



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37375-2000

January 16, 1996

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) - DECEMBER 1995 MONTHLY OPERATING REPORT

Enclosed is the December 1995 Monthly Operating Report as required by SQN
Technical Specification 6.9.1.10.

If you have any questions concerning this matter, please call
J. W. Proffitt at (615) 843-6651.

Sincerely,

R. H. Shell

R. H. Shell
Manager
SQN Site Licensing

Enclosure
cc: See page 2

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January 16, 1996

cc (Enclosure):

INPO Records Center
Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, Georgia 30339-5957

Mr. D. E. LaBarge, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy-Daisy, Tennessee 37379-3624

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323-2711

Mr. Joseph Santucci, Manager
Advanced Reactor Department
Electric Power Research Institute
3340 Hillview Avenue
Palo Alto, California 94304

Mr. F. Yost, Director Research Services
Utility Data Institute
1200 G Street, NW, Suite 250
Washington, D.C. 20005

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

TO THE

NUCLEAR REGULATORY COMMISSION

DECEMBER 1995

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

OPERATIONAL SUMMARY
DECEMBER 1995

UNIT 1

Unit 1 generated 618,126 megawatthours (MWh) (gross) electrical power during December with a capacity factor of 72.18 percent.

On December 8, 1995, at 2156 EST, the Unit 1 reactor was manually tripped after receipt of low feedwater flow on the No. 4 steam generator. The No. 4 main reg valve had an air leak. Repairs were made, and Unit 1 was tied online on December 10 at 1321 EST. Unit 1 reached 100 percent power on December 11, 1995.

On December 25, 1995, at 0713 EST, the Unit 1 reactor was manually tripped after receipt of numerous indications of electrical problems. The unit had received a Generator 1 Exciter Field Overcurrent alarm and was experiencing oscillating meter indications associated with the main generator excitation system, including meter indications that the electrical megawatt output on the main generator was fluctuating 100-150 megawatts. Control of the generator excitation system was lost and could not be regained. The root cause of this event was a field pole failure in the main generator exciter. The corrective action was to replace the exciter. Unit 1 remained in Mode 3 at the end of December with exciter work continuing.

UNIT 2

Unit 2 generated 766,770 megawatthours (MWh) (gross) electrical power during December with a capacity factor of 89.93 percent.

On December 21, 1995, with the unit operating at approximately 100 percent power, a manual reactor trip was initiated at 0627 EST when the condenser vacuum rose above the turbine trip setpoint. Condenser vacuum increased when the three condenser circulating water pumps tripped as a result of a switchyard fault. The cause of the event was a failure of the C phase of a PCB in the switchyard. Examination of the breaker identified a latent defect in the ceramic insulator on the load side of the center head assembly. Based on the observed defect, it is postulated that failure of this subassembly caused the main chamber porcelain to fail. This resulted in the breaker assembly falling. The plant side connector of the breaker came into contact with the operating rod of the switch, causing a ground fault and electrical perturbation of other lines in the switchyard. The breaker was isolated, and the unit was returned to service. Unit 2 was tied online on December 23 at 1951 EST.

On December 23 at 2019 EST, the Unit 2 turbine tripped as a result of the actuation of the gas relay on the 2B main transformer. The gas relay actuation was caused by a low oil level in the transformer. The cause of the event was the failure to maintain proper oil level in the transformer. An evaluation of the transformer was performed, and it was determined that as a result of the low oil level no degradation of the transformer occurred. Oil was added to the transformer, and the transformer was returned to service. Additional corrective actions are being developed. Unit 2 was tied online again on December 24 at 1631 EST. Unit 2 reached 100 percent power on December 26.

