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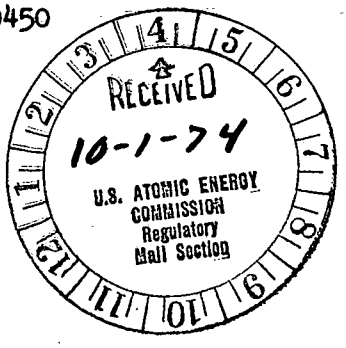
BBS Ltr.#680-74

Regulatory File Cy.

Dresden Nuclear Power Station
R. R. #1
Morris, Illinois 60450
September 19, 1974



50-237

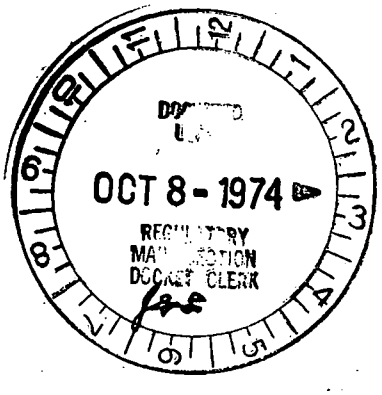
Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations-Region III
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.B OF THE TECHNICAL SPECIFICATIONS.
PRIMARY SYSTEM LEAKS.

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

2) Notification of Region III of AEC Regulatory Operations
Telephone: Mr. F. Maura, 1515 hours on September 13, 1974
Telegram: Mr. J. Keppler, 1543 hours on September 13, 1974

3) Drawing Number: P&ID M-26



Report Number: 50-237/1974 M-26

Report Date: September 19, 1974

Occurrence Date: September 13, 1974

Facility: Dresden Nuclear Power Station, Morris, Illinois

IDENTIFICATION OF OCCURRENCE

On September 13, 1974, a leak was discovered on line 2-0203B-4"-A in the "B" recirc. system. The next day a leak was discovered on line 2-0203A-4"-A in the "A" recirc. system. This represents an abnormal degradation of a boundary designed to contain radioactive materials.

CONDITIONS PRIOR TO OCCURRENCE

At 1000 hours on September 13, 1974, Unit 2 was in shutdown.

DESCRIPTION OF OCCURRENCE

At 1000 hours on September 13, 1974, Unit 2 was in shutdown due to high drywell leakage. Inspections were in progress to determine the cause of the leakage. At this time, a leak was discovered on 2B recirc. loop at

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the connection of 2B recirc. pump discharge valve bypass line (2-0203B-4"-A) with the recirc. loop (2-0201B-28"-A). The line was cracked at the point where the line is welded to an inverted reducer. The crack was a circumferential crack which ran along approximately 75% of the pipe circumference and was completely through the pipe in two areas. This crack was upstream of the bypass valve and was easily isolatible.

The next day a crack was found on the 2A recirc. loop. The crack was also in the 4" equalizing line, but downstream of the bypass valve at the 28"x4" reducer to the 28" recirc. riser. This crack consisted of an approximately 3/4" long circumferential crack with about a 1-1/2" tail running along the length of the pipe. Only the circumferential part of the crack was completely through the pipe. This crack was not isolatible.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE

At this time, no apparent cause is known. Pieces of the cracked pipe were sent out for analysis. A followup letter will be written when the results of these analyses are returned.

ANALYSIS OF OCCURRENCE

There were no safety consequences to the public or plant personnel as a result of this occurrence because the cracks were found before any major damage was done. All water was contained in the drywell sumps and pumped to Radwaste for processing. The shift by shift monitoring of the drywell sumps found this problem immediately and allowed for a safe shutdown before excessive leakage resulted. Had the pipe broken under operation, LPCI, HPCI and core spray were available to provide core cooling.

CORRECTIVE ACTION

The 2B loop crack was isolated, the section of cracked pipe cut out, and a new section welded in. The 2A loop is at the present, unisolatible. Plans are being formulated for repairing this crack. The followup letter will include the method used for repairing this crack. Subsequent investigations will be conducted on Unit 3 to disclose similar cracking at the earliest opportunity.

FAILURE DATA

These are the first failures of this type.

Sincerely,

for G. J. Diederich
B. B. Stephenson
Superintendent

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