

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT
MAY 1, 1982 - MAY 31, 1982

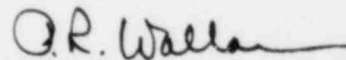
UNIT 1

DOCKET NUMBER 50-327
LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328
LICENSE NUMBER DPR-79

Submitted By:



Power Plant Superintendent

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Operations Summary

May, 1982

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

Unit 1

Unit 1 was critical for 744 hours, produced 858,410 MWH (gross) with 3.40 percent station service use resulting in an average hourly gross load of 1,153,777 KW during the month. The net heat rate for the month was 10,400 BTU/KWH. There are 92.86 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 September 17, 1982. The capacity factor for the month was 99.2 percent.

There were no reactor scrams, no manual shutdown, and one power reduction during May.

Unit 2

Unit 2 was critical for 335.6 hours, produced 316,440 MWH (gross) with 6.80 percent station service use, resulting in an average hourly gross load of 962,701 kW during the month. The net heat rate for the month was 10,960 BTU/KWH. There are 330.37 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 23, 1983. The capacity factor for the month was 36.0 percent.

There were three reactor scrams, one manual shutdown, and four power reductions during May.

Significant Operational Events

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
05/01/82	0001	Reactor in mode 1 at 100% power producing 1150 MWe.
05/26/82	2128	Reactor in mode 1 at 100% power producing 1150 MWe. Began a load reduction to replace a solenoid on 1A MFPT stop valve.

Significant Operational Events

(Continued)

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
05/27/82	0030	Reactor at 70% power, 1A MFPT off for solenoid replacement on the stop valve.
	0415	1A MFPT back in service, increasing reactor power to 100%.
	0645	Reactor in mode 1 at 100% power producing 1150 MWe.
05/31/82	2359	Reactor in mode 1 at 100% power producing 1150 MWe.

Unit 2

05/01/82	0001	Reactor in mode 1 at 33% power producing 320 MWe. Holding power level until secondary chemistry comes into specification.
	0435	Began reducing reactor power to repair the #7 heater drain tank level controller.
	0500	Reactor at 25% power producing 244 MWe.
	0605	Began increasing reactor power back to 30%. Repairs complete on the #7 heater drain tank level controller.
	0620	Reactor at 30% power producing 323 MWe.
	1429	Began power ascension.
	1930	Reactor at 69% power producing 780 MWe. Began reducing to 65% power to remove 2A MFPT from service to repair a leak on the injection water line.
	2045	2A MFPT removed from service.
	2327	2A MFPT returned to service.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
05/02/82	0145	Began power ascension.
	1248	Reactor in mode 1 at 100% power producing 1132 MWe.
05/03/82	1134	Had an over power ΔT runback. Ranback 0.5% power loop 1 and 3.
	1400	Began reducing power to 20% to add oil to reactor coolant pump #2.
	1653	Reactor holding 24% power producing 256 MWe.
	1805	Began power ascension.
05/04/82	0359	Reactor at 100% power producing 1130 MWe.
	1645	Began load reduction to replace a blown manway gasket on #3 heater drain tank.
	1755	Reactor at 20% power producing 210 MWe.
	2120	Began power ascension.
05/05/82	0630	Reactor at 100% power producing 1130 MWe.
	1529	While working on 2A MFPT vibration pickup a thrust bearing wear alarm tripped the MFPT. 2B MFPT was unable to come up to speed fast enough to maintain proper feedwater flow, therefore, the reactor tripped on #2 steam generator Lo-Lo level.
	1704	Reactor taken critical.
	1806	The unit was tied on line.
	1900	Reactor at 30% power producing 285 MWe and holding for secondary chemistry.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
05/06/82	0218	Began power ascension
	0630	Reactor at 98% power producing 1136 MWe.
05/08/82	1104	Had a 10% load drop for feedwater pump performance data. Reactor at 92% power producing 1104 MWe.
	1117	Reactor at 100% power.
05/13/82	1212	Reactor tripped from 100% power due to the turbine tripping because of low auto oil pressure.
	1452	Reactor critical.
	1601	Unit tied on line.
	1800	Reactor at 30% power producing 280 MWe and holding for chemistry.
05/14/82	0720	Began power ascension.
	1500	Reactor at 98% power producing 1127 MWe.
	2308	Manual turbine trip for Start-Up Test 9.4A, thus the reactor tripped.
05/15/82	0120	Began cooling down the reactor coolant system. Ice weighing outage began.
	0603	Reactor entered mode 4.
	1302	Reactor entered mode 5.
05/20/82	2300	Ice weighing complete.
05/28/82	0910	Began heat-up.
05/31/82	1905	Reactor taken critical.
	2359	Reactor in mode 2 at 1% power.

