TENNESSEE VALLEY AUTHORITY

DIVISION OF NUCLEAR POWER

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

FEBRUARY 1, 1983 - FEBRUARY 28, 1983

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted By: C. M. Mason

Power Plant Superintendent

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TABLE OF CONTENTS

Operations Summary

February, 1983

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

Unit 1

Unit 1 was critical for 672.0 hours, produced 761,560 MWH (gross), resulting in an average hourly gross load of 1,133,274 kW during the month. There are 255.60 full power days estimated remaining until the end of cycle 2 fuel. With a capacity factor of 85 percent, the target EOC exposure would be reached December 27, 1983. The capacity factor for the month was 97.4 percent.

There were no reactor scrams, no manual shutdowns, and two power reductions during February.

Unit 2

Unit 2 was critical for 672.0 hours, produced 779,270 MWH (gross), resulting in an average hourly gross load of 1,159,628 kW during the month. There are 127.61 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 July 29, 1983. The capacity factor for the month was 99.7 percent.

There were no reactor scrams, no manual shutdowns, and no power reductions during February.

Significant Operational Events

Unit 1

Date	Time	Event
02/01/83	0001	Reactor in mode 1 at 100% power producing 1170 MWe.
	2100	Began power reduction for maintenance on #3B heater drain tank (HDT) pump.
02/02/83	0005	Reactor at 57% power. Repairs continued on #3B HDT pump and the control oil orifices on 1A MFPT.
	0422	Began power ascension.

Significant Operational Events

Unit 1

(Continued)

Date	Time	Event
02/02/83	0545	Reactor at 75% power.
	0547	1A MFPT blowing oil, reducing power to 55% to remove the turbine from service.
	0555	1A MFPT removed from service.
	1158	Began power ascension.
	1430	Reactor at 75% power and holding for maintenance to #3B HDT pump.
	1555	#3B HDT pump returned to service.
	1700	Began power ascension.
	2350	Reactor at 100% power, producing 1170 MWe.
02/26/83	0040	Began reducing power to bring the unit off-line to repair a ruptured MSR low pressure drain line to #2 feedwater heater and repair the limit switches on the ice condenser doors.
	0632	Reactor at 30% power and holding.
	1140	Began power ascension.
02/27/83	1405	Reactor at 100% power.
02/28/83	2359	Reactor in mode 1 at 100% power, producing 1170 MWe.

Unit 2

02/01/83	0001	Reactor in mode 1 at 98% power, producing 1170 MWe. No. 3 governor valve fully closed.
02/09/83	0826	Began reducing load for SI-90.102.
	1010	Reactor at 93% power and holding.
	1200	Began power ascension.

Significant Operational Events

Unit 2

(Continued)

Date	Time	Event
02/09/83	1300	Reactor at 98% power, producing 1174 MWe.
02/28/83	2359	Reactor in mode 1 at 98% power, producing 1175 MWe. No. 3 governor valve fully 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 February 1983, to the Assistant Director of Nuclear Power (Operations) for reporting to the Nuclear Regulatory Commission.

Unit 1

LER	SUBJECT
SQRO-50-327/83002	While performing SI-196, the UHI level switches LS-87-21 and -22 were found out of tolerance.
SQRO-50-327/83003	Train A of the ERCW effluent line rad monitor RM-90-133/140 was declared inoperable due to high background noise.
SQRO-50-327/83005	The steam driven auxiliary feedwater pump failed to reach rated speed.
SQRO-50-327/83007	Auxiliary feedwater level control valve 1-LCV-3-164 failed and was declared inoperable when pressure switch 1-PS-3-164 failed with the contacts in the closed position.
SQRO-50-327/83009	The 480V shutdown board voltage was reduced to 410V during the performance of Special Test Instruction 82-06 under degraded voltage cautions. This caused the rod position indication system to be inoperable.

Licensee Events and Special Reports

(Continued)

Unit 1

LER	SUBJECT
SQRO-50-327/83010	Diesel generator 1A-A tripped during the performnce of SI-7 on a high water jacket temperature when ERCW valve 1-FCV-67-66 failed to open.
SQRO-50-327/83011	Pressure switch 1-PS-3-121A was found in the alarm state because the contacts would not reset on the dual snap model 604 pressure switches.
SQRO-50-327/83012	The feedwater channel was declared inoperable when the sense lines to channel 1-FT-3-35A were found crossed.
SQRO-50-327/83014	The hydrogen recombiner kilowatt meter was reading off scale high due to aging of the active filter (Halmor model LZF1-271105).
SQRO-50-327/83019	Rod position indicator for rod D-14 of shutdown bank A was declared inoperable due to an open circuit in the primary cable.

