

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

December 4, 1980

Director of Nuclear Reactor Regulation  
Attention: Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Schwencer:

In the Matter of the Application of ) Docket Nos. 50-390  
Tennessee Valley Authority ) 50-391

In your letter to H. G. Parris dated May 2, 1980, TVA was requested to conduct an electrical separation field audit at Watts Bar Nuclear Plant. TVA is continuing its inspection, and we expect to provide the final results of this audit by February 13, 1981. Enclosed is an interim status report concerning your request.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*L. M. Mills*  
L. M. Mills, Manager  
Nuclear Regulation and Safety

Sworn to and subscribed before me  
this 4th day of Dec. 1980

*Paulette H. White*  
Notary Public  
My Commission Expires 9-5-84

Enclosure

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
SEPARATION OF ELECTRICAL EQUIPMENT AND SYSTEMS  
INTERIM REPORT

The inspection for the separation of electrical equipment and systems is being performed, using the criteria stated in chapters 7 and 8 of Watts Bar Nuclear Plant's Final Safety Analysis Report (FSAR) and Regulatory Guide 1.75 as a guideline. Other chapters of the FSAR that pertain to specific systems, various standards, and Watts Bar Design Criteria No. WB-DC-30-4 were used as references.

The inspection has been divided into the following six areas.

1. Equipment identification and separation. Equipment is inspected for physical distance and/or barriers between safety-related equipment. The equipment identification nameplates are also inspected.

There were three inspection packages written for this area, two of which are complete. The audit revealed eight instances in which the relay panel's nameplate in the auxiliary instrument room was properly color coded but did not have the proper suffix to identify the train as A or B. There were instances in which the nameplates on control boards were color coded incorrectly. There is a question concerning the thickness of the wall between 480-volt shutdown board transformers for trains A and B. The FSAR does not address doors or conduit and piping penetrations through walls separating shutdown, reactor motor-operated valve, diesel, and vital battery boards, and there were fifteen instances of this found during the audit. The separation is basically for fire, and these items were covered under the fire protection plan submitted in October 1980.

2. Conduit and cable tray identification. There were five packages written for this area, none of which are included in this status report. All the data will be in the final report.
3. Equipment internal wiring and identification. There were 57 packages written covering the main control room, backup control room, and auxiliary instrument room boards. Thirty-two of these packages are complete and are being evaluated. All packages will be included in the final report.
4. Cable markings and route verification. There were 27 packages written for this area. All packages are complete with 22 still being evaluated. There were 15 instances where the cable and/or cable trays were not properly marked.

5. Conduit and cable tray study for separation. Some specific areas in the auxiliary, control, reactor, and diesel-generator buildings and the intake pumping station have been or will be inspected. There were 16 inspection packages written for these areas. All packages but one have been written, and 12 have been evaluated. Fifteen instances were found in which the separation criteria was not met.
6. System study from a design standpoint. There will be nine packages written covering nine systems, with the results included in the final report.

At this reporting, 108 inspection packages have been written covering these six areas. Fifty-three percent of the packages are field complete and are being evaluated against the criteria for compliance.

The results of the inspection and disposition of nonconformance items will be provided in the final report.