

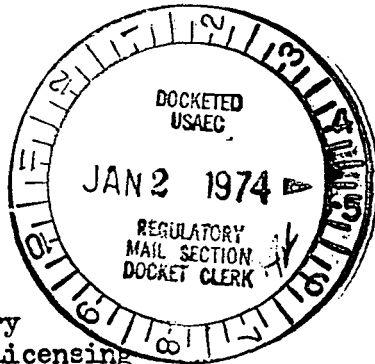
Regulatory

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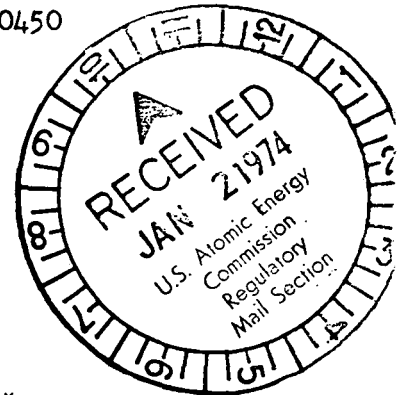
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50-237



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

December 24, 1973



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

SUBJECT: LICENSE DPR-19, DRESDEN NUCLEAR POWER STATION, UNIT #2, REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.B.1 OF THE TECHNICAL SPECIFICATIONS.
MAIN STEAM LINE HIGH FLOW SENSOR FAILURE.

- References: 1) Notification of Region III of AEC Regulatory Operations
Telephone: Mr. Maura, 1600 hours on December 17, 1973.
Telegram: Mr. Keppler, 1630 hours on December 17, 1973.
- 2) Dwg: P & ID M-12 and 12E2501

Dear Mr. O'Leary:

This letter is to report a condition relating to the operation of the unit at about 1659 hours on December 16, 1973. At this time a trip signal was received from Main Steam Line High Flow Sensor 261-2S. This initiated a channel "B" trip for the Group I Isolation System.

This malfunction is contrary to section 3.2.A. of the Technical Specifications.

PROBLEM

At the time of the occurrence, Unit 2 was operating at a steady load of 734 MWe. At about 1659 hours, a trip signal was received from DPIS-261-2S. This switch indicates a high steam flow condition in Main Steam Line "D". The instrumentation in the control room was observed to be normal. Load was then dropped 45 MWe, but the switch did not reset. An inspection was made of the instrument rack and switch 261-2S was found to be reading approximately 130 psid. The other three sensors which also monitor "D" Main Steam Line were noted to be indicating approximately 76 psid. The valves on switch 261-2S were checked and the low side manifold valve was found to be only slightly open. The valve was fully opened and the indicated differential pressure of 130 psid dropped to 76 psid, which was the same reading as the other three sensors on Main Steam Line "D".

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INVESTIGATION

It was speculated that the cause of the abnormal trip of DPIS-261-2S was due to the low pressure instrument valve being left closed after the last scheduled surveillance on December 12, 1973. However, to achieve a high differential pressure with the low pressure instrument valve closed it would be necessary to have a leak in the low pressure side of the instrument. To verify this assumption, the low pressure valve was closed again, and instrument differential pressure was observed. The pressure slowly increased, which indicated a small leak in the instrument or in the piping. Leak detection solution was applied to all piping connections with no definite results. All fittings were then tightened and a moderately loose "swagelok" nut was found. The low side pressure valve was again closed on the instrument and the differential pressure stayed constant. In addition, an inspection was made of all moving parts on the instrument and water was forced through the instrument manifold to assure no passages were plugged.

It is therefore concluded that the cause of the occurrence was failure to open an instrument valve after a scheduled surveillance.

CORRECTIVE ACTION

The immediate corrective action was to open the low pressure instrument valve on DPIS-261-2S. The instrument mechanic who did the last surveillance was informed of the problem, but believes he did not leave the valve closed. The man is fully aware of the seriousness of the problem. Failure to leave valves in their proper operating condition is a problem that occurs infrequently.

EVALUATION

The high steam flow portion of the Group I Isolation System consists of four high flow sensors per steam line. The system is designed to allow as many as two of the four flow switches to malfunction before an isolation is initiated. Therefore, the malfunction of switch DPIS-261-2S did not degrade the operation of the system because the malfunction was in the safe direction. Consequently, the safety of plant personnel and the general public was not jeopardized.

Cumulative experience with this type of malfunction at Dresden does not exist. This malfunction does not represent an addition to an unsafe trend.

Sincerely yours,

Fred S. Morris
for W. P. Worden
Superintendent

WPW:jw

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