



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

December 7, 2005

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

Gentlemen:

In the Matter of) Docket Nos. 50-327
Tennessee Valley Authority) 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, 2004, through September 30, 2005. 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 or J. D. Smith at (423) 843-6672.

Sincerely,

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

Enclosure

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ENCLOSURE

**ANNUAL ENVIRONMENTAL
OPERATING REPORT**

**TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT
October 1, 2004 through September 30, 2005**

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I. INTRODUCTION

The Sequoyah Nuclear Plant (SQN) Annual Non-Radiological Environmental Operating Report for the period of October 1, 2004 through September 30, 2005, 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 2004 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on October 1, 2004
- B. Report on Diesel Fuel Shipments for Auxiliary Boilers A and B - submitted to the Hamilton County Air Pollution Control Bureau on October 1, 2004
- C. Installation Permit/Certificate of Operation for permitted diesel equipment - submitted to the Hamilton County Air Pollution Control Bureau on October 18, 2004
- D. Special Waste Evaluation Fee Worksheet for Alum Sludge - submitted to the Tennessee Department of Environment and Conservation on October 27, 2004
- E. Annual Asbestos Removal Notification - submitted to Hamilton County Air Pollution Control Bureau on November 17, 2004
- F. Fourth Quarter 2004 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on January 4, 2005
- G. Report on Diesel Fuel Shipments for Auxiliary Boilers A and B - submitted to the Hamilton County Air Pollution Control Bureau on January 4, 2005
- H. Tier Two Emergency and Hazardous Chemical Inventory - submitted to Hamilton County Emergency Services and the Tennessee Emergency Response Commission on February 14, 2005

- I. Annual Hazardous Waste Activity Report for 2004 - submitted to the Tennessee Department of Environment and Conservation on February 22, 2005
- J. Sequoyah Nuclear Plant Hazardous Waste Minimization Plan - maintained on file at SQN since March 1, 2005
- K. First Quarter 2005 Report on Nonscheduled Removal of Asbestos Containing Material - submitted to the Hamilton County Air Pollution Control Bureau on April 4, 2005
- L. 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 4, 2005
- M. Waste Stream 11 revision - submitted to the Tennessee Department of Environment and Conservation on May 16, 2005
- N. Waste Streams 61 and 62 - submitted to the Tennessee Department of Environment and Conservation on May 19, 2005
- O. Material Safety Data Sheets (MSDSs) for H-150M and Coagulant Aid 35 - submitted to Hamilton County Emergency Services and the Tennessee Emergency Response Commission on May 31, 2005
- P. Renewal application for Air Permits - submitted to Hamilton County Air Pollution Control Bureau on June 6, 2005
- Q. Microcomputer Diskette containing Toxic Chemical Release Information CY2004 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 27, 2005
- R. Written Annual Document Log of PCBs and PCB Items for Calendar Year 2004 - maintained on file since July 1, 2005
- S. Second Quarter 2005 Summary of Asbestos Removal Projects - submitted to the Hamilton County Air Pollution Control Bureau on July 5, 2005
- T. Report on Diesel Fuel Shipments for Auxiliary Boilers A and B - submitted to the Hamilton County Air Pollution Control Bureau on July 5, 2005
- U. Testing of Backflow Prevention Devices at SQN - submitted to the Hixson Utility District on July 5, 2005
- V. Waste Stream 63 - submitted to the Tennessee Department of Environment and Conservation on July 18, 2005
- W. SQN Spill Prevention Control and Countermeasures Plan - submitted to Soddy-Daisy Fire Department, Memorial North Park Hospital, and Erlanger Hospital on August 10, 2005
- X. Asbestos Removal Permit for Dirty Lube Oil Tank Roof - submitted to Hamilton County Air Pollution Control Bureau on September 9, 2005
- Y. 2005 Solid Waste Facility Annual Report/Fee - submitted to the Tennessee Department of Environment and Conservation on September 13, 2005

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 General Industrial Discharge Permit TN0026450 (results previously submitted to NRC as required)
- D. Weekly 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 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 diesel generator operation tracking maintained as required by Federally Enforceable Certificate of Operation No. 4150-10200501-08C
- 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 weekly 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. Asbestos removal tracking as required by the Hamilton County Air Pollution Control Bureau
- Q. Hazardous waste minimization (such as chemical control and substitution) as required by the Tennessee Rule Chapter 1200, Hazardous Waste Management
- R. National Environmental Policy Act (NEPA) reviews are conducted to evaluate potential environmental impact of temporary or permanent facility modifications as required by 40CFR1500

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. Potential Foreseeable Bypass Notification - submitted to Tennessee Department of Environment and Conservation on October 5, 2004
- B. Schedule for Submission of Information Required by Final EPA Regulations for Phase II Cooling Water Intake Structures - submitted to Tennessee Department of Environment and Conservation on October 13, 2004.
- C. Monthly Discharge Monitoring Report for September 2004 - submitted to Tennessee Department of Environment and Conservation on October 13, 2004

