TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

March 5, 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:

SEQUOYAH NUCLEAR PLANT UNIT 2 - THERMON HEAT TRANSFER CEMENT - NCR SQN CEB 8036 - FINAL REPORT

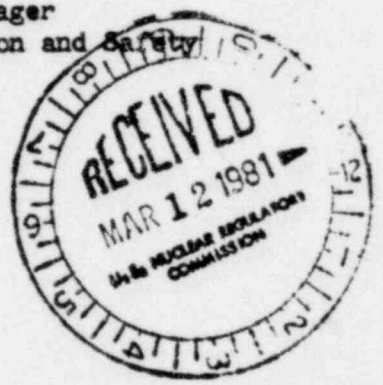
The subject deficiency was initially reported to NRC-OIE Inspector M. Thomas on November 26, 1980, in accordance with 10 CFR 50.55(e). An interim report was submitted on December 29, 1980. Enclosed is our final report.

If you have any questions, please get in touch with D. L. Lambert at FTS 857-2581.

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

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ENCLOSURE

SEQUOYAH NUCLEAR PLANT UNIT 2
THERMON HEAT TRANSFER CEMENT
NCR SQN CEB 8036
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

During an inspection required by IE Bulletin 79-14, it was noted that heat transfer cement was installed over the heat tracing and piping in the area of all pipe hangers for process piping containing borated water (i.e., Safety Injection System, Chemical and Volume Control System, and the Waste Disposal System). A subsequent evaluation of the use of heat transfer cement at all TVA nuclear plants determined that the problem exists at Sequoyah and Watts Bar. This was reported on Watts Bar as NCR WBN CEB 8103. The cement was manufactured by Thermon Manufacturing Company but was installed by TVA. The cement is pliable when installed and fills all hanger and pipe clearances specified by the TVA construction specification. When the cement dries, it is very hard and restricts any relative movement between the pipe and hanger. This condition was not accounted for in the original piping analysis, and it is unacceptable.

Safety Implications

This condition jeopardizes the overall qualification (seismic, thermal, etc.) of the piping on which the cement is used. Thermal fatigue or a seismic event could have led to overstressing of this safety-related piping and could have thereby adversely affected the safety of the plant.

Corrective Action

The heat transfer cement will be removed from all areas which restrict specified capabilities for pipe movement. To alleviate the problem, TVA will revise the support design to accommodate the heat tracing and cement or will provide a bridge to carry the heat tracing and cement over or around the supports such that the specified movement capabilities are unaffected. Installation of the appropriate fix will be completed before fuel loading in unit 2.

TVA will implement procedures to ensure that our system designers have given proper consideration to heat tracing, cement, and insulation in their design. These procedures will be effected on or before March 13, 1981.