

DMB

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

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WBRD-50-390/86-55

NOV 26 1986

U.S. Nuclear Regulatory Commission
Region II
Attention: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT (WBN) - UNIT 1 - QUESTIONABLE LOCATIONS OF INSTALLED
UNIT 1 ENGINEERED SUPPORTS - WBRD-50-390/86-55 - FINAL REPORT

The subject deficiency was initially reported to NRC-Region II Inspector, Art Johnson, on June 6, 1986 in accordance with 10 CFR 50.55(e) as SCR WBN CEB 8650. Our interim report was submitted July 17, 1986. Enclosed is our final report. We no longer consider this item to be reportable under 10 CFR 50.55(e).

If there are any questions, please get in touch with J. A. McDonald at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. Gridley
R. Gridley, Director
Nuclear Safety and Licensing

Enclosure

cc (Enclosure):

Mr. James Taylor, Director
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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNIT 1
QUESTIONABLE LOCATIONS OF INSTALLED UNIT 1 ENGINEERED SUPPORTS
WBRD-50-390/86-55
SCR WBN CEB 8650
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

For Watts Bar Nuclear Plant (WBN), engineered support drawings are routed via interface review through the Watts Bar Engineering Project (WBEP) civil structural sections for approval of attachments to building and platform structural steel before the support drawings or drawing revisions are issued. The interface review process only approves the locations specified on the support drawings and does not consider the relocation tolerances as outlined in General Construction Specification G-43. To ensure the consideration of any tolerances applied in the relocation of supports, TVA's Division of Nuclear Construction (DNC) Construction Branch requests approval of engineered supports which they relocate, through field change requests (FCRs) which show the actual as-built locations of the supports. This process is controlled by section 6.1.1.2 of WBN Quality Control Instruction (QCI) 1.13, "Preparation and Documentation of Field Change Requests." However, a similar review process had not been implemented for supports which might have been installed or modified by the DNC Modifications Branch after systems transfers. Consequently, some unit 1 supports could have been installed or relocated by the Modifications Branch without subsequent analysis and approval by TVA's Division of Nuclear Engineering (DNE).

The root cause of this condition adverse to quality (CAQ) was an oversight which resulted in the failure to incorporate the requirement that an FCR be written when attaching engineered supports to cable tray supports, building steel, and/or miscellaneous steel in a DNE source document or design output document. That requirement was documented as an action required to prevent recurrence (ARPR) of a previous, similar CAQ identified by nonconforming condition report (NCR) 3659R R1. The requirement was incorporated into QCI-1.13, but was never incorporated into a DNE source or output document. Consequently, WBN Modifications Branch personnel were not aware of the requirement to issue an FCR in these instances, since their work is controlled by a different set of procedures.

Safety Implications

It was originally considered that this CAQ could, in some instances, result in safety-related structures, systems, or components failing to meet the required design criteria. However, the number of nonconforming items was anticipated to be small. The likelihood of actual failure by collapse was expected to be very small.

All engineered supports installed or modified by the WBN Modifications Branch have been reviewed. Only one support was identified as being attached to building or platform structural steel. No engineered supports were identified as being attached to cable tray supports. The affected support was reviewed and approved for use-as-is per FCR 86-28.

The review substantiated the original judgement that this deficiency would not likely affect safe operation of the plant. Consequently, TVA no longer considers this deficiency to be reportable under 10 CFR 50-55(e).