

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

February 3, 1983

BLRD-50-438/82-19

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 UNIT 1 - DEFICIENT WELDOLETS ON NAVCO SPOOL
PIECES - BLRD-50-438/82-19 - FOURTH INTERIM REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on February 24, 1982 in accordance with 10 CFR 50.55(e) as
NCR 1740. This was followed by our interim reports dated March 24,
June 23, and October 1, 1982. Enclosed is our fourth interim report. We
expect to submit our next report by June 6, 1983. 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

DS Kammer

for 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

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNIT 1
DEFICIENT WELDOLETS ON NAVCO SPOOL PIECES
NCR 1740
BLRD-50-438/82-19
10 CFR 50.55(e)
FOURTH INTERIM REPORT

Description of Deficiency

Five weldolets (WOLs) on spool pieces 1ND-196, 1ND-198, 1ND-200, 1ND-202, and 1NV-242 exhibit welds that do not conform to the ASME Section III Subsection NB (for class 1 components) or Subsection NC (for class 2 components) requirements for fabrication. The welds are typically below flush 1/64 inch to 3/32 inch. In addition, a weld at the upper apex of a special thermowell boss on spool piece 1NV-241 was ground down below flush. The subject weldolets are installed in the Decay Heat Removal (ND) System and Makeup and Purification (NV) System piping. The vendor on these items was National Valve and Manufacturing Company (NAVCO) of Pittsburgh, Pennsylvania.

Interim Progress

NAVCO performed calculations in accordance with the ASME and ANSI B31.1 piping codes to verify the amount of weld metal required between WOLs and boss and pipe for all Bellefonte principal piping systems and for all two-inch and under WOLs and bosses. The results of NAVCO's work indicates that some weld "underfill" is acceptable.

However NAVCO did not provide their calculations to support this conclusion. Consequently, TVA is requesting the data from NAVCO in order to determine if it meets the ASME criteria.

TVA is initiating a WOL sampling program to determine the scope of the problem. Five WOLs will be inspected from each system on which NAVCO WOLs are used. The sample data will be evaluated by statistical methods to determine if a generic problem exists with NAVCO WOLs. TVA will provide an update of our findings upon evaluation of the sample data.