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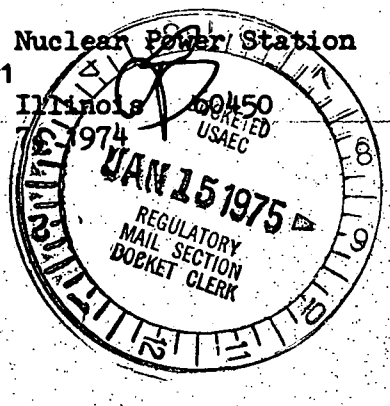
1/7/75

BBS Ltr. #7-75

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
January 7, 1974

Regulatory File Cy.



Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations-Region III
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL SPECIFICATIONS
SUSPECTED FAILURE OF LPCI SELECT CIRCUIT LOGIC RELAY

References: 1) Regulatory Guide 1.16 Rev. 1, Appendix A

2) Notification of Region III of AEC Regulatory Operations
Telephone: Mr. P. Johnson, 2100 hours on December 28, 1974
Telegram: Mr. J. Keppler, 1500 hours on December 30, 1974

3) Drawing Number: 12E2438A

Report Number: 50-237/74-81

Report Date: January 7, 1975

Occurrence Date: December 28, 1974

Facility: Dresden Nuclear Power Station, Morris, Illinois

INDENTIFICATION OF OCCURRENCE

On December 28, 1974 at 1700 hours jumpers were being installed around differential pressure switches DPIS 261-34A,-34B,-34C, and -34D. After the completion of the jumper installation it was noted that associated relay A.S. 284 had not energized as required. Initially it was felt that the problem was equipment failure which would have had a direct affect on the LPCI logic system. Subsequent investigation revealed that there had been no equipment failure and this portion of LPCI logic had at all times been capable of preforming its designed function. Therefore, the event was not an abnormal occurrence.

CONDITIONS PRIOR TO OCCURRENCE

Prior to the occurrence, the plant was in the "Shutdown" mode. The unit is in a major refueling outage. Preparations are being made to perform repairs on the

8103060646

"B" recirc loop discharge valve bypass line.

DESCRIPTION OF OCCURRENCE

Repairs were to be conducted to the "B" recirc line and the associated jet pumps were to be plugged. However, the "B" loop is the preferred loop for LPCI injection. This necessitated the installation of jumpers such that LPCI, if required, would inject into the "A" loop.

Jumpers were placed around switches DPIS 261-34A, B, C, and D such that relays 183, 184, 283, and 284 would energize. The switches close when pressure in the "A" recirc loop is one (1) psi higher than pressure in the "B" recirc loop. The relays then energize and allow LPCI to inject into the "A" recirc loop.

After positioning the jumpers, the procedure called for verification of relay pickup. At this time, it was observed that relay 1530-284 (AS) had not picked up. This fact plus the evidence of carbon and oxidation around the relay led personnel to believe the relay had burned up.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE

As soon as the above stated conditions were observed, a work request was issued to conduct repairs. Electrical maintenance personnel removed the old relay and installed a new one.

The installation of the new relay necessitated testing to insure proper operability. It was discovered that the real reason for the old relay not actuating was due to improper installation of the jumper.

The carbon and oxidation found on the relay was due to the numerous actuations of the relay because of fluctuations in pressure between the two recirc loops.

ANALYSIS OF OCCURRENCE

This event in no way jeopardized the health and safety of the plant personnel or the general public. Had the misplacement of the jumper gone unnoticed, the "A" loop would still have been selected for LPCI injection. Similarly if relay 1530-284 (AS) would have actually failed, LPCI logic could still have selected "A" loop for injection.

CORRECTIVE ACTION

Corrective action consisted of replacing the suspected failed relay with a like-for-like replacement. The old relay was taken back to the shop, bench tested satisfactorily, and cleaned up.

Also, the jumper was removed, inspected, and reinstalled properly.

FAILURE DATA

Although the relay was ultimately found not to be failed, relay 1530-284 (AS) was a General Electric auxiliary relay, model number 12HGA11J52, type HGA.

Sincerely,

Arthur M Roberts
for B. B. Stephenson
Superintendent
Dresden Nuclear Power Station

BBS:HJH:smp

File/AEC Corr.