Unit 2

SQRO-50-328/83004	The boron concentration in the refueling water storage tank was below the 2000 ppm limit during the performance of SI-51.
SQRO-50-328/83006	The main feedwater flow channel 2-FT-3-90A failed high and was declared inoperable due to a frozen sense line.
SQRO-50-328/83008	Pressurizer pressure channel 2-PS-68-334 was found out of tolerance during SI-90.32.
SQRO-50-328/83013	During the performance of SI-196, four level switches (UHI) were found out of tolerance.
SQRO-50-328/83014	The containment sump level channel 2-LT-6[illegible]-176 was declared inoperable due to air bubbles in the oil filled reference sense line from the bellows.

Special Reports

There were no special reports transmitted during the month of February.

Offsite Dose Calculation Manual Changes

There were no changes.

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO.	50-327
UNIT	One
DATE	March 1, 1983
COMPLETED BY	M. Eddings
TELEPHONE	(615) 751-0343

MONTH FEBRUARY 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1112	17	1124
2	761	18	1164
3	1122	19	1125
4	1119	20	1128
5	1165	21	1126
6	1126	22	1126
7	1126	23	1122
8	1123	24	1125
9	1044	25	1126
10	1125	26	662
11	1112	27	1124
12	1124	28	1119
13	1122	29	NA
14	1124	30	NA
15	1126	31	NA
16	1127		

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
UNIT NAME Sequoyah One
DATE March 1, 1983
COMPLETED BY M. Eddings
TELEPHONE (615) 751-0343

REPORT MONTH FEBRUARY

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
10	83/02/01	F		B	5				Maintenance on 3B heater drain tank pump and A-main feedpump turbine.
11	83/02/26	F		B	5				Maintenance on #2 main steam reheater drain line and ice condenser door limit switch.

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	March 9, 1983
COMPLETED BY	David Dupree
TELEPHONE	(615) 870-5432

MONTH FEBRUARY, 1983

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1106	17	1124
2	1117	18	1124
3	1119	19	1124
4	1118	20	1125
5	1117	21	1124
6	1118	22	1110
7	1120	23	1115
8	1118	24	1115
9	1080	25	1120
10	1122	26	1122
11	1120	27	1121
12	1124	28	1122
13	1124	29	NA
14	1129	30	NA
15	1120	31	NA
16	1125		

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)

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-328
UNIT NAME Sequoyah Two
DATE March 9, 1983
COMPLETED BY David Dupree
TELEPHONE (615) 870-6543

REPORT MONTH FEBRUARY

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
----------	----------	----------	----------	----------	----------	NA	----------	----------	No Outages or Reductions.

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)

OPERATING DATA REPORT

DOCKET NO. 50-327
DATE MARCH 9 1983
COMPLETED BY M.G.EDDINGS
TELEPHONE (615)870-6543

OPERATING STATUS

1. UNIT NAME: SEQUOYAH NUCLEAR PLANT, UNIT 1 NOTES:
2. REPORT PERIOD: FEBRUARY 1983
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): 1163.0
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1128.0
8. IF CHANGES OCCUR IN CAPACITY RATINGS(ITEMS NUMBERS 3 THROUGH 7)SINCE LAST REPORT, GIVE REASONS:_____
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	672.00	1416.00	14593.00
12. NUMBER OF HOURS REACTOR WAS CRITICAL	672.00	989.95	8525.65
13. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
14. HOURS GENERATOR ON-LINE	672.00	913.30	8232.30
15. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
16. GROSS THERMAL ENERGY GENERATED (MWH)	2227808.65	2816893.82	26099635.82
17. GROSS ELECTRICAL ENERGY GEN. (MWH)	761560.00	951610.00	8709146.00
18. NET ELECTRICAL ENERGY GENERATED (MWH)	736394.00	913411.00	8349415.00
19. UNIT SERVICE FACTOR	100.00	64.50	56.42
20. UNIT AVAILABILITY FACTOR	100.00	64.50	56.42
21. UNIT CAPACITY FACTOR(USING MDC NET)	97.15	57.19	50.72
22. UNIT CAPACITY FACTOR(USING DER NET)	95.46	56.19	49.84
23. UNIT FORCED OUTAGE RATE	0.00	4.03	18.48

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):
_____
_____
25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
_____

NOTE THAT THE THE YR.-TO-DATE AND
CUMULATIVE VALUES HAVE BEEN UPDATED.

