



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

November 30, 1994

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

Gentlemen:

In the Matter of  
Tennessee Valley Authority

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)

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 September 15, 1993, through September 14, 1994. This report is submitted in accordance with Appendix B, Technical Specification 5.4.1.

Please direct questions concerning this issue to W. C. Ludwig at  
(615) 843-7460.

Sincerely,

R. H. Shell  
Manager  
SQN Site Licensing

Enclosure  
cc: See page 2

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ENCLOSURE

SEQUOYAH NUCLEAR PLANT  
ANNUAL ENVIRONMENTAL OPERATING REPORT  
(S58 941027 800)

Tennessee Valley Authority  
Sequoyah Nuclear Plant

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**Annual  
Non-Radiological  
Environmental  
Operating Report**

September 15, 1993 - September 14, 1994

**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1993 THROUGH SEPTEMBER 14, 1994**

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**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1993 THROUGH SEPTEMBER 14, 1994**

**I. INTRODUCTION**

The Sequoyah Nuclear Plant Annual Environmental Operating Report for the period of September 15, 1993 through September 14, 1994, is prepared in accordance with Environmental Technical Specification (Non-Radiological) (ETS), Appendix B, 5.4.1. ETS Section 4.2. requires no special studies at this time. This report includes a summary of:

- Reports previously submitted as specified in the SQN National Pollutant Discharge Elimination System (NPDES) Permit No. TN0026450.
- All ETS 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).
- All non-routine reports submitted per ETS Section 4.1.
- Changes in approved ETS.

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

The following reports were previously submitted as specified in the SQN National Pollutant Discharge Elimination System (NPDES) Permit No. TN0026450:

- Aquatic Toxicity Monitoring Study, submitted November 28, 1993
- Aquatic Toxicity Monitoring Study, submitted June 28, 1994
- Boric Acid Study, submitted June 28, 1994.

**III. ENVIRONMENTAL TECHNICAL SPECIFICATION NONCOMPLIANCES**

There were no noncompliances with Environmental Technical Specifications during this period.

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

On October 31, 1993, the State of Tennessee issued a minor modification to the NPDES permit as requested by Sequoyah. The modification was necessary to ensure that biocide utilized to inhibit microbiological corrosion and to control Asiatic clams in all raw water systems was included in the calculation for total residual chlorine present at the Sequoyah discharge to the Tennessee River. There were no changes in permit limits or monitoring frequency.

On January 26, 1994, the application for Interim Status as a Treatment Storage and Disposal Facility (TSDF) for Mixed Waste, submitted to the State of Tennessee Division of Solid Waste in 1989, was updated to include additional mixed waste stored on-site. All mixed waste stored on-site was shipped to an EPA approved TSDF on February 28, 1994. The State of Tennessee Division of Corrective Action is reviewing Sequoyah's request for removal from Interim Status at this time.

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

In accordance with Technical Specification (TS) 5.3.c., facility design and operational changes were reviewed for potential effect on the environment. A study of facility design and operational changes proposed from September 15, 1993, through September 14, 1994 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 identified and documented a basis that the design and operational changes did not involve an unreviewed environmental question. A copy of this study is attached (Attachment 1).

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**VI. NONROUTINE REPORTS**

Two nonroutine reports were submitted in accordance with TS 4.1. Both reports involved minor spills that did not reach waters of the United States. The incidents are summarized below:

On October 23, 1993 as much as 704 gallons of sodium hypochlorite spilled due to a pipe break at the sodium hypochlorite feed skid to the 1B ERCW header. The exact amount spilled could not be determined due to inoperable level indication at the storage tank. All of the material spilled remained within Facility boundaries. Immediate corrective action included isolating the sodium hypochlorite feed to the broken piping upon discovery. All material spilled onto the soil. Approximately 500 gallons flowed into a concrete catch basin. Very dry conditions caused the remaining liquid to be absorbed into the soil.

On November 18, 1993 approximately 150 gallons of sodium hypochlorite was spilled due to an ERCW feed pipe break inside the concrete catch basin. All of the material remained within Facility boundaries. The spilled material overflowed from the catch basin and onto the soil.

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

There were no changes in approved Environmental Technical Specifications during this period.



**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1993 THROUGH SEPTEMBER 14, 1994**

**ATTACHMENT 1**

**STUDY OF SEQUOYAH NUCLEAR PLANT (SQN)  
DESIGN AND OPERATIONAL CHANGES BETWEEN SEPTEMBER 15, 1993 AND  
SEPTEMBER 14, 1994 FOR EFFECTS ON THE ENVIRONMENT**

Facility design and operational changes made or proposed during this report period were reviewed for potential to affect the environment as described below. None were found to result in 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 (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)

The following projects potentially met the above criteria and were reviewed for impact to the environment:

- a. Workplans
  - Removal of Sediments and Particulates in Diesel Fuel Outside Storage Tanks.
  - Sewage Holding Tank Removal.
  - SQN Fuel Oil Contamination and Corrective Action Plan.
  - 3 Phase Lower Feed to SQN Rifle Range.

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b. **Special Tests**

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

c. **Temporary Alterations**

- Use of High Pressure Fire Protection Water for IM/POB Air Conditioning Unit cooling.

d. **Design and Operational Changes**

- T - Hot Reduction
- Replacement of Turbine Control Valves
- Station Battery Banks Replacement
- PASF Fire Protection
- Modification to Control Flooding of the Main Steam Valve Vault
- Fuel Oil Control and Inventory
- Level Transmitter for the Reactor Coolant Drain Tank
- Main Generator Seal Oil Pressure Switches
- Replace Worn and Obsolete Recorders
- Pressurizer Snubbers
- Main Steam Dump Controller
- Warehouse Construction
- Refueling Waste Storage Tank Transmitters
- RP Voltage Regulator
- ID Relay for Westinghouse ARLA/ARIS
- Emergency Diesel Generator Load Sharing Speed Controls
- Replace Reactor Coolant Pump Motor Under-frequency Relays as Required
- Control Rod Drive Motor Duct Replacement
- Nitrogen System Replacement
- Steam Valve Vault Room Sensitive equipment Freeze Protection
- Digital Radiation Monitor Software Hang-up Problem
- Plant Service Building Elevation 706 and 726 Fire Doors
- Solar Building and Maintenance Area Electrical Power Supply
- Steam Dump "D" Valve Replacement

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- Junction Box Replacement
- Warning Lights on Manipulator Crane
- Ice Condenser Floor Position Monitoring
- Opening Logic for LCV-6-105 A & B
- Sight Glass Replacement
- NIS Power Range Channel Modifications
- Heaters, Drains and Vents Level Control Valves
- Old Hold Orders on Abandoned Equipment
- Main Feed Pump Turbine A & B Inlet Pressurizer - Obsolete Transmitter
- System 12 - Disconnected Hanger
- Gland Steam Condenser Tube Replacement
- Control Rod Drive Motor Sleeve Guide
- #7 Heater Drain Tank, Flow Indicator in Main Control Room
- Turbine Building Sump Pump Suction Strainers
- Modify Fire Detection and Protection System Inside A & B HVAC Equipment Rooms
- Main Generator Voltage Regulator Replacement

All 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 permits and in compliance with Environmental Regulations.

Monthly discharge monitoring reports submitted by the SQN NPDES permit were reviewed. Permit excursions were attributed to be due to natural causes and determined to be within the purview of the NPDES permit and associated environmental evaluations.

In summary, there have been no facility design or operational changes from September 15, 1993 to September 14, 1994, which have resulted in an unreviewed environmental question.