

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

34 OCT 11 P 1: 25 October 9, 1984

BLRD-50-438/84-48

BLRD-50-439/84-44

U.S. Nuclear Regulatory Commission
Region II

Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - INADEQUATE PRESSURIZER SUPPORT
ATTACHMENTS - BLRD-50-438/84-48 AND BLRD-50-439/84-44 - FIRST INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
P. E. Fredrickson on September 6, 1984 in accordance with 10 CFR 50.55(e) as
NCR BLN CEB 8413. Enclosed is our first interim report. We expect to
submit our next report on or about March 22, 1985. We consider 10 CFR Part 21
applicable to this deficiency.

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: 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
INADEQUATE PRESSURIZER SUPPORT ATTACHMENTS
BLRD-50-438/84-48, BLRD-50-439/84-44
10 CFR 50.55(e)
NCR BLN CEB 8413
FIRST INTERIM REPORT

Description of Deficiency

TVA has determined that the pressurizer's upper support wall attachments are inadequate. These two wall attachments are part of Babcock and Wilcox's (B&W) of Lynchburg, Virginia, support scheme for the pressurizer, and each attachment utilizes two shear bars. These shear bars are separated from the wall attachment's anchor plates by gaps which allow for thermal growth of the upper support member. Because of these gaps, each wall attachment separately would see a loss of coolant accident (LOCA) induced load. However, because LOCA load analysis assumed the attachments would see a LOCA induced load simultaneously (i.e., did not account for these gaps), the actual load at each support point is approximately twice the design load.

A second problem involving the shear bars also exists in that original design calculations called for dimensions on the shear bar which are larger than those called for in the current plant design. As a result of these reduced dimensions, the required shear strength cannot be developed from the shear bars.

Interim Progress

B&W has begun a reanalysis of the pressurizer support wall attachments which assumes no gap between the attachment plates and shear bars (i.e., no allowance for thermal expansion). This reanalysis is generating new loads on the embedments for the attachments and a redesign of the shear bars and embedment is underway which will eliminate the thermal expansion gaps. This redesign is a joint effort between TVA and B&W.