

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

March 29, 1982

BLRD-50-438/81-72

BLRD-50-439/81-70

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 - WELDS BY JOHNSON MACHINE WORKS ON
REVOLVING PLATFORM - BLRD-50-438/81-72, BLRD-50-439/81-70 - REVISED
FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. V. Crlenjak on November 6, 1981 in accordance with 10 CFR 50.55(e) as NCR 1638. This was followed by our interim reports dated December 4, 1981 and January 22, 1982 and our final report dated March 9, 1982. As discussed with R. V. Crlenjak by telephone on March 17, 1982, enclosed is our revised final report. We consider 10 CFR Part 21 applicable to this deficiency.

The reason for the revision is to change the expected completion date of the corrective action. The date was not met because the responsible Bellefonte Construction Engineering Unit does not have the manpower available to perform the required nondestructive examination at this time.

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
L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
WELDS BY JOHNSON MACHINE WORKS ON REVOLVING PLATFORM
BLRD-50-438/81-72, BLRD-50-439/81-70
10 CFR 50.55(e)
REVISED FINAL REPORT

Description of Deficiency

Welds on the revolving platform trucks, manufactured by Johnson Machine Works, Chariton, Iowa, do not comply with the American Welding Society specification D1.1, as required by the procurement contract. The subject welds exhibit overlap, undercut, spatter, and insufficient reinforcement.

The following list identifies the welds which were found not to comply with AWS D1.1 requirements on the unit 2 revolving platform truck.

REFERENCE JOHNSON MACHINE WORKS DRAWING 55904, SHEET 7

<u>Weld Components</u>	<u>Weld Defects</u>
1. P1. "PA" to Channel "MA"	Insufficient Reinforcement ($\sim 1/16"$)
2. P1. "PC" to Channel "MA"	Overlap, Insufficient Reinforcement ($\sim 1/16"$), Undercut ($\sim 1/32"$ - $3/32"$)
3. P1. "PJ" to Channel "MA"	Insufficient Reinforcement ($\sim 1/16"$) Undercut ($\sim 1/32"$ - $1/8"$)
4. P1. "PM" to P1. "PP"	Insufficient Reinforcement (varies from $\sim 1/32"$ - $1/16"$)
5. P1. "PP" to P1. "PA"	Undercut ($\sim 1/32"$ - $3/32"$)
6. P1. "PP" to Channel "MA"	Overlap, LOF @ Weld Ties, Undercut ($\sim 1/32"$ - $3/32"$), Spatter, Insufficient Reinforcement ($\sim 1/16"$)
7. P1. "PP" to P1. "PQ"	Overlap, Spatter, Undercut ($\sim 1/32"$ - $3/32"$)
8. P1. "PT" to P1. "PA"	Undercut ($\sim 1/32"$ - $3/32"$), Welded continuous on two sides instead of intermittent as required by the drawing.

TVA has determined that the extent of the weld deficiencies on the unit 1 truck is the same as the deficiencies noted on the unit 2 truck.

Safety Implications

The revolving platforms, which are located in each of the primary containment domes, provide access to the Reactor Building Spray System. Failure of the listed welds could lead to collapse of the entire structure and damage to the safety-related equipment below which could adversely affect safety of plant operation.

Corrective Action

An analysis of items 1, 2, and 4 through 8 indicates that the welds are adequate as they currently exist. Item No. 3 will be repaired in accordance with AWS D1.1, Section 3.7. All new welding will be either magnetic particle or dye-penetrant tested. This disposition has been determined to be appropriate for the deficiencies noted on both unit 1 and unit 2 trucks.

The corrective action prescribed has been completed on the unit 2 truck, and the only action left to complete on the unit 1 truck is the nondestructive examination inspection of the weld repairs. TVA expects the corrective actions to be complete by May 23, 1982.

To prevent future welding deficiencies, TVA has initiated a training program for Quality Engineering Branch (QEB) employees per QEB-AI 313.1 "Training and Certification of QEB Personnel" to certify QEB source inspectors with the American Welding Society (AWS). In addition, source inspectors will be allotted more time for inspection which should allow a more comprehensive inspection and detection of similar deficiencies.