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Nebraska Public Power District

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

CNSS800194

March 25, 1980

Mr. K. V. Seyfrit
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza
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 March 10, 1980. A licensee event report form is also enclosed.

Report No.: 50-298-80-07
Report Date: March 25, 1980
Occurrence Date: March 10, 1980
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:
A condition which could have resulted in operation in a degraded mode permitted by the limiting condition for operation established in Section 3.4.A.1 of the Technical Specifications.

Conditions Prior to Occurrence:
The reactor was shutdown and vented. Removal of fuel from the reactor was in progress. (The 1980 Refueling and Maintenance Outage started on March 1, 1980.)

Description of Occurrence:
During surveillance testing of the Standby Liquid Control Pumps, SLC Pump "1B" would pump only 36.5 gpm at 1220 psig. The Technical Specifications require the SLC System to provide 38.2 gpm at 1215 psig from each pump.

Designation of Apparent Cause of Occurrence:
Wear and pitting to the seating surfaces of the internal suction and discharge valves allowed backward leakage in the pump through the suction valve and thus reduced the flow provided by SLC Pump "1B".

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Analysis of Occurrence:

The Standby Liquid Control Pump "1B" is one of two redundant pumps used to inject boron into the reactor to shutdown the reactor during emergency conditions (such as failure of the CRD System). Each pump is tested monthly to verify operability and capacity as required by the Technical Specification. During performance of Surveillance Procedure 6.3.8.2, Standby Liquid Control Pump Operability Test, Pump "1B" provided only 36.5 gpm at 1220 psig which did not meet the Technical Specification for SLC flow capacity of 38.2 gpm at 1215 psig. The internal suction and discharge valves for SLC Pump "1B" were removed and inspected revealing wear and pitting on their seating surfaces. This wear to the valve seats was caused by normal pump operation and allowed backward leakage from the pump through the suction valve reducing the capacity of the pump.

Redundant SLC Pump "1A" tested at the same time did provide a flow capacity in excess of Technical Specification requirements and was therefore operable. The reactor was in cold shutdown and vented and removal of the fuel from the core was in progress. At the time of the occurrence, the SLC System was not required to be operable by the Technical Specifications. This occurrence presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

The SLC pump is a type TD-60 TRIPLEX manufactured by Union Pump Company. The internal suction and discharge valves seating surfaces were machined as recommended by the pump instruction manual and reinstalled in the pump. The surveillance procedure for pump operability was run again and a capacity of 52 gpm at 1220 psig was attained by SLC Pump "1B" satisfying Technical Specification Section 4.4.A.2.b for SLC System capacity.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.