

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

April 27, 1981

WBRD-50-390/81-34
WBRD-50-391/81-33



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 - DESIGN CALCULATIONS PERFORMED
WITHOUT APPROVED QUALIFICATION - WBRD-50-390/81-34, WBRD-50-391/81-33 -
FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on March 12, 1981, in accordance with 10 CFR 50.55(e) as
NCR's WBN SWP 8011 and 2782R. Enclosed is our final report.

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
DESIGN CALCULATIONS PERFORMED WITHOUT
APPROVED QUALIFICATION
WBRD-50-390/81-34, WBRD-50-391/81-33
10 CFR 50.55(e)
FINAL REPORT

Description of the Deficiency

The subject nonconforming conditions identify the modification, installation, and inspection of seismic pipe supports by personnel from the Tennessee Valley Authority's (TVA) Division of Construction (CONST) at Watts Bar Nuclear Plant (WBN) before receipt of approved drawings from TVA's Division of Engineering Design (EN DES). This is a failure to conform to the requirements of 10CFR50, Appendix B. The seismic pipe supports, identified by the NCR's, had previously been designed and drawings issued by EN DES. During installation, physical interferences were identified and CONST modified and installed the pipe supports before EN DES approval of the modification.

This was accomplished through WBN Quality Control Instruction WBNP-QCI 4.30, a controlled CONST procedure permitting modification, installation, and inspection, as described above. WBNP-QCI 4.30 provided for control of these activities under support modification request (SMR) forms. Approval by EN DES was required after installation and inspection, but before completion of the EN DES documentation.

Modifications and installation of pipe supports were initiated by CONST before EN DES having a companion procedure approved to process the SMR's in EN DES. A verbal commitment was given CONST that an EN DES procedure would be provided to process the SMR. In the process of preparing and reviewing the EN DES procedure, it was determined that EN DES could not adequately fulfill its commitments with the procedures as planned, and this nonconforming condition report (NCR) was initiated.

Safety Implications

Failure to properly implement 10CFR50, Appendix B, Design and Control criteria could result in degradation of the essential safety-related systems.

Corrective Action

Upon identification of the subject nonconforming condition, CONST stopped modification and installation of the affected pipe supports. WBN-QCI 4.30 has been cancelled, and no further modifications will be made before EN DES approval by existing procedures. All modification work for the affected pipe supports was transferred to EN DES for review. EN DES will complete any remaining design work and issue all approved drawings under existing EN DES procedures. This review and redesign will be complete by July 1, 1981. Any piping supports identified by EN DES as deficient will be reworked as required by CONST to conform to design.

TVA considers this to be an isolated occurrence resulting from a "good faith" effort by CONST and EN DES to devise a control mechanism which would reduce the time required to install pipe supports.