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Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA * CHICAGO, ILLINOIS

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Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
January 15, 1971



Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

SUBJECT: LICENSE DPR-19 DRESDEN NUCLEAR POWER STATION UNIT 2, SECTION
6.6.C.1 of the TECHNICAL SPECIFICATIONS

Dear Dr. Morris:

This is to report a condition relating to the operation of the station in which the isolation condenser steam isolation valve NO-1301-2 failed to close during a valve operation in preparation for a 1000 psi hydrostatic test of the system on December 21, 1970. Additionally, on December 9, 1970 two valves in the LPCI subsystem failed to operate normally, one of which again failed to operate normally on January 6, 1971.

PROBLEM, INVESTIGATION AND CORRECTIVE ACTION

CASE 1: Isolation Condenser Outboard Steam Isolation Valve NO-1301-2.

This valve is normally open therefore not required to operate to initiate actuation of the isolation condenser. However, it is a requirement for primary containment as specified in Section 3.7.3 during reactor power operating conditions. It had not been required to be operable since the December 7, 1970 shutdown or up to the time it was found inoperable on December 21. It had operated properly during the last functional testing on November 9, 1970.

Investigation showed cause of failure to operate properly was a dry valve stem causing an overload which caused the breaker to trip. The valve stem was lubricated. The limiter torque settings were checked and found proper. Valve operability was checked satisfactorily following maintenance on December 22 and 23, 1970.

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CASE 2 Torus Spray Valve No-1501-16B

This valve is normally closed. During surveillance testing on December 9, 1970 the valve opened properly as required to inject water into the torus spray header, and closed properly following the test. However, when the valve reached the closed position the breaker tripped. It was found that the closing torque was set to high, causing the breaker to trip on closing. The torque switch setting was adjusted to trip properly at a value lower than the breaker trip setting on December 11, 1970.

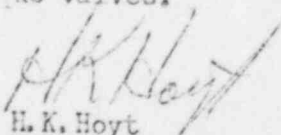
Previous functional tests of the valve operation had been satisfactory and it is concluded that the torque setting had been too close to the breaker overload setting.

CASE 3 Containment Cooling Heat Exchanger Bypass Valve MO-1501-11B

This valve is normally closed, and is designed to open on LPCI initiation signal to reduce system head loss through the heat exchanger. During surveillance testing on December 9, 1970 the valve failed to open, although operation had been normal during previous operations. Repeat operations were normal. However, the closing and opening torque limits were readjusted to provide additional margin between the closing torque and opening torque trip settings. The closed limit switch was also adjusted. On January 6, during system operational surveillance test the valve stopped while closing resulting in the valve not seating tightly. It was found that the locking nut on the stem drive nut had moved as a result of loosening of the staked thread on the lock nut. The position limit settings were readjusted and proper valve operation was verified.

The variety of circumstances causing improper valve operation is partially the result of difficulty in adjusting the torque and position limits to the proper setting.

Recommendations from the manufacturer have not solved this problem. Additional emphasis is being placed on inspection and adjustment during routine maintenance of all limit torque valves.


H. K. Hoyt
Superintendent