



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

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MAY 02 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) - UNIT 1 - 2002 ANNUAL NONRADIOLOGICAL ENVIRONMENTAL OPERATING REPORT (ANEOR)**

In accordance with Section 5.4.1 of Appendix B, "Environmental Protection Plan," of the WBN Operating License, provided in the enclosure is the 2002 ANEOR for WBN. This report addresses the period from February 7, 2002, through February 6, 2003.

TVA considers the enclosed report to contain no new commitments. If you should have any questions, please contact me at (423) 365-1824.

Sincerely,

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

Enclosure  
cc: See page 2

*JEAS*

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PLP:JLB

Enclosure

cc (Enclosure):

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**Enclosure**

**2002 Annual Nonradiological Environmental Operating Report (ANEOR)**

**TENNESSEE VALLEY AUTHORITY**



**WATTS BAR NUCLEAR PLANT**

**ANNUAL NONRADIOLOGICAL  
ENVIRONMENTAL OPERATING  
REPORT**

**FEBRUARY 7, 2002 THROUGH FEBRUARY 6, 2003**

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**I. INTRODUCTION**

The Watts Bar Nuclear Plant Annual Nonradiological Environmental Operating Report (ANEOR) was prepared in accordance with Section 5.4.1 of Appendix B, "Environmental Protection Plan (EPP)" of the WBN Technical Specifications. The ANEOR addresses plant operation for the period of February 7, 2002 through February 6, 2003. This report includes a summary of:

- ◆ Reports previously submitted as specified in the Watts Bar Nuclear Plant National Pollutant Discharge Elimination System (NPDES) Permit No. TN0020168.
- ◆ All special reports submitted per EPP Section 4.1.
- ◆ All EPP noncompliances and the corrective actions taken to remedy them.
- ◆ Changes made to applicable state and federal permits and certifications.
- ◆ Changes in station design that could involve a significant environmental impact or change the findings of the Final Environmental Statement (FES).
- ◆ Nonroutine reports submitted per EPP Section 4.2.
- ◆ Changes in approved EPP.

**II. REPORTS PREVIOUSLY SUBMITTED AS SPECIFIED IN THE WATTS BAR NUCLEAR PLANT (WBN) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

The following reports were submitted as specified in the WBN National Pollutant Discharge Elimination System (NPDES) Permit No. TN0020168:

- ◆ Discharge Monitoring Report (DMR) for March 2002 that included the Notice of Noncompliance for the Biological Oxygen Demand (BOD) at Outfall 111, submitted April 2002.
- ◆ Response to Notice of Violation for Daily Maximum of BOD for Outfall 111, submitted June 2002.
- ◆ Response to Notice of Violation for Outfall 112, submitted August 2002.

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**III. SPECIAL BIOLOGICAL MONITORING REPORTS FOR EPP  
SECTION 4.1**

**A. EPP Section 4.1.1 Aquatic Monitoring**

Collection of data for the semi-annual chronic toxicity of effluents was completed and a report submitted in June 2002 and December 2002, as required by the NPDES permit.

Effective March 2002, the Tennessee Stormwater Multi-Sector General Permit for Industrial Activities requires quarterly visual monitoring and annual sampling of storm water discharge associated with industrial activities. The annual sampling is required to be reported no later than March 31 of the following year.

Data collected for the Discharge Monitoring Report (DMR) was completed and submitted monthly to the Tennessee Department of Environment and Conservation, as required by the NPDES permit.

**B. EPP Section 4.1.2, Maintenance of Transmission Line Corridors**

Listed below are the 500 kV transmission lines associated with Watts Bar Nuclear Plant and information regarding the maintenance that was performed on each line:

500 kV Line Identifier	Maintenance Performed
Bull Run - Sequoyah	No herbicides were applied to this line.
Watts Bar - Roane	No herbicides were applied to this line.
Watts Bar - Volunteer	No herbicides were applied to this line.
Sequoyah - Watts Bar	Acreage Treated: 484 acres
	Application method: Ground/Backpack Sprayer and Hack-and-Squirt
	Chemicals applied:
	Arsenal .75% applied - 10 gallons total solution per acre.
	Accord 5% applied only around water using the Hack-and-Squirt method.

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**IV. ENVIRONMENTAL PROTECTION PLAN NONCOMPLIANCES**

During March 2002 NPDES Outfall Serial Number (OSN) 111, Sewage Treatment Plant, demonstrated a Biological Oxygen Demand (BOD) concentration of 54 mg/L. The daily maximum permit limitation is 45 mg/L. Re-testing of the BOD was performed seven days later and resulted in a measurement of <2 mg/L. This value met the permit limit. The primary suspect for the high BOD is an excessive amount of cleaning solution in the wastewater. Janitors, Laborers, and the site were notified to not dispose of excess cleaning solutions or highly concentrated cleaning solutions in drains leading to the Sewage Treatment Plant.

**V. CHANGES MADE TO APPLICABLE STATE AND FEDERAL PERMITS AND CERTIFICATIONS**

**A. NPDES Permits**

The current NPDES Permit expired in September 2001. An application to renew the current permit was submitted in April 2001. WBN is awaiting a response from the Tennessee Department of Environment and Conservation (TDEC) to the application.

