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 FACIL: 50-438 Bellefonte Nuclear Plant, Unit 1, Tennessee Valley Au 05000438  
 50-439 Bellefonte Nuclear Plant, Unit 2, Tennessee Valley Au 05000439  
 AUTH. NAME                      AUTHOR AFFILIATION  
 MILLS, L.M.                      Tennessee Valley Authority  
 RECIP. NAME                     RECIPIENT AFFILIATION  
 O'REILLY, J.P.                  Region 2, Atlanta, Office of the Director

SUBJECT: Final deficiency rept re crane valves-welding concern first reported on 810220. valves to be post weld heat treated. Fourth lot of weld wire to be removed & seam rewelded before post heat treatment.

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 TITLE: Construction Deficiency Report (10CFR50.55E)

NOTES:

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INTERNAL:	ASLBP/J. HARD		1	1	D/DIR HUM FAC15		1	1
	EDO & STAFF	19	1	1	EQUIP QUAL BR11		1	1
	HYD/GEO BR	22	1	1	I&E	09	1	1
	LIC QUAL BR	12	1	1	MPA	20	1	1
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	PRUC/TST REV	13	1	1	QA BR	14	1	1
	REG FILE	01	1	1	RUTHERFORD, W. IE		1	1
STANDRDS DEV	21	1	1					
EXTERNAL:	ACRS	16	16	16	LPDR	03	1	1
	NSIC	08	1	1				

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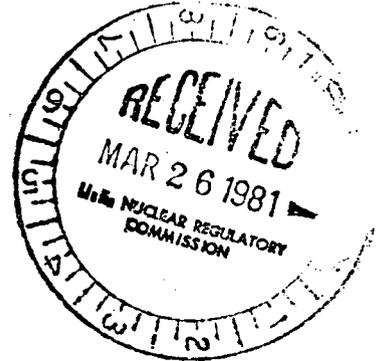
TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

March 20, 1981

BLRD-50-438/81-20  
BLRD-50-439/81-21



Mr. James P. O'Reilly, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Region II - Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2 - CRANE VALVES-WELDING CONCERN -  
BLRD-50-438/81-20, BLRD-50-439/81-21 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector  
J. Crlenjak on February 20, 1981, in accordance with 10 CFR 50.55(e) as  
NCR 3-R1. Enclosed is our final report.

If you have any questions concerning this matter, please get in touch with  
D. L. Lambert at FTS 857-2581.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Jr., 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  
CRANE VALVES - WELDING CONCERN  
BLRD-50-438/81-20, BLRD-50-439/81-21  
10 CFR 50.55(e)  
FINAL REPORT

Description of Deficiency

The 8" main steam atmospheric dump valves (total of 4) were manufactured by Crane Company, Warrington, Pennsylvania. These valves are ASME III Class 2 valves located outside containment. The valve bodies and support pads were welded without the 200<sup>o</sup>F minimum required preheat as required by ASME III for safety-related valves. In addition, four lots of weld wire that were used during manufacturing had not been qualified. This deficiency was found at the vendors facility and the valves have not been delivered to TVA.

Safety Implications

The use of unqualified welding material and lack of preheat may have resulted in welds of indeterminate properties. Failure of the valves may compromise the integrity of the main steam system which could adversely affect plant safety.

Corrective Action

All four valves will be post weld heat treated. Material from two lots of weld wire are available for qualification. Material from the third lot of weld wire is not available. Therefore, a sample of this material was removed from the valve and will be qualified by impact testing. The removal area will be repaired before post weld heat treatment of that valve.

The fourth lot of weld wire cannot be qualified. It was used in the circumferential weld of one valve only. This weld material will be removed and the seam will be rewelded before post weld heat treatment of the valve.

Applicable Crane Company procedures have been revised to include requirements for post weld heat treatment of valves.

All repairs will be completed and inspected per applicable criteria before delivery to TVA.