



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

MAY 04 2001

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 - 2000 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 2000 ANEOR for WBN. This report addresses the period from February 7, 2000, through February 6, 2001.

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

Sincerely,

A handwritten signature in black ink, appearing to be "P. L. Pace", written over a large, stylized "P" that also serves as a checkmark.

P. L. Pace
Manager, Licensing and Industry Affairs

Enclosure
cc: See page 2

IE25

U.S. Nuclear Regulatory Commission
Page 2

MAY 04 2001

cc (Enclosure):

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Enclosure

2000 Annual Nonradiological Environmental Operating Report (ANEOR)



TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT

**ANNUAL NON-RADIOLOGICAL
ENVIRONMENTAL OPERATING
REPORT**

FEBRUARY 7, 2000 THROUGH FEBRUARY 6, 2001

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

TABLE OF CONTENTS

I.	INTRODUCTION-----	3
II.	REPORTS PREVIOUSLY SUBMITTED AS SPECIFIED IN THE WATTS BAR NUCLEAR (WBN) PLANT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT -----	3
III.	SPECIAL BIOLOGICAL MONITORING REPORTS -----	4
IV.	ENVIRONMENTAL PROTECTION PLAN NONCOMPLIANCES -----	5
V.	CHANGES MADE TO APPLICABLE STATE AND FEDERAL PERMITS AND CERTIFICATIONS -----	6
VI.	CHANGES IN FACILITY DESIGN OR OPERATION-----	6
VII.	NON-ROUTINE REPORTS-----	10
VIII.	CHANGES IN APPROVED ENVIRONMENTAL PROTECTION PLAN SPECIFICATIONS -----	10

WATTS BAR NUCLEAR PLANT ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

I. INTRODUCTION

The Watts Bar Nuclear Plant Annual Non-Radiological Environmental Operating Report for the period of February 7, 2000 through February 6, 2001, is prepared in accordance with Appendix B of the WBN Technical Specifications 5.4.1, Environmental Protection Plan (EPP). 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 5.4.2.
- ◆ 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:

- ◆ WBN Supplemental Condenser Cooling Water (SCCW) "As Constructed" Drawings, submitted April 2000.
- ◆ Alternate Flow Path for Process Demineralized Water Proposal, submitted May 2000.
- ◆ Upstream River Monitoring Station for Outfall 113, submitted June 2000.

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

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

- ◆ Copy of the Alternate Flow Path for Process Demineralized Water Proposal (submitted May 2000) and a Revised Flow Diagram, submitted August 2000.
- ◆ Corrective Action Response to the 2000 Compliance Biomonitoring Inspection (CBI) Report, submitted September 2000.
- ◆ 2000 Discharge Monitoring Report Quality Assurance (DMR-QA) Study 20 Lab Performance Evaluation Package, submitted September 2000.
- ◆ Requested approval of the WBN Sewage Treatment Plant (STP) Ultraviolet Disinfection System - Tennessee Regulations Chapter 1200-4-2, submitted October 2000.
- ◆ SCCW Discharge Characteristics Outfall 113, submitted November 2000.
- ◆ 2000 DMR-QA Study 20 Corrective Action Report, submitted January 2001.
- ◆ SCCW Project Number 98-1092 - Fish Monitoring Program Studies, submitted January 2001.

III. SPECIAL BIOLOGICAL MONITORING REPORTS FOR EPP SECTION 4.1

A. EPP Section 4.1.1 Aquatic Monitoring

Collection of data for the second and final year of the biological aquatic operational monitoring program was completed and a report submitted in June 2000 and December 2000, as required by the NPDES permit.

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.

WATTS BAR NUCLEAR PLANT
ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

B. EPP Section 4.1.2 Maintenance of Transmission Line Corridors

TVA discussed this reporting requirement with the NRC staff on July 30, 1999. Based on this discussion, it was clarified that only chemical clearing maintenance activities were required to be addressed. 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 - Volunteer	No herbicides were applied to this line.
Watts Bar - Roane	No herbicides were applied to this line.
Sequoyah - Watts Bar	Line 1: 328 acres treated
	Line 2: 232 acres treated
	Application method: Aerially - helicopter
	Chemicals applied to both lines: 6 quarts of Krenite S 24 oz of Arsenal 1 quart of surfactant (Activate Plus)

IV. ENVIRONMENTAL PROTECTION PLAN NONCOMPLIANCES

- ♦ March 2000 - NPDES Outfall (OSN) 111, Treated Sanitary Wastewater exceeded the daily maximum permit limitation of 1000 colonies per 100 mL for one day. The fecal coliform bacteria counts were 1067 colonies per 100 mL. The noncompliance occurred as a result of inadequate disinfection due to the temporary failure of the flow-paced chlorination system. A severe lightning storm in January 2000 caused a power outage and an electrical surge which disabled the ISCO flowmeter and backup battery controlling the injection of chlorine. The chlorination system was manually operated until repairs were made. Corrective actions taken included repairs to the flow-paced chlorination system and procurement of a backup system.