**B. Air Permits**

WBN is currently operating under Air Permit No. 448529. No changes to this permit occurred during the reporting period.

**VI. CHANGES IN FACILITY DESIGN OR OPERATION**

In accordance with EPP Section 3.1, facility design and operational changes were reviewed for potential effect on the environment as described below. A review of facility design and operational changes proposed from February 7, 2002 through February 6, 2003, was performed. Projects considered as having potential impact on the environment included: those that could have caused waste stream generation/alteration; or that required the acquisition/modification of permits; or involved the use of hazardous material; or required physical construction. The review, performed in accordance with the guidelines of the Tennessee Valley Authority's National Environmental Policy Act (NEPA) Program, documented that design and operational changes did not involve an unreviewed environmental question. The following criteria were used to identify those projects with a potential for environmental effects:



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**VI. CHANGES IN FACILITY DESIGN OR OPERATION (*Continued*)**

- (1) Waste stream generation/alteration  
(Air, Hazardous Waste, Solid Waste, PCB's, Asbestos, Wastewater)
- (2) Permit Acquisition/Modification  
[NPDES, Air, Inert Landfill, Other (316a, 404, etc.)]
- (3) Hazardous Materials  
(Hazardous Materials that are environmentally unfriendly and are likely to generate a RCRA hazardous or TSCA waste)
- (4) Physical Construction Involved  
(Erosion/Sedimentation Effects, Transportation Effects, Noise Effects, Groundwater Effects, Surface Water Effects, Floodplain Effects, Wetland Effects, Prime Farmland Effects, Unique Natural Features Effects, Aquatic Ecology Effects, Terrestrial Ecology Effects, Protected Species Effects, Sensitive Habitat Effects, Visual Effects, Historical, Cultural and Archeological Effects, Changes in Site Land Use, and Controversy)

**A. Special Tests**

There were no special tests conducted during this period that met the environmental impact criteria.

**B. Temporary Alterations**

There were no temporary alterations conducted during this period that met the environmental impact criteria.

**C. Design and Operational Changes**

Most of the design and operational changes conducted during this period did not meet the environmental impact criteria.

There were thirty-five facility design and operational changes made during this report period with a potential impact on the environment. Categorical Exclusion Checklists (CEC) were completed and all changes were found to be within the scope of existing environmental permits and in compliance with NEPA regulations. Those CECs written to document the changes reviewed are as follows:

- (1) Excavation to locate leak south of paint storage building.
- (2) Installation of security shack and power poles to provide power to the shack.
- (3) Excavation to locate leak in 12 inch High Pressure Fire Protection (HPFP) pipe.

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**C. Design and Operational Changes (Continued)**

- (4) Generic WBN demolition of buildings.
- (5) Generic WBN tanks sediment clean-out.
- (6) Generic WBN painting projects.
- (7) WBN Administration Building landscaping project.
- (8) Excavation for leak repair in HPFP pipe.
- (9) Gland Steam exhauster upgrade.
- (10) Main Steam Isolation Valve (MSIV) internals replacement.
- (11) Main warehouse power and water lines.
- (12) HPFP yard piping - Microbiologically Induced Corrosion (MIC) damage.
- (13) Security post turn down slab
- (14) Replacement of Ronan Annunciator System computer.
- (15) Reactor Coolant System elbow tap flow measurement.
- (16) Injection water duplex filters/strainers.
- (17) Replacement of Continuous Air Monitors (CAMs).
- (18) Locate potable waste leak.
- (19) Long term chiller upgrades.
- (20) Essential Raw Cooling Water (ERCW) Section XI pump test flow monitoring.
- (21) Loose Parts Monitoring System upgrade.
- (22) Security uninterruptible power supply and distribution panel replacement.
- (23) Miscellaneous Security System equipment.
- (24) Excavation for fiber optic cable/security.
- (25) Radiation Monitoring Wells.
- (26) Cooling Tower Condenser Circulating Water (CCW) trash racks.
- (27) Generic WBN blanket review.
- (28) Auxiliary Feedwater System design non-conforming.
- (29) Magneto-hydrodynamics Device Testing
- (30) Electro-Hydraulic Control (EHC) upgrade project.
- (31) Service Air line leak.
- (32) Proposed license amendment request WBN-TS-03-06 - Containment Isolation Manual Actions.
- (33) Locate broken sewer line.
- (34) Replacement of Train B HPFP yard header.
- (35) Proposed license amendment request WBN-TS-02-13 - Robust Fuel Assembly Upgrade.

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**C. Design and Operational Changes (*Continued*)**

All other facility design and operational changes made during this report period with a potential impact on the environment are found to be within the scope of existing environmental permits and in compliance with regulations.

In summary, there have been no facility design or operational changes from February 7, 2002 to February 6, 2003, which have resulted in an unreviewed environmental question.

**VII. NONROUTINE REPORTS**

No nonroutine reports for EPP Section 4.2 were issued during this reporting period.

**VIII. CHANGES IN APPROVED ENVIRONMENTAL PROTECTION PLAN SPECIFICATIONS**

No changes were made to Appendix B, EPP, of the WBN operating license during the reporting period.