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

U.S. NRC REGION II
ATLANTA, GEORGIA
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June 7, 1983

WBRD-50-390/83-32
WBRD-50-391/83-32

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 - FIRE DAMPERS IMPROPERLY INSTALLED AND DAMAGED - WBRD-50-390/83-32, WBRD-50-391/83-32 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector P. E. Fredrickson on May 5, 1983 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8326. 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

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

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
FIRE DAMPERS IMPROPERLY INSTALLED AND DAMAGED
WBRD-50-390/83-31, WBRD-50-391/83-32
NCR WBN SWP 8326
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Nine fire dampers, listed below, were found damaged onsite after they were installed. In addition, one fire damper, Mark No. 47A381-434 was found purchased/installed for the wrong mounting position.

Damper Mk No.	Qty	Location
47A381-414	1	Control Bldg El 692 Elec Bd Rm Mech Equip Rm
47A381-430	1	Control Bldg El 692 Elec Bd Rm Mech Equip Rm
47A381-454	1	Auxiliary Bldg 480 V Bd Rm
47A381-463	4	Auxiliary Bldg 480 V Bd Rm
47A381-507	1	Nonsafety-related Area
47A381-525	1	Nonsafety-related Area

The damaged fire dampers were damaged as a result of improper handling and installation by construction craft. This was due to inadequate quality control during the time of equipment installation. At that time, Watts Bar Field Instruction (WBFI)-G15 was in use and assigned to the construction supervisor the responsibility of determining what information and coordination was required to do the work. The construction engineer would inspect the work after it was performed and complete any required documentation.

Mark No. 47A381-434 damper was purchased for the wrong mounting position as a result of an oversight by the checker of the procurement drawing (47A381-78 issued June 18, 1977).

The subject condition was identified by engineering personnel on October 28, 1981, and engineering change notice (ECN) 3090 was issued to correct the deficiency. However, a nonconformance report (NCR) was not written at that time as required by the TVA's Division of Engineering Design's (EN DES) Engineering Procedure (EP) 1.26, "Nonconformances - Reporting and Handling by EN DES." This NCR is one of seven NCRs identified to be written as a result of the review of approximately 400 Watts Bar Nuclear Plant (WBN) ECNs which constituted the WBN corrective action for OEDC Audit M81-13 Deficiency No. 4, "Identifying and Documenting Conditions Adverse to Quality Using the EN DES NCR Form. The failure to write an NCR as required was determine to not be a reportable condition under 10 CFR 50.55(e).

Safety Implications

All of the above dampers, except Mark Nos. 507 and 525, are required for the purpose of isolating the safety-related areas, where the dampers are installed, from the adjacent nonsafety-related areas in case of fire. Had this condition remained uncorrected, a failure of one such damper could jeopardize the safe operation of the plant by allowing a fire to spread into a safety-related equipment area.

Corrective Action

EN DES issued ECN 3090 to purchase 10 new fire dampers under the existing fire damper contract 77K71-822493. TVA's Division of Construction (CONST) drawings were revised to indicate the new dampers.

TVA Watts Bar Construction realized the inadequacy of the existing method of handling and installing plant equipment and issued Quality Control Instruction (QCI) 1.56, "Work Packages" in August 1982 to provide better quality control over construction work. This new procedure should prevent recurrence of similar nonconformances by providing a high standard of quality control during installation of equipment.

Also, EN DES recognized the inadequacy of the existing design review process and issued EN DES-EP 4.25, "Design Review and Interface Coordination for Detailed Construction and Procurement Drawings" in November 1977. EN DES is committed to follow these and all other engineering procedures and has initiated a program to train employees in the procedures which affect their work. This should prevent similar occurrences.

All corrective action is complete at this time.

No other TVA plants are affected.