



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

November 7, 2007

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

Gentlemen:

In the Matter of )  
Tennessee Valley Authority (TVA) )

Docket Nos. 50-327  
50-328

**SEQUOYAH NUCLEAR PLANT (SQN) - ANNUAL ENVIRONMENTAL OPERATING  
REPORT**

The enclosure contains the Annual Environmental Operating Report for SQN for the period from October 1, 2006, through September 30, 2007. This report is submitted in accordance with Appendix B of the SQN Operating License, Section 5.4.1.

Please direct questions concerning this issue to me at (423) 843-7170.

Sincerely,

James D. Smith  
Manager, Site Licensing and  
Industry Affairs

Enclosures  
cc: See page 2

JE25

MRR

U.S. Nuclear Regulatory Commission  
Page 2  
November 7, 2007

JDS:JWP:KTS

cc (Enclosure):

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# **ENCLOSURE**

## **ANNUAL NON-RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT**

**TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT  
October 1, 2006 through September 30, 2007**

TABLE OF CONTENTS

TABLE OF CONTENTS .....	2
I. INTRODUCTION .....	3
II. REPORTING FOR THOSE PROGRAMS NOT CONCERNED WITH WATER QUALITY OR PROTECTION OF AQUATIC BIOTA, WHICH ARE REGULATED BY THE CLEAN WATER ACT.....	3
III. ENVIRONMENTAL MONITORING PERFORMED .....	4
IV. REPORTS PREVIOUSLY SUBMITTED AS SPECIFIED IN THE SQN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT .....	5
V. ENVIRONMENTAL TECHNICAL SPECIFICATION (ETS) NONCOMPLIANCES .	6
VI. CHANGES MADE TO APPLICABLE STATE AND FEDERAL PERMIT CERTIFICATIONS.....	6
VII. CHANGES IN FACILITY DESIGN OR OPERATION.....	6
VIII. NON-ROUTINE REPORTS .....	7
IX. SPECIAL STUDIES .....	7
X. CHANGES IN APPROVED ENVIRONMENTAL TECHNICAL SPECIFICATIONS	7

## I. INTRODUCTION

The Sequoyah Nuclear Plant (SQN) Annual Non-Radiological Environmental Operating Report for the period of October 1, 2006, through September 30, 2007, is prepared in accordance with Environmental Technical Specifications (Non-Radiological) (ETS), Appendix B, Section 5.4.1. This report includes a summary of:

- A. Reporting for those programs not concerned with water quality or protection of aquatic biota, which are regulated by the Clean Water Act
- B. Environmental monitoring performed
- C. Reports previously submitted as specified in the SQN National Pollutant Discharge Elimination System (NPDES) Permit No. TN0026450
- D. ETS noncompliances and the corrective actions for remediation
- E. Changes made to applicable State and Federal permits and certifications
- F. Changes in station design that could involve a significant environmental impact or change the findings of the Final Environmental Statement (FES)
- G. Nonroutine reports submitted per ETS Section 4.1
- H. Special studies
- I. Changes in approved ETS

Reporting, monitoring, and inspections conducted as required by permits and regulations indicated no adverse impact on the environment as a result of station operation.

## II. REPORTING FOR THOSE PROGRAMS NOT CONCERNED WITH WATER QUALITY OR PROTECTION OF AQUATIC BIOTA, WHICH ARE REGULATED BY THE CLEAN WATER ACT

- A. Third Quarter 2006 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on October 2, 2006
- B. Report on Testing of Backflow Prevention Assemblies - submitted to the Hixson Utility District on October 16, 2006
- C. Annual Asbestos Removal Notification - submitted to Hamilton County Air Pollution Control Bureau on November 2, 2006
- D. Fourth Quarter 2006 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on January 9, 2007
- E. Report on Diesel Fuel Shipments for Auxiliary Boilers A and B - submitted to the Hamilton County Air Pollution Control Bureau on January 9, 2007
- F. Annual Hazardous Waste Activity Report for 2006 - submitted to the Tennessee Department of Environment and Conservation on February 21, 2007
- G. Tier Two Emergency and Hazardous Chemical Inventory - submitted to Soddy-Daisy Fire Department, Hamilton County Emergency Services and the Tennessee Emergency Response Commission on February 26, 2007
- H. Sequoyah Nuclear Plant Hazardous Waste Minimization Plan - maintained on file at Sequoyah since March 1, 2007
- I. First Quarter 2007 Report on Nonscheduled Removal of Asbestos Containing Material - submitted to the Hamilton County Air Pollution Control Bureau on April 4, 2007
- J. Sequoyah Nuclear Plant Annual Report on The Hours of Operation for diesel permitted equipment - submitted to the Hamilton County Air Pollution Control Bureau on May 3, 2007
- K. Air Pollution Permit Renewals - submitted to the Hamilton County Air Pollution Control Bureau on May 15, 2007

