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TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

DEC 30 P 3:20

December 22, 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:

PHIPPS BEND NUCLEAR PLANT UNITS 1 AND 2 - REPORTABLE DEFICIENCY -
DEFICIENT WELDS ON WEIR WALL LINER PLATES (NCR PBNP 135 - FINAL)

Initial notification of the subject deficiency was made to NRC-OIE,
Region II, Inspector R. W. Wright on August 20, 1980. The first and
second interim reports were submitted on September 19 and November 24,
1980, respectively. 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, please call Jim Domer at FTS 857-2014.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills
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



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ENCLOSURE
PHIPPS BEND NUCLEAR PLANT UNITS 1 AND 2
DEFICIENT WELDS ON WEIR WALL LINER PLATE
10CFR50.55(e)
NCR PBNP-135
REPORT NO. 3 (FINAL)

On August 20, 1980, TVA informed NRC-OIE Region II Inspector, R. W. Wright, of a potentially reportable condition under 10CFR50.55(e) regarding deficient welds on the weir wall liner plates. This structure was fabricated by Stellar Manufacturing Company, Collingswood, New Jersey. This is the final report on this condition.

Description of Deficiency

The weir wall liner plates designated for Phipps Bend Nuclear Plant have been shipped to the site. All 44 plates exhibit examples of rejectable welding per the inspection criteria established in Section III of the ASME Code. Additionally, some carbon steel angles were welded to the stainless steel liner plates using carbon steel welding electrodes. This is contrary to ASME III Code requirements and C. F. Braun Specification 300-11.

Safety Implications

The use of the incorrect electrode on some welds results in a weld of indeterminate properties which may be susceptible to cracking or inadequate adhesion to the stainless steel. Also, many welds made with the proper electrode were of poor quality and required repair. The many occurrences of unacceptable welds could have degraded the structural integrity of the weir wall which could have adversely affected plant safety.

Corrective Action

All welds made with the incorrect electrode have been removed and the welds were made with the proper weld electrode. All welds which were of unacceptable quality and which were made with the proper electrode have been reworked to remove the deficiencies. All welds were inspected to all applicable criteria.