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

August 8, 1983

WBRD-50-390/82-72
WBRD-50-391/82-67

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 UNITS 1 AND 2 - TORNADO DEPRESSURIZATION ON AUXILIARY BUILDING - WBRD-50-390/82-72, WBRD-50-391/82-67 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on June 23, 1982 in accordance with 10 CFR 50.55(e) as NCR WBN NEB 8213. Interim reports were submitted on July 23 and November 15, 1982 and April 12, 1983. Enclosed is our fourth interim report. We expect to submit our next report on or about September 16, 1983.

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

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

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
TORNADO DEPRESSURIZATION ON AUXILIARY BUILDING
NCR WBN NEB 8213
WBRD-50-390/82-72, WBRD-50-391/82-67
10 CFR 50.55(e)
FOURTH INTERIM REPORT

Description of Deficiency

TVA calculation TI-ECS-11, "Tornado Depressurization Simulation of Auxiliary Building," assumes closed doors blow open at a pressure differential of 0.5 lb/in^2. Recent analyses indicate that doors may be significantly stronger when the pressure differential acts against the door frame. (A differential pressure of approximately 2 lb/in^2 may be required to cause door failure in this case.)

Interim Progress

The final revision of the tornado depressurization calculation has confirmed that loadings on some interior walls are higher than originally expected. Further investigation has determined that high loadings are significant in some cases.

TVA now feels that the most feasible resolution to the problem of tornado depressurization is to ensure that the appropriate doors are open during a tornado rather than adding relief vents to identified walls to relieve excessive pressures on interior walls. Tornado depressurization calculations are being revised to determine the necessary doors to be opened. Changes to appropriate procedures will be made to ensure that the necessary doors are opened to protect the interior walls.

More information will be provided in our next report.