



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

December 12, 1996

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

Gentlemen:

In the Matter of )  
Tennessee Valley Authority )

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, 1995 through September 14, 1996. This report is submitted in accordance with Appendix B, Technical Specification 5.4.1.

No commitments are contained in this submittal. Please direct questions concerning this issue to Jim Smith at (423) 843-6672.

Sincerely,

R. H. Shell  
Manager  
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Enclosure  
cc: See page 2

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U.S. Nuclear Regulatory Commission

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**ANNUAL NONRADIOLOGICAL  
ENVIRONMENTAL OPERATING  
REPORT**

**TENNESSEE VALLEY AUTHORITY  
SEQUOYAH NUCLEAR PLANT**

**SEPTEMBER 15, 1995 THROUGH SEPTEMBER 14, 1996**

**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1995 THROUGH SEPTEMBER 14, 1996**

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**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1995 THROUGH SEPTEMBER 14, 1996**

**I. INTRODUCTION**

The Sequoyah Nuclear Plant Annual Environmental Operating Report for the period of September 15, 1995 through September 14, 1996, 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 submitted as specified in the SQN National Pollutant Discharge Elimination System (NPDES) Permit No. TN0026450:

- ◆ Aquatic Toxicity Monitoring Study, submitted January 1996.
- ◆ Aquatic Toxicity Monitoring Study, submitted July 1996.

**III. ENVIRONMENTAL TECHNICAL SPECIFICATION NONCOMPLIANCES**

- ◆ November 1995 - Sequoyah received a Notice of Violation from the Tennessee Department of Environment and Conservation Division of Solid Waste Management (TDEC) because of the failure to notify the state of a new hazardous waste stream (plotter ink) within 90 days. The waste stream generation began in 1991. Sequoyah self reported the generation to TDEC upon discovery of the waste stream.
- ◆ January 1996 - The cold water return channel gate was opened without isolating the ERCW Chemical Feed. This allowed, ERCW with a total residual chlorine content of >0.1 ppm to flow over the energy dissipater and into the intake forebay. Total residual chlorine was above limits.
- ◆ June 1996 - NPDES Discharge Point 107, Metal Cleaning Waste Pond had a composited total suspended solids concentration of 45 mg/L which exceeded the permit limit of 30 mg/L. The Noncompliance was the result of an algal bloom concurrently occurring with the discharge of 107. This was verified by the presence of green colored solids on filter media. Pond inventory has been reduced to an adequate level to permit deferral of additional releases until the winter months.

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

Air permits were issued for the Emergency Diesel Generators, the Back Up Security Diesel and the Auxiliary Boilers in August 1996. These permits were necessary to document Sequoyah's qualification as a synthetic minor source of air pollutants under Title V of the Clean Air Act.

Concurrence was received from the Tennessee Department of Environment and Conservation Division of Water Pollution Control to allow the use of dimethylamine and carbonylhydrazide in plant secondary systems.

**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, 1995, through September 14, 1996 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).

**VI. NONROUTINE REPORTS**

No nonroutine reports were issued during this period.

**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, 1995 THROUGH SEPTEMBER 14, 1996  
ATTACHMENT 1**

a. **Study of Sequoyah Nuclear Plant (SQN)**  
**Design and Operational Changes Between September 15, 1995 and**  
**September 14, 1996 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 (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)

b. **Special Tests**

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

c. **Temporary Alterations**

A temporary alteration was made to allow the water treatment plant sump to drain to the low volume waste treatment pond through a hose in lieu of through a corroded and leaking underground pipe.



