

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER
SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT
APRIL 1, 1982 - APRIL 30, 1982

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted By:

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8206010 229

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Operations Summary

April, 1982

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

Unit 1

Unit 1 was critical for 671.4 hours, produced 680,790 MWH (gross) with 4.16 percent station service use resulting in an average hourly gross load of 1,113,129.5 KW during the month. The net heat rate for the month was 10,590 BTU/KWH. There are 123.63 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 22, 1982. The capacity factor for the month was 81.4 percent.

There were three reactor scrams, one manual shutdown, and two power reductions during April.

Unit 2

Unit 2 was critical for 593.27 hours, produced 537,900 MWH (gross) with 5.02 percent station service use, resulting in an average hourly gross load of 924,862.4 kW during the month. The net heat rate for the month was 10,790 BTU/KWH. There are 341.89 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 6, 1983. The capacity factor for the month was 63.24 percent.

There were four reactor scrams, no manual shutdowns, and five power reductions during April.

Significant Operational Events

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/01/82	0001	Reactor in mode 1 at 100% power producing 1140 MWe.
04/03/82	0900	Cooling Tower 1 placed in helper mode.
	1200	Cooling Tower 1 taken out of helper mode.

Significant Operational Events

(Continued)

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/05/82	0230	Cooling Tower 1 placed in helper mode.
	0630	Cooling Tower 1 taken out of helper mode.
04/12/82	0430	Cooling towers in helper mode.
	0812	Began load reductions to perform SI's on Tav _g and ΔT loops.
	0910	Reactor at 90% power and holding.
	1411	Began power increase.
	2220	Reactor at 100% power, 1130 MWe.
04/16/82	0124	Cooling towers taken out of helper mode.
	0600	Reactor at 100% power with load swing between 1110-1144 MWe.
04/20/82	2004	Reactor at 100% power producing 1125 MWe. The current limiting resistor on C ϕ metering pot transformer was found burning. This was determined to be the load swing problem.
	2005	Began load reduction to replace the burnt resistor.
04/21/82	0044	The turbine was manually tripped.
	0105	MFPT tripped on Hi-Hi #4 steam generator level. The loss of feed-water flow caused a Lo-Lo #1 steam generator level thus the reactor tripped.
	0700	Reactor was taken critical.
	0850	The reactor entered mode 1.
	0857	Reactor tripped when a first out Hi flux rate alarm was received while testing the M/G set breakers. While paralleling A M/G back with B the output breaker tripped.

Significant Operational Events

(Continued)

Unit 1

<u>Date</u>	<u>Time</u>	<u>Event</u>
	1300	The reactor was taken critical.
	1918	Unit tied on line.
04/23/82	0220	Reactor at 100% power producing 1160 MWe.
04/25/82	2330	Began controlled shutdown due to arcing in the bus duct.
04/26/82	0248	Manually tripped the turbine.
	0435	Reactor in mode 2 at 4% power.
	2130	Work on the control rod circuit began.
04/27/82	0700	Reactor tripped from 1% power due to control rod M/G set problems.
04/29/82	0202	Reactor taken critical.
	0225	Reactor in mode 2 at 2% power and holding for work on letdown valve FCV-62-70.
	1713	Reactor entered mode 1.
	1850	The main turbine and B MFP tripped due to Hi-Hi #4 steam generator level. Reactor dipped to 2% power.
	1925	Reactor entered mode 1.
	1937	Unit tied on line.
04/30/82	0510	Reactor at 100% power producing 1157 MWe.
	2359	Reactor in mode 1 at 100% producing 1160 MWe.

