

February 26, 2004

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 - 2003 ANNUAL REPORTS**

Enclosed are the 2003 Annual Reports for Sequoyah. These reports contain a summary of the occupational exposure data and the reactor coolant system specific activity analysis.

These reports are being submitted to satisfy the requirements of Technical Specifications 6.9.1.4 and 6.9.1.5.

There are no commitments contained in this submittal.

Please direct questions concerning this submittal to me at (423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

***Original signed by:***

Pedro Salas  
Licensing and Industry Affairs Manager

Enclosure  
cc: See page 2

U.S. Nuclear Regulatory Commission  
Page 2  
February 26, 2004

Enclosure

cc (Enclosure):

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TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT

UNITS 1 AND 2

ANNUAL REPORTS TO THE

NUCLEAR REGULATORY COMMISSION

JANUARY 1, 2003 - DECEMBER 31, 2003

DOCKET NUMBERS 50-327 AND 50-328

LICENSE NUMBERS DPR-77 AND DPR-79

SEQUOYAH NUCLEAR PLANT  
2003 ANNUAL REPORTS

TABLE OF CONTENTS

	Page
Overview.....	1
Occupational Exposure Data .....	2

**SEQUOYAH NUCLEAR PLANT (SQN)  
UNITS 1 AND 2  
2003 ANNUAL REPORTS**

OVERVIEW

Occupational Exposure Data

Attached is the exposure data for personnel at SQN that received greater than 100 millirem (mrem) between January 1 and December 31, 2003. The numbers of personnel listed in the attached report are calculated fractions based on personnel and Radiation Work Permits code classifications. Exposure data for special maintenance is based on the following activities:

- Mechanical and Electrical Valve Modifications
- Replace Unit 1 Electrical Penetration Numbers 18, 33, and 39
- Unit 1 Steam Generator Replacement
- Auxiliary building Thermolag Upgrade
- Unit 2 Upper Containment - Expand Reactor Head Stand Bio-Shield Wall Opening
- Units 1 and 2 Install High Point Vent Taps in ECCS Piping
- Unit 2 Upper/Lower Containment Replace RPI Cables
- ERCW Piping Repair and Replacement and Enhancement
- Preparation for Dry Cask Storage
- Placement of Remote Monitor in Reactor Cavity
- Replacement of Piping and Upgrades to the Primary Water Storage Tank
- Replacement of Piping and Upgrades to the Reactor Coolant Drain Tank
- Replacement of and Rerouting Control Air Tubing and Flex Hose to 1-PCV-068-00340B

The cumulative external radiation exposure for calendar year 2003 for persons receiving more than 100 mrem/year is 402.191 rem. The total whole body exposure received from external sources for calendar year 2003, as measured by TLD, is 426.483 rem. As required by the respective units' Technical Specifications, at least 80% of the total site exposure for persons receiving more than 100 mrem has been assigned to specific major work activities.

Regulatory Guide 1.16 Information  
End of Year Report 2003

Work and Job Function	Number of Personnel > 100 mrem			Total man-rem *		
	Station	Utility	Contractor	Station	Utility	Contractor
ROUTINE OPERATIONS AND SURVEILLANCE						
MAINTENANCE PERSONNEL	0.806	0.000	0.354	0.232	0.000	0.055
OPERATIONS PERSONNEL	24.276	2.865	0.000	4.364	0.491	0.000
HEALTH PHYSICS PERSONNEL	2.754	0.029	6.341	0.548	0.005	1.374
SUPERVISORY PERSONNEL	0.002	0.000	0.000	0.001	0.000	0.000
ENGINEERING PERSONNEL	0.268	0.000	0.000	0.045	0.000	0.000
ROUTINE PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	94.889	7.507	363.532	30.332	1.857	113.568
OPERATIONS PERSONNEL	3.759	0.445	1.989	0.797	0.073	0.375
HEALTH PHYSICS PERSONNEL	19.375	2.905	25.487	8.410	0.778	8.549
SUPERVISORY PERSONNEL	2.955	1.008	0.000	1.153	0.158	0.000
ENGINEERING PERSONNEL	13.142	4.288	3.323	2.886	0.930	0.775
INSERVICE INSPECTION						
MAINTENANCE PERSONNEL	1.022	2.570	79.994	0.396	0.351	22.213
OPERATIONS PERSONNEL	1.325	0.578	0.000	0.397	0.100	0.000
HEALTH PHYSICS PERSONNEL	2.949	0.769	4.978	1.026	0.153	1.238
SUPERVISORY PERSONNEL	4.526	0.912	0.000	1.013	0.322	0.000
ENGINEERING PERSONNEL	1.332	5.905	11.304	0.426	1.129	3.357
SPECIAL PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	1.208	1.698	492.044	0.398	0.219	139.498
OPERATIONS PERSONNEL	0.755	0.000	0.011	0.118	0.000	0.003
HEALTH PHYSICS PERSONNEL	0.742	0.109	29.517	0.182	0.032	9.185
SUPERVISORY PERSONNEL	0.053	0.079	1.000	0.009	0.028	0.107
ENGINEERING PERSONNEL	1.338	1.170	1.373	0.327	0.276	0.315
WASTE PROCESSING						
MAINTENANCE PERSONNEL	0.194	0.000	2.148	0.066	0.000	0.520
OPERATIONS PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	2.222	0.000	1.755	0.443	0.000	0.608
SUPERVISORY PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
ENGINEERING PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000

Sequoyah Nuclear Plant  
P.O. Box 2000  
Soddy Daisy, TN 37384-2000  
LICENSE: DPR-77 AND DPR-79

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Regulatory Guide 1.16 Information  
End of Year Report 2003

Work and Job Function	Number of Personnel > 100 mrem			Total man-rem *		
	Station	Utility	Contractor	Station	Utility	Contractor
REFUELING						
MAINTENANCE PERSONNEL	5.474	0.806	69.492	1.759	0.170	33.878
OPERATIONS PERSONNEL	1.896	0.119	0.000	0.654	0.017	0.000
HEALTH PHYSICS PERSONNEL	0.956	0.188	3.184	0.319	0.037	1.015
SUPERVISORY PERSONNEL	3.464	0.000	0.000	1.031	0.000	0.000
ENGINEERING PERSONNEL	0.921	1.638	0.000	0.465	0.635	0.000
Totals						
MAINTENANCE PERSONNEL	103.594	12.580	1007.564	33.183	2.597	309.732
OPERATIONS PERSONNEL	32.011	4.006	2.000	6.330	0.681	0.378
HEALTH PHYSICS PERSONNEL	29.000	4.000	71.262	10.928	1.005	21.969
SUPERVISORY PERSONNEL	11.000	2.000	1.000	3.207	0.508	0.107
ENGINEERING PERSONNEL	17.000	13.000	16.000	4.149	2.970	4.447
Grand Totals	192.604	35.587	1097.826	57.797	7.761	336.633

\* The man-rem totals include dose only from individuals receiving more than 100 mrem throughout the year at the site.