

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

October 1, 1979

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:

HARTSVILLE AND PHIPPS BEND NUCLEAR PLANTS ALL UNITS - REPORTABLE
DEFICIENCY - UNACCEPTABLE BENDING OF WELDED STUD ANCHORS ON
EMBEDDED PLATES (NCR'S HNP-A-064 AND PBNP-039)

Initial report of the subject deficiency was made to W. B. Swan, NRC-OIE, Region II, on August 30, 1979, for the Hartsville Nuclear Plant and on August 31, 1979, for the Phipps Bend Nuclear Plant. In compliance with paragraph 50.55(e) of 10 CFR Part 50, we are enclosing the first interim report of the subject deficiency. We anticipate transmitting another report to NRC-OIE on or before June 1, 1980. If you have any questions regarding this matter, please call Tish Jenkins at FTS 874-2014.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure) ✓
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

POOR ORIGINAL

79101 00120

Boia
S/1
1805 323

ENCLOSURE

HARTSVILLE AND PHIPPS BEND NUCLEAR PLANTS ALL UNITS
UNACCEPTABLE BENDING OF WELDED STUD ANCHORS
10 CFR 50.55(e) REPORT NO. 1 (INTERIM)
NCR'S HNP-A-064 AND PBNP-039

On August 30 and 31, 1979, TVA informed NRC-OIE Inspector W. B. Swan, of a potentially reportable condition under 10 CFR 50.55(e) regarding unacceptable bending of welded stud anchors on embedded plates at the Hartsville Nuclear Plant and the Phipps Bend Nuclear Plant, respectively.

This is the first interim report on this deficiency. We anticipate transmitting another report to NRC-OIE on or before June 1, 1980.

DESCRIPTION OF DEFICIENCY

Construction personnel were bending welded stud anchors (Nelson studs, etc.) to varying angles in order to clear interferences during the placement of embedments for concrete pours. No instructions on bending of these welded stud anchors existed. Anchors bent may have been designed to carry tension loads and the bending could reduce the capability of the embedment to perform as intended by the designer.

CAUSE OF THE DEFICIENCY

The cause of the deficiency is the construction forces not following design drawings due to lack of specific instruction being provided by the design organizations to construction on how to handle embedment interferences.

CORRECTIVE ACTION

Interim instructions have been developed and issued by the Division of Engineering Design to the construction organization on permitted bending of welded stud anchors (studs). A testing program is being initiated to determine the effect of bending of the studs on the capability of the embedment to perform as designed. The results of the test program will be used to develop final criteria on the bending of the studs.

Other corrective action will be addressed in the next report on this deficiency.

Investigations are being made to determine if other TVA plants are affected by this deficiency.

1805 324