Unit 2

04/01/82	0001	Reactor in mode 1 at \cong 75% increasing to 100%.
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Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/01/82	0537	Reactor at 100% power producing 1125 MWe.
	0955	Began reducing load to 65% for chemistry and work on MFPT B governor valve.
	1400	Reactor at 65% power producing 740 MWe.
04/02/82	0020	Began power ascension.
	2010	Reactor at 100% power producing 1131 MWe.
04/03/82	0900	Cooling tower in helper mode.
04/05/82	1357	Reactor tripped due to loop 1 low flow while IM's were working on 2-FIT-68-8B. IM's picked up 2/3 bistables initiating the trip.
04/06/82	0729	Began cooling down to mode 5 to replace the steam generators pressure transmitter root valves with qualified valves.
	1334	Reactor entered mode 4.
	2135	Reactor entered mode 5.
	2150	Cooling tower out of helper mode.
	2200	Began draining #2, 3 and 4 steam generators.
04/08/82	0430	All steam generators are filled.
	1320	Began heatup.
	1445	Reactor entered mode 4.
	2117	Reactor entered mode 3.
04/09/82	0130	Began cooling down to 205°F to replace a plug on auxiliary feedwater check valve 2-3-92.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/09/82	0355	Reactor entered mode 4.
	1700	Maintenance completed on auxiliary feedwater check valve - began heatup.
04/10/82	0305	Reactor entered mode 3.
	1204	Reactor taken critical.
	2008	Unit tied on line.
	2325	Reactor at 30% power, producing 300 MWe and holding for secondary chemistry.
04/11/82	1000	Decreased load to 20% for turbine overspeed test.
	1129	Unit off line for overspeed test.
	1205	Unit on line.
	1253	Reactor at 30% power producing 300 MWe.
	1500	Began power ascension.
04/12/82	0559	Reactor at 100% power producing 1130 MWe.
04/13/82	0238	2A condensate booster pump tripped reduced load to 85%.
	1237	2A condensate booster pump back in service.
	1320	Began power ascension.
	1508	Reactor at 100% power producing 1139 MWe.
04/14/82	1237	A thrust bearing Hi wear alarm caused MFPT A to trip causing Lo-Lo #2 steam generator level thus the reactor tripped.
	1622	Reactor taken critical.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/14/82	1650	Unit on line increasing power slowly due to vibration problems on A MFPT.
04/16/82	2330	Reactor at 67% power, producing 769 MWe. Began load reduction to 60% due to #2 governor valve moving on and off seat.
	2400	Reactor at 60% power producing 694 MWe.
04/17/82	0700	Reducing load to 58% due to A MFPT vibration.
	0759	Reactor at 58% power producing 650 MWe.
04/21/82	0518	Began power ascension.
	1040	Reactor at 79% power producing 910 MWe and experienced an \cong 4% turbine roll back.
	1135	Experienced turbine roll back again.
	1646	Reducing power, loops 2 and 4 OP Δ T bistables were determined to have the wrong setpoints.
	1700	Reactor at 77% power producing 869 MWe.
	1722	Loop 2 OP Δ T returned to service and began increasing power.
	1816	Loop 4 OP Δ T returned to service.
	2108	Reactor at 100% power producing 1110 MWe.
04/29/82	2353	Overspeed turbine trip and other alarms came in apparently on annunciator indication only.
04/30/82	0422	Received annunciator false alarms again.

Significant Operational Events

(Continued)

Unit 2

<u>Date</u>	<u>Time</u>	<u>Event</u>
04/30/82	1010	B MFPT tripped due to a ground on the 250V DC trip bus. Reactor tripped on Lo-Lo #2 steam generator level.
	1213	Reactor taken critical.
	1246	Reactor tripped on Lo-Lo steam generator level during start-up.
	1457	Reactor taken critical.
	1615	Reactor entered mode 1.
	1644	Unit tied on line.
	2359	Reactor at 30% power producing 280 MWe and holding for secondary chemistry.

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 April 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-50-327/82036	AFW automatic control valve 1-LCV-3-164 failed to open during SI-276 due to faulty electro-pneumatic positioner.
SQRO-50-327/82036	Excure neutron instrumentation power range channel N-41 failed low due to inoperable high voltage power supply.
SQRO-50-327/82040	RCS loop 2 temperature indicator 1-TI-68-25 inoperable due to setpoint out of spec caused by temperature modifier zener diode failure.

Licensee Events and Special Reports

Unit 1

<u>LER</u>	<u>SUBJECT</u>
SQRO-50-327/82041	Pressurizer level transmitter 1-LT-68-335 failed surveillance test due to reference leg being drained.
SQRO-50-327/82043	Westinghouse qualification tests shown RCS wide range pressure channels 1-PT-68-66, 68, 2-PT-68-66, 68, and 69 not qualified for high energy line break environment.
SQRO-50-327/82046	Post maintenance test SI-166.6 not performed on S/G blowdown isolation valve 1-FCV-1-184 due to personnel error.

