Nebraska Public Power District

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

CNSS79Ø595

November 20, 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 October 21, 1979. A licensee event report form is also enclosed.

Report No.: 50-298-79-30
Report Date: November 20, 1979
Occurrence Date: October 21, 1979
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:
Operation in a degraded mode as permitted by a limiting condition for operation established in Section 3.7.E.2 of the Technical Specifications.

Conditions Prior to Occurrence:
The reactor was at a steady state power of approximately 92% of rated thermal power.

Description of Occurrence:
While pumping water from the suppression chamber to the radioactive waste system, the drywell to suppression chamber differential pressure suddenly dropped to approximately 1.0 psid.

Designation of Apparent Cause of Occurrence:
The cause of the occurrence was a high differential pressure between the drywell and the suppression chamber forcing all the water out of the downcomers allowing nitrogen to flow from the drywell to the suppression chamber.

Analysis of Occurrence:

Technical Specifications require the drywell to suppression chamber differential pressure be maintained at ≥1.47 psid. This is accomplished by maintaining the drywell pressure 1.55 to 1.57 psig with the nitrogen pressurizing system and pumping nitrogen from the suppression chamber to the drywell to maintain the differential pressure 1.50 to 1.55 psid. This differential pressure forces most of the water out of the downcomers to minimize the stress on the torus during an accident that would pressurize the drywell. This differential pressure allows approximately 4 to 16 inches of water in the downcomers, depending upon the differential pressure and the water level in the torus.

At the time of the occurrence, the nitrogen pressurizing system had automatically raised the drywell pressure to the high end of its allowable band. At this same time water was being pumped from the suppression chamber lowering the water level and the pressure in that area. This caused sufficient differential pressure forcing all the water out of the downcomers allowing nitrogen to flow from the drywell to the torus, reducing the differential pressure to 1.0 psid.

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

Corrective Action:

The differential pressure was restored to >1.47 psid within approximately 8 minutes. The instruction letter being used for the evolution was reviewed and changed to insure that in the future during this evolution the water level is maintained at the high end of the allowable band and the differential pressure at the low end. Additionally, a copy of the engineering evaluation of the occurrence was routed to all licensed operating personnel.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

1552 250

LCL:cg
Attach.