

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

August 12, 1980

50-328

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

POOR ORIGINAL

Dear Mr. O'Reilly:

SEQUOYAH NUCLEAR PLANT UNIT 2 - SELECTOR SWITCHES ENVIRONMENTAL
QUALIFICATION - NCR SQN EEB 8008 - FINAL REPORT

The subject deficiency was initially reported to NRC-OIE Inspector
M. Thomas on June 6, 1980, in accordance with 10 CFR 50.55(e). An
interim report was submitted on July 7, 1980. 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
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ENCLOSURE
SEQUOYAH NUCLEAR PLANT UNIT 2
SELECTOR SWITCHES ENVIRONMENTAL QUALIFICATION
NCR SQN EEB 8008
10 CFR 50.55(e)
FIRST INTERIM REPORT

Description of Deficiency

Cutler-Hammer switches type 10250T are used in Class IE control circuits for safety related equipment. The switches are mounted locally to the equipment and are used in testing such that equipment operability can be directly observed. The switches are wired in the circuits with other switches in the main control room which are used to control the equipment manually or automatically.

During a review of the switch contract documents, it was found that documentation is not on file to substantiate that these switches are environmentally qualified to withstand the temperatures which could result from certain high energy line breaks.

Switches are located in local control boxes at each of the following locations:

(number of switches per unit is in parentheses)

1. Vertical Pipe Chase at elevations 653, 690, 699 and 714 (19)
2. Auxiliary Feedwater Pump Turbine Room at elevation 669 (9)
3. RHR Heat Exchanger Rooms at elevation 690 (2, one per room)
4. RHR Pump Rooms at elevation 653 (6, three per room)

Safety Implications

The failure of several of these switches during a high energy line break event could result in loss of control for the associated equipment. This could result in the multiple failure of safety functions claimed in the plant safety analysis, jeopardizing the safe operation of the plant.

Corrective Actions

An evaluation of all the handswitches covered by this NCR has shown that only two switches for unit 2 present a hazard to safe operation of the unit. These are switches No. 2-HS-72-40 and No. 2-HS-72-41 in the pipe chase.

It has been determined that these switches can be deleted and that the related switches in the main control room can be used in conjunction with a communications line to an observer near the valves for testing. The switches in unit 2 will be deleted before startup of unit 2.