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

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April 12, 1982

HTRD-50-518/82-12

U.S. Nuclear Regulatory Commission
Region II
ATTN: James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

HARTSVILLE NUCLEAR PLANT A UNIT 1 - REPORTABLE DEFICIENCY - INCORRECT ORIFICE SIZE IN RHR DISCHARGE LINE INDICATED ON FABRICATION SPECIFICATION - HTRD-50-518/82-12

The subject deficiency was initially reported to NRC-OIE, Region II, Inspector Austin Hardin on March 4, 1982, as NCR PRC 81-12. In accordance with paragraph 50.55(e) of 10 CFR Part 50, we are enclosing our final report. As discussed with NRC Inspector Ross Butcher on April 6, 1982, a six-day extension was granted on the submittal of this report. If you have any questions, please call Jim Domer at FTS 858-2725.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc: Mr. R. C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE
HARTSVILLE NUCLEAR PLANT A UNIT 1
INCORRECT ORIFICE SIZE IN RHR DISCHARGE LINE INDICATED ON
FABRICATION SPECIFICATION
10CFR50.55(e) (FINAL)
NCR PRC 81-12
HTRD-50-518/82-12

Description of Deficiency

The reportable defect is an error that was found in a C. F. Braun/General Electric (San Jose, California) document (specification 250-01 R7) released for fabrication for Hartsville A1. The error specified a 0.63"-diameter orifice requirement in the fabrication specification instead of the actual required diameter of 6.31". The error was found while performing a normal ongoing review of the containment design to ensure its conformance with GE containment requirements. The error was discovered and corrected after the drawing was released for fabrication but before the hardware was fabricated.

Safety Implication

The system affected by this error is the RHR discharge line to the containment pressure suppression pool. The purpose of the orifice is to create the correct flow and velocity from the RHR discharge line to promote circulation and mixing.

In the event of a LOCA, the consequence of this error, had it not been corrected, could have been the overpressurization of the containment. The use of a 0.63" diameter orifice in the discharge line would cause a severe reduction in the RHR heat removal capability from the suppression pool.

Corrective Action

The 0.63"-diameter orifice bore was a typographical error. Although the error was discovered after the drawing was released for fabrication, it was corrected before the hardware was fabricated. Specification 250-01, revision 8, was issued which corrected the error. Recurrence of this type of error is unlikely since it involves unique, isolated incidence of human error through misplacing a decimal point which was not caught in the initial checking process. However, the specification writers and reviewers have been alerted to be more thorough in their review of information.