method:  
1-Manual  
2-Manual Scram  
3-Automatic Scram  
4-Continuation of Existing Outage  
5-Reduction  
9-Other

<sup>4</sup>Exhibit G-Instructions  
for Preparation of Data  
Entry sheets for Licensee  
Event Report (LER) File  
(NUREG-1022)

<sup>5</sup>Exhibit I-Same Source

## UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: MARCH 1993DOCKET NO: 50-328UNIT NAME: TwoDATE: 04/05/93COMPLETED BY: T. J. HollomanTELEPHONE: (615) 843-7528

No.	Date	Type <sup>1</sup>	Duration (Hours)	Reason <sup>2</sup>	Method of Shutting Down Reactor <sup>3</sup>	Licensee Event Report No.	System Code <sup>4</sup>	Component Code <sup>5</sup>	Cause and Corrective Action to Prevent Recurrence
3	930301	F	729.6	A	2	328/93001	TL	EXC	On March 1 at 1423 Eastern standard time (EST), the Unit 2 reactor was manually tripped as a result of an overvoltage condition induced from the effects of the rupture of an extraction steam pipe on the cubicle of the generator voltage regulator. Operators manually tripped the unit when generator voltage increased to approximately 27 kilovolts. The cause of this event was a programmatic failure of the erosion/corrosion (E/C) program, resulting from insufficient management oversight and review of the program. Corrective actions include the repair of affected piping and components; E/C program review and engineering evaluation of other piping susceptible to erosion, including inspections and repairs/replacements; evaluation of the impact of the overvoltage condition on plant equipment; and review of other site technical programs. Unit 2 remained in the forced outage through the end of March.

<sup>1</sup>F: Forced  
S: Scheduled

<sup>2</sup>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)

<sup>3</sup>Method:  
1-Manual  
2-Manual Scram  
3-Automatic Scram  
4-Continuation of Existing Outage  
5-Reduction  
9-Other

<sup>4</sup>Exhibit G-Instructions  
for Preparation of Data  
Entry sheets for Licensee  
Event Report (LER) File  
(NUREG-1022)

<sup>5</sup>Exhibit I-Same Source