WATTS BAR NUCLEAR PLANT
ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

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

A. NPDES Permits

Termination of the General NPDES Stormwater Permit Associated with Construction Activity of the SCCW Project, May 2000.

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, 2000 through February 6, 2001, 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)

WATTS BAR NUCLEAR PLANT
ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

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 Assessments (EA):

TVA issued a modified Finding of No Significant Impact (FONSI) on the EA for Low Level Radioactive Waste Transport and Storage at WBN and Sequoyah Nuclear (SQN) Plants. Reevaluating the FONSI issued on November 22, 1999, revealed the fact that the level of resources required to activate the separate compartments of WBN and SQN waste exceeded TVA's expectations. After reconsideration of the situation, TVA now believes that storing the waste from both WBN and SQN in the same compartment, but packed in separate containers, would allow for better management of space. TVA reviewed the revised FONSI and concluded that the proposed change of the waste handling is not a major federal action significantly effecting the quality of the environment. Accordingly, an environmental impact statement is not required.

Environmental Decision Records (EDRs):

- (1) Modification to the Main Transformer Bank 1 to replace each of the three Sudden Pressure Relays and spare.
- (2) Upgrade to WBN Sewage Treatment Plant (STP) including Phases 1 and 2. This is a modified EDR of the original after new plans of the project were issued during the reporting period.

WATTS BAR NUCLEAR PLANT
ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

C. Design and Operational Changes (Continued)

- (3) Renovation of the WBN Main Office Building Complex to include the extension of the building as to provide additional office space. Revisions of the project plans generated a modified EDR.
- (4) A proposal to increase the core power level (1.4%) uprate of WBN Unit 1 from 3411 to 3459 megawatts thermal (MWt) was submitted in September 2000. An evaluation assessing the proposal was performed to determine the change in the power level would not significantly impact the environment.

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 are as follows:

- (1) Replace Feedwater Heater and Moisture Separator Reheater (MSR) Drain Tank Level Instrumentation - Heater Drains & Vents
- (2) Replace Coupling Capacity Voltage Transformer(s) (CCVT) in 500 kV Switchyard with Hefty Trench Type TEIMF500 as needed - 500 kV Switchyard Equipment
- (3) Revise Drawing to Show "D" Ice Machine Permanently Installed. Add Permanent Piping for Glycol Refrigerant Supply and Return Lines - Ice Condenser
- (4) Revise the Applicable Design Documents to Allow the Steam Generator Blowdown (SGBD) to be Processed to the Cooling Tower Blowdown (CTB) on a Continuous Basis. The SGBD Normal Flow will be 150 GPM. In Addition, a Manual Override Should be Provided to Disable the 20,000 GPM Dilution Flow Interlock - Steam Generator Blowdown
- (5) Remove the Fire Protection System in Interim Office Building (IOB) C to allow Demolition of the Building - High Pressure (HP) Fire Protection
- (6) Add 3" Diameter PVC Isolation Valves Downstream of Existing Isolation Valve (ISV) 0-ISV-28-719 & 0-ISV-28-736 & Upstream of the Diffusers for each Pond - Water Treatment

WATTS BAR NUCLEAR PLANT
ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

C. Design and Operational Changes (Continued)

- (7) Replace Obsolete Robertshaw Model 117-B1-A2-A Safety Related Transmitter - Essential Raw Cooling Water (ERCW)
- (8) Replace Level Enunciator (LE) 0-LE-77-48, Level Transmitter 0-LT-77-48 due to Failure of High Temperature Units - Waste Disposal
- (9) Install Cable and Conduit to Facilitate Line Relay Testing Using Doble SSIMUL Software and Satellite Synchronism
- (10) Trim the Auxillary Boiler Stack Rain Hood to Allow Clearance for the New Roofing Installation Build-Up - Auxillary Boiler
- (11) Due to Damaged Underground Circuit for Light 0-7, Provide Jumper to Tie Circuit to Light 0-3 in Junction Box Next to Ladder 3 - Yard Lighting
- (12) Abandon in Place the Fuel Oil Supply Piping to the Additional Diesel Generator - Fuel Oil System
- (13) Change the Tubing Size for Throttle Control Valve (TCV) O-TCV-067-1052-B from the Supply Header to the First Isolation Valve Before the Tee from 1/4" to 3/8" - Essential Raw Cooling Water
- (14) Remove Abandoned SCCW Annubar Flow Element (FE) 0-FE-27-111 - CCW System
- (15) Replace the Alum Sludge Settling Pond sump pumps 0-PMP-040-0086A & 0-PMP-040-0086B with gravity flow drain line

In summary, there have been no facility design or operational changes from February 7, 2000 to February 6, 2001, which have resulted in an unreviewed environmental question.

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

VII. NONROUTINE REPORTS

No nonroutine reports for EPP Section 5.4.2 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.