OPERATING DATA REPORT

DOCKET NO. 50-328
DATE MARCH 9, 1983
COMPLETED BY D.C.DUPREE
TELEPHONE (615)870-6543

OPERATING STATUS

1. UNIT NAME: SEQUOYAH NUCLEAR PLANT, UNIT 2 NOTES:
2. REPORT PERIOD: FEBRUARY 1983
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): 1163.0
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1129.0
8. IF CHANGES OCCUR IN CAPACITY RATINGS(ITEMS NUMBERS 3 THROUGH 7)SINCE LAST REPORT, GIVE REASONS:
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	672.00	1416.00	6553.00
12. NUMBER OF HOURS REACTOR WAS CRITICAL	672.00	1403.22	5291.92
13. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
14. HOURS GENERATOR ON-LINE	672.00	1368.40	5175.15
15. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
16. GROSS THERMAL ENERGY GENERATED (MWH)	2240492.64	4444150.08	16598740.88
17. GROSS ELECTRICAL ENERGY GEN. (MWH)	779270.00	1533180.00	5615030.00
18. NET ELECTRICAL ENERGY GENERATED (MWH)	753690.00	1478847.00	5405137.60
19. UNIT SERVICE FACTOR	100.00	96.64	78.97
20. UNIT AVAILABILITY FACTOR	100.00	96.64	78.97
21. UNIT CAPACITY FACTOR(USING MDC NET)	99.43	92.59	73.12
22. UNIT CAPACITY FACTOR(USING DER NET)	97.70	90.97	71.85
23. UNIT FORCED OUTAGE RATE	0.00	3.36	13.67

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):
Refueling outage to start approximately August 1, 1983.
25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

NOTE THAT THE THE YR.-TO-DATE AND CUMULATIVE VALUES HAVE BEEN UPDATED.

Plant Maintenance Summary

The following significant maintenance items were completed during the month of February 1983:

Mechanical Maintenance

1. Replaced the pump and tubing on radiation monitor 1-REM-90-104.
2. Installed latch bar extensions on air lock doors.
3. Performed a biannual inspection on diesel generator 2A-A.
4. Replaced drain paper over drains in the ice condenser.
5. Used a freeze plug to repair a leak on 2-VLV-62-518.
6. Plugged (40) tubes in the component cooling heat exchanger "B".

Electrical Maintenance

1. Continued installation of Dimension 2000 phone system.
2. Inspected and rebuilt 6.9 kV shtdn. bd. breakers under the direction of a factory representative.
3. Checked oil levels on all Unit 1 RCP motors during brief 30% power reduction.
4. Made repairs to control circuit of 1-FCV-67-66 which had failed to open during a D/G start attempt.
5. Began a systematic walk down and inspection of the E-field wiring and made necessary repairs.
6. Continued repairs on paging system to fulfill INPO commitment.
7. Replaced motor on steam generator blow down pump on Unit 2 and replaced bearing on Unit 1 motor.
8. Made repairs and modifications to Unit 1 and Unit 2 Amertap equipment per manufacturers recommendations.
9. Inspected PZR heater control banks for proper operation and correct minor corrections.

Instrument Maintenance

1. Added oil and reverified the sensor bellows fill system for Unit 2 containment sump transmitters, LT-63-176 and LT-63-177. The fill systems for the containment sump transmitters were changed from water systems to silicon oil sytems on both units by Westinghouse in June of 1982. These were the first failures of the new systems.

Instrument Maintenance

(Continued)

2. During the month, recalibrated Unit 1 and Unit 2 UHI level switches. These have had a history of being out-of-calibration and the monthly calibration surveillance is the result of a LER commitment. Two of the four switches were found out of tolerance on Unit 1 and three of the four switches were found out of tolerance on Unit 2. A new calibration procedure was used and the switches returned to service. A Tech Spec change request was submitted to relax the tolerance on the setpoint. The switches will be recalibrated again next month.

3. Performed functional test on Unit 1 and Unit 2 reactor trip breakers in accordance with NRC special bulletin #83-01. No problems were encountered.

4. Upgraded the Unit 1 ice condenser recorder by replacing with a newer model. The old recorder was unreliable, required high maintenance, and spare parts were obsolete.

