

Nebraska Public Power District

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

CNSS790677

December 28, 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 November 30, 1979. A licensee event report form is also enclosed.

Report No.: 50-298-79-38
Report Date: December 28, 1979
Occurrence Date: November 30, 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 established in Table 3.2.F of the Technical Specifications.

Conditions Prior to Occurrence:

The reactor was operating at a steady state power level of approximately 93% of rated thermal power.

Description of Occurrence:

During normal operation, suppression chamber level indicator PC-LI-12 was observed to be operating erratically and then failed down-scale.

Designation of Apparent Cause of Occurrence:

The failure of torus level indicator PC-LI-12 was due to an internal short in the instrumentation loop power supply. This short caused the power supply transformer to overheat and fail.

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Analysis of Occurrence:

Torus level is monitored by four independent level indicators and two level switches. There are three narrow range level indicators and a wide range level recorder. Alarms are provided from two of the level indicators and from the two level switches. PC-LI-12 is one of the three narrow range level indicators for torus level. Power supply PC-ES-12 provides power for the current loop consisting of level transmitter PC-LT-12, Hi/Low level alarm PC-LA-12 and level indicator PC-LI-12. Failure of the power supply caused the level indicator to indicate downscale and the low level alarm to annunciate. At the time of the occurrence, torus level was normal and all other indicators and alarms were functioning properly.

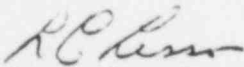
The subject power supply is a commonly used unit for various types of instrumentation systems. It is found in numerous applications at Cooper Nuclear Station and is considered a nonrepairable type item after failure. There have been approximately five previous failures noted during the previous five years of operation at Cooper Nuclear Station. Considering the large number of this type power supply currently in use, the previous failures dictate an extremely low failure incidence rate. Therefore, this failure is believed to be within the expected electronic component failure spectrum and no further analysis of this occurrence is warranted.

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

Corrective Action:

The power supply was replaced with an identical replacement.
Proper operation of the indicator was then verified.

Sincerely,



L. C. Lessor
Station Superintendent
Cooper Nuclear Station

LCL:cg
Attach.

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