## TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401 400 Chestnut Street Tower II

35 FEB 26 P 2 February 22, 1985

BLRD-50-438/83-09 BLRD-50-439/83-06

U.S. Nuclear Regulatory Commission Region II Attn: Dr. J. Nelson Grace, Regional Administrator 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

Dear Dr. Grace:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - BACKFLOW NOT CONSIDERED FOR ERCW BOOSTER PUMP SHUTOFF - BLRD-50-438/83-09, BLRD-50-439/83-06 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector L. Watson on December 30, 1982 in accordance with 10 CFR 50.55(e) as NCR BLN BLP 8233. This was followed by our interim reports dated January 28 and May 6, 1983 and July 17, 1984. Enclosed is our fourth interim report. We expect to submit our next report on or about April 3, 1985.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. W. Hufham, Manager Licensing and Regulations

Enclosure

oc: Mr. James Taylor, 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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## ENGLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2

BACKFLOW NOT CONSIDERED FOR ERCW BOOSTER PUMP SHUTOFF

BLRD-50-438/83-09, BLRD-50-439/83-06

10 CFR 50.55(e)

NCR BLN BLP 8233

FOURTH INTERIM REPORT

## Description of Deficiency

During design of the Essential Raw Cooling Water (ERCW) System, consideration was not given to booster pump shutdown and the prevention of backflow. Designers had considered that these pumps would operate continuously and would not require backflow prevention. During loss of offsite power or during routine maintenance the pumps would shut down thereby resulting in backflow. This deficiency was discovered during the design review process. A check valve should have been placed in the discharge line of the booster pumps to prevent backflow when the pump shuts down.

## Interim Progress

TVA has completed the drawing revisions and procurement activities detailed in our previous report.

TVA will submit a final report on this deficiency upon review and closure of the quality assurance documentation associated with this deficiency and implementation of the action required to prevent recurrence.

To prevent recurrence of this deficiency, TVA will reinstruct designers to consider pump shutdown as an operating mode in preparation of Bellefonte Nuclear Plant (BLN) criteria diagrams.