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 May 1982, to the Assistant Director of Nuclear Power (Operations) for reporting to the Nuclear Regulatory Commission.

Unit 1

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-327/82048	AFW automatic control valve 1-PCV-3-132 failed to open on demand due to a faulty soldered connection and again due to blocked oil passages to the servo valves.
SQRO-50-327/82050	Diesel generator 1A-A inoperable due to a short in the annunciator horn caused the power fuses to blow in the control circuit.
SQRO-50-327/82051	A design error made the containment ventilation isolation system inoperable due to the loss of its automatic isolation capabilities following reset signal with no high radiation signal being cleared.
SQRO-50-327/82053	Vital battery bank II inoperable due to cell 4 connection resistance found > 150 micro ohms caused by a loose bolted connection.
SQRO-50-327/82054	Steam generator blowdown containment isolation valve 1-FCV-1-25 would not reopen after isolation due to a ruptured diaphragm caused by normal wear.
SQRO-50-327/82055	Demand position indicator control bank A group 2 and bank C group 2 step counters inoperable due to faulty step counters. Bank A step counter found dirty and bank C step counter found to have faulty circuit boards due to voltage spikes.
SQRO-50-327/82056	AFW control valve 1-LCV-3-175 failed to open during surveillance test due to a broken micro switch on pressure switch 1-PS-3-165E.

OPERATING DATA REPORT

DOCKET NO. 50-327
 DATE June 3, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah One Notes _____
 2. Reporting Period: May 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: _____

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	744	3,623	8,040
12. Number of Hours Reactor Was Critical	744	2,308	5,109.3
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	744	2,206	4,896.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,519,021	7,039,654	15,104,608
17. Gross Electrical Energy Generated (MWH)	858,410	2,385,390	5,031,340
18. Net Electrical Energy Generated (MWH)	829,236	2,277,556	4,804,581
19. Unit Service Factor	100	60.9	60.9
20. Unit Availability Factor	100	60.9	60.9
21. Unit Capacity Factor (Using MDC Net)	98.8	55.7	53.0
22. Unit Capacity Factor (Using DER Net)	97.1	54.8	52.0
23. Unit Forced Outage Rate	0	29.8	24.1
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling/Modification Outage September 19, 1982 (Scheduled) 6 Months			

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

Licensee Events and Special Reports

Unit 2

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-328/82052	Ice condenser intermediate deck doors under AHU 9B were frozen closed due to water dripping from drain pan after ice built up caused by unlevel drain pan.
SQRO-50-327/82057	Steam generator narrow range level indicator 2-LI-3-107 was inoperable due to loss of power to instrument loop caused by improperly installed fuse.
SQRO-50-328/82058	Diesel generator 2A-A tripped on both crankcase overpressure switches prior to reaching 900 RPM due to improper latching of reset button.

Special Reports

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

Offsite Dose Calculation Manual Changes

There were no changes to the Sequoyah Nuclear Plant ODCM during the month of May.

REPORT MONTH May 1982

DATE June 3, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

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
1	81/05/26	F	1	A	5				Maintenance on 1A Mainfeed Pump Turbine Stop Valve

-8-

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 Sequoyah One
 DATE June 3, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

MONTH May 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1,119.8</u>	17	<u>1,120.2</u>
2	<u>1,124.5</u>	18	<u>1,121.0</u>
3	<u>1,125.5</u>	19	<u>1,120.3</u>
4	<u>1,123.5</u>	20	<u>1,119.2</u>
5	<u>1,118.7</u>	21	<u>1,119.0</u>
6	<u>1,120.3</u>	22	<u>1,118.7</u>
7	<u>1,122.0</u>	23	<u>1,119.7</u>
8	<u>1,120.8</u>	24	<u>1,118.0</u>
9	<u>1,120.5</u>	25	<u>1,118.8</u>
10	<u>1,118.7</u>	26	<u>1,100.5</u>
11	<u>1,122.3</u>	27	<u>1,038.5</u>
12	<u>1,121.0</u>	28	<u>1,044.3</u>
13	<u>1,121.0</u>	29	<u>1,114.2</u>
14	<u>1,120.5</u>	30	<u>1,113.2</u>
15	<u>1,116.3</u>	31	<u>1,112.3</u>
16	<u>1,121.7</u>		

