50-328

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

November 5, 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 - ERCW PUMP MOTOR RELAYS - NCR SQN EEB 8022 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector R. W. Wright on October 6, 1980, in accordance with 10 CFR 50.55(e). 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
ESSENTIAL RAW COOLING WATER PUMP MOTOR RELAYS
NCR SQN EEB 8022
10 CFR 50.55(e)
FINAL REPORT

Description of Deficiency

General Electric type IAC66 overcurrent relays with a tap range of 1.5 to 3.0 amperes were installed as part of the 6900 volt shutdown board. These relays formed the overcurrent protection system for the 600-hp essential raw cooling water (ERCW) pump motors located in the original ERCW pumping station. A new ERCW pumping station has been constructed with new ERCW pump motors rated at 700 hp. These new 700-hp ERCW pump motors were installed using the existing overcurrent protection system designed for the original 600-hp ERCW pump motors. The original overcurrent relays are not adequate to handle the increased amperage associated with the new 700-hp ERCW pump motors.

Safety Implications

The increased amperage associated with the new 700-hp ERCW pump motors has resulted in the annunciation contacts being picked up and brazed together during normal operation. If an ERCW pump motor were to be shut down, it would not be possible to restart the motor because of failure of the relay contact to reopen. This condition could adversely affect the safe operation of the plant because of insufficient essential raw cooling water.

Corrective Action

For the 700-hp ERCW pump motors that are now in operation, the overcurrent relays have been changed out with General Electric type IAC66 overcurrent relays with a tap range of 2.5 to 5.0 amperes. It has been verified that this range will allow the ERCW pump motors to start without damage to the relays and will coordinate with existing upstream protective devices.

The remaining relays will be changed out with relays qualified to handle the increased amperage before final switchover to the new ERCW pumping station.

TVA has taken action to prevent the recurrence of a similar problem by the issuance of engineering procedure (EP) 4.02. This EP requires an impact justification sheet to accompany all Engineering Change Notices (ECN's). This sheet lists all consequences the ECN will have on existing design and will allow TVA to identify any systems or components which could be affected by the ECN.