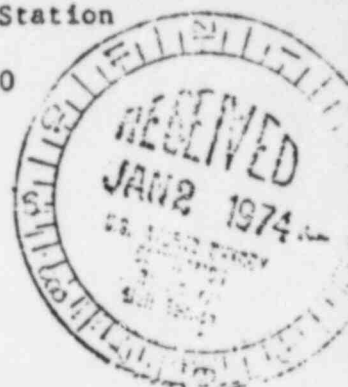


WPW Ltr.#934-73

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
December 27, 1973



Mr. J. F. O'Leary, Director
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

SUBJECT: LICENSE DPR-25, DRESDEN NUCLEAR POWER STATION, UNIT #3, REPORT OF UNUSUAL EVENT PER SECTION 6.6.B.2 OF THE TECHNICAL SPECIFICATIONS. MALFUNCTION OF HIGH PRESSURE COOLANT INJECTION HIGH FLOW SWITCH.

References: 1) Dwgs: P & ID M-51

Dear Mr. O'Leary:

This letter is to report a condition relating to the operation of the unit at about 0400 hours on December 8, 1973. At this time the high pressure coolant injection high flow switch DPIS 3-2353 was found to operate at 175 inches of water which is greater than the Technical Specification limit of 150 inches of water.

PROBLEM

At the time of the occurrence, Unit 3 was operating at a steady load of 680 MWe. During a routine surveillance it was found that HPCI high flow switch DPIS 3-2353 operated at a point 25 inches of water above the 150 inches of water limit. The switch was inspected and it was observed that the electrical wires inside the switch caused the high operating point.

INVESTIGATION

The switch cover was removed and the setpoint was rechecked and found to be 145 inches of water which was within limits. The cause was determined to be friction on the dial indicator caused by the dial rubbing on the scale plate. This friction was caused by an excess length of wire pushing on the scale plate. Six #10 AWG wires are terminated inside the switch with the excess pushed up into the switch housing. The wires apparently worked free to a position in which they pushed on the scale plate. This caused the dial to rub on the scale plate and thus require more differential pressure than normal to trip the switch. When the wires were pushed back into the housing, the scale plate pressure was removed, and the switch operated at the required Technical Specification level.

8310190359 740130
PDR ADDCK 05000249
S PDR

COPY SENT REGION *mt*

CORRECTIVE ACTION

The immediate corrective action was to pull the excess slack out of the wires that terminate inside the switch. Additional action will be to notify Station Electrical Engineering of the problem and request a change in construction specifications to allow the use of smaller wire inside instruments. In addition, a modification will be requested to remove the unused wires in all HPCI flow switches. This will reduce the number of wires that must be terminated in the switch housing.

EVALUATIONS

The failed switch was one of two switches that would isolate the HPCI steam line in the event of a high flow condition. The other switch DPIS 2352 was set at 144 inches of water and operated properly at that point. Therefore, it is concluded that the safety of the plant personnel and of the general public was in no way compromised as a result of this switch failure.

This is the first malfunction of this type. This malfunction by itself does not reduce the safety of the unit's operation.

Sincerely,

Fred L. Worden
for W. P. Worden
Superintendent

WPW:do