



Nebraska Public Power District

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

CNSS810222

April 16, 1981

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

APR 20



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 20, 1981. A licensee event report form is also enclosed.

Report No.: 50-298-81-05
Report Date: April 16, 1981
Occurrence Date: March 20, 1981
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:

A condition which lead to operation in a degraded mode permitted by the limiting condition for operation established in Section 3.12.B.2 of the Technical Specifications.

Conditions Prior to Occurrence:

The reactor was operating at a steady state power level approximately 95% of rated thermal power.

Description of Occurrence:

During Surveillance Procedure S.P. 6.3.16.3, Reactor Building Closed Cooling Water pump 1D tripped when started.

Designation of Apparent Cause of Occurrence:

A minimally sized fuse was installed in the control circuit of RBCCW pump 1D.

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Analysis of Occurrence:

The Reactor Building Closed Cooling Water System (RBCCW) consists of two independent closed loops. It is designed with sufficient redundancy so that no single active system component failure nor any single active component failure in any other plant system can prevent it from achieving its safety objective. Each loop has two pumps discharging to one reactor building cooling water heat exchanger. The two loops can be interconnected through crosstie equipped with isolation valves. Either reactor building closed cooling water loop has sufficient capacity with one pump, operating to transfer the essential services design cooling load during postulated transient or accident conditions.

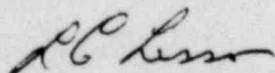
Each RBCCW pump has a size 4 motor starter protected by a control power fuse. The undersized control power fuse (3 amp) blew when pump 1D was started which made the pump inoperable for about 6 hours. The subject motor starters were initially supplied with a 4 amp style AB fuse. The AB style fuse has been discontinued by the fuse manufacturer and style ABC has been supplied. Style ABC is available in 1, 2, 3, 5, 6, ...20 amp capacity. It is apparent that the original 4 amp style AB fuse had been replaced with a 3 amp style ABC fuse. This was a conservative action however and the 3 amp fuse on occasion failed during the instantaneous control circuit in-rush current during motor starter actuation.

Redundant systems were available and operable. This occurrence presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

A spare size 4 motor starter was bench tested, its in-rush current measured, and was found to be the same as the measured in-rush current on the subject motor starter. Based on the motor starter manufacturer recommendation and a revised fuse specification sheet, a 5 amp control power fuse was specified for installation in the subject size 4 motor starter. Control power fuses in all size 4 motor starters for ECCS components were checked and undersized fuses replaced. Equipment history did not reveal similar problems with control fuses in sizes 1, 2, & 3 motor starters for ECCS equipment.

Sincerely,



L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.