- D. DMR - QA Study 24 Provider Graded Test Results - submitted to Tennessee Department of Environment and Conservation and Environmental Protection Agency on October 26, 2004
- E. Monthly Discharge Monitoring Report for October 2004 - submitted to Tennessee Department of Environment and Conservation on November 12, 2004
- F. Monthly Discharge Monitoring Report for November 2004 - submitted to Tennessee Department of Environment and Conservation on December 13, 2004
- G. Monthly Discharge Monitoring Report for December 2004 - submitted to Tennessee Department of Environment and Conservation on January 10, 2005
- H. 316(b) Proposal for Information Collection (PIC) - submitted to Tennessee Department of Environment and Conservation on January 20, 2005
- I. Monthly Discharge Monitoring Report for January 2005 - submitted to Tennessee Department of Environment and Conservation on February 10, 2005
- J. Request for Biocide/Corrosion Treatment Plan Approval - submitted to Tennessee Department of Environment and Conservation on March 7, 2005
- K. Monthly Discharge Monitoring Report for February 2005 - submitted to Tennessee Department of Environment and Conservation on March 14, 2005
- L. Multi-Sector Storm Water General Permit 2004 Storm Water Monitoring Report - submitted to Tennessee Department of Environment and Conservation on March 16, 2005
- M. Monthly Discharge Monitoring Report for March 2005 - submitted to Tennessee Department of Environment and Conservation on April 12, 2005
- N. Corrections to the Discharge Monitoring Report - submitted to Tennessee Department of Environment and Conservation on April 12, 2005
- O. Monthly Discharge Monitoring Report for April 2005 - submitted to Tennessee Department of Environment and Conservation on May 12, 2005
- P. Monthly Discharge Monitoring Report for May 2005 - submitted to Tennessee Department of Environment and Conservation on June 9, 2005
- Q. Monthly Discharge Monitoring Report for June 2005 - submitted to Tennessee Department of Environment and Conservation on July 14, 2005
- R. Monthly Discharge Monitoring Report for July 2005 - submitted to Tennessee Department of Environment and Conservation on August 11, 2005
- S. DMR - QA Laboratory Performance Evaluation Study 25 - submitted to Environmental Resource Associates, Tennessee Department of Environment and Conservation, and Environmental Protection Agency on August 29, 2005
- T. Monthly Discharge Monitoring Report for August 2005 - submitted to Tennessee Department of Environment and Conservation on September 13, 2005

V. ENVIRONMENTAL TECHNICAL SPECIFICATION (ETS) NONCOMPLIANCES

None.

VI. CHANGES MADE TO APPLICABLE STATE AND FEDERAL PERMIT CERTIFICATIONS

Air Permits: SQN submitted a revision to the air permits for diesel operated equipment on October 18, 2005. SQN received approval to these changes on 10/21/04. These changes were submitted to the Nuclear Regulatory Commission by SQN Site Licensing on November 16, 2004.

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

SQN received approval on October 7, 2004, for an Aquatic Resource Alteration Permit - General Permit for Maintenance Activities submitted to the Tennessee Department of Environment and Conservation on September 29, 2004. The application and a copy of the permit were submitted to the Nuclear Regulatory Commission by SQN Site Environmental Section on September 29, 2004.

SQN received approval on April 27, 2005, for the Biocide/Corrosion Treatment Plan submitted to the Tennessee Department of Environment and Conservation on March 7, 2005. These changes were submitted to the Nuclear Regulatory Commission by SQN Site Licensing on May 26, 2005.

SQN's new NPDES permit was effective September 1, 2005. These changes were submitted to the Nuclear Regulatory Commission by SQN Site Licensing on August 26, 2005.

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, 2004, through September 30, 2005, 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. Evaluation of Effects on Nuclear Grade Charcoal
3. Potable Water, sewage, and telecommunications to SQN Live Fire Range
4. OPS HVAC upgrade
5. Unit 1 Main Bank Transformer Replacement Project
6. SQN HVAC Upgrade
7. Repair Storm water drain in drive and pave plant roads outside the Protected Area
8. Sequoyah NP - Replace Breakers

VIII. NON-ROUTINE REPORTS

None.

IX. SPECIAL STUDIES

There were two environmental studies conducted this year.

SQN submitted a 316(b) Proposal for Information (PIC) to the Tennessee Department of Environment and Conservation on January 20, 2005. Approval was received January 24, 2005. Impingement monitoring of the Condenser Circulating Water (CCW) intake screens began January 24, 2005. The monitoring will continue for a minimum of one year. A longer monitoring period may be utilized after assessing time constraints imposed by the Phase II 316(b) rule for submitting the Comprehensive Demonstration Study, and after evaluating the costs of collecting additional data versus the greater uncertainties introduced by the absence of such data.

The second study titled, "Biological Monitoring of the Tennessee River Near Sequoyah Nuclear Plant Discharge 2004" was performed by TVA's Aquatic Biology Laboratory. This report was submitted to the Tennessee Department of Environment and Conservation on June 9, 2005. This study concluded that the SQN operation had no impact on the Chickamauga Reservoir resident fish community, on average, for ten sampling seasons.

X. CHANGES IN APPROVED ENVIRONMENTAL TECHNICAL SPECIFICATION

There were no changes in approved ETSs during this period.