

.NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO: Mr. James G. Keppler

FROM: Commonwealth Edison Company
B. B. Stephenson
Morris, Illinois

DATE OF DOCUMENT
5/9/77

DATE RECEIVED
5/23/77

LETTER
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DESCRIPTION

ACKNOWLEDGED

PLANT NAME:
Dresden Unit No. 2

RJL

DO NOT REMOVE

ENCLOSURE

Licensee Event Report (RO 50-237/1976-66) on 11/13/76 (update report) concerning HPCI injection valve M02-2301-8 being found to be in the closed position with its valve steam severed.....

NOTE: IF PERSONNEL EXPOSURE IS INVOLVED SEND DIRECTLY TO KREGER/J. COLLINS

FOR ACTION/INFORMATION

BRANCH CHIEF:	ZIEMANN
W/3 CYS FOR ACTION	
LIC. ASST.:	DIGGS
W/ / CYS	
ACRS /6 CYS HOLDING/SENT	AS CAT B.

INTERNAL DISTRIBUTION

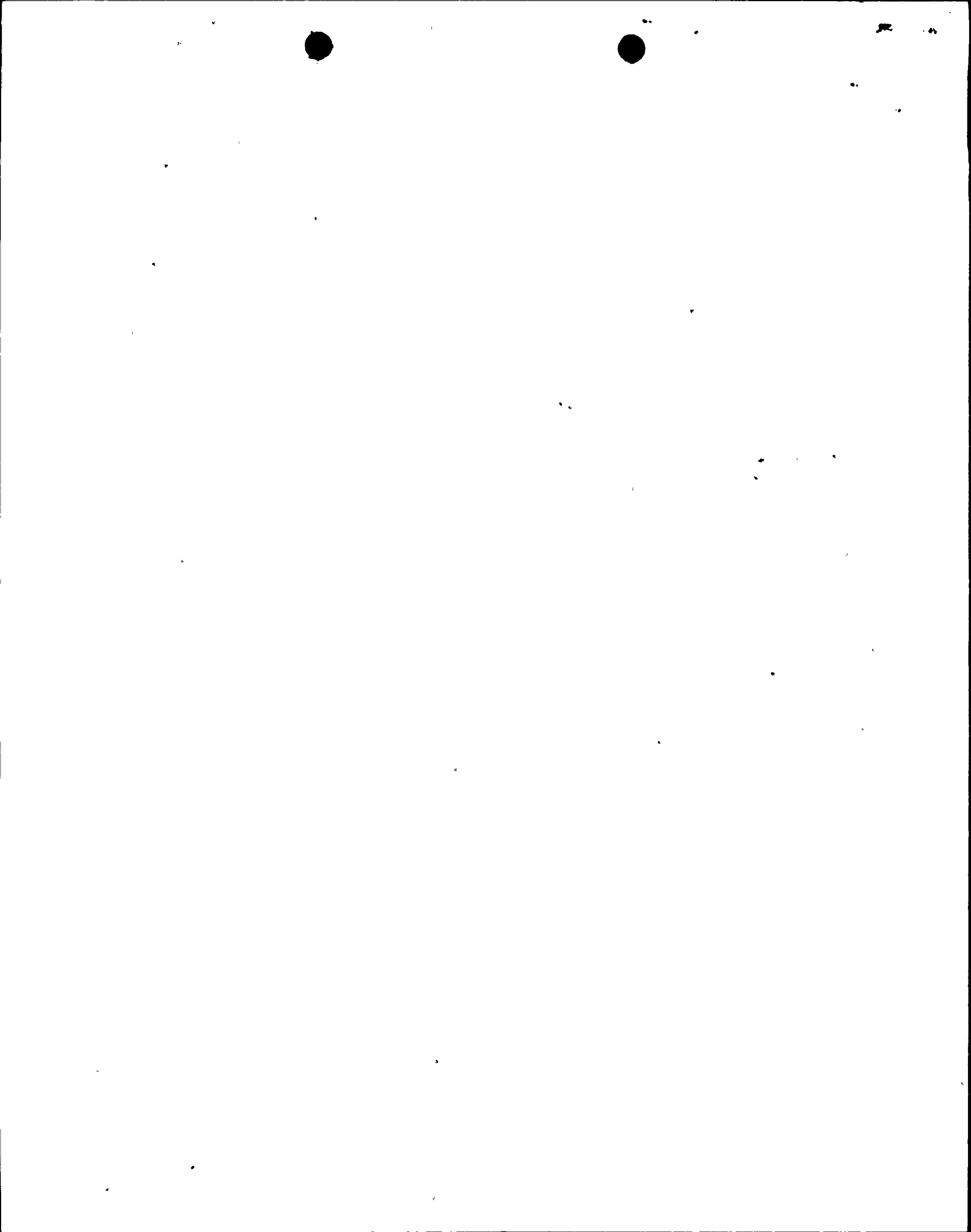
<input checked="" type="checkbox"/> REG-FILE			
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KREGER/J. COLLINS			

