

## Nebraska Public Power District

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

CNSS790579

November 9, 1979

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.4 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on October 12, 1979. A licensee event report form is also enclosed.

Report No.: 50-298-79-29  
Report Date: November 9, 1979  
Occurrence Date: October 12, 1979  
Facility: Cooper Nuclear Station  
Brownville, Nebraska 68321

Identification of Occurrence:

Degradation of the Reactor Equipment Cooling (REC) System piping.

Conditions Prior to Occurrence:

Steady state power operation at approximately 96% reactor power.

Description of Occurrence:

During a routine plant tour, a pinhole leak was discovered in the upstream weld of the supply isolation valve of the south critical header of the Reactor Equipment Cooling System. The valve identification is REC-711MV.

Designation of Apparent Cause of Occurrence:

The apparent cause of the weld failure is unknown at this time.

Analysis of Occurrence:

This defect does not prevent continued operation of this system or its associated systems. This weld is located on the upstream side of the south critical loop isolation valve of the Reactor Equipment Cooling System. This loop furnishes cooling water to the "B" & "D" Residual Heat Removal Pump gland water heat exchangers and the cooling water to the fan coil units in the following areas; HPCI room, RHR pump room southwest corner, and the Core Spray pump room in the southeast corner of the Reactor Building.

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Operating experience with failures of this same type in non-essential portions of the Reactor Equipment Cooling System and the Turbine Equipment Cooling System indicate the crack is tight and growth is very slow. There have been no complete failures of pipe welds in similar systems due to the same assumed failure mechanism.

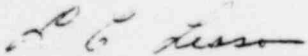
In the event the indication accelerated its growth, daily surveillance by the operating staff would detect this and corrective action would be taken. Should the failure go unnoticed during normal operation, plant indications such as the system surge tank low level alarm or Reactor Building sump high level alarms would indicate the problem to the operators. During normal operation failure of this weld would necessitate isolating the "A" REC Heat Exchanger and operating the "B" REC Heat Exchanger for non-critical service. In the event the critical service header was required, the "B" REC Heat Exchanger would be available for cooling water and the redundant crosstie to the Service Water System would be available to both critical loops.

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

Corrective Action:

During the next shutdown of sufficient length the subject weld will be repaired. A patch has been installed to control the pinhole leak. A metallurgical analysis is being performed on a failed weld from an earlier event by the General Electric Company. The analysis will be reviewed and corrective action taken based upon this analysis.

Sincerely,



L. C. Lessor  
Station Superintendent  
Cooper Nuclear Station

LCL:cg  
Attach.

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