Unit 2 was operating at near 100 percent reactor power at the end of December.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327 UNIT No. One DATE: 01-04-96

COMPLETED BY: T. J. Hollomon

TELEPHONE: (615) 843-7528

MONTH: DECEMBER 1995

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	719	17	1145
2	1123	18	1146
3	1123	19	1147
4	1146	20	1145
5	1148	21	1148
6	1149	22	1151
7	1147	23	1150
8	985	24	1145
9	-35	25	269
10	154	26	-33
11	992	27	-30
12	1144	28	-30
13	1145	29	-30
14	1144	30	-30
15	1142	31	-33
16	1146		

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328 UNIT No. Two DATE: 01-04-96
 COMPLETED BY: T. J. Hollomon TELEPHONE: (615) 843-7528
 MONTH: DECEMBER 1995

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1151	17	1148
2	1148	18	1148
3	1149	19	1148
4	1149	20	1148
5	1149	21	235
6	1150	22	-35
7	1149	23	-33
8	1151	24	309
9	1152	25	480
10	1149	26	1124
11	1149	27	1153
12	1150	28	1156
13	1148	29	1159
14	1149	30	1158
15	1148	31	1158
16	1149		

OPERATING DATA REPORT

DOCKET NO. 50-327
 DATE 01/04/96
 COMPLETED BY T. J. Hollomon
 TELEPHONE (615) 843-7528

OPERATING STATUS

1. Unit Name: Sequoyah Unit One
2. Reporting Period: December 1995
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): 1151.0
7. Maximum Dependable Capacity (Net MWe): 1111.0
8. If Changes Occur in Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons:

Notes

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>8,760</u>	<u>127,129</u>
12. Number of Hours Reactor Was Critical	<u>553.7</u>	<u>6,842.4</u>	<u>68,894</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>543.8</u>	<u>6,622.1</u>	<u>67,226.4</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,793,132.8</u>	<u>20,755,415.8</u>	<u>218,331,415</u>
17. Gross Electrical Energy Generated (MWH)	<u>618,126</u>	<u>7,114,461</u>	<u>74,165,345</u>
18. Net Electrical Energy Generated (MWH)	<u>591,694</u>	<u>6,820,734</u>	<u>71,084,147</u>
19. Unit Service Factor	<u>73.1</u>	<u>75.6</u>	<u>52.9</u>
20. Unit Availability Factor	<u>73.1</u>	<u>75.6</u>	<u>52.9</u>
21. Unit Capacity Factor (Using MDC Net)	<u>71.6</u>	<u>70.1</u>	<u>50.3</u>
22. Unit Capacity Factor (Using DER Net)	<u>69.3</u>	<u>67.8</u>	<u>48.7</u>
23. Unit Forced Outage Rate	<u>26.9</u>	<u>8.2</u>	<u>34.6</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: January 2, 1996

OPERATING DATA REPORT

DOCKET NO. 50-328
 DATE 01/04/96
 COMPLETED BY T. J. Hollomon
 TELEPHONE (615) 843-7528

OPERATING STATUS

	Notes
1. Unit Name: <u>Sequoyah Unit Two</u>	
2. Reporting Period: <u>December 1995</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>1146.0</u>	
7. Maximum Dependable Capacity (Net MWe): <u>1106.0</u>	
8. If Changes Occur in Capacity Ratings (Item Numbers 3 Through 7) Since Last Report, Give Reasons:	
<hr/>	
9. Power Level To Which Restricted, If Any (Net MWe): <u>N/A</u>	
10. Reasons For Restrictions, If Any: <u>N/A</u>	
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	This Month	Yr-to-Date	Cumulative
11. Hours in Reporting Period	<u>744</u>	<u>8,760</u>	<u>119,089</u>
12. Number of Hours Reactor Was Critical	<u>719.0</u>	<u>8,237.7</u>	<u>72,594</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
14. Hours Generator On-Line	<u>662.4</u>	<u>8,066.5</u>	<u>70,776.2</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,227,837.1</u>	<u>27,014,132.7</u>	<u>224,541,596</u>
17. Gross Electrical Energy Generated (MWH)	<u>766,770</u>	<u>9,216,163</u>	<u>76,223,772</u>
18. Net Electrical Energy Generated (MWH)	<u>739,330</u>	<u>8,887,687</u>	<u>73,001,869</u>
19. Unit Service Factor	<u>89.0</u>	<u>92.1</u>	<u>59.4</u>
20. Unit Availability Factor	<u>89.0</u>	<u>92.1</u>	<u>59.4</u>
21. Unit Capacity Factor (Using MDC Net)	<u>89.8</u>	<u>91.7</u>	<u>55.4</u>
22. Unit Capacity Factor (Using DER Net)	<u>86.6</u>	<u>88.4</u>	<u>53.4</u>
23. Unit Forced Outage Rate	<u>11.0</u>	<u>7.9</u>	<u>32.9</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):	<u>U2C7 refueling outage is scheduled to begin on April 19, 1996, with a duration of 55 days.</u>		