- L. Forms A and R and/or Microcomputer Diskette containing Toxic Chemical Release Information CY2006 Required by Emergency Planning and Community Right to Know Act - submitted to the Environmental Protection Agency EPCRA Reporting Center and Tennessee Department of Environment and Conservation on June 25, 2007
- M. New Hazardous Waste Streams 66 - submitted to the Tennessee Department of Environment and Conservation on June 25, 2007
- N. Written Annual Document Log of PCBs and PCB Items for Calendar Year 2006 - maintained on file since July 1, 2007
- O. Second Quarter 2007 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on July 2, 2007
- P. Report on Diesel Fuel Shipments for Auxiliary Boilers A and B - submitted to the Hamilton County Air Pollution Control Bureau on July 2, 2007
- Q. Report on Testing of Backflow Prevention Assemblies - submitted to the Hixson Utility District on July 31, 2007
- R. Vice President Signatory Authority Letters – submitted to Tennessee Department of Environment and Conservation, Hamilton County Air Pollution Control Bureau, Soddy-Daisy Fire Department, Hamilton County Emergency Services, and the Tennessee Emergency Response Commission on August 17, 2007

### III. ENVIRONMENTAL MONITORING PERFORMED

- A. Storm water samples taken at required frequencies and Best Management Practices implemented as required by General Industrial Storm Water Discharge Permit TNR050015
- B. Semi-annual facility inspections as required by General Industrial Storm Water Discharge Permit TNR050015
- C. Outfall sampling and inspection is performed as required by NPDES Permit TN0026450 (results previously submitted to NRC as required)
- D. Monthly erosion and sediment control inspections are conducted as required by General Industrial Storm Water Discharge Permit TNR050015
- E. Weekly tank, piping, and secondary containment inspections are performed as required by General Industrial Storm Water Discharge Permit TNR050015 and the Spill Prevention Controls and Countermeasure Plan
- F. Weekly and monthly hazardous waste inspections conducted as required by 40CFR261 and by the Tennessee Rule Chapter 1200, Hazardous Waste Management
- G. Weekly landfill inspections performed as required by 40CFR261 and by the Tennessee Rule Chapter 1200, Hazardous Waste Management
- H. Daily operational hours of Auxiliary Boilers A and B, Emergency Generators 1A, 1B, 2A, and 2B, and Blackout Generators 1 and 2 as required by Federally Enforceable Certificate of Operation Nos. 4150-10200501-08C and 4150-20200102-11C
- I. Diesel fuel recovery trench, extraction, and monitoring well sampling, maintenance and operation conducted as required by the State of Tennessee
- J. Intake forebay aeration system sampling, maintenance and operation performed as required by the State of Tennessee
- K. Air emissions inspected monthly for equipment permitted by the Hamilton County Air Pollution Control Bureau
- L. Refrigeration equipment performance and repairs are tracked weekly to ensure compliance with Title VI of the Clean Air Act
- M. Waste sampling and characterization as required by 40CFR261 and by the Tennessee Rule Chapter 1200, Hazardous Waste Management

- N. Quarterly PCB transformer inspections as required by 40CFR761
- O. Daily inspections of leaking PCB transformers as required by 40CFR761
- P. PCB spill and leak cleanup as required by 40CFR761
- Q. Asbestos removal tracking as required by the Hamilton County Air Pollution Control Bureau
- R. Hazardous waste minimization (such as chemical control and substitution) as required by the Tennessee Rule Chapter 1200, Hazardous Waste Management
- S. National Environmental Policy Act (NEPA) reviews are conducted to evaluate potential environmental impact of temporary or permanent facility modifications as required by 40CFR1500
- T. Environmental Training self-assessment SQN-ENV-07-001

**IV. REPORTS PREVIOUSLY SUBMITTED AS SPECIFIED IN THE SQN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

The following reports were submitted as specified in the SQN NPDES Permit No. TN0026450, General Industrial Discharge Storm Water Permit No. TNR050015.

