Nebraska Public Power District

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

September 12, 1978

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.1 of the Technical Specifications for Cooper Nuclear Station and discusses a reportable occurrence that was discovered on August 14, 1978. A licensee event report form is also enclosed.

Report No.: 50-298-78-29
Report Date: September 12, 1978
Occurrence Date: August 14, 1978
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:
An engineering safety feature setting which was found to be less conservative than those established by Table 3.2.B of the Technical Specifications.

Conditions Prior to Occurrence:
Reactor was a steady state power level of approximately 95% of rated thermal power.

Description of Occurrence:
During routine surveillance testing, S.P. 6.2.2.4.2, core spray time delay relay, CS-TDR-K16B was found with a setpoint less conservative than required by Technical Specifications. The relay was found to actuate with a time delay of 11.57 seconds. The Technical Specification requirement for this relay is $9 \leq T \leq 11$ seconds. The redundant switch CS-TDR-K16A was tested at the time of the occurrence and was found to be operable within the limits specified.

Designation of Apparent Cause of Occurrence:
After long periods of inactivity, pneumatic relays of this type have a tendency to stick when first operated slowing the time response. To correct this, General Electric recommended in Service Information Letter 230, Supplement 1, that these relays be replaced by a different type relay.

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Analysis of Occurrence:

CS-TDR-K16B is a time delay relay that is energized whenever LOCA conditions exist and the emergency 4160 V Bus 1G is fed from the diesel generator. The function of CS-TDR-K16B is to start core spray Pump 1B after a 10 second time delay starting from the time the diesel generator reenergizes the emergency bus. The 10 second time delay is part of the emergency bus sequential loading design. The redundant core spray system A, was operable and its time delay setpoint was within allowable limits. This occurrence presented no adverse consequences from the standpoint of public health and safety.

Corrective Action:

The relay was retested and found to be operating within specifications. The relay was reset to operate at the lower end of its allowable tolerance band such that after periods of inactivity it should operate within the allowable band. A Minor Design Change has been initiated to replace the relay in the future with a different type as recommended by General Electric Service Information Letter 230, Supplement 1. Upon completion of the MDC, this event is considered complete and no additional response to this item is required.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.