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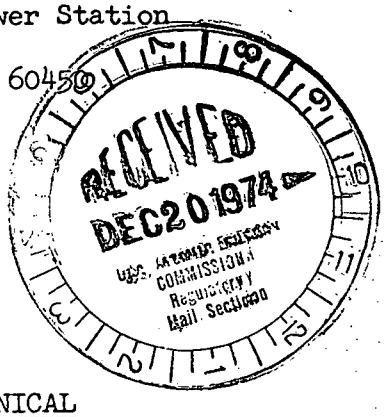
Regulatory File Cy.

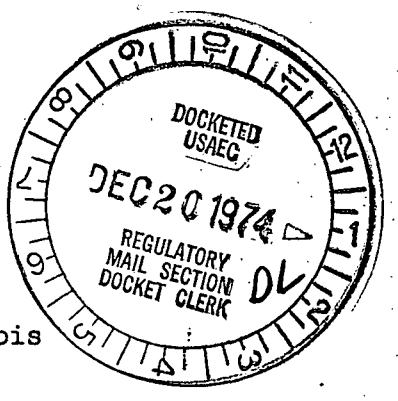
BBS Ltr. #894-74

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
December 16, 1974



Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations-Region III
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: REPORT OF UNUSUAL EVENT PER SECTION 6.6.C OF THE TECHNICAL SPECIFICATIONS
DRESDEN UNIT 3, AEC DOCKET 50-249.



Reference: 1) Regulatory Guide 1.16 Rev. 1 Appendix A

2) Dresden Station Drawing 356

Report Date: December 16, 1974

Occurrence Date: November 22, 1974

Facility: Dresden Nuclear Power Station, Morris, Illinois

IDENTIFICATION OF OCCURRENCE

Failure of torus vent valve 3-1601-20B to close.

CONDITIONS PRIOR TO OCCURRENCE

Prior to the failure of AO valve 3-1601-20B the unit was in the "Run" mode with a thermal power of 1608 megwatts. The unit was operating at a steady electrical load of 516 megwatts. During the occurrence the instrument department was performing surveillance testing of the pressure switches which control A63-1601-20A and B. No improper valve position was noted prior to the surveillance test on 3-1601-20B.

DESCRIPTION OF OCCURRENCE

On November 22, 1974 at about 1700 hours torus vent valve AO-3-1601-20B failed to close after being opened. No apparent cause of the failure could immediately be determined. The valve was then manually blocked in the closed position and an investigation initiated.

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DESIGNATION OF APPARENT CAUSE OF OCCURRENCE

From the investigation it was determined that the failure was due to settings on the pressure switch which causes the valve to fail safe on low instrument air pressure. The settings for the switch were found to trip at 78 psi decreasing and 81 psi increasing. A review of the surveillance records indicates that the pressure switch was found to be 61 psi decreasing and 65 psi increasing at the last surveillance. Since the valve is spring assisted in the open direction the as-found settings had no effect on the open sequence. However, when the valve control switch was placed in the "auto" position, which should close the valve, instrument air pressure dropped below the 78 psi trip setting of the pressure switch. The valve preformed as designed, as a result of this apparent loss of control air signal, by utilizing the spring assist to return to the full open position. With the valve full open, instrument air pressure returned to about 90 psi which reset the pressure switch. It is concluded that the valve malfunction can be partially attributed to the momentary decrease in instrument air pressure. This momentary decrease in instrument air pressure coupled with the as-found set point of the valve pressure switch caused the valve to remain open.

ANALYSIS OF OCCURRENCE

The failure of the 3-1601-20B valve to close did not put the safety of the plant or public in jeopardy. The purpose of the 20B valve is to vent the torus if a vacuum build up occurrs. During the failure of the 20B valve a parallel vent line existed through the 20A valve.

CORRECTIVE ACTIONS

The immediate corrective taken was to block the 20B valve closed since it is only required to be open during a vacuum buildup in the torus. To correct the condition the trip and reset setting were changed from 78 psi decreasing and 81 psi increasing to 61 psi decreasing and 65 psi increasing. No additional corrective actions were taken because the problem was discovered during routine surveillance testing which is designed to detect this type of pressure set point drift.

FAILURE DATA

There have been no failures of this type associated with the 1601, 20A, and B valves on either unit 2 or 3.

Sincerely,

B. B. Stephenson

BBS:TEL:smp