Nebraska Public Power District

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

CNSS790291

June 23, 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 May 25, 1979. A licensee event report form is also enclosed.

Report No.: 50-298-79-15
Report Date: June 23, 1979
Occurrence Date: May 25, 1979
Facility: Cooper Nuclear Station
Brownville, Nebraska 68321

Identification of Occurrence:
A condition which lead to operation in a degraded mode permitted by a limiting condition for operation established in paragraph 3.9.A.1 of the Technical Specifications.

Conditions Prior to Occurrence:
Steady state power operation at 290 MWe. Event occurred immediately after the reactor scrammed.

Description of Occurrence:
When the reactor scrammed, breaker 1AS failed to close automatically. Breaker 1AS is the feeder breaker from the startup transformer.

Secondly, breaker 1FA failed to trip automatically when bus 1F was energized from the emergency transformer. Breaker 1FA is one of two breakers in series connecting the 4160V bus 1F to the 4160V bus 1A. Breaker 1FA also failed to trip from the control room when the control switch was operated to TRIP.

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Designation of Apparent Cause of Occurrence:

It is believed that breaker 1AS failed to close automatically because the auxiliary switch 52, located in breaker 1AN, failed to close its contact when 1AN opened due to the main generator trip. When breaker 1AN trips, its auxiliary switch 52 is returned to its normal position by a spring. This spring, a part of the auxiliary switch, apparently failed to close the switch contacts.

Breaker 1FA failure to trip was caused by the contact of the position switch 52H not being closed.

Breakers 1AS and 1FA are GE Magna Blast Type MH 4.76-250.

Analysis of Occurrence:

During normal operation when the generator is connected to the 345 KV system, the 4160V bus 1A is energized from the normal transformer via breaker 1AN. When the generator trips breaker 1AN trips, and breaker 1AS closes automatically and energizes the 4160V bus 1A from the startup transformer. Since breaker 1AS failed to close, the 4160V bus 1F was automatically energized from the emergency transformer. Breaker 1AS was then closed by the manual control switch.

Diesel Generator #1, the third source of power to the 4160V bus 1F, started automatically and was operable. However, the diesel generator did not energize bus 1F due to the bus being energized by the emergency transformer.

Breaker 1FA is in series with the breaker 1AF. Both breakers open on loss of voltage to bus 1F. Either breaker then isolates the emergency bus 1F from bus 1A. Failure of breaker 1FA to trip did not affect operation of the emergency bus 1F because 1AF opened.

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

Corrective Action:

The breaker manufacturer (GE) has been contacted in regards to the evaluation of the problem with breaker 1AS. The existing auxiliary switch 52 was cycled, cleaned and tested satisfactorily. Further action will depend on the manufacturer's recommendations.

The problem with the position switch for breaker 1FA was corrected by inserting a 3/4" bushing over the 1/2" operating bolt as per the manufacturer's recommendation. The bushing forces overtravel of the switch operating arm to assure contact closing in event of excessive clearance in the moving parts of the linkage. This repair is being evaluated for subsequent installation on all breakers using the subject type switch.

Sincerely,

L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.