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 June 19, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah Two Notes _____
 2. Reporting Period: May 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): 1183
 7. Maximum Dependable Capacity (Net MWe): 1148
 8. If Changes Occur in Capacity Ratings (Items Number 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	744	3,623	5,087
12. Number of Hours Reactor Was Critical	335.6	2,216.6	2,473.8
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	328.7	2,076.7	2,090.3
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	943,376	4,296,164.9	4,312,078.9
17. Gross Electrical Energy Generated (MWH)	316,440	1,156,280	1,393,644
18. Net Electrical Energy Generated (MWH)	294,916	1,281,259	1,281,209
19. Unit Service Factor	44.2	57.3	41.1
20. Unit Availability Factor	44.2	57.3	41.1
21. Unit Capacity Factor (Using MDC Net)	34.6	30.8	21.9
22. Unit Capacity Factor (Using DER Net)	34.6	30.8	21.9
23. Unit Forced Outage Rate	55.8	42.7	58.9
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: 6-2-82
 26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	<u>11-5-81</u>	<u>11-5-81</u>
INITIAL ELECTRICITY	<u>12-31-81</u>	<u>12-31-81</u>
COMMERCIAL OPERATION	<u>6-1-82</u>	<u>6-1-82</u>

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-328

UNIT NAME Sequoyah Two

DATE June 4, 1982

COMPLETED BY David Dupree

TELEPHONE (615) 751-0343

REPORT MONTH May 1982

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	82/05/03	F	0	B	5				Reduced load to add oil to #2 reactor coolant pump.
4	82/05/04	F	0	B	5				Reduced load due to blown manhole gasket on #3 heater drain tank.
21	82/05/05	F	2.6	A	3				Rx Trip: Maint. on vibration pickup brought in thrust bearing trip on "A" MFPT. "B" MFPT could not maintain steam generator levels causing a Rx trip.
22	82/05/13	F	3.8	B	3				While performing SI-93.1 on auto stop oil pressure switches, the turbine tripped thus the reactor tripped.
23	82/05/14	S	408.9	B	2				Manual Trip: Startup Test 9.4A. (Begin ice weighing outage per tech. specs.)

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)

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Exhibit I-Same Source

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

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

REPORT MONTH May 1982

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	82/05/03	F	0	B	5				Reduced load to add oil to #2 reactor coolant pump.
4	82/05/04	F	0	B	5				Reduced load due to blown manhole gasket on #3 heater drain tank.
21	82/05/05	F	2.6	A	3				Rx Trip: Maint. on vibration pickup brought in thrust bearing trip on "A" MFPT. "B" MFPT could not maintain steam generator levels causing a Rx trip.
22	82/05/13	F	3.8	B	3				While performing SI-93.1 on auto stop oil pressure switches, the turbine tripped thus the reactor tripped.
23	82/05/14	S	408.9	B	2				Manual Trip: Startup Test 9.4A. (Begin ice weighing outage per tech. specs.)

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 Reason:
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 Exhibit I-Same Source

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328
 UNIT Sequoyah Two
 DATE June 3, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751- 343

MONTH May 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	387.8	17	0
2	1,014.7	18	0
3	921.3	19	0
4	826.7	20	0
5	666.5	21	0
6	940.0	22	0
7	1,100.7	23	0
8	1,090.5	24	0
9	1,101.7	25	0
10	1,098.2	26	0
11	1,103.0	27	0
12	1,101.8	28	0
13	641.2	29	0
14	662.3	30	0
15	0	31	0
16	0		

INSTRUCTIONS

In 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 May 1982:

Mechanical Maintenance

1. Weighed 144 ice baskets in the Unit 2 ice condenser.
2. Repaired the auxiliary feedwater pressure control valves 2-PCV-3-122, and -132.
3. Replaced the rotating element in 2B-B centrifugal charging pump.
4. Replaced the bearing, aligned and balanced 2A MEPT.

Electrical Maintenance

1. Repairs were made to the RPI cables.

Instrument Maintenance

None reportable on CSSC equipment.

Field Services Maintenance

Work continues on the following items:

1. The power cabinets for the reactor head venting system have been installed.
2. Conduit installation and cable pulling continues for the high range area radiation monitors for the residual heat removal lines and containment spray heat exchanger room 1A.
3. Terminating the cables in CAS and SAS and functional testing is all that remains to be done on the alarms being installed on the containment hatches and doors.
4. Conduit has been installed and cable pulling is in progress serving additional radiation monitors to be used during times when containment is isolated.
5. Lock modification and functional testing is all that remains to be done on Door A-183. The door has been replaced and a card reader installed.
6. Radiation monitor flow switch 1-RM-90-211 is being replaced.
7. Sixteen of twenty-eight security barriers remain to be fabricated and installed.
8. Changing the ERCW carbon steel piping to stainless steel piping continues.

Field Services Maintenance

(Continued)

The following work was completed during the month.

1. Sludge lancing and manhole machining of all four Unit 2 steam generators were accomplished during the outage.
2. Various solenoid valves have been replaced with environmentally qualified valves.
3. Permanent ladders and handrails have been installed in the Unit 2 fan rooms inside containment.
4. The Unit 2 lower compartment coolers were cleaned during the outage.
5. Pressure transmitter 2-PT-68-68 was relocated above the maximum post accident flood level.