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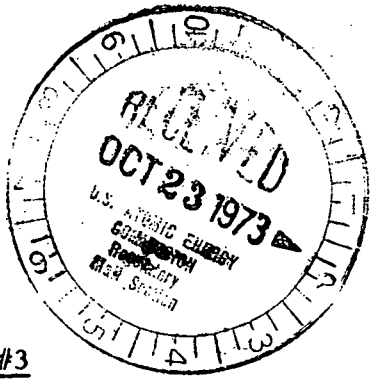
50-249

Regulatory File Cy.

WPW Ltr.#781-73

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
October 18, 1973



Mr. A. Giambusso
Deputy Director for Reactor Projects
Director of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

SUBJECT: LICENSE DPR-25, DRESDEN NUCLEAR POWER STATION, UNIT #3
SECTION 6.6.C.1 OF TECHNICAL SPECIFICATIONS.
LPCI TEST VALVE MO3-1501-20B FAILURE

Reference: Drawing M-29 Dresden Station P & ID

Dear Mr. Giambusso:

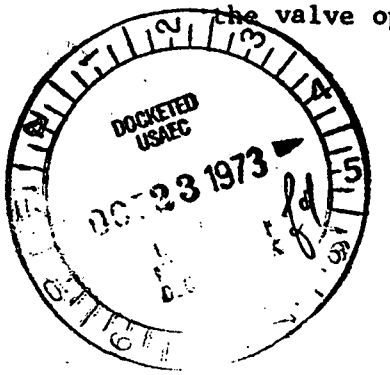
This letter is to report a condition relating to the operation of the unit at about 2200 hours on October 1, 1973. At this time, valve MO3-1501-20B (low pressure core injection flow test valve) failed to close and its breaker tripped. This malfunction is contrary to section 3.5.A.3 of the Technical Specifications which requires that the low pressure core injection (LPCI) system be operable when irradiated fuel is in the core.

PROBLEM

Following the conclusion of routine LPCI system surveillance testing, the control switch for LPCI system test valve MO3-1501-20B was placed in the closed position. When the switch was placed in the closed position, the supply breaker for the MO3-1501-20B valve tripped.

At the time of the occurrence, the unit was in the "Run" mode and thermal power was about 2289 megawatts. The unit was running steady with an electrical load of 760 megawatts.

To immediately correct the problem and return the LPCI system to an operational status the breaker was reset, and a second attempt was made to close the valve. The second attempt proved to be successful, with the valve operating as designed.



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INVESTIGATION

An investigation into the problem failed to determine the cause of the trip since the problem corrected itself once the breaker was reset. This type of breaker problem has been experienced in the past, and is presently under investigation.

At present, the following have been done in attempting to solve the problem:

1. This type of breaker was tested at the company Technical Center under various loads and temperatures. The purpose of the test was to determine if the magnetic trip settings of the breakers were shifting.

2. A modification is in progress to change some of the breaker overload heaters. The heaters to be changed were determined to be slightly over sized for their application.

3. Torque switch, overload, and magnetic trip settings are being collected on all valves in use on units 2 and 3 ECCS and Primary Containment Systems. The data will be used to determine if differences exist between similar valves.

4. Three breakers on valves which previously experienced this type of failure were tested on October 6, 1973. The results of these tests are being analyzed now.

5. A procedure has been written to identify the type of breaker or valve failure. Its purpose is to determine if the torque switch, overloads, or a magnetic trip prevented proper operation of the valve.

Hopefully these five steps will produce a solution to the problem. The investigation will continue until a solution is determined.

CORRECTIVE ACTION

The immediate corrective action taken was to reset the breaker and attempt operation of the valve a second time. As stated previously, the problem corrected itself after the breaker was reset. Also since this failure is still under investigation, future corrective action will be dependent on the findings of the investigation.

EVALUATION

During the failure of the LPCI valve M03-1501-20B, the safety of the plant and public was not in jeopardy. Failure of the M03-1501-20B valve would not prevent either LPCI loop from injecting coolant, nor would it prevent correct operation of the torus spray ring header.

The malfunction of this valve degraded the use of one of the two LPCI flow test lines. The second valve (3-1501-38B) in this line was operable and would have closed on an initiation signal.

Continued operation of the unit was considered to be safe because the second valve in the line was operable and the ability of the LPCI system to inject water into the reactor was not degraded.

Sincerely,

Fred S. Morris
for W. P. Worden
Superintendent

WPW:do