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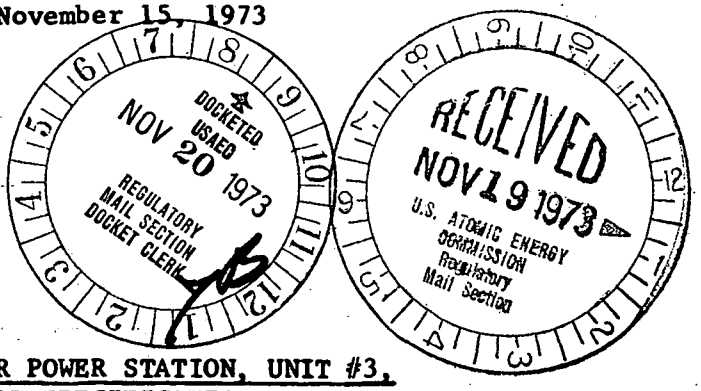
Regulatory File Cy.

50-249

WPW Ltr.#847-73

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
November 15, 1973



Mr. A. Giambusso
Deputy Director for Reactor Projects
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

SUBJECT: LICENSE DPR-25, DRESDEN NUCLEAR POWER STATION, UNIT #3, SECTION 6.6.B.2 OF THE TECHNICAL SPECIFICATIONS. MALFUNCTION OF CORE SPRAY SYSTEM M.O. VALVE 1402-38A.

Reference: 1) Dwgs: P & ID M-358.

Dear Mr. Giambusso:

This letter is to report a condition relating to the operation of the unit at about 0300 hours on October 16, 1973. At this time, Core Spray System I bypass valve 1402-38A failed to open during a system test.

This malfunction is contrary to section 3.5.A.1 of the Technical Specifications which requires that core spray components shall be operable when irradiated fuel is in the reactor.

PROBLEM

Valve 1402-38A is in the minimum flow bypass piping for Core Spray System pump 2A. The function of the valve is to allow adequate pump flow, which prevent pump damage when the core spray system is operating at less than minimum pump flow. This valve is actuated by flow switch DP 1464A. The function of this switch is to monitor core spray flow, and provide an open signal to valve 1402-38A, if flow is less than 300 GPM. When flow is above this value, the flow switch provides a close signal to the valve. On October 16, 1973 during a test of the Unit 3 Core Spray System, bypass valve 1402-38A failed to open due to the failure of flow switch DP 1464A.

INVESTIGATION

Flow switch DP 1464A was tested and found to be inoperable. The switch was recalibrated and then found to operate properly. The switch is a Barton Model 288 and has a history of setpoint drift in both the increasing and decreasing direction.

On November 1, 1973 the switch was inspected by a Barton field representative. The following observations were noted.

1. The plunger which actuates the micro switch was very loose.

2. The roller on the actuator arm would not roll freely.

3. The range of the switch is too large for the setpoint.

During the investigation it was also noted that a procedure revision is needed to provide more exact instructions when calibrating the flow switch.

CORRECTIVE ACTION

The immediate corrective action was to tighten the plunger screw, free the actuator arm roller, and reset the switch. Future corrective action will be to replace the switch with one having a smaller range, and to develop a program to inspect critical components on Barton switches on a regular schedule.

EVALUATIONS

The failure of valve 1402-38A in no way impaired the availability of the Core Spray System. Therefore, it is concluded that the safety of the station personnel and the general public was not compromised as a result of this switch failure.

Investigations into the drifting of instrument setpoints is continuing. Dresden has consulted with instrument manufacturers and is obtaining recommendations for corrective action. Critical instruments with a history of drifting setpoints are being checked on a more frequent interval. Setpoints have been moved to more conservative value where warranted. These actions have insured continued safe operation of the reactor.

Sincerely,

Fred L. Morris
for W. P. Worden
Superintendent

WPW:do