TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 27, 1981

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:

PHIPPS BEND NUCLEAR PLANT UNIT 1 - REPORTABLE DEFICIENCY - EMBEDDED PLATES WITHOUT HEAT TRACEABILITY (NCR PBNP-156)

Initial notification of the subject deficiency was made to NRC-OIE, Region II Inspector R. W. Wright on October 14, 1980. TVA's final report on this deficiency was submitted on January 13, 1981, followed by a supplemental report on March 2, 1981. As stated in our letter dated May 1, 1981, we are enclosing a revised final report on the subject deficiency. If you have any questions, please call Jim Domer at FTS 857-2014.

Very truly 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
PHIPPS BEND NUCLEAR PLANT UNIT 1
EMBEDDED PLATES WITHOUT HEAT TRACEABILITY
10 CFR 50.55 (e)
NCR NO. PBNP-156
REPORT NO. 5
REVISED FINAL REPORT

Description of Deficiency

Embedded plates used to connect and strengthen supports for systems in the auxiliary building are stamped with heat numbers which are not currently on Phipps Bend's list of acceptable material heat numbers. This anomaly was detected during a routine inspection. Because the heat numbers of the subject plates are not on Phipps Bend's heat lists, the composition of these plates was not known.

The nature of the deficiency is such that an exact determination of its cause is not possible. The deficiency was probably due to human error in the recording of heat numbers as the materials were received.

Safety Implications

Had the materials used in the embedded plates at Phipps Bend been deficient, the adequacy of attached supports would have been concurrently suspect. Because some of these plates support safety-related equipment; failure of the plates could have degraded the safe operations of the plant. However, since the materials in the plates have been determined to be adequate, no degradation of the safety of the plant existed.

Corrective Action

All plates identified with improper heat numbers have been 1 inch or 1-1/4 inch thick and are no less than nine inches wide. All receiving documentation for steel plates which meet the above dimensional specifications has been reviewed and accepted for use. This record review substantiated that all material received on this site and used for these embedded plates has met the requirements of ASTM A-36.

For further verification, an analysis has been performed on a random sampling basis of the questionable plates by TVA's Singleton Materials Engineering Laboratory. All plates tested met the requirements of ASTM A-36.

TVA has determined that the materials used are as specified and will use the plates as installed.

The appropriate personnel have been reinstructed in the need for proper and accurate documentation of material heat numbers as specified in Receiving, Inspection, Storage, and Preventative Maintenance Procedure C-501. Quality Control Instruction Procedure C-301 has been revised as follows:

3. Instructions

1.A. Verify that heat numbers on the material are acceptable for use and that the material is the type specified.

This revision is to prevent any material from entering the crafts shops which is not identified by a heat number recorded in the Phipps Bend heat number log and recognized as acceptable material. Therefore, whether the improper heat number log entry was human error or otherwise, the error will be detected by implementation of this procedure.

To verify implementation of corrective action, a follow-up audit was conducted by the Phipps Bend site Quality Assurance unit during the week of May 4-8, 1981. The results of this audit indicate that the corrective action has been effective.

All actions described above have been completed.