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TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

NRC REGION II
ATLANTA, GA

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August 11, 1980

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 NUCLEAR PLANT - REPORTABLE DEFICIENCY - ANCHOR SPACING ON
SURFACE MOUNTED PLATES (NCR HNP-A-106)

Initial notification of the subject deficiency was made to NRC-OIE,
Region II, Inspector F. S. Cantrell on July 11, 1980. In compliance with
paragraph 50.55(e) of 10 CFR Part 50, enclosed is the final report of the
subject deficiency. If you have any questions regarding this subject,
please call Jim Domer at FTS 857-2014.

Very turly 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

HARTSVILLE NUCLEAR PLANT UNIT A1 ANCHOR SPACING ON SURFACE-MOUNTED PLATES 10 CFR PART 50.55(e) REPORT NO. 1 (FINAL) NCR HNP A-106

On July 11, 1980, TVA informed NRC-OIE, Region II, Inspector F. A. Cantrell of a potentially reportable condition under 10 CFR Part 50.55(E) concerning anchor spacing on installed surface-mounted plates in Hartsville Nuclear Plant Unit A1 not meeting spacing requirements of C. F. Braun STRIDE Specification 300-06, Revision 6.

This is a final report on the subject condition.

Description of Deficiency

Installation of surface-mounted plates in the STRIDE portion of the Hartsville Nuclear Plant is governed by C. F. Braun STRIDE Specification 300-06 (hereinafter referred to as Spec 300-06). On May 15, 1980, C. F. Braun issued Revision 6 of Spec 300-06 which defined minimum spacing of anchors for those plates. Previous to issuance of Revision 6, TVA had been installing surface-mounted plates in Hartsville unit A1 to Spec 300-06, Revision 5, as required. However, 30 of those plates which have been installed do not meet the new requirements of 300-06, Revision 6, concerning minimum anchor spacing.

Safety Implications

Discussions with GE/C. F. Braun revealed that the minimum anchor spacing was established in Spec 300-06, Revision 6, primarily to prevent anchors on immediately adjacent surface-mounted plates from being too close and causing overlap of their anchorage forces within the concrete. GE/C. F. Braun does not anticipate that omission of the minimum spacing requirement in Spec 300-06, Revision 5, and earlier revisions resulted in any plates being mounted which would lead to a substantial safety hazard or adversely affect the safety of operations.

GE/C. F. Braun reasoning is based on engineering judgment considering that the plates are designed with a factor of safety of 4 or 5 and adjacent plates will not necessarily receive their maximum design loads simultaneously (e.g., thermal loads). Also, anchors placed too close together on a single plate could result in a reduction of the individual anchor capacities, but the overall plate capacity would not necessarily be reduced (i.e., load is spread over more anchors).

TVA concurs with the GE/C. F. Braun assessment. However, since TVA does not plan to reanalyze the plates involved (see corrective action) and thereby confirm that no safety concern existed, TVA considers this condition to be reportable under 10 CFR Part 50.55(e).

Corrective Action

TVA has identified all surface-mounted plates at Hartsville that do not conform to the requirements of Spec 300-06, Revision 6. TVA will remount each of these plates with anchors which meet the spacing requirements of Spec 300-06, Revision 6. No reanalysis will be performed since the current specifications will be complied with. This work will be completed on or by November 14, 1980.