Unit 2

SQRO-50-328/82037	UHI isolation valves 2-FCV-81-21 and 23 closed on low level signal from accumulator tank caused by pressure drop due to samples being taken.
SQRO-50-328/82038	AFW automatic control by-pass valve 2-LCV-2-171A failed to open because the electro-pneumatic valve transducer failed to actuate properly.
SQRO-50-328/82042	AFW automatic control valve 2-LCV-3-171 failed to open on command due to improperly functioning electro-pneumatic positioner.
SQRO-50-328/82044	Containment purge air rad monitors RM-90-130/131 were found with inadequate sample points because there were not any sample lines from the train 'B' filter exhaust.
SQRO-50-328/82045	Power operated relief block valve 2-FCV-68-333 would not close completely from the control room due to improper torque switch setting.
SQRO-50-328/82047	During SI-566 ERCW flow through containment spray heat exchanger 2B found to be 800 gpm due to valve 2-FCV-67-537B improperly positioned.
SQRO-50-328/82049	Upper containment airlock door found jammed closed due to failure of a cam roller bearing in the latching mechanism.

Special Reports

There was one special report sent during the month of April.

Special Report
Number

Description

6202

Unit 1 fire barrier penetration was inoperable for more than seven days.

Offsite Dose Calculation Manual Changes

Changes in the Sequoyah Nuclear Plant ODCM are described in this section in accordance with Sequoyah Technical Specification 6.14.2.

These changes were officially approved by RARC on October 22, 1981. See appendix A at the end of this report of this approved ODCM page changes.

OPERATING DATA REPORT

DOCKET NO. 50-327
 DATE May 6, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah One
2. Reporting Period: April, 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): 1148
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

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	719	2,879	7,296
12. Number of Hours Reactor Was Critical	671.4	1,564	4,365.3
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	611.6	1,462	4,152.4
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,016,499	4,520,633	12,585,587
17. Gross Electrical Energy Generated (MWH)	680,790	1,526,980	4,172,930
18. Net Electrical Energy Generated (MWH)	652,435	1,448,320	3,975,345
19. Unit Service Factor	85.1	50.8	56.9
20. Unit Availability Factor	85.1	50.8	56.9
21. Unit Capacity Factor (Using MDC Net)	80.5	44.6	48.3
22. Unit Capacity Factor (Using DER Net)	80.5	44.6	48.3
23. Unit Forced Outage Rate	14.9	39.1	27.3
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Refueling/Modification Outage September 21 (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

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
 UNIT NAME Sequoyah One
 DATE May 6, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

REPORT MONTH April

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
12	82/04/21	F	18.6	A	3				Lo-Lo #1 S/G Level - Feedwater Controls Failed to Control in Auto Rx Tripped 8% Power
13	82/04/26	F	88.8	A	3				Control Rod M/G Set Problems

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

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327
 UNIT Sequoyah One
 DATE May 6, 1982
 COMPLETED BY M. Eddings
 TELEPHONE (615) 751-0343

MONTH April

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1111</u>	17	<u>1100</u>
2	<u>1106</u>	18	<u>1096</u>
3	<u>1104</u>	19	<u>1091</u>
4	<u>1107</u>	20	<u>1009</u>
5	<u>1101</u>	21	<u>48</u>
6	<u>1099</u>	22	<u>593</u>
7	<u>1078</u>	23	<u>1120</u>
8	<u>1096</u>	24	<u>1120</u>
9	<u>1099</u>	25	<u>1074</u>
10	<u>1095</u>	26	<u>79</u>
11	<u>1098</u>	27	<u>0</u>
12	<u>1071</u>	28	<u>0</u>
13	<u>1092</u>	29	<u>408</u>
14	<u>1096</u>	30	<u>1070</u>
15	<u>1090</u>	31	<u></u>
16	<u>1088</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 May 6, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

OPERATING STATUS

1. Unit Name: Sequoyah Two
2. Reporting Period: April 1982
3. Licensed Thermal Power (MWt): 3411
4. Nameplate Rating (Gross MWe): 1220.5
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:

Notes

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	719	2,879	4,343
12. Number of Hours Reactor Was Critical	593.3	1,881	2,138.2
13. Reactor Reserve Shutdown Hours	0	0	0
14. Hours Generator On-Line	581.6	1,748	1,761.6
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,611,435.6	3,352,788.9	3,368,702.9
17. Gross Electrical Energy Generated (MWH)	537,900	839,840	1,077,204
18. Net Electrical Energy Generated (MWH)	510,873	986,343	986,293
19. Unit Service Factor	80.9	60.7	40.6
20. Unit Availability Factor	80.9	60.7	40.6
21. Unit Capacity Factor (Using MDC Net)	61.9	29.8	19.8
22. Unit Capacity Factor (Using DER Net)	61.9	29.8	19.8
23. Unit Forced Outage Rate	17.1	39.3	59.4
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): Ice weighing per Tech Specs 5/15/82.			