EXTERNAL DISTRIBUTION

CONTROL NUMBER

LPDR: MORRIS, ILL.			
TIC:			
NSIC:			

771430040





Commonwealth Edison
 Dresden Nuclear Power Station
 R.R. #1
 Morris, Illinois 60450
 Telephone 815/942-2920

D. Latham

BBS Ltr. No. 77-424

May 9, 1977

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



REGULATORY DOCKET FILE COPY

Enclosed please find an update report to Reportable Occurrence report number 50-237/1976-66. This report is being resubmitted to your office in accordance with the Dresden Nuclear Power Station Technical Specifications, Section 6.6.B.

B. B. Stephenson

B. B. Stephenson
 Station Superintendent
 Dresden Nuclear Power Station

BBS:sm

Enclosure

cc: Director of Inspection & Enforcement
 Director of Management Information & Program Control
 File/NRC

8 51

MAY 11 1977

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1958

THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1958

LICENSEE EVENT REPORT

Update Report

Previous Report Date: 11/23/76

PLEASE PRINT ALL REQUIRED INFORMATION

CONTROL BLOCK: [] [] [] [] [] [] [] [] [] [] [] []

LICENSEE NAME: 01 I L D R S 2 14; LICENSE NUMBER: 0 0 - 0 0 0 0 0 0 - 0 0 25; LICENSE TYPE: 4 1 1 1 1 30; EVENT TYPE: 0 1 31 32

CONT: 01; CATEGORY: 57 58; REPORT TYPE: T 59; REPORT SOURCE: L 60; DOCKET NUMBER: 0 5 0 - 0 2 3 7 68; EVENT DATE: 1 1 1 3 7 6 69 74; REPORT DATE: 0 5 1 3 7 7 75 80

EVENT DESCRIPTION

02 During a weekend maintenance outage, HPCI injection valve M02-2301-8 was found to be in
03 the closed position with its valve stem severed. The valve was last observed to
04 function properly during the previous refueling outage. The valve is located in the
05 "X-Area", which is not routinely accessible during operation. From the beginning of
06 this fuel cycle until 10/12/76, the valve was cycled on a monthly basis with proper

(continued)

07 SYSTEM CODE: S F 9 10; CAUSE CODE: E 11; COMPONENT CODE: V A L V E X 12 17; PRIME COMPONENT SUPPLIER: N 43; COMPONENT MANUFACTURER: C 6 6 5 44 47; VIOLATION: N 48

CAUSE DESCRIPTION

08 The original Licensee Event Report described the failure of the HPCI M0-2-2301-8
09 valve stem and the immediate corrective action associated with the event. This
10 supplemental report documents the results of tests performed on the damaged valve

(continued)

11 FACILITY STATUS: G 9; % POWER: 0 0 0 10 12 13; OTHER STATUS: NA 13; METHOD OF DISCOVERY: C 44 45; DISCOVERY DESCRIPTION: DC, Ground Electrical Inspection 46 80

