

50-237

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
<input checked="" type="checkbox"/> LETTER <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> COPY		<input type="checkbox"/> NOTORIZED <input checked="" type="checkbox"/> UNCLASSIFIED		DATE RECEIVED 5/23/77
PROP		INPUT FORM		NUMBER OF COPIES RECEIVED ONE

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	16 CYS HOLDING/SENT AS CAT B.

INTERNAL DISTRIBUTION

REG FILE	
NRC-PDR	
I & E (2)	
MIPC	
SCHROEDER/IPPOLITO	
HOUSTON	
NOVAK/CHECK	
GRIMES	
BUTLER	
HANAUER	
TEDESCO/MACCARY	
EISENHUT	
BAER	
SHAO	
VOLLMER/BURGH	
KREGER/J. COLLINS	

EXTERNAL DISTRIBUTION

LPDR: MORRIS, ILL.	
TIC:	
NSIC:	

CONTROL NUMBER

771430040



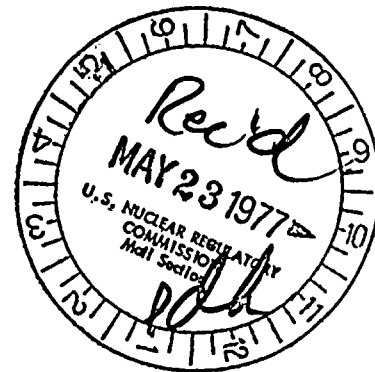
Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

D. Latham

BBS Ltr. No. 77-424

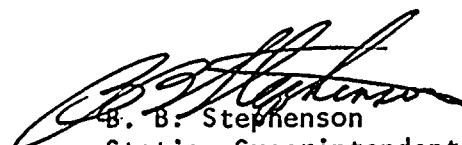
May 9, 1977

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 submitted to your office in accordance with the Dresden Nuclear Power Station Technical Specifications, Section 6.6.B.


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

771430040

1988

1988
1988
1988

1988

LICENSEE EVENT REPORT

Update Report

Previous Report Date: 11/23/76

PLEASE PRINT ALL REQUIRED INFORMATION

CONTROL BLOCK: 1 6

LICENSEE NAME														LICENSE NUMBER										LICENSE TYPE					EVENT TYPE				
01 I L D R S 2														0 0 - 0 0 0 0 0 0 - 0 0										4 1 1 1 1					0 1				
7	8	9												14	15											25	26	27	28	29	30	31	32
CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER										EVENT DATE					REPORT DATE														
01 CONT			T	L	0 5 0 - 0 2 3 7										1 1 1 3 7 6					0 5 1 3 7 7													
7	8	57	58	59	60											68	69	70	71	72	73	74	75	76	77	78	79	80					

EVENT DESCRIPTION

02	During a weekend maintenance outage, HPCI injection valve M02-2301-8 was found to be in	80
03	the closed position with its valve stem severed. The valve was last observed to	80
04	function properly during the previous refueling outage. The valve is located in the	80
05	"X-Area", which is not routinely accessible during operation. From the beginning of	80
06	this fuel cycle until 10/12/76, the valve was cycled on a monthly basis with proper	80

(continued)

SYSTEM CODE		CAUSE CODE	COMPONENT CODE					PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER				VIOLATION												
07 S F		E	V A L V E X					N	C 6 6 5				N												
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

CAUSE DESCRIPTION

08	The original Licensee Event Report described the failure of the HPCI M0-2-2301-8	80
09	valve stem and the immediate corrective action associated with the event. This	80
10	supplemental report documents the results of tests performed on the damaged valve	80

(continued)

FACILITY STATUS		% POWER	OTHER STATUS		METHOD OF DISCOVERY	DISCOVERY DESCRIPTION																			
11 G		0 0 0	NA		C	DC Ground Electrical Inspection																			
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE	AMOUNT OF ACTIVITY		LOCATION OF RELEASE																				
12 Z		Z	NA		NA																				
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION				
13 0 0 0	Z	NA				
7	8	9	10	11	12	13

PERSONNEL INJURIES

NUMBER	DESCRIPTION				
14 0 0 0	NA				
7	8	9	10	11	12

OFFSITE CONSEQUENCES

15	NA	80
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LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION		
16 Z	NA		
7	8	9	10

PUBLICITY

17	NA	80
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ADDITIONAL FACTORS

18	NA	80
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19	NA	80
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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.

END PAGE 8 51

DATE: 11/1/77

RECEIVED DOCUMENT
PROCESSING UNIT

1977 MAY 24 AM 8 21