TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

June 6, 1986

WBRD-50-390/86-52
WBRD-50-391/86-48

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 UNITS 1 AND 2 - CATEGORY I/I(L) PIPING PENETRATES NONSEISMIC WALLS - WBRD-50-390/86-52, WBRD-50-391/86-48 - INTERIM REPORT

The subject deficiency was initially reported to NRC-Region II Inspector Gordon Hunegs on May 7, 1986 in accordance with 10 CFR 50.55(e) as SCR WBN MEB 8639. Enclosed is our interim report. We expect to submit our next report on or about September 30, 1986.

If there are any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. L. Gridley, Director
Nuclear Safety and Licensing

Enclosure
cc: Mr. James Taylor, 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
CATEGORY I/I(L) PIPING PENETRATES NONSEISMIC WALLS
LOCATED IN THE CONTROL BUILDING
WBRD-50-390/86-52, WBRD-50-391/86-48
SCR WBN MEB 8639
10 CFR 50.55(e)
INTERIM REPORT

Description of Deficiency

Four seismic category I chilled-water lines penetrate both the east and west stairway walls in the control building on elevation 692.0. These lines are installed through a nonseismic plaster wall. This condition was discovered during the preparation of engineering change notice (ECN) 6088 which was issued to correct a deficiency identified by nonconformance report (NCR) W-331-P. This nonconforming condition dealt with the same four chilled-water lines penetrating the wall without approved sleeves and seals for fire protection. The initial proposed solution for this problem was to add split sleeves. However, it was discovered that the wall was constructed of nonseismic plaster and would not support the weight of the sleeves.

The assignable cause for this condition is still under investigation.

Safety Implications

During a design basis seismic event, the category I and I(L) piping and ducts could collapse as a result of the failure of this wall rendering the safety-related equipment inoperable. Also, the failure of the chilled water lines and heating, ventilating, and air-conditioning (HVAC) duct system could cause the temperature inside the control building to reach unacceptable levels. As such, this condition could adversely affect the safe operation of the plant.

Interim Progress

A project review has been performed to determine if other nonseismic plaster walls were located inside category I structures. The results of this review revealed that on elevation 692 of the control building, the areas above the doors leading into the communications room, secondary alarm station, mechanical equipment room, and all of the battery rooms were constructed of nonseismically qualified plaster. On elevation 755.0 of the control building, the interior walls and ceilings above the conference room, shift engineer's office, and toilet and locker rooms were found to be nonseismic. In addition, some of the interior walls of the Technical Support Center (TSC), TSC conference room, relay room, and DPSO shop were also constructed of nonseismic material. Nonseismic walls were not found in the other category I structures at Watts Bar Nuclear Plant (WBN).

A design review was conducted to determine if any category I/I(L) piping or ductwork, electrical conduit or cable trays penetrate or are located near the nonseismic walls. Category I and I(L) piping and ductwork were identified as penetrating or located near some of the plaster walls on elevation 692.0 but no electrical conduit or cable trays were found. Seismic piping, ductwork, conduit or cables have not been identified in the areas affected on elevation 755.0. A related evaluation for problem identification report (PIR) WBN NEB 8517 is presently investigating the possibility of safety-related equipment being located in areas designed as "nonseismic areas."

The nonseismic walls located on elevation 692.0 in the control building will be replaced with seismically qualified block walls. Corrective action for the other areas of the control building is dependent upon the completion of the investigation for PIR WBN NEB 8517.

TVA will provide additional information concerning root cause, corrective action, and action to prevent recurrence to the NRC on or about September 30, 1986.