



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

Regulatory

File Cr



BBS Ltr. #412-76

May 27, 1976



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

Enclosed please find Reportable Occurrence number 50-249/1976-7.
 This report is being submitted to your office in accordance with the
 Dresden Nuclear Power Station Technical Specifications, Section 6.6.B.

for *Arthur M Roberts*
 B. B. Stephenson
 Station Superintendent
 Dresden Nuclear Power Station

BBS:smp

Enclosure

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

5591

LICENSEE EVENT REPORT

CONTROL BLOCK:

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(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME:

01	I	L	D	R	S	3
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 LICENSE NUMBER:

00	-	0	0	0	0	0	0	-	0	0
----	---	---	---	---	---	---	---	---	---	---

 LICENSE TYPE:

4	1	1	1	1	1
---	---	---	---	---	---

 EVENT TYPE:

0	3
---	---

REPORT TYPE:

L

 REPORT SOURCE:

L

 DOCKET NUMBER:

0	5	0	-	0	2	4	9
---	---	---	---	---	---	---	---

 EVENT DATE:

0	4	2	8	7	6
---	---	---	---	---	---

 REPORT DATE:

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EVENT DESCRIPTION

02 | During normal operation, following the removal of the Rechar. system from service, an apparent explosion occurred in the 3B off-gas system. The charcoal adsorbers and filters were bypassed at 0120 hours. Off-gas analyzer Hi-Hi alarms were received (continued)

SYSTEM CODE:

M	B
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 CAUSE CODE:

b

 COMPONENT CODE:

Z	Z	Z	Z	Z	Z
---	---	---	---	---	---

 PRIME COMPONENT SUPPLIER:

A

 COMPONENT MANUFACTURER:

Z	9	9	9
---	---	---	---

 VIOLATION:

M

CAUSE DESCRIPTION

08 | The cause of the explosion is not known; however, it is suspected that the hydrogen was ignited by a spark caused by static electricity. (continued)

FACILITY STATUS:

E

 % POWER:

0	5	7
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 OTHER STATUS:

NA

 METHOD OF DISCOVERY:

a

 DISCOVERY DESCRIPTION:

NA

FORM OF ACTIVITY RELEASED:

G

 CONTENT OF RELEASE:

N

 AMOUNT OF ACTIVITY:

2	8	2	5
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 Ci LOCATION OF RELEASE:

Unit 2/3	Rx Bldg	&	Chimney
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PERSONNEL EXPOSURES

NUMBER:

0	0	0
---	---	---

 TYPE:

Z

 DESCRIPTION:

NA

PERSONNEL INJURIES

NUMBER:

0	0	0
---	---	---

 DESCRIPTION:

NA

OFFSITE CONSEQUENCES

15 | Initiated GSEP offsite alert for environs sample collection

LOSS OR DAMAGE TO FACILITY

TYPE:

Z

 DESCRIPTION:

NA

PUBLICITY

17 | Press release

ADDITIONAL FACTORS

18 | Particulate release between 0500 and 1038 was

19 | 8.56×10^{-3} Ci

NAME: C E SargentPHONE: 942-2920

EVENT DESCRIPTION (continued)

and reactor power was reduced to clear the alarms. After the alarms had cleared, power was slowly increased until 0450 hours, when an apparent off-gas explosion occurred. Reactor power was further reduced to approximately 360 MWe. Standby steam jet air ejector (SJAE) "3A" was placed in service. However, further investigation indicated that the rupture diaphragm in both SJAE's had been damaged, and a unit shutdown was initiated and completed by 1038 hours. Off-gas system explosions have occurred previously on both units 2 and 3. Corrective action implemented was replacement of the failed diaphragms and the "3B" off-gas filter. (050-249/76-7)

CAUSE DESCRIPTION (continued)

The explosion apparently failed both SJAE diaphragms at the same time. It is assumed that the pressure wave failed the rupture diaphragms in both the operating SJAE "3B" and the standby SJAE "3A" due to leakage through the discharge valve. Although personnel on shift at the time reported hearing two explosions, no evidence could be found to support this theory. The "3B" off-gas filter in service at the time of the explosion was damaged and subsequently replaced. Prior to the unit startup, both filters were tested and off-gas system valve lineups were verified to be correct.

An investigation of this and other previous off-gas explosions has been initiated. The investigation will address the origin and prevention of off-gas system explosions.