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

USNRC REGION II
ATLANTA, GEORGIA
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April 28, 1982

WBRD-50-390/82-29
WBRD-50-391/82-26

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - INADEQUATE DUCT SUPPORTS IN THE EMERGENCY GAS TREATMENT SYSTEM - WBRD-50-390/82-29, WBRD-50-391/82-26 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on March 25, 1982 in accordance with 10 CFR 50.55(e) as NCR WBN SWP 8210. 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

James A. Domer
for 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, DC 20555

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
INADEQUATE DUCT SUPPORTS IN THE EMERGENCY GAS TREATMENT SYSTEM
NCR WBN SWP 8210
WBRD-50-390/82-29, WBRD-50-391/82-26
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

Seismic duct supports, 47A055-157-412, -413, -2153, and -2154 used in the Emergency Gas Treatment System (EGTS) have been found to be inadequate as, under seismic loading, the anchor plates for these four supports could pull away from their respective mounting surfaces. This condition was caused by the replacement of a number of EGTS dampers located near the supports with heavier air-operated valves without the designer reevaluating the hangers as required by design criteria WB-DC-40-31.8. This has allowed the supports to be overstressed by the additional weight of the air-operated valves.

Safety Implications

Failure of the supports could damage the attached ductwork and cause a loss of the EGTS pressure boundary. This loss could, in turn, cause a subsequent failure of the Annulus Vacuum Control Subsystem to maintain the required negative pressure in either annulus. This could adversely affect the safe operation of the plant.

Corrective Action

The subject supports are being redesigned through ECN 3384 to prevent failure under seismic loading, and all modifications will be completed before fuel loading. Also, project designers and review personnel will be reinstructed in the requirements of WB-DC-40-31.8 by May 30, 1982, to ensure adequate review of changes in safety-related systems.