

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II
ATLANTA, GEORGIA

January 28, 1982
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WBRD-50-390/82-11
WBRD-50-391/82-11

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303



Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - DESIGN OF HVAC PENETRATIONS IN
CONTAINMENT - WBRD-50-390/82-11, WBRD-50-391/82-11 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on December 24, 1981 in accordance with 10 CFR 50.55(e)
as NCR WBN CEB 8120. Enclosed is our first interim report. The submittal
date of this report was discussed with Inspector R. V. Crlenjak on
January 25, 1982. We expect to submit our next report by April 21, 1982.

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 Regulation and Safety

Enclosure

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

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
DESIGN OF HVAC PENETRATIONS IN CONTAINMENT
WBRD-50-390/82-11, WBRD-50-391/82-11
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

The containment vessel contractor (Chicago Bridge and Iron) designed the HVAC and electrical nonprocess penetrations in an unconservative manner as a result of inadequate load definitions in TVA's containment design specification WBNP-DS-1705-1440-3. Thus, lacking complete load definitions, the contractor applied the total mass of the piping assemblies at the end of the nozzles in lieu of at the mass center which produces higher bending moments. These bending moments can cause bending overstresses in the containment shell around these penetrations.

Interim Progress

The nonprocess penetrations are currently being reevaluated using the correct load definitions. Any penetrations which are overstressed as a result of these loads will be supported by hangers or stiffened as required to bring the stresses below the ASME code maximum allowable.