

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

NRC REGION II  
ATLANTA, GEORGIA

March 23, 1983

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BLRD-50-438/82-46

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:

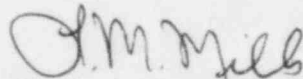
BELLEFONTE NUCLEAR PLANT UNIT 1 - WELD DEFECTS ON REACTOR BUILDING  
COOLER SUPPORTS - BLRD-50-438/82-46 - REVISED FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on June 21, 1982 in accordance with 10 CFR 50.55(e) as NCR 1853. This was followed by our interim reports dated July 20, and October 27, 1982 and our final report dated February 3, 1983. As discussed with Inspector P. E. Fredrickson on March 16, 1983, enclosed is our revised final report. We consider 10 CFR Part 21 applicable to this deficiency.

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

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## ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 1  
WELD DEFECTS ON REACTOR BUILDING COOLER SUPPORTS  
NCR 1853  
BLRD-50-438/82-46  
10 CFR 50.55(e)  
REVISED FINAL REPORT

### Description of Deficiency

Twenty-four mitered joints on 12 header supports which are used on the Reactor Building (RB) cooler coils exhibit either or both lack of fusion and undercut (greater than 1/32 inch and less than 1/8 inch). The welds were fabricated by the manufacturer, American Air Filter (AAF) Company, Incorporated, Louisville, Kentucky, and the units were supplied to TVA under the NSSS contract awarded to Babcock & Wilcox (B&W) of Lynchburg, Virginia. The AAF drawings specify that welding shall conform to the AWS Code D1.1, Revision 2, dated 1974.

### Safety Implications

Should the subject welds fail, the RB coolers could experience a loss-of-function failure. The RB coolers are used during both normal operations and accident conditions as a primary safety-related component to prevent containment overpressurization and/or overheating of the RB atmosphere. Consequently, the cited deficient welds could contribute to a condition adverse to the safety of operations of the plant.

### Corrective Action

The subject supports were returned to AAF. A joint inspection of the supports was performed there by representatives from TVA Construction, TVA Engineering Design (EN DES), and AAF and all parties have agreed upon the specific weld defects to be repaired. After the weld repairs have been completed, an inspector from EN DES's Quality Engineering Branch (QEB) will reinspect all the repaired areas at AAF's shop to verify that the welds now conform to the requirements of AWS Code D1.1, revision 2, dated 1974, as specified on the AAF drawings. AAF will prepare a weld map to document the repairs made for each support. A copy of the weld map will be included when the supports are returned to the Bellefonte site. Final acceptance of the reworked supports will be documented upon source inspection and acceptance.

To prevent recurrence, QEB has informed the responsible TVA regional quality control office of this nonconforming condition and requested that they increase their source surveillance on all future shipments from any of AAF's manufacturing facilities.