80-040-03L
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80-042-03L

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

80 AUG 15 A11 : 22

August 13, 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:

SEQUOYAH NUCLEAR PLANT UNIT 2 AND WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - HYDROGEN DETECTION SYSTEM INTEGRITY - NCR SQN EEB 8016 AND NCR WBN EEB 8003 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector M. Thomas on July 14, 1980, in accordance with 10 CFR 50.55(e). Enclosed is our final report.

If you have any questions concerning this matter, 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, Jr., 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
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
HYDROGEN DETECTION SYSTEM INTEGRITY
NCR'S SQN EEB 8016 AND WBN EEB 8003
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

The hydrogen detection system for Sequoyah and Watts Bar is supplied by COMSIP, Incorporated, South El Monte, California. COMSIP has conducted some tests which reveal the potential for damage to the sample pumps. During the test, the outlet valve in the discharge line was closed while the pump was running. The subsequent discharge pressure buildup caused the connecting rods to separate from the crank shaft which induced a strain on the pump diaphragm. This condition could also occur if the containment isolation valve in the discharge line was closed.

Safety Implications

The excess strain on the pump diaphragm could have caused the diaphragm to rupture, resulting in a breech of system integrity. This would render the system inoperable which could adversely affect plant safety.

Corrective Action

COMSIP is providing a field modification kit for the sample pumps. The modification will be to install a bypass line from the discharge to the pump suction. This will provide a flow path for any system configuration and prevent any serious pressure buildup. TVA has ordered the modification kits and anticipates that installation will be completed by December 5, 1980.