



Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

BBS Ltr. #105-75

Dresden Nuclear Power Station
R.R. #1
Morris, IL 60450

February 21, 1975

James G. Keppler, Regional Director
Directorate of Regulatory Operations - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137



SUBJECT: REPORT OF ABNORMAL OCCURRENCE PER SECTION 6.6.A OF THE TECHNICAL
SPECIFICATIONS
CORE SPRAY INJECTION LINE THROUGH-WALL CRACK

References: 1) Regulatory Guide 1.16 Rev. 1 Appendix A
2) Letter from B. B. Stephenson to J. G. Keppler dtd 6 Feb 75
3) Notification of Region III of NRC Regulatory Operations
Telephone: P. Johnson, 1300 hrs, 10 Feb 75
Telegram: J. Keppler, 1515 hrs, 10 Feb 75

Report Number: 50-237/1975-12

Report Date: February 21, 1975

Occurrence Date: February 9, 1975

Facility: Dresden Nuclear Power Station, Morris, IL

IDENTIFICATION OF OCCURRENCE

On February 9, 1975 at approximately 1400 hrs, a through-wall crack was discovered on line 2-1403-10"-A, which is the "A" Core Spray Injection Line to the reactor vessel. This represents an abnormal degradation of a boundary designed to contain radioactive materials.

CONDITIONS PRIOR TO OCCURRENCE

Prior to the occurrence, the reactor was locked in the refuel mode with the replacement of the 4 inch recirculation discharge valve bypass line in progress.

DESCRIPTION OF OCCURRENCE

At 1400 hrs on February 9, 1975, Unit 2 was shutdown for its third refueling outage. With the inservice inspection program underway, one crack was discovered on "A" Core Spray Injection Line approximately in the 12 o'clock position in the heat affected zone of the butt weld. Subsequent ultrasonic examinations revealed that this crack was approximately 1½ inches in length on the ID, from about 10 o'clock to 12 o'clock.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE

At this time, the apparent cause of the failure is unknown. Once the sections of piping are removed, an investigation will be performed to determine the mode of failure: this report will be submitted as a followup letter.

ANALYSIS OF OCCURRENCE

At the time of discovery, the small leaks found did not compromise the safety of the public or plant personnel. The reactor has been shutdown since November 1974 and the leaks were detected during performance of the inservice inspection program.

During the operating period since the last inspection in early 1972 through November 1974, the station has operated in accordance with the Technical Specifications which requires availability of emergency core cooling systems. At the time of discovery, the LPCI system was available to provide core cooling in the event of a LOCA had the core spray system become non-functional.

CORRECTIVE ACTION

The remaining welds in A & B Core Spray Systems out to the second isolation valve have been ultrasonically examined. As a result of the examinations, additional welds have been noted to have indications but have been resolved to be of a geometrical nature.

Once the cracked piping, in question, has been removed from the system, several of the welds that possess these geometrical indications will be visually examined to substantiate the evaluation.

The corrective action to be taken to prevent recurrence will be contingent upon the results of the visual examination of these subject welds. As a minimum, the section of pipe containing the crack will be replaced.

FAILURE DATA

This most recent failure occurred in piping of 304SS, 10 inch diameter and schedule 80.

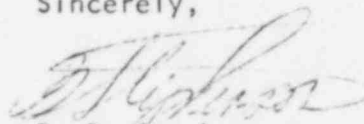
The previous failures of austentic pipe of similiar nature were discovered on September 13, 14 and December 13, 1974 involving the four inch recirc bypass lines, 2-0203B-4"-A and 2-0203A-4"-A. The four inch piping material was of 304 stainless steel with a thickness of 0.337 inches.

Five through wall cracks were discovered on January 27, 1975 on A and B Core Spray Injection Lines, 2-1403-10"A and 1404-10"B respectively. The cracks were discovered in an area between the reactor vessel nozzle to safe end weld and the core spray pipe section adjacent to the dutchman weld. The sections of piping (dutchman) involved in these failures are on 316 stainless steel with a thickness of approximately 0.60 inches. This is the first occurrence of this nature where a transition piece connected to the safe end has failed.

February 21, 1975

This letter is being submitted after the allotted time due to site personnel's total involvement in the inspection effort generated by IE Bulletin 75-01. This extended submittal date was discussed with P. Johnson, NRC Region III, on February 14, 1975.

Sincerely,



B. B. Stephenson
Superintendent
Dresden Nuclear Power Station

BBS:RJC:sib

cc: File/AEC