

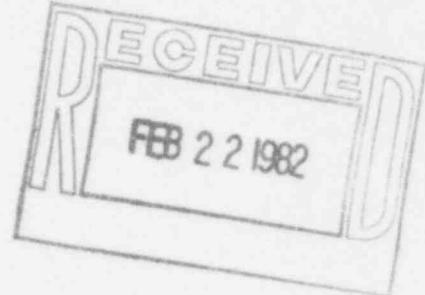
# Nebraska Public Power District

COOPER NUCLEAR STATION  
P.O. BOX 98, BROWNVILLE, NEBRASKA 68321  
TELEPHONE (402) 825-3811

50-298

CNSS820069

February 18, 1982

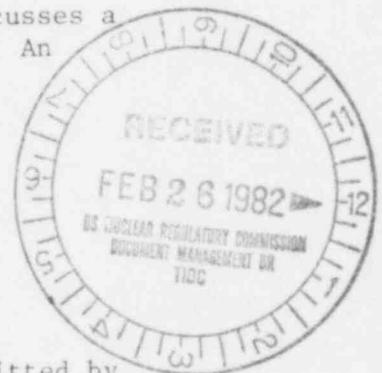


Mr. John T. Collins, Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive  
Suite 1000  
Arlington, Texas 76011

Dear Sir:

This amended report is submitted in accordance with Section 6.7.2.B.2 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on February 23, 1981. An amended licensee event report form is also enclosed.

Report No.: 50-298-81-03-1  
Report Date: February 18, 1982  
Occurrence Date: February 23, 1981  
Facility: Cooper Nuclear Station  
Brownville, Nebraska 68321



**Identification of Occurrence:**

A condition which led to operation in a degraded mode permitted by a limiting condition for operation established in Section 3.5.B.3 of the Technical Specifications.

**Conditions Prior to Occurrence:**

The reactor was at a steady state power level of approximately 98% of rated thermal power.

**Description of Occurrence:**

During performance of Surveillance Procedure 6.3.5.2, valve RHR-MO-26B motor current increased and remained high when the valve reached the closed position. The valve motor breaker was manually tripped and the valve was declared inoperable.

**Designation of Apparent Cause of Occurrence:**

The apparent cause of the occurrence is failure of the brake coil in the motor operator.

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Analysis of Occurrence:

The subject valve, RHR-MO-26B, is a ten inch, 300 psig gate valve manufactured by Anchor Darling Valve Company. The motor operator is a Limitorque SMB Ø. RHR-MO-26B is the outboard isolation valve in the drywell spray line. This is a normally closed valve that receives a closure signal on ECCS initiation. The inboard isolation valve was operational as well as both isolation valves in the redundant RHR loop. The core spray system and both diesels were operable. This valve is required to be open only for drywell spray. Drywell spray can be performed during an ECCS initiation with reactor water level above 2/3 core height and 2 psig drywell pressure. In the event this valve was needed to open, it would have opened without receiving the overcurrent on the motor as demonstrated during previous steps of the subject surveillance procedure. This valve was inoperative for about eight hours. This occurrence did not make the RHR pumps inoperable, nor would it have prevented the system from performing its function of low pressure coolant injection.

At this point, the operation of how the motor operator works should be explained. On the opening cycle the limit switch opens the power supply contacts to stop the motor. For this ECCS valve, the opening torque switch is jumpered out by design. On closing the valve, the limit switch gives position indication only, the closing torque switch opens the power supply contacts to stop the motor operator.

However, during the performance of this surveillance procedure with the brake engaged, the motor operator performed in the following manner. The motor operator opened the valve. The limit switch opened to stop the motor operator when it reached the open position. When the motor operator closed the valve, the motor again overcame the engaged brake. The valve went closed but the motor could not overcome the brake enough to activate the torque switch, so the motor tripped on overload.

This occurrence presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

The valve was internally inspected during the April 1981 outage and nothing abnormal was found. When the motor operator tripped on

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overload in January 1982, the motor operator was given a detailed examination. The brake coil was found to be malfunctioning. The brake and motor were both replaced. The valve was then tested satisfactorily and returned to service.

Sincerely,



L. C. Lessor  
Station Superintendent  
Cooper Nuclear Station

LCL:cg  
Attach.