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

November 17, 1983

WBRD-50-391/83-42

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 UNIT 2 - HPFP PIPE NOT SEISMICALLY SUPPORTED OVER SIS PUMP - WBRD-50-391/83-42 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Linda Watson on July 11, 1983 in accordance with 10 CFR 50.55(e) as NCR WPN WBP 8308. Interim reports were submitted on August 8 and September 14, 1983. 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, Manager
Nuclear Licensing

Enclosure
cc (Enclosure):
Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNIT 2
HPFP PIPE NOT SEISMICALLY SUPPORTED OVER SIS PUMP
NCR WBN WBP 8308
WBRD-50-391/83-42
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Construction has installed 2-inch and smaller diameter sprinkler piping for the high pressure fire protection (HPFP) system above the safety injection system (SIS) pump 2A-A between column lines A9 and A11; and V and U on El. 692 in the auxiliary building with position retention only. TVA drawing 47W491-18 R4 requires that this piping be supported for both pressure boundary integrity and position retention. Although the sprinkler pipe in this area is normally dry, during a seismic event the deluge valve which is not seismically qualified, could fail open and fill the pipe with water. Thus any break in the sprinkler pipe would result in spraying water on the SIS pump.

This deficiency was caused by the fact that areas designated for piping to be supported for both position retention and pressure boundary integrity (seismic areas) were not shown on every sheet in the same drawing series which showed various piping details of the same floor plan. It was considered sufficient to label the seismic requirements on only one sheet. This labeling was done by the use of heavy lines on the drawing to indicate the seismic boundaries of the piping. CONST failed to review all drawings in the 47W491 series before supporting the 2-inch diameter and smaller size fire suppression piping in the SIS pump room. Therefore, the piping which should have been supported for both position retention and pressure boundary integrity was incorrectly supported for dead weight only.

Safety Implications

Since the pump motor is not designed to remain operable under a spray of water, the availability of the SIS pump could not be guaranteed. Therefore, in the event of an accident, this condition could adversely affect the safety of operations of the plant.

Corrective Action

1. CONST will seismically support piping for pressure boundary integrity and position retention in accordance with TVA drawing 47W491-18 R4 in the SIS pump room 2A-A and ensure that piping in the other SIS pump rooms is also supported in accordance with the above drawing. This will be accomplished by February 14, 1984.

2. CONST has reviewed the 47W491 series piping drawings to determine if the correct types of typical supports were installed. Other drawing series were reviewed to determine if this condition was generic. It was found that this condition occurred in the Unit 2 SIS pump room as well as the Unit 1 and Unit 2 auxiliary feedwater pump rooms. EN DES will revise the 47W491 series of drawings, as required, to show where piping is to be supported for both position retention and pressure boundary integrity on all piping plan views. These drawings which apply to the SIS pump room and auxiliary feedwater pump rooms for both units 1 and 2 will be issued under engineering change notice (ECN) 4223. CONST will then seismically support piping in these areas in accordance with the reissued drawings.

In order to prevent recurrence, EN DES will revise the 47W491 drawing series to plainly show seismic boundaries with heavy solid lines and appropriately describe any boundary changes. All TVA rework will be accomplished by February 14, 1984.