TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

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June 1, 1982

WBRD-50-390/82-10
WBRD-50-391/82-10

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - DEFECTIVE TUBE STEEL MATERIAL - WBRD-50-390/82-10, WBRD-50-391/82-10 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on December 24, 1981 in accordance with 10 CFR 50.55(e) as NCR 3821R. Interim reports were submitted on January 29 and April 9, 1982. Enclosed is our final report. We consider 10 CFR Part 21 applicable to this deficiency.

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 Licensing

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
DEFECTIVE TUBE STEEL MATERIAL
NCR 3821R
WBRD-50-390/82-10, WBRD-50-391/82-10
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

During field fabrication of a pipe hanger, a 3" x 3" x 1/4" section of tube steel was found to be made of two 1/8" thick plates rather than a solid 1/4" thick plate as required. TVA's contract for this tube steel is with Balley Steel Products of St. Louis, Missouri. However, the manufacturer of the tube steel is Welded Tube of Independence, Missouri.

Safety Implications

Hangers fabricated from defective tube steel may not function as designed. This condition could result in inadequately supported piping which could fail during a seismic event. This could adversely affect the operation of safety-related systems.

Corrective Action

The defective material was traced to a contract number by means of material ledger books and storeroom requisition requests. The ledger book also showed that all the subject tube steel has been issued to the field for use. All requisition requests which were used to requisition the subject tube steel were then retrieved for review. Most of these requests requisitioned material for general shop use, but three individual features (hanger types) were identified. These three features were all multicomponent mechanical HVAC duct hangers which represented eight percent of the total requisitions and five percent of the total material. Approximately four feet of the subject tube steel was removed from each feature for testing. The testing was conducted by certified Civil and Welding engineering personnel at the Bellefonte site and included the following: (1) visual inspection, (2) acid etching, (3) ultrasonic testing, and (4) best application to check for separation.

The results of the testing of the subject tube steel revealed that no generic condition existed in the samples from the three features. The defective tube steel found during hanger fabrication is therefore considered to be an isolated instance, in which the manufacturer inadvertently supplied a single section of inadequate tube steel. Since no other sections of tube have been found to be deficient, no further action is required.