

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

October 14, 1982

82 OCT 18 AID: 0

USNRC REGION II  
ATLANTA, GEORGIA

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:

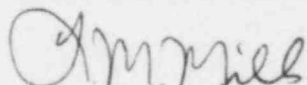
BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - ATTACHED PIPING POTENTIAL SAFETY  
CONCERN - NCR BLN NEB 8008 - SIXTH INTERIM REPORT

On November 21, 1980, R. W. Wright, NRC-OIE Region II, was informed that the subject nonconformance was determined to be reportable in accordance with 10 CFR 50.55(e). This was followed by our interim reports dated December 19, 1980, April 2 and July 17, 1981, and February 17 and June 22, 1982. Enclosed is our sixth interim report. We consider 10 CFR Part 21 to be applicable to this nonconformance. We expect to submit our next report by May 23, 1983.

If you have any questions concerning this matter, 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

Mr. James McFarland (Enclosure)  
Senior Project Manager  
Babcock & Wilcox Company  
P.O. Box 1260  
Lynchburg, Virginia 24505

8210290059 821014  
PDR ADDCK 0500043R  
S PDR

OFFICIAL COPY

TE 27

## ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
ATTACHED PIPING POTENTIAL SAFETY CONCERN  
NCR BLN NEB 8008  
10 CFR 50.55(e)  
SIXTH INTERIM REPORT

### Description of Deficiency

Babcock and Wilcox (B&W), Lynchburg, Virginia, has uncovered an inconsistency between the assumptions relative to pipe breaks in the loss-of-coolant accident (LOCA) analysis and the structural analysis of certain connecting pipes in the affected or broken loop. The LOCA analysis does not assume a consequential failure of piping caused by a LOCA pipe break. Certain piping and instrumentation connections to the Reactor Coolant System (RCS) may not be adequately designed to maintain function or to resist consequential failures as a result of the LOCA break in the Reactor Coolant System. Consequential failures of these piping connections could represent an inconsistency with the ECCS analysis performed for Bellefonte.

### Interim Progress

B&W has performed an investigation on the 205 FA plants where the high energy lines (which could be subjected to major displacements), jet impingement, and/or pipe whip from a spectrum of LOCA pipe breaks were listed. A comparison was made of the connecting lines which were designed for the appropriate displacements and loadings from LOCA breaks. This investigation significantly reduced the number of piping connections of concern. However, some potential problem areas were identified.

These problem areas were categorized into three groups as listed in the fourth and fifth interim reports. All B&W analyses for group one have been completed except for the incore piping. B&W's schedule for completing the incore piping evaluation has been changed from September 1, 1982, to March 1, 1983.

All B&W and TVA analyses for groups 2 and 3 have been completed.

B&W is also to advise TVA of the assignable cause of the nonconforming condition and action required to prevent recurrence by November 11, 1982.