

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

January 25, 1982 P12: 53

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 - UNACCEPTABLE WELDS ON DUCT  
SUPPORTS IN THE AUXILIARY BUILDING - NCR 2654R - REVISED FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
F. Cantrell on December 1, 1980 in accordance with 10 CFR 50.55(e).  
Our final report was submitted on December 31, 1980.

However, as discussed with R. V. Crlenjak on January 7, 1982, TVA has  
reevaluated this nonconformance. Enclosed is our revised final report  
resulting from the reevaluation.

If you have any questions, please get in touch with R. H. Shell at  
FTS 858-2688.

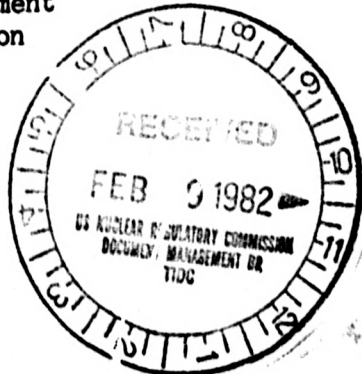
Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

cc: Mr. Richard C. DeYoung, 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  
UNACCEPTABLE WELDS ON DUCT SUPPORTS IN THE AUXILIARY BUILDING  
10 CFR 50.55(e)  
REVISED FINAL REPORT

Description of Deficiency

In a random inspection of 245 Auxiliary Building duct supports inspected before March 27, 1980, approximately 22 percent were found to have welds which are unacceptable. The defects found include undersized welds, incomplete welds, slag inclusions, porosity, and overlap. The apparent cause was failure to clearly specify acceptance criteria on the applicable drawings.

Safety Implications

Because the subject duct support and cable tray welds were acceptable as-installed, this condition would not have adversely affected the safe operations of the plant.

Corrective Action

TVA has reevaluated the subject deficiency. As a result, an alternate criteria has been established by TVA for the visual inspection of fillet welds instead of the stringent requirements of AWS D1.1. Site personnel have been instructed in the application of the revised acceptance criteria and welds performed in the future will be inspected by inspectors certified to the revised criteria.

This NCR was revised to institute a comprehensive weld sampling program for all previously installed duct supports. TVA has evaluated the results of this sampling program. The results obtained from the sampling program were reviewed and it was determined that the weld quality was acceptable to ensure structural integrity. Therefore, the welds on the subject duct supports are suitable for use as-installed. The aforementioned corrective actions meet the requirements of the AISC Specification for the design, fabrication, and erection of structural steel for buildings.