

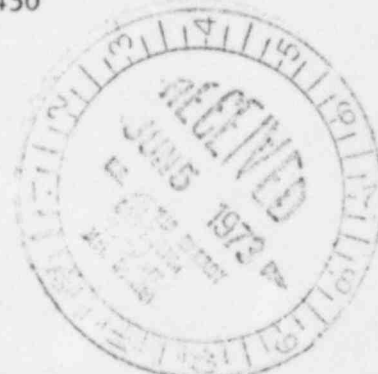


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50-249

WPW Ltr.#415-73

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
May 31, 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.3 OF THE TECHNICAL SPECIFICATIONS.

Dear Mr. Giambusso:

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This is to report a condition relating to the operation of the unit in which on May 24, 1973, at 1500 hours, a reactor low pressure switch setting was found to have drifted. Pressure switch PS 3-263-52A-1 was found tripping at 357 psi which is above the Technical Specification limit of 350 psi as described in Section 3.2.2. The reactor was in the shutdown mode at the time of the incident. This condition was related to Mr. Hugh Dance of Region III Compliance at 1345 hours on May 25, 1973.

PROBLEM AND INVESTIGATION

During monthly surveillance inspection of the reactor low pressure switches, the setpoint of Meletron pressure switch PS-3-263-52A-1 was found to have drifted to 357 psi. The switch was previously checked on April 9, 1973 and was found to be within Technical Specification limits at that time.

The purpose of the switch is to sense that reactor pressure has decreased to less than 350 psi during a loss of coolant accident. Upon reaching a decreasing pressure of 350 psi, a low pressure coolant injection (LPCI) and core spray permissive signal is initiated by closure of the switch contacts. The electrical arrangement for the permissive logic for LPCI and core spray systems is a one out of two logic. It would have required two switch failures to disable the permissive logic.

Had a loss of coolant accident occurred during the period when the reactor low pressure switch was tripped at 357 psi instead of 350 psi, both "A" and "B" loops of core spray and LPCI would have operated. Reference P & ID numbers M-357, 358, and 360. However, since the setpoint of the PS3-263-52A-1 switch was 7 pounds high it would have initiated a permissive signal for the "A" loops at 357 psi instead of at 350 psi.

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May 31, 1973

The safety of the plant and public was not jeopardized since the system would have operated as required and since LPCI and core spray would have injected water into the reactor vessel earlier than required.

An investigation of the problem revealed that a micro switch, internal to the pressure switch, had shifted positions, since its last inspection. The micro switch is designed to be held securely to a support bracket by two bolts. In this incident, the two bolts were found to be loose which allowed the micro switch to shift positions.

This is the first known malfunction of this type. While drift problems have been experienced in these switches, reference our letters dated September 29, 1972 and October 13, 1972, this particular failure is considered to be an isolated case.

The station is continuing to investigate the instrument drift problems experienced with Meletron and other switches, reference our letters dated April 19, 1973 and January 29, 1973 on both Units 2 and 3, in an effort to determine the cause of the instrument drifts.

CORRECTIVE ACTION

The immediate corrective action was to recalibrate the pressure switch and tighten the support bracket bolts for the micro switch. To prevent this type of failure in the future, the micro switch support bracket bolts will be examined during future surveillance inspections on Units 2 & 3.

Sincerely,

W. P. Worden

W. P. Worden
Superintendent

WPW:do