5. With Unit 1 at approximately 65%, RPI D-14 failed low. Investigation indicated an open circuit on the primay side of the detector. DC voltage was applied to the detector and circuit continuity was reestablished. The problem has not reoccurred.

6. Completed installation of a trickle fill system for Unit 1 hotwell level controls. Unit 2 system was installed during the ice weighing outage in May 1982.

Field Services Group

1. ECN 5510--Containment Personnel Airlock Penetrations (Units 1 and 2)

   All field work has been completed for this modification except post-modification testing of the airlock door limit switches.

2. ECNs 2780/5200--Post-Accident Sampling Facility (Units 1 and 2)

   The installation of conduit and junction boxes is continuing. Tubing is being installed in the annulus of Unit 1. This tubing is to obtain samples from the reactor coolant system, containment sump, and containment air. Some concrete chipping was required to make room for the containment air sampling panels. Protective coating has been applied to inaccessible areas where these panels will be located. Sleeves were installed for the HVAC ductwork and prefabrication of ductwork is continuing.

3. ECN 5429--Containment Hydrogen Mitigation System (Unit 2)

   All igniter junction boxes have been installed as well as all conduit in the dome. Cable pulling in the dome is continuing and is nearing completion. Completion of igniter terminations to the point where pre-op can perform their part of the post modification test is in progress and will be completed by the next reporting period.

4. ECN 5009--ERCW Piping Changeout (Units 1 and 2)

Prefabrication of piping is continuing for the Unit 2 penetration room coolers 2A2 and 2B2. The installation of the prefab piping will be put in at the next outage.

5. ECN 5422--Replacement of Dampers with Upgraded Ones

Replacement of dampers on the heating, ventilating, and air conditioning (HVAC) system is continuing to be worked. Prefabrication of three dampers is continuing to be worked during this reporting period. These dampers will be installed in the spreader room of the control building when manpower is available.

6. ECN 5417--Diesel Generator Air Start System Dryers

This modification adds air dryers between the air compressor and the air receiver tanks for each diesel generator engine air start system in order to remove water from the air being supplied to the air start motors. During this reporting period, the hangers were modified for the air start system and the flex hoses were installed. The functional and leak tests were completed and the system was turned over to operations. This completes this ECN.

7. ECN 5451--Diesel Generator Engine Lube Oil System

This modification to the diesel generator engine lube oil systems adds an auxiliary ac lube oil pump and a standby dc motor-driven lube oil pump in order to prevent bearing damage during multiple hot restarts. Electrical connection of all dc motor-driven lube oil pumps and associated pressure switches is completed. Remaining work to be done is the functional testing of these pumps and pressure switches.

8. ECN 5106--Reactor Vessel Level Indication System (Units 1 and 2)

Conduit and hanger installation in the auxiliary building is nearing completion. Conduit installation will begin in the annulus of Unit 1 in the near future. Cable pulling will take place in the near future.

9. ECN 5580--Plant Emergency Evacuation System Sirens

Conduit, conduit hangers, junction boxes, and transformers have been installed during this reporting period. All but one siren has been installed. Cable pulling is 95-percent complete and termination of cables will begin in the next reporting period.

10. ECN 2456--Seismically Qualify H_2 Lines In Auxiliary Building To Maintain Pressure Boundary During An SEE IJ No. 338 (Units 1 and 2)

This ECN entails replacing existing deadload-type pipe supports. To date, 14 supports are complete (including painting) out of a total of approximately 60.

11. ECN 5198--Locate and Design A Technical Support Center

The existing lighting was relocated in the main technical support center and corridors and the installation of conduit for the new lighting is in progress. During this period, HVAC ductwork was prefabricated but was not installed. Hanger work is in progress to install the fire protection sprinkler system.

12. ECN 5460--Reroute Auxiliary Feedwater Pump Seal Water Plant (Units 1 and 2)

During this reporting period, the installation of hangers and drain lines for reroute of seal leakage from the auxiliary feedwater pumps were completed for Unit 2. Hangers and drain lines are being installed for Unit 1.

13. ECN 5726--Reroute Feedwater Flow Sense Lines (Units 1 and 2)

Painting of Unit 2 hangers continued. No other work was performed during this period.

14. ECN 5119--Radiation Monitors For Containment Isolation Waste Disposal System (Unit 1)

Installation of conduit and cable pulling has begun on this ECN .