25. If Shut Down At End Of Report Period, Estimated Date of Startup: _____

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1995DOCKET NO: 50-327UNIT NAME: OneDATE: 01/03/96COMPLETED BY: T. J. HollomonTELEPHONE: (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
9	951208	F	39.4	A	2	50-327/95017	SJ	FCV	On December 8, a manual reactor trip was initiated on Unit 1 as a result of a low level in the No. 4 steam generator. It was determined that an air line on the Loop 4 feedwater regulator valve was leaking and causing the feedwater regulator valve to drift closed. The root cause of this event was a lack of controls for maintenance activities that affect vibration through system configuration changes. The configuration of the four Unit 1 feedwater regulating valves was changed by installing new tubing and fittings. The appropriate procedures and/or program will be revised to address maintenance activities that affect vibration through system configuration changes. The appropriate Maintenance personnel will be trained on the revised procedures/program.
10	951225	F	160.8	A	2	50-327/95019	TL	EXC	On December 25, a manual reactor trip was initiated. The unit had received a Generator 1 Exciter Field Overcurrent alarm and was experiencing oscillating meter indications associated with the main generator excitation system, including meter indications that

¹F: Forced
S: Scheduled

²Reason:
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)

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

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

⁵Exhibit I-Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1995

DOCKET NO: 50-327
 UNIT NAME: One
 DATE: 01/03/96
 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
10	951225	F	160.8	A	2	50-327/95019	TL	EXC	(continued) the electrical megawatt output on the main generator was fluctuating 100-150 megawatts. The manual reactor trip was directed when the SGS determined that control of the generator excitation system had been lost and could not be regained. The root cause of this event was a field pole failure in the main generator exciter. The corrective action was to replace the exciter.

¹F: 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
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 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: DECEMBER 1995

DOCKET NO: 50-328
 UNIT NAME: Two
 DATE: 01/08/96
 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
7	951221	F	61.4	A	2	50-328/95007	FK	BKR	On December 21, at approximately 0627 EST, a manual reactor trip was initiated when the condenser vacuum rose above the turbine trip setpoint. Condenser vacuum increased when the three condenser circulating water pumps tripped as a result of a switchyard fault. The root cause of the event was the failure of the C phase of PCB 974 in the switchyard. Examination of the breaker identified a latent defect in the ceramic insulator on the load side of the center head assembly. Based on the observed defect, it is postulated that failure of this subassembly caused the main chamber porcelain to fail. This resulted in the breaker assembly falling, causing a ground fault and electrical perturbation of other lines in the switchyard. The breaker was isolated, and the unit was returned to service.
8	951223	F	20.2	A	N/A	N/A	N/A	N/A	On December 23, at 2019 EST, the Unit 2 turbine tripped as a result of the actuation of the gas relay on the 28 main transformer. The gas relay actuation was caused by

¹F: 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)

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

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

⁵Exhibit I-Same Source

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH: DECEMBER 1995

DOCKET NO: 50-328
 UNIT NAME: Two
 DATE: 01/08/96
 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
8	951223	F	20.2	A	N/A	N/A	N/A	N/A	(continued) a low oil level in the transformer. The cause of the event was the failure to maintain proper oil level in the transformer. An evaluation of the transformer was performed, and it was determined that as a result of the low oil level, no degradation of the transformer occurred. Oil was added to the transformer, and the transformer was returned to service. Additional corrective actions are being developed.

¹F: 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)

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

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

⁵Exhibit I-Same Source