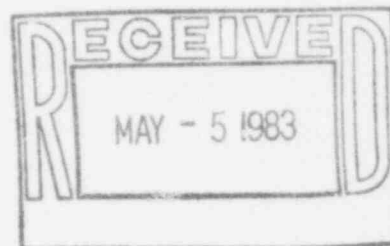


Nebraska Public Power District

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

CNSS830308

April 29, 1983



Mr. John T. Collins, Regional Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region IV
611 Ryan Plaza Drive
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 April 9, 1983. A licensee report form is also enclosed.

Report No.: 50-298-83-04
Report Date: April 29, 1983
Occurrence Date: April 9, 1983
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:

A condition occurred which resulted in operation in a degraded mode as permitted by Section 3.1 of the Technical Specifications.

Conditions Prior to Occurrence:

The reactor was operating at a steady state power level of 87.8% of rated thermal power.

Description of Occurrence:

During the performance of Surveillance Procedure 6.1.4 (Main Steam Line Process Radiation Monitor Functional Test), relay 917-5A-K7D failed to open its contacts when the relay was deenergized.

Designation of Apparent Cause of Occurrence:

The cause of the relay coil failure could not be determined.

Analysis of Occurrence:

Relay 917-5A-K7D is operated by two normally closed contacts from Main Steam Line Radiation channel "D" (17-251D). One contact will open at a preset high radiation level and the second will open due to equipment inoperability. If either contact opens, the relay will deenergize.

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Mr. John T. Collins
April 29, 1983
Page 2

The relay, in turn, operates a series pair of contacts in the Reactor Protection System (RPS) Auto-Scram Trip Logic "B2". These contacts are two of approximately 36 which could deenergize "B2" Trip Logic, and pass a scram signal to open the "B" Trip System Scram Solenoid Valve for each Control Rod Drive (CRD). Redundant Auto-Scram Trip Logic "B1" performs the same function of tripping the CRD Scram Solenoid Valves, independent of Trip Logic "B2". A Manual Scram Trip Logic "B3" will also trip "B" system Scram Solenoid Valves.

The RPS system is composed, in part, of two identical, independent trip systems, "A" and "B". Each system is a series of sensors, relays, and contacts which open a Scram Solenoid Valve for each CRD. There are two solenoid valves, one controlled from Trip System "A" and the second from Trip System "B", both of which must open to cause a scram. To initiate a scram, any one of the three trip logics in the "A" system and any one of the three "B" system trip logics must trip.

Relay 917-5A-K7D failed to open when deenergized during the performance of Surveillance Procedure 6.1.4. The other trip logic systems were operable at the time of this occurrence. The cause for the relay coil failure could not be determined.

This is the fourth failure of HFA relays at Cooper Nuclear Station. The first failure was not reportable, and the other two were reported in LERs 82-21 and 82-25.

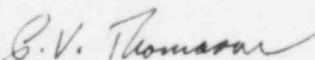
This occurrence presented no adverse potential consequences from the standpoint of public health and safety.

Corrective Action:

A "B" Group I isolation was placed in the trip condition as required per Technical Specifications. The relay coil was replaced and correct system operation was verified.

Due to the increasing occurrence of GE Type HFA relay failures, all AC HFA relays will be tested during the Spring 1983 outage in an effort to identify potential failures. Appropriate action will be taken on those found to be potentially defective. A program is currently being formulated to replace all AC HFA relays.

Sincerely,



P. V. Thomason
Acting Station Superintendent
Cooper Nuclear Station

PVT:RWK:cg
Attach.