



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

MAR 08 2000

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

Gentlemen:

In the Matter of
Tennessee Valley Authority

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Docket No. 50-390

**WATTS BAR NUCLEAR PLANT (WBN) - 1999 ANNUAL OCCUPATIONAL
RADIATION EXPOSURE REPORT**

Enclosed is the 1999 Annual Occupational Radiation Exposure Report. This report contains a summary of occupational exposure data for the period of January 1, 1999, to December 31, 1999. 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,

P. L. Pace
Manager, Licensing and Industry Affairs

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

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cc (Enclosure):

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ENCLOSURE

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT UNIT 1

1999 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

JANUARY 1, 1999 TO DECEMBER 31, 1999

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

WATTS BAR NUCLEAR PLANT (WBN)

1999 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, 1999 and December 31, 1999. The major special maintenance tasks for which exposure data is provided includes:

- Control Rod Drive Mechanism (CRDM) canopy seal weld repair.
- Installation of a containment sump level transmitter modification.
- Residual Heat Removal (RHR) heat exchanger 1A-A disassembly, eddy current testing and reassembly.
- Reactor vessel leakage monitoring during the Unit 1 Cycle 2 outage.

WATTS BAR NUCLEAR PLANT

DATE: 17-FEB-2000 09:05

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

REGULATORY GUIDE 1.16 INFORMATION
 END OF YEAR REPORT 1999

WORK AND JOB FUNCTION	STATION	NUMBER OF PERSONNEL > 100 MREM		STATION	TOTAL MAN-REM *	
		UTILITY	CONTRACTOR		UTILITY	CONTRACTOR
ROUTINE OPERATIONS AND SURVEILLANCE						
MAINTENANCE PERSONNEL	2.670	0.000	6.779	0.517	0.000	2.519
OPERATIONS PERSONNEL	2.855	0.000	0.168	0.391	0.000	0.034
HEALTH PHYSICS PERSONNEL	1.983	0.000	9.680	0.382	0.000	1.741
SUPERVISORY PERSONNEL	3.456	0.000	0.000	1.211	0.000	0.000
ENGINEERING PERSONNEL	0.260	0.000	0.007	0.068	0.000	0.002
ROUTINE PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	21.757	0.000	96.850	4.972	0.000	22.277
OPERATIONS PERSONNEL	1.809	0.000	0.772	0.462	0.000	0.156
HEALTH PHYSICS PERSONNEL	4.694	0.981	14.279	0.867	0.104	2.979
SUPERVISORY PERSONNEL	3.223	0.774	0.000	0.668	0.171	0.000
ENGINEERING PERSONNEL	4.994	0.024	6.280	1.167	0.003	1.489
INSERVICE INSPECTION						
MAINTENANCE PERSONNEL	2.858	0.000	6.171	0.464	0.000	0.893
OPERATIONS PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.108	0.000	1.026	0.021	0.000	0.168
SUPERVISORY PERSONNEL	0.229	0.992	0.000	0.069	0.122	0.000
ENGINEERING PERSONNEL	0.000	1.825	9.625	0.000	0.254	1.976
SPECIAL PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	6.432	0.000	19.318	1.161	0.000	4.395
OPERATIONS PERSONNEL	0.063	0.000	0.059	0.008	0.000	0.012
HEALTH PHYSICS PERSONNEL	1.716	0.000	7.292	0.544	0.000	1.990
SUPERVISORY PERSONNEL	1.214	0.139	0.000	0.179	0.030	0.000
ENGINEERING PERSONNEL	3.511	0.169	1.158	1.234	0.021	0.289
WASTE PROCESSING						
MAINTENANCE PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
OPERATIONS PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.137	0.000	0.009	0.020	0.000	0.001
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
REFUELING						
MAINTENANCE PERSONNEL	1.283	0.000	44.882	0.559	0.000	13.351
OPERATIONS PERSONNEL	4.273	0.000	0.000	0.850	0.000	0.000
HEALTH PHYSICS PERSONNEL	4.361	0.000	21.713	1.262	0.000	5.842
SUPERVISORY PERSONNEL	7.878	1.095	1.000	2.573	0.296	0.163
ENGINEERING PERSONNEL	0.235	0.000	26.931	0.036	0.000	9.857
TOTALS						
MAINTENANCE PERSONNEL	35.000	0.000	174.000	7.673	0.000	43.435
OPERATIONS PERSONNEL	9.000	0.000	1.000	1.711	0.000	0.202
HEALTH PHYSICS PERSONNEL	13.000	0.981	54.000	3.096	0.104	12.721
SUPERVISORY PERSONNEL	16.000	3.000	1.000	4.700	0.619	0.163
ENGINEERING PERSONNEL	9.000	2.019	44.000	2.505	0.278	13.613
GRAND TOTALS	82.000	6.000	274.000	19.685	1.001	70.134

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