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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

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WBRD-50-390/86-63
WBRD-50-391/86-29

NOV 03 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 UNIT 2 - FAILURE TO TEST CIRCUIT BREAKERS -
WBRD-50-390/86-63, WBRD-50-391/86-29 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Bob Carroll on February 13, 1986 in accordance with 10 CFR 50.55(e) as SCR WBN 6583-S for unit 2. Our interim report was submitted on March 14, 1986. NCR W-371-P was issued to document the deficiency for unit 1.

Glenn Walton was notified of the delay in submittal of this report on July 31, 1986. The delay was caused by the incomplete status of the disposition for the CAQ.

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
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. G. G. Zech
Director, TVA Projects
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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 & 2
FAILURE TO TEST CIRCUIT BREAKERS
WBRD-50-390/86-63, WBRD-391/86-29
SCR WBN 6583-S AND NCR W-371-P
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

While trying to resolve a test restraint initiated because of the incomplete status of a preoperational test prerequisite to perform testing of circuit breakers, it was identified that circuit breaker testing (Standard Test 6-05) had been deleted from the specified construction test procedure, Watts Bar Nuclear Plant, (WBN) QCT-3.6, in revision 2, issued July 26, 1982. WBN-QCT-3.06-6 R0 was issued on June 26, 1985 requiring testing for molded case circuit breakers, but not for other types of breakers. During the interim, construction testing was apparently not performed on installed circuit breakers.

Further investigation revealed that WBN-QCT-3.6 had been revised to delete the circuit breaker testing because no upper-tier document provided requirements or guidance to test circuit breakers. Following the revision to the procedure, records of previous tests were removed from the QA records storage vault because they were deemed unnecessary.

The failure to have upper-tier documents specifying required tests for circuit breakers was caused by an earlier interpretation of preoperational testing requirements which considered the required vendor tests to be adequate.

Safety Implications

Failure to test installed circuit breakers could result in failure to identify inadequate breaker performance which could cause damage to class 1E circuits and possibly a trip of an entire class 1E electrical distribution board. This condition could adversely affect safe operation of the plant.

Corrective Action

TVA has reviewed requirements for preoperational testing and determined that all safety-related circuit breakers must be tested before placing associated systems in operation. General Construction Specification G-84, R0 was issued June 18, 1986 to require testing for molded case circuit breakers. A revision to include other breakers is in process.

This revision will be issued by February 1, 1987. These requirements will be incorporated into site implementing procedures as required by TVA's existing program.

Many of the previous breaker test records have been kept by construction engineers. These will be returned to the QA records storage. Breakers for which adequate test documentation cannot be located will be tested and documented in accordance with the applicable site procedures before fuel load of each unit.

Issuance of G-84 should prevent recurrence of this deficiency.