



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

MAY 08 2002

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 - 2001 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 2001 ANEOR for WBN. This report addresses the period from February 7, 2001, through February 6, 2002.

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

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**Enclosure**

**2001 Annual Nonradiological Environmental Operating Report (ANEOR)**

**TENNESSEE VALLEY AUTHORITY**



**WATTS BAR NUCLEAR PLANT**

**ANNUAL NON-RADIOLOGICAL  
ENVIRONMENTAL OPERATING  
REPORT**

**FEBRUARY 7, 2001 THROUGH FEBRUARY 6, 2002**

**WATTS BAR NUCLEAR PLANT**  
**ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

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**I. INTRODUCTION**

The Watts Bar Nuclear Plant Annual Non-Radiological Environmental Operating Report for the period of February 7, 2001 through February 6, 2002, was prepared in accordance with Appendix B of the WBN Technical Specifications 5.4.1, Environmental Protection Plan (EPP). EPP Section 4.2 requires no non-routine reports at this time. 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:

- ◆ Updating the Biocide Plan for WBN NPDES Permit Number TN0020163, submitted February 2001.
- ◆ 2001 Discharge Monitoring Report Quality Assurance (DMR-QA) Study 21 NPDES Permittee Address Form, submitted May 2001.
- ◆ Supplemental Condenser Cooling Water (SCCW) System Project Number 98-1092- Fish Monitoring Program Studies, submitted June 2001.

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

- ◆ Records update of Certified Operator in Direct Charge of Wastewater Treatment Plant at WBN, submitted June 2001.
- ◆ Request for Discontinuance of Total Chlorine Residual Monitoring at Outfall 112, submitted August 2001.
- ◆ 2001 Discharge Monitoring Report Quality Assurance (DMR-QA) Study 21 Lab Performance Evaluation Package, submitted September 2001.
- ◆ Hydrothermal Data & Request for Permit Renewal Addendum for Supplemental Condenser Cooling Water (SCCW) Outfall, submitted September 2001.
- ◆ Notification of Demineralized Water Release to Storm Drain, submitted December 2001.
- ◆ 2001 DMR-QA Study 21 Corrective Action Report, submitted January 2002.
- ◆ Notice of Intent (NOI) for Tennessee (TN) Storm Water Multi-Sector General Permit Associated with Industrial Activities, submitted January 2002.
- ◆ 2001 DMR-QA Study 21 Revised Corrective Action Report, submitted January 2002.
- ◆ SCCW System Project Number 98-1092- Native Mussel Habitat Enhancement, submitted February 2002.

**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 May 2001 and December 2001, as required by the NPDES permit.

TN Stormwater Multi-Sector General Permit for Industrial Activities requires quarterly monitoring of storm water discharge associated with industrial activities and reporting every two and four years. This was the fifth year for this permit, therefore no reporting was required.

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**A. EPP Section 4.1.1 Aquatic Monitoring (Continued)**

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.
Sequoyah - Watts Bar	No herbicides were applied to this line.
Watts Bar - Roane	No herbicides were applied to this line.
Watts Bar - Volunteer	Acreage Treated: 150 acres
	Application method: Ground - Tank Sprayer
	Chemicals applied:
	Arsenal & Accord on ground - 20 to 30 gallons per acre, depending on species
	Accord only around water - 20 to 30 gallons per acre, depending on species

**IV. ENVIRONMENTAL PROTECTION PLAN NONCOMPLIANCES**

- ◆ April 2001 - NPDES Outfall Serial Number (OSN) 112, Construction Runoff Holding Pond demonstrated a statistical, chronic reproductive effect for fathead minnows (*Pimephales promelas*). The IC<sub>25</sub> was calculated to be 23.8%, which did not meet the permit limit of  $\geq 100\%$ . This pattern has been observed previously in WBN OSN 112. Retesting of fathead minnows in May 2001 showed no statistical chronic effect. The preliminary results of a special study performed by TVA support the hypothesis that the observed toxicity was due to a naturally occurring fish pathogen present in ambient water.



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

**A. NPDES Permits**

Application for NPDES Permit Renewal of current permit that expires in September 2001, submitted in April 2001.

**B. Air Permits**

WBN is currently operating under the Air Permit No. 448529. No changes have been made.

**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 study of facility design and operational changes proposed from February 7, 2001 through February 6, 2002, 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 study, 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:

- (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
- (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)

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**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**

The facility design and operational changes made during this report period with a potential impact on the environment were found to be within the scope of existing environmental permits and in compliance with regulations. Those changes reviewed are as follows:

Environmental Decision Records (EDRs):

- (1) Modification of the Sewage Treatment Plant (STP) Disinfection System that replaced the process of chlorination with an ultraviolet (UV) system.
- (2) Disassembling of the Warehouse Huts sold to both TVA and local organizations.
- (3) Construction of a Walking Trail near the Security Firing Range that covers a distance of half a mile.
- (4) Phase 1 of a Construction Power Upgrade Project that installed underground conduits and built a new concrete foundation near the Procurement Building.
- (5) Phase 1/Part 2 of a Construction Power Upgrade Project that installed underground conduits under Security fence inside the protected area to the Westinghouse pad near the Additional Diesel Generator Building.
- (6) Excavation to allow repair of a leak found in the 12 inch High Pressure Fire Protection (HPFP) pipe south of Cooling Tower (CT) Number 1 and approximately south of the east-west CT access road.

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

Effective December 2001, the new Categorical Exclusion Checklist is now used in TVA's National Environmental Policy reviews. This new process was a part of the TVA's Environmental Management System. The new system replaced the Environmental Decision Record and the Environmental Checklists that were used previously to document how a TVA action qualifies for a Categorical Exclusion under NEPA.

Categorical Exclusion Checklist (CECs):

- (1) Excavation to allow repair of a leak found in the 12 inch High Pressure Fire Protection (HPFP) pipe south of Cooling Tower Number 1.
- (2) Excavation to locate leaking pipe south of Paint Storage Building.
- (3) Installation of Security Shack and power poles to provide power to newly installed guard shack near the Intake Pumping Station (IPS).

All other facility design and operational changes made during this report period with a potential impact on the environment were 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, 2001 to February 6, 2002, 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.