

Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

MAR 0 8 2001

10 CFR 50.4

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

Gentlemen:

In the Matter of Tennessee Valley Authority )

Docket No. 50-390

WATTS BAR NUCLEAR PLANT (WBN) - 2000 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

Enclosed is the 2000 Annual Occupational Radiation Exposure Report. This report contains a summary of occupational exposure data for the period of January 1, 2000, to December 31, 2000. Submittal of this report fulfills the requirements of Technical Specification 5.9.1.

If you should have any questions, please contact me at (423) 365-1824.

Sincerely,

a

P. L. Pace Manager, Licensing and Industry Affairs

Enclosure cc: See page 2



U.S. Nuclear Regulatory Commission Page 2 0 8 2001

cc (Enclosure):

NRC Resident Inspector Watts Bar Nuclear Plant 1260 Nuclear Plant Road Spring City, Tennessee 37381

Mr. Robert E. Martin, Senior Project Manager U.S. Nuclear Regulatory Commission One White Flint North 11555 Rockville Pike Rockville, Maryland 20852

U.S. Nuclear Regulatory Commission Region II Sam Nunn Atlanta Federal Center 61 Forsyth St., SW, Suite 23T85 Atlanta, Georgia 30303

REIRS Project Manager Office of Nuclear Regulatory Research U.S. Nuclear Regulatory Commission Washington, D.C. 20555

### ENCLOSURE

•

## TENNESSEE VALLEY AUTHORITY WATTS BAR NUCLEAR PLANT UNIT 1

# 2000 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

# JANUARY 1, 2000 TO DECEMBER 31, 2000

UNIT 1 DOCKET NUMBER 50-390 LICENSE NUMBER NPF-90

## WATTS BAR NUCLEAR PLANT (WBN)

### 2000 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

#### Occupational Exposure Data:

Enclosed is the exposure data for personnel at WBN that received greater than 100 millirem between January 1, 2000 and December 31, 2000. The major special maintenance tasks for which exposure data is provided includes:

- The Unit 1 Cycle 3 refueling outage began on September 10, 2000, and concluded on October 7, 2000.
- An upgrade to the Fuel Transfer system.
- Replacement and upgrade of components in the Hydrogen Mitigation system.
- Replacement of piping in the Steam Generator Blowdown system.
- Replacement of level transmitters on the Spent Resin Storage Tank.
- Modification of the Radiation Monitoring system and the deletion of certain monitors.
- Replacement of the shaft on the 1B-B Centrifugal Charging Pump.

• •

.

PO BOX 2000 SPRING CITY, TN, 37381 LICENSE: NPF-90, SNM-1873

#### Regulatory Guide 1.16 Information End of Year Report 2000

	Number	of Person	nel			
	> 100 mrem			Total man-rem *		
Work and Job Function	Station U	tility Co	ontractor	Station	Utility	Contractor
ROUTINE OPERATIONS AND SURVEILLANCE						
MAINTENANCE PERSONNEL	2.486	0.120	4.377	0.696	0.021	1.050
OPERATIONS PERSONNEL	8.530	0.000	0.000	1.208	0.000	0.000
HEALTH PHYSICS PERSONNEL	4.875	0.081	11.776	1.345	0.013	2.814
SUPERVISORY PERSONNEL	1.517	0.011	0.000	0.213	0.002	0.000
ENGINEERING PERSONNEL	1.353	0.000	0.661	0.324	0.000	0.119
ROUTINE PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	11.290	7.682	31.672	2.738	1.394	6.095
OPERATIONS PERSONNEL	0.203	0.000	0.000	0.050	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.070	0.002	0.519	0.019	0.002	0.124
SUPERVISORY PERSONNEL	0.720	0.022	0.014	0.115	0.004	0.003
ENGINEERING PERSONNEL	0.065	0.001	0.000	0.011	0.001	0.000
INSERVICE INSPECTION						
MAINTENANCE PERSONNEL	2.410	0.248	17.896	0.825	0.045	3.779
OPERATIONS PERSONNEL	0.038	0.000	0.061	0.009	0.000	0.018
HEALTH PHYSICS PERSONNEL	1.064	0.870	7.984	0.420	0.179	1.803
SUPERVISORY PERSONNEL	1.367	0.000	0.000	0.357	0.000	0.000
ENGINEERING PERSONNEL	0.876	2.000	3.711	0.156	0.224	0.761
SPECIAL PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	0.208	0.014	9.746	0.052	0.002	2.562
OPERATIONS PERSONNEL	0.093	0.000	0.000	0.026	0.000	0.000
HEALTH PHYSICS PERSONNEL	3.211	0.115	1.318	0.730	0.020	0.260
SUPERVISORY PERSONNEL	0.125	0.022	0.102	0.020	0.004	0.013
ENGINEERING PERSONNEL	0.592	0.000	0.000	0.111	0.000	0.000
WASTE PROCESSING						
MAINTENANCE PERSONNEL	0.953	0.004	0.255	0.218	0.001	0.037
OPERATIONS PERSONNEL	0.151	0.000	0.000	0.032	0.000	0.000
HEALTH PHYSICS PERSONNEL	2.603	0.017	0.703	0,483	0.004	0.091
SUPERVISORY PERSONNEL	0.032	0.000	0.000	0.007	0.000	0.000
ENGINEERING PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000

#### Regulatory Guide 1.16 Information End of Year Report 2000

Number of Personnel										
	> 100 mrem			Total man-rem *						
Work and Job Function	Station U	tility Co	ontractor	Station	Utility	Contractor				
REFUELING										
MAINTENANCE PERSONNEL	6.652	7.932	163.055	1.799	1.362	47.525				
OPERATIONS PERSONNEL	6.986	0.000	0.939	2.263	0.000	0.277				
HEALTH PHYSICS PERSONNEL	7.529	2.918	20.349	1.928	0.485	4.647				
SUPERVISORY PERSONNEL	10.238	1.944	2.883	5.010	0.776	0.638				
ENGINEERING PERSONNEL	7.113	0.995	0.629	2.341	0.872	0.202				
Totals										
MAINTENANCE PERSONNEL	24.000	16.000	227.000	6.328	2.825	61.048				
OPERATIONS PERSONNEL	16.000	0.000	1.000	3.588	0.000	0.295				
HEALTH PHYSICS PERSONNEL	19.351	4.003	42.649	4.925	0.703	9.739				
SUPERVISORY PERSONNEL	14.000	2.000	3.000	5.722	0.786	0.654				
ENGINEERING PERSONNEL	10.000	2,997	5.000	2.943	1.097	1.082				
Grand Totals	83.351	25.000	278.649	23,506	5.411	72.818				

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