

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

MAR 30 1990

WBRD-50-390/81-17
WBRD-50-391/81-16

10 CFR 50.55(e)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - SAFETY-RELATED HEATING,
VENTILATING, AND AIR CONDITIONING (HVAC) DUCTWORK - SUPPLEMENTAL RESPONSE TO
10 CFR 50.55(e) REPORT FOR NONCONFORMING CONDITION REPORT (NCR) 2929

The final 10 CFR 50.55(e) report for NCR 2929, regarding safety-related HVAC ductwork, was submitted to NRC on October 29, 1981. This report indicated that all structural materials used in duct fabrication had been purchased with Certified Material Test Records (CMTRs) or Certificates of Compliance (COCs). The report was based on the assumption that all safety-related ductwork was fabricated from material having CMTRs or COCs. However, due to the lack of quality controls for safety-related HVAC ductwork at that time, materials purchased without CMTRs or COCs may have been installed in safety-related HVAC duct systems.

Enclosure 1 contains the actions TVA has taken to resolve this issue.
Enclosure 2 identifies the commitment made in this report.

If there are any questions, please telephone G. R. Ashley at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

E. G. Wallace
E. G. Wallace, Manager
Nuclear Licensing and
Regulatory Affairs

Enclosures
cc: See page 2

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U.S. Nuclear Regulatory Commission

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cc (Enclosures):

Ms. S. C. Black, Assistant Director
for Projects
TVA Projects Division
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Assistant Director
for Inspection Programs
TVA Projects Division
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

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

NRC Resident Inspector
Watts Bar Nuclear Plant
P.O. Box 700
Spring City, Tennessee 37381

ENCLOSURE 1

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2
SAFETY-RELATED HVAC DUCT MATERIAL
WBRD-50-390/81-17 AND WBRD-50-391/81-16
SUPPLEMENTAL TO CFR 50.55(e) REPORT FOR
NONCONFORMING CONDITION REPORT (NCR) 2929

The final 50.55(e) report for NCR 2929, dated October 29, 1981, included the following statement:

TVA has investigated all structural materials used in duct fabrication and in prefabricated ductwork and found that all material had Certified Material Test Records [CMTRs] or Certificates of Compliance [COCs] and therefore meets the QA requirements of Watts Bar Procedure WBN-QCP-4.27, "Inspection and Documentation of Ductwork."

TVA has become aware that due to the lack of quality controls in place for safety-related heating, ventilating, and air conditioning (HVAC) ductwork at that time, materials purchased without COCs or CMTRs may have been installed in safety-related duct systems.

In order to determine the adequacy of the installed ductwork materials without regard to their origins, TVA has removed representative coupons from installed sheet metal ductwork and has tested them to determine strength properties.

The strength properties of the installed ductwork materials have been evaluated by TVA in calculation WCG-1-332. This calculation now constitutes the design basis documentation for the material strengths specified in Revision 7 of Design Criteria WB-DC-40-31.8, "Seismically Qualifying Round and Rectangular Duct."

Structural qualification of HVAC ductwork will be verified using the material strengths documented in the revised design criteria under the HVAC Corrective Action Program (CAP) Plan. However, based on the results of the material strength tests, no redesign or rework is expected because of material concerns.

The lack of a quality assurance program for safety-related HVAC ductwork was previously addressed by TVA in response to violation 390, 391/81-05-02.

ENCLOSURE 2

COMMITMENT STATEMENT

Structural qualification of HVAC ductwork will be verified using the material strengths documented in the revised design criteria under the HVAC Corrective Action Program (CAP) Plan.