**ANNUAL ENVIRONMENTAL OPERATING REPORT  
SEPTEMBER 15, 1995 THROUGH SEPTEMBER 14, 1996  
ATTACHMENT 1 (Cont.)**

**d. Design and Operational Changes**

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. Those changes reviewed are as follows:

1. Mansell Level Monitoring System
2. Reach Rod Operated Valves
3. Replacement for Dunham Bush Timer
4. Refrigerant Monitors
5. Pressurizer Relief Valves Installation DO USAS B31.0.0.1967 U1 & U2
6. Electrical Separation of Trains of Indication Lights on 1,2 M-6 U1 & U2
7. Drain Valves Position Indicator U1 & U2
8. Lower Canopy Seal Welds Repair
9. Modify Panel Door to 1-LT-63-51 for Access
10. Provide Clearance Between 2-FCV-062-0035 and Crane Wall
11. Upgrade Controller & Install Positioner on 1 & 2-PCV-47-183 U1 & U2
12. SQ950074PER MG Set Switchgear Test Jack/Digital Indicators U1 & U2
13. Change Oil Cooler Tubing from Copper to Stainless Steel U1
14. Reactor Coolant System Ultrasonic Level
15. Change Oil Cooler Tuber from Copper to Stainless Steel U2
16. SCSA Compressor Replacements
17. Unit 1 Ice Condenser Floor Upgrade
18. Cable Drive Transfer System
19. SQ940129PER Spent Fuel Pit Temperature
20. Respan Reactor Coolant System Flow Transmitter
21. CCWP Motor Protection Sensitivity U1 & U2
22. Gland Steam Condenser Tube Replacement
23. SQ952103PER - App G - AMSAC Test Switch 2-XS-3-318 U1 & U2
24. SQ930071/SQ940152 II Replace Lower/Upper Rad Monitors 1&2-RE-90-106/  
1&2-RE-90-112 U1 & U2
25. Fifth Diesel Security Protection
26. PSV Tailpipe Modifications
27. Design Margin Quantification. & Attending Equipment
28. Modification of 480V Board Room A/C Units
29. Replace Obsolete S&K Hi and Lo Range Seal Flow Indicating Transmitters
30. SQ951672PER Change Setpoints of 0-PS-67-471, 475, 480 and 485
31. Cold Leg Accumulator Transmitters
32. Add a 3" Manual Valve to Pressurizer Relief Tank Inlet Line for Vacuum Fill
33. Transient Fire Load Evaluation
34. Customer Group Radio Replacement
35. CVCS Venting /U1&U2
36. ASOS Office Conversion To Conference Room
37. Yarway Valve Replacement / U1&U2
38. Basket Tip Pressure Connections
39. Replace Obsolete Control Racks



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ATTACHMENT 1 (Cont.)

d. Design and Operational Changes (continued)

40. Emergent Steam Generator Tube Pulling/Plugging
41. Reroute Neutral Waste Pump Discharge Line
42. SQ950729PER Add Time Delay to Condensate Booster Pump
43. SQ951760PER Obsolete Flow Modifier 1-FM-3-142A Terry Turbine Control
44. SQ950729PER Replace Condensate Booster Pump Pressure Switches
45. SQ952017PER Retube 1B Containment Spray System Heat Exchanger
46. MFPT Guardistor Resistor Addition
47. SQ952044PER Revise Temperature Alarm Setpoints for Pressurizer Relief Valve Discharge
48. SQ951774PER Change Elevation Benchmark of Liquid Level Gauge-RCS Midloop
49. PSV Tailpipe Modifications
50. Obsolete Flow Modifier 1-FM-3-142A for Terry Turbine Control
51. Safety-Related Snubber Reduction
52. Heat Cells for Ice Bin Chillers & Air Blower
53. Component Cooling System Orifice Plates Calibration
54. Lighting in West & East Main Steam Valve Rooms
55. Security Back Up DF Tank Replacement
56. Revise Feed Water Heater Isolation Logic
57. Replacement of Over-voltage Relays
58. CSST Auto Tap Changer Control Relay Upgrade
59. Component Cooling System Surge Tank
60. Rod Position Indication System Tolerance
61. ASEA Transformer Cooling Fans Pump Contactors
62. Replacement of MFW Check Valves

In summary, there have been no facility design or operational changes from September 15, 1995 to September 14, 1996, which have resulted in an unreviewed environmental question.