12 FORM OF ACTIVITY RELEASED: Z 9; CONTENT OF RELEASE: Z 10 11; AMOUNT OF ACTIVITY: NA 44; LOCATION OF RELEASE: NA 45 80

PERSONNEL EXPOSURES

13 NUMBER: 0 0 0 7 8 9 11; TYPE: Z 12; DESCRIPTION: NA 13 80

PERSONNEL INJURIES

14 NUMBER: 0 0 0 7 8 9 11 12; DESCRIPTION: NA 12 80

OFFSITE CONSEQUENCES

15 NA 7 8 9 80

LOSS OR DAMAGE TO FACILITY

16 TYPE: Z 7 8 9 10; DESCRIPTION: NA 10 80

PUBLICITY

17 NA 7 8 9 80

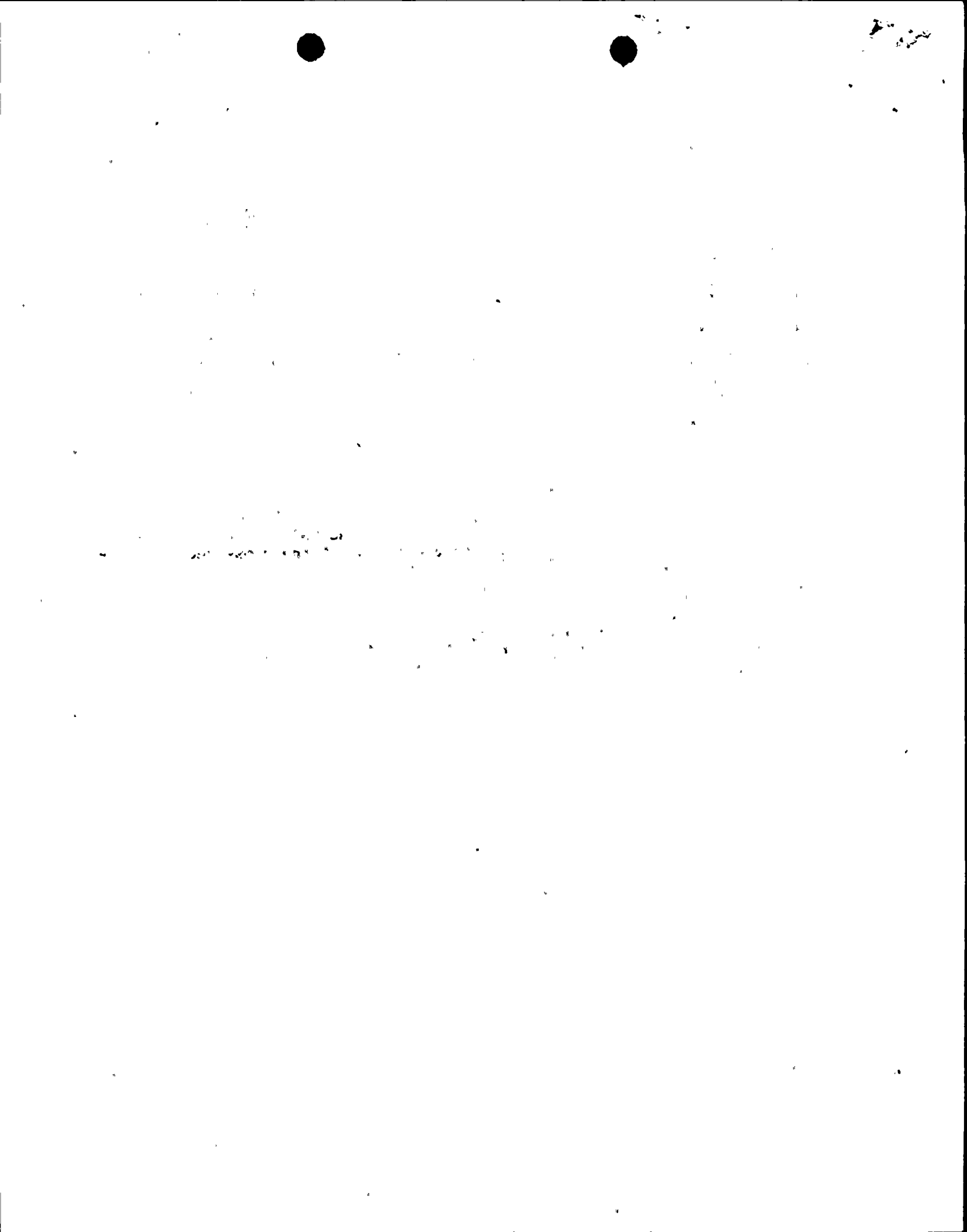
ADDITIONAL FACTORS

18 NA 7 8 9 80

19 7 8 9 80

NAME: John Wujciga

PHONE: Ext. 265



EVENT DESCRIPTION (continued)

control room position indication. On 10/12/76, valve 2301-8 was taken out of service in the open position (according to position indication) in order to isolate a 250V DC ground which was present only when the valve was closed. The HPCI pump discharge line was then isolated by closing valve 2301-9. This is not a repetitive occurrence. (50-237/1976-66)

CAUSE DESCRIPTION (continued)

stem by Commonwealth Edison's Operational Analysis Department and the final corrective action taken to repair the valve.

Examination of the Dresden Unit 2 HPCI valve stem (M0 2-2301-8) indicates that the failure was not material-related but was a one time mechanical overstress of the stem. Utilizing macro-photographic and electron microscopé fractographic techniques, coupled with a chemical analysis of the valve stem, it was determined that approximately sixty (60) percent of the fracture surface separated by the quasi-cleavage mode, and forty (40) percent failed in shear. The shear portion of the fracture is thought to have occurred during bending of the valve stem when the torque switch momentarily remained energized, after the valve seated. Because of moisture accumulation in the valve operator, with 40% of the cross section fractured and the valve stem severely bent, final through-fracture occurred during the next attempted backseat cycle.

During a planned 5 day Unit 2 outage beginning on March 16, 1977, the HPCI M02-2301-8 valve was disassembled and the failed valve stem was replaced. While the valve was disassembled, a visual code examination of the valve body and internals, including the seating faces, was satisfactorily completed. The examined components were found free of any detectable erosion, corrosion, or mechanical damage. In addition, during the same outage period the junction boxes and conduits in the "X"-Area: were sealed to prevent a possible recurrence.

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