



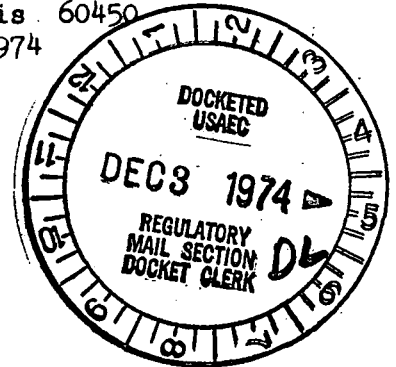
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Regulatory

Reg. Cy.

BBS Ltr.#851-74

Dresden Nuclear Power Station
 R. R. #1
 Morris, Illinois 60450
 November 27, 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 ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL SPECIFICATIONS
HPCI VALVE MO2-2301-8 MOTOR DAMAGE

- References: 1) Regulatory Guide 1.16 Rev.1 Appendix A
- 2) Notification of Region III of AEC Regulatory Operations
 Telephone: Mr. Knopf, 1310 hours on November 20, 1974
 Telegram: Mr. J. Keppler, 1325 hours on November 20, 1974
- 3) Drawing Number: M-51

Report Number: 50-237/74-69

Report Date: November 27, 1974

Occurrence Date: November 20, 1974

Facility: Dresden Nuclear Power Station, Morris, Illinois



IDENTIFICATION OF OCCURRENCE

On November 20, 1974 during routine inspection, HPCI valve MO-2-2301-8 motor was found to be damaged but operable. The valve is the HPCI pump discharge to the reactor and is normally closed. This occurrence is a condition which possibly could have prevented the performance of the intended safety function of an engineered safety feature.

CONDITION PRIOR TO OCCURRENCE

Prior to the occurrence, the plant was in the "Refuel" mode. The unit was in the midst of a major refueling outage. DC valve breaker and motor inspection was being conducted by the electrical maintenance department.

DESCRIPTION OF OCCURRENCE

During the refueling outage all major DC breakers and motors are to be inspected. During the inspection of the MO-2-2301-8 motor on November 20, 1974, evidence of arcing between the motor brushes was discovered. Further investigation revealed overheating of the commutator and metal splattering on the brush holders and housing.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE (Component Failure)

The apparent cause was dirt or moisture on the commutator which prevented good brush contact.

ANALYSIS OF OCCURRENCE

The damage to the motor was of negligible safety significance because reactor conditions (cooled down and depressurized) did not require HPCI system to be in service.

On October 7, 1974 HPCI valve operability surveillance was performed. During this test, the valve operated as designed. Approximately three weeks later, the unit was shut down for the present refueling outage. During the operating time there was no condition which required HPCI operation. However, based on the surveillance results, had HPCI initiation been required, the valve would have opened.

Considering the plant condition at the time of the occurrence, in light of the fact that the valve was still operable, and considering the systems that backup HPCI (i.e. feed and automatic blowdown), the occurrence had no detrimental effects or possible detrimental effects to the health and safety of plant personnel or the general public.

CORRECTIVE ACTION

Work request number 10,987 was submitted to repair the motor. The motor was removed and shipped to an outside contractor for overhaul.

FAILURE DATA

On August 3, 1970, it was discovered that this valve's motor has burned up. The cause of this occurrence was felt to be the rapid cycling of the valve open and shut during the June 5, 1970 incident. The circuitry of this valve required it to open on high drywell pressure and close on high reactor water level which existed at that time. This failure, with a different proximate cause, is the only other failure of this valve.

The motor is a Porter Peerless Motor rated at 250 volts DC, 1900 RPM, 51 amps, 14.5 HP. The serial number is LW94606.

Sincerely,

Arthur M Roberts
for B. B. Stephenson
Superintendent