Nebraska Public Power District

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

CNSS790451

September 7, 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.2 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on August 12, 1979. A licensee event report form is also enclosed.

Report No.: 50-298-79-22
Report Date: September 7, 1979
Occurrence Date: August 12, 1979
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 established in Section 3.7.B.3 of the Technical Specifications.

Conditions Prior to Occurrence:
Reactor was operating at approximately 78% of rated thermal power.

Description of Occurrence:
A station operator observed water coming out of the carbon adsorber housing for Standby Gas Treatment System "A". Upon further inspection the carbon adsorber within the housing was found to have been sprayed by the fire protection deluge system with water.

Designation of Apparent Cause of Occurrence:
The apparent cause of the occurrence has been attributed to inadequate latching surface area between the deluge valve clapper and latch allowing the clapper to open and spray the carbon adsorber.

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Analysis of Occurrence:

The function of the Standby Gas Treatment System is to filter the atmospheric effluent from the primary and secondary containments to limit the radioactive release to the environment. The deluge system was designed to extinguish any fire in the carbon adsorber due to high loading of radioactive iodine resulting from a postulated accident involving significant release of radioactive iodine and thus prevent re-release of radioactive iodine due to oxidation of the carbon adsorber. The wetting of the carbon adsorber resulted in reduced capability of the carbon adsorber to remove radioactive iodine from the air.

The surface area between the latch and the clapper was insufficient, allowing some wear induced by the normal pressure variations in the water supply system. This allowed the clapper to open after a minimal amount of wear had occurred. The redundant system, Standby Gas Treatment System "B", was operable during this occurrence. This occurrence presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

The deluge valve clapper and latch assembly were replaced and adjusted to insure that adequate seating area was established between the latching surfaces. The carbon adsorber was dried out. The deluge system for Standby Gas Treatment System "A" was placed in service and no leaks were evident. Upon completion of a function test of the deluge valve and a Standby Gas Treatment Operability Test, Surveillance Procedure 6.3.19.1, Standby Gas Treatment System "A" was declared operable. The remaining plant deluge valves will be inspected for leakage during the next annual inspection.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.