25. If Shut Down At End Of Report Period, Estimated Date of Startup: N/A
26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY	11-5-81	11-5-81
INITIAL ELECTRICITY	12-31-81	12-31-81
COMMERCIAL OPERATION	6-1-82	NA

UNIT SHUTDOWNS AND POWER REDUCTIONS

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

REPORT MONTH April

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
2	82/04/01	F	0	F	5				Derate for Steam Generator Chemistry.
17	82/04/05	F	126	B	3				Instrumentation Working on Sense Line (#1 Loop) Caused All Three F.T.'s to Pick Up Low Flow, Rx Trip
18	82/04/11	S	.6	B	5				Perform Turbine Overspeed Test, Rx @ 20% (Off Line)
19	82/04/14	F	4.2	A	3				Thrust Bearing Tripped Caused Turbine Trip, Rx Trip (Lo-Lo S/G Level)
20	82/04/30	F	6.6	A	3				2 'B' MFPT Tripped Due to Bad Coil in Rack 2-R-72, Caused Turbine Trip, Rx Trip

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

-14-

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328
 UNIT Sequoyah Two
 DATE May 6, 1982
 COMPLETED BY David Dupree
 TELEPHONE (615) 751-0343

MONTH April, 1982

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	870	17	627
2	906	18	612
3	1107	19	603
4	1107	20	619
5	644	21	849
6	0	22	1098
7	0	23	1103
8	0	24	1105
9	0	25	1063
10	30	26	1085
11	401	27	1101
12	1082	28	1098
13	1047	29	1100
14	636	30	542
15	431	31	
16	650		

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)

Plant Maintenance Summary

The following significant maintenance items were completed during the month of April 1982:

Mechanical Maintenance

1. Changed out the diaphragm in the radwaste DI pump.
2. Repaired a leak on 2A MFPT stop valve.
3. Balanced and aligned 2A MFPT.

Electrical Maintenance

None reportable on CSSC equipment.

Instrument Maintenance

None reportable on CSSC equipment.

Field Services Maintenance

Work continues on the following items:

1. The auxiliary instrument room floors must be painted before the power cabinets for the reactor head venting system can be mounted.
2. Conduit installation and inspection continues for the high range area radiation monitors for the residual heat removal lines and containment spray heat exchanger room 1A.
3. Alarms are being installed on the containment hatches and doors. Cable pulling, termination and functional testing is all that remains to be done.
4. Door A-183 is being replaced and a card reader installed.
5. Security barriers are being installed on 28 vented grills and ducts.
6. The steam generator preservation modification will be tied in during the Unit 2 outage.
7. A post-accident sample system for Unit 1 is being installed. The installation of the demineralizer water lines is in progress.
8. EN DES is evaluating the hanger inspection for deficiencies.
9. Changing the ERCW carbon steel piping to stainless steel piping continues.

Field Services Maintenance

The following work was completed during the month.

1. All exposed cables in areas outside primary containment containing one or both safety related divisions have been coated with Flamastic.
2. The flow switches on radiation monitor 1-RE-90-170 have been replaced.

APPENDIX A

Change 1

Description of Change

Page 22, the definition of "v" in equation 2.12 is changed to read, "v = maximum individuals water consumption rate (2,000 mL/d)." This change also results in a change in equation 2.13. The constant in the equation changes from 1.57×10^{-3} to 4.30×10^{-3} .

Analysis or Evaluation Justifying Change

A daily water ingestion rate for maximum individuals of 2,000 milliliter (mL) replaces the previously used 730 mL. The value of 2,000 is recommended in Regulatory Guide 1.109 and is mandated in 40 CFR 141, "National Interim Primary Drinking Water Regulations." The previously used value of 730 mL is the average individual consumption rate and will continue to be used for calculating quarterly population doses.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

This change increased the similarity to the model in Regulatory Guide 1.109. Higher doses per unit release are calculated for the maximum individual. No change is made in setpoint determinations.

Change 2

Description of Change

Page 25, the definition of "v" in equation 2.18 is changed to read,

v = water consumption rate:
maximum individual - 2,000 mL/d
average individual - 730 mL/d

Analysis or Evaluation Justifying Change

See change 1.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

See change 1.