- A. Monthly Discharge Monitoring Report for September 2006 - submitted to Tennessee Department of Environment and Conservation on October 5, 2006
- B. DMR - QA Study 26 Provider Graded Test Results - submitted to Tennessee Department of Environment and Conservation and Environmental Protection Agency on October 24, 2006
- C. Monthly Discharge Monitoring Report for October 2006 - submitted to Tennessee Department of Environment and Conservation on November 14, 2006
- D. Monthly Discharge Monitoring Report for November 2006 - submitted to Tennessee Department of Environment and Conservation on December 13, 2006
- E. Monthly Discharge Monitoring Report for December 2006 - submitted to Tennessee Department of Environment and Conservation on January 9, 2007
- F. 2006 Biocide/Corrosion Treatment Plan (B/CTP) Annual Report - submitted to Tennessee Department of Environment and Conservation on February 5, 2007
- G. Monthly Discharge Monitoring Report for January 2007 - submitted to Tennessee Department of Environment and Conservation on February 12, 2007
- H. Addition of sodium hypochlorite to Biocide/Corrosion Treatment Plan (B/CTP) Annual Report - submitted to Tennessee Department of Environment and Conservation on February 20, 2007
- I. Multi-Sector Storm Water General Permit 2006 Storm Water Monitoring Report - submitted to Tennessee Department of Environment and Conservation on March 6, 2007
- J. Monthly Discharge Monitoring Report for February 2007 - submitted to Tennessee Department of Environment and Conservation on March 12, 2007
- K. Monthly Discharge Monitoring Report for March 2007 - submitted to Tennessee Department of Environment and Conservation on April 12, 2007
- L. Monthly Discharge Monitoring Report for April 2007 - submitted to Tennessee Department of Environment and Conservation on May 10, 2007
- M. Water Withdrawal Registration Forms - submitted to Tennessee Department of Environment and Conservation on May 23, 2007
- N. Monthly Discharge Monitoring Report for May 2007 - submitted to Tennessee Department of Environment and Conservation on June 12, 2007
- O. Storm Water Outfall No. 6 Potable Water Leak - submitted to Tennessee Department of Environment and Conservation on June 13, 2007

- P. Monthly Discharge Monitoring Report for June 2007 - submitted to Tennessee Department of Environment and Conservation on July 13, 2007
- Q. Monthly Discharge Monitoring Report for July 2007 - submitted to Tennessee Department of Environment and Conservation on August 14, 2007
- R. DMR - QA Laboratory Performance Evaluation Study 27 - submitted to Environmental Resource Associates, Tennessee Department of Environment and Conservation, and Environmental Protection Agency on August 27, 2007
- S. Monthly Discharge Monitoring Report for August 2007 - submitted to Tennessee Department of Environment and Conservation on September 13, 2007

**V. ENVIRONMENTAL TECHNICAL SPECIFICATION (ETS) NONCOMPLIANCES**

None.

**VI. CHANGES MADE TO APPLICABLE STATE AND FEDERAL PERMIT CERTIFICATIONS**

NPDES Permits: Concurrence was received from the Tennessee Department of Environment and Conservation Division of Water Pollution Control as follows:

The approval of the addition of sodium hypochlorite was made to the Biocide/Corrosion Treatment Plan (B/CTP) on June 11, 2007. The request for changes were submitted to the Tennessee Department of Environment and Conservation and the Nuclear Regulatory Commission on February 20, 2007.

On May 22, 2007, a request for a permit modification due to 316(b) rule court decisions was made to the Tennessee Department of Environment and Conservation. Permit language negotiations are currently in process with the Tennessee Department of Environment and Conservation and the Environmental Protection Agency.

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

In accordance with Technical Specification 5.3.c, facility design and operational changes were reviewed for potential effect on the environment. This review is completed per Tennessee Valley Authority upper tier instruction IX Environmental Review and implementing Environmental Management System (EMS) procedures Environmental Review Process and Standards and Criteria for Environmental Reviews, in compliance with the National Environmental Policy Act. An evaluation of facility design and operational changes proposed from October 1, 2006, through September 30, 2007, was completed.

**A. Special Tests**

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

**B. Temporary Alterations**

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

**C. Design and Operational Changes**

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

Environmental Assessments - None

Categorical Exclusion Checklists

1. Generic SQN Blanket Review
2. Increase Ultimate Heat Sink to 87 deg F
3. Detection of Tritium Leakage into Ground Water
4. ERCW Skid Building and Tank Removal
5. SQN Met Tower Repairs
6. SQN U2 Exigent Technical Specifications Change 07-06, Containment Purge and Vent System Operation

**VIII. NON-ROUTINE REPORTS**

None

**IX. SPECIAL STUDIES**

There was one environmental study conducted this year.

"Biological Monitoring of the Tennessee River near Sequoyah Nuclear Plant Discharge 2006" was performed by TVA Aquatic Monitoring and Management. This report was submitted to the Tennessee Department of Environment and Conservation and Nuclear Regulatory Commission on May 15, 2007. This study concluded that the Sequoyah operation had no impact on the Chickamauga Reservoir resident fish community, on average, for twelve sampling seasons.

**X. CHANGES IN APPROVED ENVIRONMENTAL TECHNICAL SPECIFICATION**

There were no changes in approved ETS during this period.