

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

April 5, 1983

WBRD-50-390/82-69, -391/82-66

U.S. Nuclear Regulatory Commission  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - REPORTABLE DEFICIENCY - EXPANSION  
ANCHORS SPACING CRITERIA - WBRD-50-390/82-69, 50-391/82-66 - FINAL REPORT

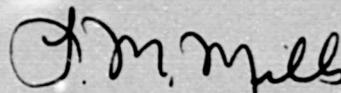
The subject deficiency was initially reported to NRC-OIE, Region II, Inspector R. V. Crlenjak on June 7, 1982 as NCR GEN QAB 8203. Interim reports were submitted on July 7, and October 29, 1982. Enclosed is our final report for Watts Bar. For disposition purposes a separate report is being submitted for Bellefonte.

Please note that for Watts Bar TVA no longer considers the subject condition to be adverse to the safe operations of the plant. Therefore, we will amend our records to delete this nonconformance as a 10 CFR 50.55(e) item.

If you have any questions, please get in touch with Ralph 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, D.C. 20555

Records Center (Enclosure)  
Institute of Nuclear Power Operations  
1100 Circle 75 Parkway, Suite 1500  
Atlanta, Georgia 30339

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NRC REGION II

## ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2  
EXPANSION ANCHORS SPACING CRITERIA  
NCR GEN QAB 8203  
WBRD-50-390/82-69, WBRD-50-391/82-66  
10 CFR 50.55(e)  
FINAL REPORT

### Description of Deficiency

Before issuance of General Construction Specification TVA G-32 R6, "Bolt Anchors Set in Hardened Concrete," (February 17, 1981) which provides screening criteria to TVA's Division of Construction (CONST) inspectors for expansion anchor spacing, CONST had minimum anchor spacing criteria as provided by G-32 R5 which could have been inadequate under certain circumstances. This means that CONST inspectors could have applied the minimum spacing criteria to specific attachments being inspected without noting adjacent attachments that could influence expansion anchor spacing requirements. As a result, it is possible that expansion anchors have been installed which do not meet minimum spacing requirements when combined action of multiple attachments are considered.

### Safety Implications

TVA has completed the inspection and sampling program for Watts Bar Nuclear Plant (WBNP) which was outlined in our previous report. Details of the findings are given below.

Support variance requests are documents which detail particular problems with supports (including anchors) being installed. Since part of the support variance request data package is a drawing detailing the position of the anchors in questions and any adjacent anchors, such data packages were considered representative of the anchor population which is the subject of this NCR. Approximately one-third of support variance requests concern G-32 violations of various types. A survey was made of the support variance requests to select anchors which violate the G-32 criteria. From that group, sixty samples were randomly selected for reevaluation of the effect of anchor spacing. In an unlimited population, 60 occurrences with no failures result in a 95-percent confidence level that less than 5 percent of the total population would be defective. For the 60 samples which were reevaluated for the concern cited in this NCR, no rejections were discovered. Therefore, the spacing violations did not have a statistically significant effect on the factors of safety of the expansion anchored supports and the supports may be used "as is." Consequently, there is no condition adverse to the safety of the plant at WBNP and TVA no longer considers this deficiency reportable under the provision of 10 CFR 50.55(e) with respect to WBNP.