

DUKE POWER COMPANY
MCGUIRE NUCLEAR STATION
UNITS 1 AND 2

Report No.: SD 369-370/79-11

Report Date: November 29, 1979

Facility: McGuire Nuclear Station - Units 1 and 2

Identification of Deficiency: Westinghouse 7300 Series Process I & C
Card Technical Problems

Description of Deficiency:

This deficiency is as described in the attached August 23, 1979 letter, NS-TMA-2124, from T. M. Anderson, Manager, Nuclear Safety Department, Westinghouse, to Victor Stello, Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission. Westinghouse reported this deficiency to the NRC as a substantial safety hazard under 10CFR21.

Analysis of Safety Implication:

The safety implications of this deficiency are also presented in the attached Westinghouse letter (NS-TMA-2124).

Corrective Action:

An inspection of the Westinghouse 7300 Series Process I & C cards at McGuire has been conducted. One hundred, sixty-five (165) cards were found to be affected at Unit 1. None of the cards at Unit 2 were affected. Of the 165 Unit 1 cards 163 had problem 1 as described on the attached Westinghouse letter. The remaining two cards had problem 2. These cards are being repaired by Westinghouse personnel and will be functionally tested by Duke. This corrective action will be complete by April 30, 1980.

1502 54

7912050

594

Westinghouse Electric Corporation

Power Systems

Box 355
Pittsburgh, Pennsylvania 15203

August 23, 1979

NS-TWA-2124

Mr. Victor Stello, Jr.
Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555
Mail Stop - EW-322

Subject: Westinghouse 7300 Series Process Control System

Dear Mr. Stello:

Westinghouse has made an assessment of field reports relating to two (2) technical problems which could exist in its 7300 Series Process Control System. Virginia Electric & Power Company (VEPCO) had experienced the problems at its North Anna Unit 1 station. The first involves a circuit component used in protection system comparators (bistables) which was observed to have an abnormal failure rate in this application. The consequence of the failure could prevent a safety signal output from the bistable in the affected channel. The second involves the potential for a seismic-induced circuit malfunction which could alter limiting setpoints for initiating safety action by the 7300 Series system. Although both problems are detectable during periodic system tests, the potential exists for degradation of redundant protection channels which initiate Reactor Trip and Engineered Safeguards. On August 1, 1979 and August 2, 1979 respectively, reports were made to the NRC by VEPCO under the provisions of 10CFR50.55(e).

Engineering changes had been made previously by the Westinghouse Industry Systems Division, the manufacturer, to correct both problems. However, there exists an uncertainty as to the location of devices, shipped prior to the engineering changes, which need to be replaced or reworked.

Consequently, on August 21, 1979, the Westinghouse WRD Safety Review Committee concluded that both issues constituted a Potential Substantial Safety Hazard in operating Westinghouse plants with 7300 Series Process Control Systems and, as such, are reportable to the NRC under Title 10CFR Part 21.

The attachment identifies all potentially affected nuclear power plants, and includes detailed technical information and corrective actions to be taken. This information has already been communicated to the utility owners of these potentially affected plants.

Please refer any questions to Dr. K. R.
Nuclear Safety Department.

FWM:pj
Attachment

1502 55

DUPLICATE DOCUMENT

Entire document previously
entered into system under:

AND 79/0010298

No. of pages: 6