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

February 17, 1983

WBRD-50-390/82-83
WBRD-50-391/82-79

83 FEB 23 A9:53
NRC PEORIA

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 - FAILURE TO INSPECT STUD WELDS ON FLUSH-MOUNTED EMBEDDED PLATES - WBRD-50-390/82-83, WBRD-50-391/82-79 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector D. Quick on August 12, 1982 in accordance with 10 CFR 50.55(e) as NCR WB-M-82-06. Our first interim report was submitted on September 13, 1982. Enclosed is our final report.

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

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

OFFICIAL COPY

IE 27

8302280142 830217
PDR ADOCK 05000390
S PDR

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
FAILURE TO INSPECT STUD WELDS ON FLUSH-MOUNTED EMBEDDED PLATES
NCR WB-M-82-06
WBRD-50-390/82-83, WBRD-50-391/82-79
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

TVA's quality assurance program requires that welds on safety-related systems be inspected. TVA's Quality Control Procedure (QCP) 4.7 required inspection of welds by means of an operation sheet where equipment stud anchors were welded to embedments. However, since the implementation of QCP 4.47 RO (April 3, 1981), "Equipment Installation", which superseded QCP 4.7, TVA has no program at Watts Bar to ensure that equipment stud anchors welded to embedments have been inspected. Some of the safety-related systems involved are component cooling, residual heat removal, and emergency gas treatment.

The root cause of this condition is that QCP 4.47 RO did not clearly specify inspection requirements for welded stud attachments.

Safety Implications

Lack of inspection of welds where equipment stud anchors, for safety-related systems, were welded to embedded plates could result in faulty welds going undetected. Under design basis accident conditions, these faulty welds could fail. This could result in failure of or damage to a safety-related system and, subsequently have adverse effects on the safe operation of the plant.

Corrective Actions

TVA has identified all of the equipment which have stud anchors welded to an embedment. These welds will be inspected for acceptability in accordance with WBNP QCP 4.07-1, which superseded QCP 4.47 and has been revised to include the inspection of welded equipment stud anchors during initial equipment setting. Any deficient welds which are identified will be repaired in accordance with TVA Construction Specification G-29C "Process Specification for Welding, Heat Treatment, Nondestructive Examination, and Allied Field Fabrication Operations" Subsection P.S.3.C.5.3(a) "Examination and Testing of AWS Stud Welds."

All corrective actions associated with this nonconformance will be completed by March 13, 1983.