



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

FEB 26 2003

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) - 2002 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

Enclosed is the 2002 Annual Occupational Radiation Exposure Report. This report contains a summary of occupational exposure data for the period of January 1, 2002, to December 31, 2002. Submittal of this report fulfills the requirements of Technical Specification 5.9.1.

There are no regulatory commitments in this submittal and should there be questions regarding this letter, please telephone me at (423) 365-1824.

Sincerely,

P. L. Pace
Manager, Site Licensing
and Industry Affairs

Enclosure
cc. See page 2

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Enclosure

cc (Enclosure):

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

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Washington, D.C. 20555

ENCLOSURE

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT UNIT 1

2002 ANNUAL OCCUPATIONAL RADIATION EXPOSURE REPORT

JANUARY 1, 2002 TO DECEMBER 31, 2002

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

WATTS BAR NUCLEAR PLANT (WBN)

2002 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, 2002 and December 31, 2002. The major special maintenance tasks for which exposure data is provided includes:

- The upgrade of the controls for the upper containment polar crane.
- The performance of a task in lower containment to inspect and verify the positions of the Nuclear Instrumentation System (NIS) detectors.
- The modification of the cask loading area for the installation of tritium consolidation equipment.

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

Regulatory Guide 1.16 Information
 End of Year Report 2002

Work and Job Function	Number of Personnel > 100 mrem			Total man-rem *		
	Station	Utility	Contractor	Station	Utility	Contractor
ROUTINE OPERATIONS AND SURVEILLANCE						
MAINTENANCE PERSONNEL	1.491	0.202	1.106	0.448	0.035	0.270
OPERATIONS PERSONNEL	3.032	0.000	0.000	0.523	0.000	0.000
HEALTH PHYSICS PERSONNEL	10.714	5.007	11.599	2.370	0.823	1.999
SUPERVISORY PERSONNEL	1.082	0.015	0.000	0.194	0.010	0.000
ENGINEERING PERSONNEL	1.855	0.000	0.000	0.329	0.000	0.000
ROUTINE PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	18.133	17.414	72.158	4.212	3.089	15.820
OPERATIONS PERSONNEL	2.085	0.000	0.000	0.316	0.000	0.000
HEALTH PHYSICS PERSONNEL	9.688	1.213	6.849	2.007	0.398	1.323
SUPERVISORY PERSONNEL	4.913	0.198	0.000	1.105	0.039	0.000
ENGINEERING PERSONNEL	3.679	0.010	1.073	0.682	0.003	0.132
INSERVICE INSPECTION						
MAINTENANCE PERSONNEL	1.393	1.706	78.543	0.463	0.274	20.437
OPERATIONS PERSONNEL	0.995	0.000	0.000	0.424	0.000	0.000
HEALTH PHYSICS PERSONNEL	2.690	1.724	12.411	1.048	0.376	2.374
SUPERVISORY PERSONNEL	4.121	0.971	2.000	1.934	0.645	0.804
ENGINEERING PERSONNEL	2.050	1.000	0.549	0.581	0.116	0.079
SPECIAL PLANT MAINTENANCE						
MAINTENANCE PERSONNEL	0.000	0.000	0.004	0.000	0.000	0.001
OPERATIONS PERSONNEL	0.000	0.000	0.000	0.000	0.000	0.000
HEALTH PHYSICS PERSONNEL	0.017	0.000	0.000	0.004	0.000	0.000
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
WASTE PROCESSING						
MAINTENANCE PERSONNEL	0.294	0.000	0.543	0.077	0.000	0.058
OPERATIONS PERSONNEL	0.008	0.000	0.000	0.001	0.000	0.000
HEALTH PHYSICS PERSONNEL	1.397	0.000	1.019	0.363	0.000	0.111
SUPERVISORY PERSONNEL	0.000	0.011	0.000	0.000	0.007	0.000
ENGINEERING PERSONNEL	0.005	0.000	0.000	0.001	0.000	0.000
REFUELING						
MAINTENANCE PERSONNEL	3.690	3.679	41.628	0.706	0.598	10.647
OPERATIONS PERSONNEL	3.881	0.000	0.000	0.563	0.000	0.000
HEALTH PHYSICS PERSONNEL	1.494	1.056	2.122	0.402	0.314	0.364
SUPERVISORY PERSONNEL	0.884	0.805	0.000	0.170	0.153	0.000
ENGINEERING PERSONNEL	2.410	0.990	0.396	0.440	0.294	0.057
Totals						
MAINTENANCE PERSONNEL	25.000	23.000	193.982	5.906	3.996	47.233
OPERATIONS PERSONNEL	10.000	0.000	0.000	1.827	0.000	0.000
HEALTH PHYSICS PERSONNEL	26.000	9.000	34.000	6.194	1.911	6.171
SUPERVISORY PERSONNEL	11.000	2.000	2.000	3.403	0.854	0.804
ENGINEERING PERSONNEL	10.000	2.000	2.018	2.033	0.413	0.268
Grand Totals	82.000	36.000	232.000	19.363	7.174	54.476

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

Watts Bar Nuclear Plant
Total Dose Summary Report
Dose for Period 1-JAN-2002 to 1-JAN-2003
On-site Dose Only

TODE = CDE + DDE
 TEDE = CEDE + DDE

Criteria Selected

Begin Date: 01-JAN-2002
 End Date: 01-JAN-2003

Deep Dose Equivalent	Dose Lens Equivalent	Shallow Dose Equivalent - Whole Body	Shallow Dose Equivalent - Multi-Extremity	Committed Effective Dose Equivalent	Committed Dose Equivalent	Total Effective Dose Equivalent	Total Organ Dose Equivalent
DDE	LDE	SDE-WB	SDE-ME	CEDE	CDE	TEDE	TODE
93168.00	95574.00	98925.00	132707.00	435.00	0.00	93603.00	93168.00