

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

MAR 19 9:19 AM
March 14, 1984

BLRD-50-438/84-19

BLRD-50-439/84-18

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 - DEFECTS IN REACTOR PRESSURE VESSEL
STUD HOLES - BLRD-50-438/84-19, BLRD-50-439/84-18 - FIRST INTERIM REPORT

The subject deficiency was initially reported for unit 1 to NRC-OIE
Inspector P. E. Fredrickson on February 16, 1984 in accordance with 10 CFR
50.55(e) as NCR 2857. NCR 2915 was subsequently identified which
documented the deficiency for unit 2. We shall be reporting on both NCRs
simultaneously. Enclosed is our first interim report.

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
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Atlanta, Georgia 30339

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ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
DEFECTS IN REACTOR PRESSURE VESSEL STUD HOLES
BLRD-50-438/84-19, BLRD-50-439/84-18
NCRs 2857 AND 2915
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

It was identified that 56 of the 60 unit 1 reactor pressure vessel (RPV) stud bolt holes have damaged, corrosion pitted, tool chattered, stained and rough threads. Five of the stud holes were rejectable when checked with the vendor-supplied no-go gage (used for checking dimensional configuration of the threads). This was documented on Nonconformance Report (NCR) 2857.

This condition has subsequently been identified as applicable to unit 2 in that 57 of the 60 unit 2 stud holes have similar corrosion damage, tool chatter and rough threads. Of the 58 stud holes gaged, six were rejectable when checked with go and no-go gages. Two of the RPV stud holes were not checked due to the insertion of alignment studs. This condition for unit 2 has been documented on NCR 2915.

TVA has determined that the corrosion damage and staining is due to a lack of adequate preventive maintenance and inspections. Some of the damaged threads may be due to mishandling of the temporary studs during installation of the RPV. Preventive maintenance was inadequate because the manufacturer's maintenance instructions were not wholly included on the maintenance inspection requirements sheet, attachment B of Bellefonte Nuclear Plant Quality Control Procedure (BNP-QCP) 1.3 "Preventive Maintenance."

Interim Progress

The subject NCRs have been referred to TVA's Division of Engineering Design (EN DES) to determine the acceptability of the present condition of the RPV stud bolt holes, and to determine the repair procedures to be used as required. EN DES has contacted the vendor, Babcock and Wilcox, and will consider the vendor's recommendations in the resolution of this deficiency.

The maintenance inspection requirements sheet, attachment B of BNP-QCP 1.3, has been revised to include the vendor's requirements for inspection of the RPV stud bolt holes. This includes inspecting monthly for cleanliness, rusting, pitting, and other deterioration, and to require the reapplication of the recommended protective coating on the threads at 6-month intervals. All protective caps and O-Rings are to be verified to be in place monthly.