

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

October 19, 1982

BLRD-50-438/82-50

BLRD-50-439/82-45

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 - CUTTING OF REBAR IN AUXILIARY
FEEDWATER PIPE TRENCH WITHOUT APPROVAL - BLRD-50-438/82-50,
BLRD-50-439/82-45 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
R. V. Crlenjak on July 27, 1982 in accordance with 10 CFR 50.55(e) as
NCR 1872. This was followed by our first interim report dated August 24,
1982. Enclosed is our final report.

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, DC 20555

82 OCT 21 9 5
USNRC REGION II
ATLANTA, GEORGIA

8210260251 821019
PDR ADOCK 05000438
S PDR

ORIGINAL COPY

IE 27

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2
CUTTING OF REBAR IN AUXILIARY FEEDWATER PIPE TRENCH WITHOUT APPROVAL
NCR 1872
BLRD-50-438/82-50, BLRD-50-439/82-45
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

The auxiliary feedwater (AFW) pipe trench design and construction drawings (8YW0316X1) have been completed since September 1977. The AFW pipe trench is a reinforced concrete structure housing quality level pipes (category I) and noncategory I pipes. To date seven work releases have been found allowing construction to cut reinforcing steel to install anchor bolts for pipe supports. The investigation into the cause revealed that the work releases had referenced the Auxiliary Building drawings rather than the AFW pipe trench drawings to approve cutting reinforcement. This was because of an error on the part of site engineering. Therefore, these releases were issued without TVA's Division of Engineering Design's prior approval.

Safety Implications

This trench houses the 6-inch auxiliary steam line and two essential air lines which are safety-related components and must be functional during all plant operations. The failure of any portion of the trench system could have disabled the lines. The structural adequacy of the AFW pipe trench could be impaired or reduced because of cutting the reinforcing steel.

Corrective Action

The areas of the AFW trench affected by the work releases have been investigated and determined to be structurally adequate. The maximum number of rebars were assumed severed and calculations performed to verify that the surrounding reinforcement is adequate to carry the additional stresses. No drawing revisions are required. To prevent recurrence, construction personnel have been instructed to review TVA's Division of Engineering Design drawings more carefully before approval of work releases to ensure that the drawings permit the cutting of rebar.