TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT

UNITS 1 AND 2

ANNUAL REPORTS TO THE
NUCLEAR REGULATORY COMMISSION

JANUARY 1 - DECEMBER 31, 1992

DOCKET NUMBER 50-327 AND 50-328
LICENSE NUMBER DPR-77 AND DPR-79

SEQUOYAH NUCLEAR PLANT
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The following are descriptions of the items contained in this report.

Occupational Exposure Data

Enclosed is the exposure data for personnel at SQN that received greater than 100 millirem between January 1 and December 31, 1992. Exposure data for special maintenance is based on the following activities:

Modifications of Hangers, Supports and Clamps
Modification of Thermal Growth Slip Joints
Modification of Fuel Handling Equipment
Repair of the Unit 1 Steam Generator Feedwater Nozzles
Installation of a New 8-Inch Check Valve in the Unit 2 Residual Heat Removal System
Relocation of the Unit 2 Auxiliary Feedwater Transmitter
Modification of the Unit 2 Transfer Tube
Upgrade of the Unit 2 Reactor Vessel Level Indication System
Repair of the Unit 2 Steam Generator Feedwater Nozzles
Shot Peening of the Unit 2 Steam Generators

Reactor Coolant System Specific Activity Analysis (Specific Iodine Isotopic Activity Concentration and/or DEI-131 Determination)

During 1992 there were no specific activity results of Unit 1 or Unit 2 reactor coolant systems exceeding the limits of Technical Specification (TS) 3.4.8.a (1.0 μCi/gm) during either power operation or reactor shutdown and/or start-up.

Diesel Generator Reliability Data

The reliability data for the SQN 6900-volt emergency diesel generators is enclosed in accordance with TS 6.9.2.2.

NUMBER OF PERSONNEL AND MAN-REM BY WORK JOB FUNCTION
TOTAL NUMBER OF INDIVIDUALS

MO=REACTOR OPS SURVEILLANCE

GROUP	NUMBER OF PERSONNEL () 100 M-REM) STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	TOTAL MAN-REM STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	102	4	146	252	1.395	0.019	1.626	3.040
OPERATING PERSONNEL	35	5	1	41	6.119	0.779	0.160	7.058
HEALTH PHYSICS PERSONNEL	38	1	86	125	4.330	0.275	8.161	12.766
SUPERVISORY PERSONNEL	34	1	7	42	2.863	0.218	0.290	3.371
ENGINEERING PERSONNEL	32	17	14	63	1.689	1.203	0.583	3.475
MO	241	28	254	523	16.396	2.494	10.820	29.710

MO=ROUTINE MAINTENANCE

GROUP	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	142	9	416	567	31.773	1.448	89.695	122.916
OPERATING PERSONNEL	32	5	1	38	1.570	0.117	0.032	1.719
HEALTH PHYSICS PERSONNEL	54	1	129	184	5.928	0.040	13.911	19.879
SUPERVISORY PERSONNEL	33	2	9	44	3.932	0.164	0.329	4.425
ENGINEERING PERSONNEL	34	22	76	132	4.115	0.929	12.121	17.165
MO	295	39	631	965	47.318	2.698	116.088	166.104

MO=IN-SERVICE INSPECTION

GROUP	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	18	0	175	193	1.120	0.000	16.855	17.975
OPERATING PERSONNEL	5	1	1	7	0.438	0.687	0.004	1.129
HEALTH PHYSICS PERSONNEL	25	0	81	106	2.632	0.000	17.298	19.930
SUPERVISORY PERSONNEL	8	1	8	17	2.266	0.159	2.652	5.077
ENGINEERING PERSONNEL	16	22	88	126	5.404	6.077	30.235	41.716
MO	72	24	353	449	11.860	6.923	67.044	85.827

MO=SPECIAL MAINTENANCE

GROUP	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	53	3	293	349	7.700	0.330	57.695	65.725

NUMBER OF PERSONNEL AND MAN-REM BY WORK JOB FUNCTION
TOTAL NUMBER OF INDIVIDUALS

	NUMBER OF PERSONNEL () 100 M-REM)				TOTAL MAN-REM			
OPERATING PERSONNEL	1	0	0	1	0.003	0.000	0.000	0.003
HEALTH PHYSICS PERSONNEL	18	0	29	47	0.497	0.000	0.978	1.475
SUPERVISORY PERSONNEL	12	1	5	18	0.374	0.023	0.047	0.444
ENGINEERING PERSONNEL	15	12	75	102	1.296	0.425	20.523	22.244
MO	99	16	402	517	9.870	0.778	79.243	89.891

MO=WASTE PROCESING

GROUP	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	23	0	26	49	0.756	0.000	1.258	2.014
OPERATING PERSONNEL	4	0	2	6	0.229	0.000	1.198	1.427
HEALTH PHYSICS PERSONNEL	28	0	32	60	4.068	0.000	2.684	6.752
SUPERVISORY PERSONNEL	1	0	0	1	0.059	0.000	0.000	0.059
ENGINEERING PERSONNEL	3	3	8	14	0.258	0.012	0.136	0.406
MO	59	3	68	130	5.370	0.012	5.276	10.658

