

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

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December 10, 1983

BLRD-50-438/82-49  
BLRD-50-439/82-44

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 - UNDERSIZED FILLET WELDS MADE  
BEFORE MID-1980 - BLRD-50-438/82-49, BLRD-50-439/82-44 - FOURTH INTERIM  
REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
R. V. Crlenjak on July 22, 1982 in accordance with 10 CFR 50.55(e) as  
NCR 1888. This was followed by our interim reports dated August 23,  
1982 and January 10 and May 2, 1983. Related NCR 1968 has also been  
determined to be reportable in accordance with 10 CFR 50.55(e). Enclosed  
is our fourth interim report. We expect to submit our next report by  
June 27, 1984.

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*  
*by RLS*

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  
UNDERSIZED FILLET WELDS MADE BEFORE MID-1980  
NCRs 1888 AND 1868  
BLRD-50-438/82-49, BLRD-50-439/82-44  
10 CFR 50.55(e)  
FOURTH INTERIM REPORT

### Description of Deficiency

Investigations performed, as required by NCR 1173, have disclosed evidence that some of the 1/4 inch and larger fillet welds required on electrical cable tray supports, HVAC duct supports and other miscellaneous structural features are undersized where visual inspections were made before mid-1980. The cause of this deficiency can be attributed to craftsmen and inspectors not possessing fillet weld gauges to aid in the determination of the proper size of the fillet welds. The use of fillet weld gauges would have provided proper pre-inspection feedback to the craftsmen as to the adequacy of weld size (NCR 1968) and would have allowed the inspector to perform a proper inspection (NCR 1888). Similar deficiencies involving undersized welds have been documented and reported as 10 CFR 50.55(e) items per NCRs 1173, 1188, 1203, and 1563.

After mid-1980, the conditions described above do not exist because of improvements in TVA's quality assurance program for weld inspection. One reason for this was the creation of intensified training and certification programs relating to the visual inspection of welds. In addition to this, since mid-1980 TVA's attention has been focused to assuring that all weld fabricated structures are erected and inspected to exact drawing and specification requirements.

### Interim Progress

All welds identified under the scope of these NCRs were inspected and the results have been forwarded to TVA's Division of Engineering Design (EN DES). EN DES has partially completed the evaluation and disposition of the deficient welds with a determination to "use-as-is" or rework. This information will be forwarded on a continuing systematic basis to TVA's Division of Construction (CONST) for proper resolution.

TVA will provide a final report upon the conclusion of EN DES's evaluation of the affected welds.