

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER

INCIDENT REPORT

TO:
Mr. James G. Keppler

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

DATE OF DOCUMENT

8/6/77

DATE RECEIVED

8/24/77

☒ LETTER
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☐ NOTORIZED
☒ UNCLASSIFIED

PROP

INPUT FORM

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1 SIGNED CY RECEIVED

DESCRIPTION

PLANT NAME:
Dresden Unit No. 2
RJL 8/24/77

(1-P)

ENCLOSURE

Licensee Event Report (RO 50-237/1977-27) on
7/9/77 concerning a total of 46 control rod
drives failing to fully insert & latch at
position "00".....

DO NOT REMOVE

ACKNOWLEDGED

(2-P)

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

FOR ACTION/INFORMATION

BRANCH CHIEF:
W/ 3 CYS FOR ACTION
LIC ASST.:

INTERNAL DISTRIBUTION

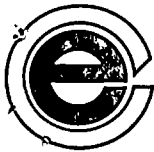
REG FILE
NRC-PDR
I & E (2)
MIPC
SCHROEDER/IPPOLITO
HOUSTON
NOVAK/CHECK
GRIMES
KNIGHT
BUTLER
HANAUER
TEDESCO
EISENHUT
BAER
SHAO
VOLLMER/RUNCH
KREGER/ J. COLLINS
ROSA

EXTERNAL DISTRIBUTION

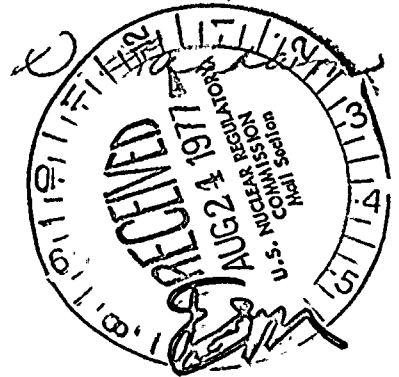
LPDR: MORRIS, ILL
TIC:
NSIC:
ACRS (16) SENT AS CAT. B

CONTROL NUMBER

772360069



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



August 4, 1977

Regulatory

File Cy.

BBS Ltr. #77-706

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

Enclosed please find Reportable Occurrence report number 50-237/1977-27.
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:dlz

Enclosure

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

772360069

AUG 8 1977



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RECEIVED

LICENSEE EVENT REPORT

CONTROL BLOCK:

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME														LICENSE NUMBER												LICENSE TYPE					EVENT TYPE	
01	I	L	D	R	S	2	0	0	-	0	0	0	0	-	0	0	4	1	1	1	1	0	1									
7	8	9				14	15									25	26						31	32								

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER					EVENT DATE					REPORT DATE										
01	CONT		T	L	0	5	0	-	0	2	3	7	0	7	0	9	7	7	0	8	0	4	7	7
7	8		57	58	59	60	61				68	69			74	75				80				

EVENT DESCRIPTION

02	Following a Unit 2 reactor scram on July 9, 1977 at 1023 hours (see d-12-2-77-63) a																							80
03	total of forty-six (46) control rod drives (CRD) failed to fully insert & latch at																							80
04	position "00". All forty-six (46) CRDS settled & latched at position "02". The																							80
05	control rod drive manual control system was immediately utilized to fully insert the																							80
06	CRDS to position "00". Of the forty-six (46) CRDS twenty-two (22) failed in a																							80

(continued)

SYSTEM CODE		CAUSE CODE		COMPONENT CODE				PRIME COMPONENT SUPPLIER		COMPONENT MANUFACTURER				VIOLATION	
07	R	B	E	C	R	D	R	V	E	N	G	0	8	0	N
7	8	9	10	11	12				17	43	44			47	48

CAUSE DESCRIPTION

08	On July 21, 1977 an in-station meeting was held and the significant aspects of the																							80
09	event reviewed. Station Personnel were in agreement as to the cause of the problem																							80
10	being worn or deteriorated stop piston seals. Due to the increasing number of CRDS																							80

(continued)

FACILITY STATUS		% POWER		OTHER STATUS				METHOD OF DISCOVERY		DISCOVERY DESCRIPTION			
11	G	0	0	0	NA				A	NA			
7	8	9	10	12	13			44	45	46		80	

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE		AMOUNT OF ACTIVITY				LOCATION OF RELEASE			
12	Z	Z	NA				NA				
7	8	9	10	11			44	45			80

PERSONNEL EXPOSURES

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

PERSONNEL INJURIES

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

OFFSITE CONSEQUENCES

15	NA																							80
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LOSS OR DAMAGE TO FACILITY

TYPE		DESCRIPTION									
16	Z	NA									
7	8	9	10								80

PUBLICITY

17	NA																							80
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ADDITIONAL FACTORS

18	NA																							80
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19																								80
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NAME: John W. Wojciga

PHONE: x-421

EVENT DESCRIPTION (continued)

similar manner on two different occasions prior to this event (see D-12-2-76-104, D-12-2-76-121). As in the previous occasions severely worn or damaged stop piston seals are thought to be the cause of the problem. The worn or damaged seals allows excessive reactor water leakage through to the Buffer Hole Area of the CRD. As the drive piston closes the Buffer during upward drive movement the excess water cannot be vented through the Buffer hole fast enough thereby locking the drive between position "00" and "02". When the scram valves close the drive settles and latches at position "02". (50-237-77-27)

DESCRIPTION OF CAUSE (continued)

exhibiting this condition the problem was determined to be possibly generic in nature and reportable under section 6.6.B.1.i. However, the mode of seal failure is not known at this time. The Station Nuclear Engineering Department has been requested (action item #12-77-189) to further investigate the cause of seal failure and determine a solution to the problem. As part of the investigation, consideration will be given to other possible causes which, may prevent the CRDS from fully inserting. A supplemental letter will be sent upon completion of the investigation. The additional CRDS which did not fully insert as a result of the July 9, 1977 scram will be overhauled during the upcoming September, 1977 refueling outage. The safety implications to the public and plant personnel were minimal since an analyses has indicated that the reactor is safely shut down in the hot condition in the event that all control rods insert no further than position "02" with the strongest control rod withdrawn.

RECEIVED DOCUMENT
PROCESSING UNIT

102
1977 AUG 24 PM 12 22

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