

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

December 19, 1983

BLRD-50-438/83-31

BLRD-50-439/83-27

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:

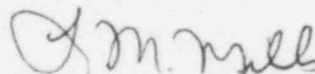
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - TORNADO DEPRESSURIZATION -
BLRD-50-438/83-31, BLRD-50-439/83-27 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector Linda Watson on April 14, 1983 in accordance with 10 CFR 50.55(e) as NCR BLN NEB 8304. This was followed by our interim report dated May 16, 1983. Enclosed is our second interim report. We expect to submit our next report by December 21, 1984. A similar deficiency has been reported separately for Watts Bar as NCR WBN NEB 8213 (WBRD-50-390/82-72, WBRD-50-391/82-67).

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

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

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
TORNADO DEPRESSURIZATION
BLRD-50-438/83-31, BLRD-50-439/83-27
10 CFR 50.55(e)
NCR BLN NEB 8304
SECOND INTERIM REPORT

Description of Deficiency

TVA's Nuclear Engineering Branch's (NEB) calculation TI-ECS-47, "Common Zone and Fuel Handling Area Tornado Depressurization Analysis," assumes closed doors blow open at a pressure differential of 0.5 lb/in². Subsequent analyses by TVA's Civil Engineering Branch indicate that doors may be significantly stronger when the pressure differential acts against the door frame. (A differential pressure of approximately 2 lb/in² may be required to cause door failure in this case.) Loading on walls within the building may be higher than was originally calculated; however, the exact effect is unknown at this time.

Interim Progress

Reevaluation of compartment pressures due to tornado depressurization of the common zone fuel handling area was made. The resulting maximum differential pressures between adjacent rooms does not exceed the capacity of the structural components of the Auxiliary Building. The removable concrete block walls will be restrained as necessary to resist the differential pressures across the respective walls.