APPENDIX A

Change 3

Description of Change

Table 2.1, the biological and effective half-life for I-130 is changed to 138 and 0.517 respectively. For Cs-135 both the biological and effective half-lives are changed to 70.

Analysis or Evaluation Justifying Change

Previous values were incorrect.

Evaluation of Accuracy of Dose Calculation and Setpoint Determination

Dose calculations involving I-130 and Cs-135 will be more accurate. No effect on setpoint determination.

Change 4

Description of Change

Table 3.1-1 (4 pages), clarifying changes are made in the description of sample collection and analysis frequencies.

Analysis or Evaluation Justifying Change

Changes were made to guarantee a minimum time between sample collections. The following is an example of the changes made: "Monthly" was changed to "once per 31 days." These changes should better ensure that any significant environmental radioactivity levels will be detected.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

No effect.

Change 5

Description of Change

Table 3.1-1, 3.e on page 3 of 4; semiannual collection of river sediment at Tennessee River Miles 485, 478, and 477 is added. Figure 3.1-4 is modified to indicate sample points.

Analysis or Evaluation Justifying Change

Predicted doses to man identified external exposure due to buildup of radioactivity in river sediment as a dose pathway.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

No effect.

APPENDIX A

Change 6

Description of Change

Table 3.1-1, 4.d on page 4 of 4; add collection of vegetation samples at locations of milch animals if a sample of milk is not available. Figure 3.1-6 is added to indicate sample points.

Analysis or Evaluation Justifying Change

Because the relationship of activity ingested to activity in milk is fairly well known for milch animals, collection of vegetation samples allows evaluation of milk from nearby producers who are unwilling or unable to supply sufficiently large samples.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

No effect.

Change 7

Description of Change

Figures 3.1-1, 3.1-3, 3.1-4, 3.1-5, and 3.1-6 have been changed to identify current monitoring locations. Both changes and additions have been made.

Analysis or Evaluation Justifying Change

A thorough evaluation of monitoring locations were made to determine the locations most likely to provide measurable radioactivity levels as a result of plant releases. The locations chosen should provide results for any significant plant release.

Evaluation of Accuracy of Dose Calculations or Setpoint Determinations

No effect.

Change 8

The following typographical errors were corrected. No model changes are reflected in these corrections and, therefore, no evaluations are necessary.

- a. Page 22, third line, the definition of "k" is deleted. This factor no longer appears in equation 2.11.
- b. Page 25, first line, "jth" should be "ith".
- c. Page 6, the units for "G_i" should be $\mu\text{Ci}/\text{m}^2$.

APPENDIX A

- d. Page 7, the term in brackets in equation 1.7 should be

$$\frac{r[1 - \exp(-\lambda_{Ei} t_e)]}{Y_v \lambda_{Ei}} + \frac{B_{iv}[1 - \exp(-\lambda_i t_b)]}{P \lambda_i}$$

- e. Page 7, the unit for "DR" should be m^{-1} .
- f. Page 8, the units for " X_T " should be $\mu\text{Ci}/m^3$.
- g. Page 9, the units for " CM_i " should be $\mu\text{Ci}/l$.
- h. Page 15, the units for " DF_{14} " should be $\mu\text{Ci}/\text{cm}^3$.

APPENDIX A
 SEQUOYAH NUCLEAR PLANT
 OFFSITE DOSE CALCULATION MANUAL
 EFFECTIVE PAGE LISTING

<u>Page</u>	<u>Revision*</u>
TOC 1 through TOC 2	Revision 1
1 through 4	Original
5	Revision 3
6	Original
7	Revision 1
8	Original
9	Revision 1
10	Original
11 through 16	Revision
Table 1.1 (2 pages)	Original
Table 1.2 (2 pages)	Original
Table 1.3 (8 pages)	Original
Table 1.4	Original
Table 1.4A	Revision 3
Table 1.5 through 1.8	Original
Figures 1.1 through 1.2	Original
Figure 1.3	Revision 3
17	Original
18 through 19	Revision 2
20 through 21	Revision 3
22	New
23 through 24	Revision 3
25	New
Table 2.1 (3 pages)	New
26	Original
Table 2.1-1 (4 pages)	New
Table 3.1-2 through 3.1-3	Original
Table 3.2-1 (3 pages)	Original
Figures 3.1-1	New
Figure 3.1-2	Original
Figures 3.1-3 through 3.1-6	New

*Substantive revisions discussed in this report are referred to as "new."