

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

April 21, 1981

WBRD-50-390/81-20

WBRD-50-391/81-19

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - ELECTRICAL SEPARATION FIELD AUDIT -
WBRD-50-390/81-20, WBRD-50-391/81-19 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on February 5, 1981, in accordance with 10 CFR 50.55(e) as NCR W-31-P. Our first interim report was submitted on March 9, 1981. Inspector T. Gibbons requested that additional information be submitted by April 21, 1981. Enclosed is our second interim report. We expect to provide additional information by July 22, 1981.

If you have any questions, please get in touch with D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure)✓
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555



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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
ELECTRICAL SEPARATION FIELD AUDIT - NCR W-31-P
WBRD-50-390-81-20, WBRD-50-391/81-19
SECOND INTERIM REPORT

Description of Deficiency

An audit was conducted in response to an NRC letter from A. Schwencer to H. G. Parris dated May 2, 1980 (NEB 800529 252), which requested TVA to perform an audit of installed electrical equipment and systems to determine conformance with electrical separation criteria. The audit was performed using the criteria stated in chapters 7 and 8 of the Watts Bar Nuclear Plant (WBN) Final Safety Analysis Report (FSAR) and the criteria stated in Regulatory Guide (R.G.) 1.75 with those exceptions listed in the response to NRC question 40.25. While TVA noted in the response that R.G. 1.75 is not applicable to WBN, it was stated that the design basically meets R.G. 1.75 with the stated exceptions. As a result of this statement, TVA considers these requirements applicable to WBN and within the scope of the audit. In addition, documents used as references for interpretation and clarification of the above criteria were other chapters of the FSAR that pertain to the specific systems inspected, various IEEE and ANSI Standards that are referenced in the FSAR; the WBN Design Criteria WB-DC-30-04, "Design Criteria for Separation of Electrical Equipment and Wiring"; and the responses in the FSAR to questions from the NRC which pertain to the separation and identification criteria.

The audit was divided into six inspection areas. Each area was inspected to verify that installed equipment adhered to the stated criteria. The audit did not cover all equipment at Watts Bar, but rather sampled approximately 10 percent of the installed equipment to identify any generic deficiencies. The six areas are:

1. Equipment Identification and Separation
2. Conduit and Cable Tray Identification
3. Cable Identification and Route Verification
4. Equipment Internal Wiring and Identification
5. Conduit and Cable Tray Separation
6. System Audit for Identification and Separation

Interim Progress

As a result of the audit, 199 items were identified and are addressed in the subject NCR. TVA's Office of Engineering Design and Construction (OEDC) has reviewed the NCR and established that 11 of the 199 items are reportable as defined by the requirements of 10CFR50.55(e). These 11 items are generic in nature. They all represent a failure to maintain a 1-inch physical separation between conduits of different trains or between conduits and cable trays as required by the separation criteria stated in R.G. 1.75.

The remainder of the items are either not significant according to the requirements of 10CFR50, Appendix B, or if they are significant, they are not reportable as defined by the requirements of 10CFR50.55(e). In addition, a number of the items were addressed in the WBN Fire Protection Review submitted in October 1980, and corrective actions were specified at that time. TVA is presently working to resolve all 199 items listed in the subject NCR.