

TENNESSEE VALLEY AUTHORITY
USNRC REGION II
CHATTANOOGA, TENNESSEE 37401
ATLANTA, GEORGIA
400 Chestnut Street Tower II

83 APR 13 AIO: 12

April 12, 1983

BLRD-50-438/83-03
BLRD-50-439/83-01

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 - UNQUALIFIED WELDING ON CABLE TRAY
SUPPORTS - BLRD-50-438/83-03, BLRD-50-439/83-01 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
P. E. Fredrickson on December 13, 1982 in accordance with 10 CFR 50.55(e)
as NCR 2120. This was followed by our first interim report dated
January 10, 1983. Enclosed is our final report. TVA does not now consider
the subject nonconforming condition adverse to the safe operation of the
plant. Therefore, we will amend our records to delete the subject noncon-
formance as a 10 CFR 50.55(e) item.

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

8304190483 830412
PDR ADOCK 05000438
S PDR

OFFICIAL COPY

1001

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
UNQUALIFIED WELDING ON CABLE TRAY SUPPORTS
BLRD-50-438/83-03, BLRD-50-439/83-01

10 CFR 50.55(e)

NCR 2120

FINAL REPORT

Description of Deficiency

Three TVA welders working on safety-related cable trays made welds using weld processes they had not been qualified to perform. The welders had been qualified to perform short-circuit Gas Metal Arc Welding (GMAW) but the weld process used on the supports in question was the globular transfer process. The globular transfer process is also a GMAW technique but the amperage and voltage settings used are higher than those used with the short-circuit process. The same welders also used short-circuit GMAW welding for some welds beyond the limitations stated on the welding procedure.

Safety Implications

This nonconformance was evaluated with respect to TVA's in-house requirements. It does not involve the governing code of this fabrication, American Welding Society (AWS) D1.1, under the provisions of which the welders and the welding procedure are qualified for the work performed. The in-house requirements are in consideration of the difference in operational characteristics of the short circuiting and globular transfer variations of the GMAW welding process and the appropriateness of each for certain welding applications. They provide extra assurance for welder skill with the process variation to be used and limit application of the short circuiting variation to relatively thin materials for which TVA considers the process most suited.

For the fabrication involved in this nonconformance (groove and fillet welds in material 3/8-inch thick and less) the nonconformance is not considered to compromise the usability or structural integrity of the affected cable tray supports. Consequently, the subject welds may be used "as-is."

Therefore, there are no safety implications to Bellefonte, and TVA no longer considers this item to be reportable under 10 CFR 50.55(e).