Nebraska Public Power District

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

CNSS800678

November 20, 1980

Mr. K. V. Seyfrit, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

Dear Sir:

This 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 October 21, 1980. A licensee event report form is also enclosed.

Report No.: 50-298-80-43
Report Date: November 20, 1980
Occurrence Date: October 21, 1980
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:
A condition which resulted in operation in a degraded mode permitted by a limiting condition for operation specified in Technical Specification 3.5.B.3.

Conditions Prior to Occurrence:
Reactor power was at approximately 97% of rated thermal power.

Description of Occurrence:
While performing Surveillance Procedure 6.3.20.1 motor operated valve SW-MO-89B failed to open.

Designation of Apparent Cause of Occurrence:
The apparent cause of this occurrence has been attributed to a broken lead on the 1,000 ohm variable resistor. This resistor, mounted inside the valve operator, provides feedback to the valve positioner and without a feedback signal the valve motor operator would not start.

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The exact cause as to how the subject lead was broken is not known. The variable resistor is a sensitive electrical component and is subject to that type of failure. In this case the variable resistor was installed in a valve motor operator which was seismically qualified and has functioned properly for several years. The failure is considered "one of a kind" and unique at Cooper Nuclear Station.

Analysis of Occurrence:

The RHR Service Water System provides cooling to the RHR System and water for emergency core flooding under accident conditions.

The system consists of two independent loops, each rated 4,000 gpm. It maintains the service water side of the RHR heat exchanger at a higher pressure to prevent leakage of radioactive water in the service water system.

Each RHR service water loop has sufficient capacity with two pumps operating to remove the designed heat load during accident conditions.

Since Loop "A" was operable, the failure of this valve presented no adverse condition to the reactor. Loop "B" was inoperable for approximately 7 hours. This occurrence had no adverse effect on public health and safety.

Corrective Action:

The broken lead on the 1000 ohm variable resistor was resoldered. The valve was retested and its correct operation verified. The corresponding valve, SW-MO-89A, in Division I loop was also checked and proper connections to the 1000 ohm resistor were verified.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.