MO=REFUEL

GROUP	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	51	0	140	191	1.451	0.000	13.196	14.647
OPERATING PERSONNEL	24	5	1	30	0.408	0.040	0.014	0.462
HEALTH PHYSICS PERSONNEL	15	0	81	96	2.321	0.000	8.420	10.741
SUPERVISORY PERSONNEL	11	0	2	13	1.644	0.000	0.110	1.754
ENGINEERING PERSONNEL	7	11	24	42	0.582	1.813	15.027	17.422
MO	108	16	248	372	6.406	1.853	36.767	45.026
	874	126	1956	2956	97.220	14.758	315.238	427.216

T E N N E S S E E V A L L E Y A U T H O R I T Y
SQN RADIATION EXPOSURE SYSTEM

NUMBER OF PERSONNEL AND MAN-REM BY WORK JOB FUNCTION
TOTAL NUMBER OF INDIVIDUALS

GROUP	NUMBER OF PERSONNEL () 100 M-REM)				TOTAL MAN-REM			
	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL PERSONS	STATION EMPLOYEES	UTILITY EMPLOYEES	CONTRACT AND OTHERS	TOTAL M-REMS
MAINTENANCE PERSONNEL	389	16	1196	1601	44.195	1.797	180.325	226.317
OPERATING PERSONNEL	101	16	6	123	8.767	1.623	1.408	11.798
HEALTH PHYSICS PERSONNEL	178	2	438	618	19.776	0.315	51.452	71.543
SUPERVISORY PERSONNEL	99	5	31	135	11.138	0.564	3.428	15.130
ENGINEERING PERSONNEL	107	87	285	479	13.344	10.459	78.625	102.428
	874	126	1956	2956	97.220	14.758	315.238	427.216

NUMBER OF PERSONNEL AND MAN-REM BY WORK JOB FUNCTION
TOTAL NUMBER OF INDIVIDUALS

GROUP	STATION	UTILITY	CONTRACT	TOTAL
MAINTENANCE PERSONNEL	162	9	385	556
OPERATING PERSONNEL	36	6	3	45
HEALTH PHYSICS PERSONNEL	56	1	119	176
SUPERVISORY PERSONNEL	37	2	12	51
ENGINEERING PERSONNEL	43	27	136	206
	334	45	655	1034

SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2
DIESEL GENERATOR (D/G) RELIABILITY DATA REPORT FOR 1992

This report is submitted to comply with Technical Specification (TS) 6.9.2.2 for an annual data report for D/G reliability. The 6.9-kilovolt (kV) D/Gs at SQN serve as the onsite Class 1E power source. Surveillance requirements of the TSs that demonstrate operability of the D/Gs are accomplished by the routine performance of Surveillance Instructions (SI) 1-SI-OPS-082-007.A, "Electrical Power System - Diesel Generator 1A-A"; 2-SI-OPS-082-007.A, "Electrical Power System - Diesel Generator 2A-A"; 1-SI-OPS-082-007.B, "Electrical Power System - Diesel Generator 1B-B"; 2-SI-OPS-082-007.B, "Electrical Power System - Diesel Generator 2B-B"; 0-SI-OPS-082-007.0, "Diesel Generator Operability Verification"; 1-SI-OPS-082-026.A, "Loss of Offsite Power With Safety Injection - D/G 1A-A Containment Isolation Test"; 1-SI-OPS-082-026.B, "Loss of Offsite Power With Safety Injection - D/G 1B-B Containment Isolation Test"; 2-SI-OPS-082-026.A, "Loss of Offsite Power With Safety Injection D/G - 2A-A Containment Isolation Test"; 2-SI-OPS-082-026.B, "Loss of Offsite Power With Safety Injection - D/G 2B-B Test"; and the System Operating Instruction 82 series for routine operation of the D/Gs.

The information listed below is a tabulation of D/G testing data taken from 0-SI-OPS-082-007.M, "Diesel Generator Surveillance Frequency." The data was taken from testing performed during the period January 1 through December 31, 1992. "Valid Test" and "Invalid Test" are defined in accordance with the criteria established in Regulatory Guide 1.108, Revision 1, August 1977.

Diesel Generator	Valid Test	Invalid Test	Failures
1A-A	18	19	0
1B-B	14	13	0
2A-A	17	17	1*
2B-B	18	25	1**

* Failure due to a short on the voltage regulator terminal block.

** Failure due to kilowatt load swings caused by noise interference on cables that provide input to the governor controller.

The above data indicates an average of 35.25 starts per D/G with two failures. Two failures out of 141 valid and invalid tests support a reasonable confidence level that the D/Gs will perform when required.

SQN continues to recognize the importance of reducing the number of D/G starts as indicated by the trend below.

1988: approximately 170 starts per D/G per year
1989: approximately 55 starts per D/G per year
1990: approximately 36 starts per D/G per year
1991: approximately 36 starts per D/G per year
1992: approximately 35 starts per D/G per year

Continued efforts will keep D/G starts as low as possible and thereby enhance engine life and D/G reliability.