

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Dresden Nuclear Power Station Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 2 4 9	PAGE (3) 1 OF 0 2
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TITLE (4)  
Four (4) Percent O<sub>2</sub> Concentration in Torus

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		
0 8	0 8	8 4	8 4	0 0 9	0 0	0 9	0 5	8 4	DOCKET NUMBER(S) 0 5 0 0 0		

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 0 9 1 1	<input type="checkbox"/> 20.472(b)	<input type="checkbox"/> 20.406(e)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)							

LICENSEE CONTACT FOR THIS LER (12)

NAME Brian McCabe (X-550)	TELEPHONE NUMBER
	AREA CODE: 8 1 5    9 4 2 - 2 9 2 0

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	SIA	VIAICIB	P131410	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)     NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

With Unit 3 at 91 percent and during normal operation, an Operator received an alarm indicating high O<sub>2</sub> concentration in the torus. It was observed that this concentration had reached four (4) percent. The problem was caused by the failure of the torus to reactor building vacuum breaker 3-1601-20B. The failure was attributed to the shearing of the mounting bolts which caused the valve operator to become disoriented from the valve body leaving the valve open slightly and damaging the air lines to the operator. The mounting bolts were removed, new bolts were installed and the damaged air lines were repaired. The valve was tested and operated successfully.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Dresden Nuclear Power Station Unit 3	DOCKET NUMBER (2)  05000249	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		84	009	00	02	OF	02

TEXT (If more space is required, use additional NRC Form 365A's) (17)

With Unit 3 at 91 percent power and during normal operation, an Operator received an alarm indicating high O<sub>2</sub> concentration in the torus. The concentration had reached four (4) percent. While inspecting the torus area for possible causes of the high torus O<sub>2</sub> concentration, it was determined that the problem was caused by the failure of the torus to reactor building vacuum breaker 3-1601-20B. The valve operator became disoriented from the valve body, causing the valve to open slightly. With the 3-1601-20B open and the torus being at a slight negative pressure with respect to the reactor building, air from the reactor building entered the torus causing the O<sub>2</sub> concentration to reach four (4) percent. Safety significance was minimal because primary containment integrity was maintained and the feeding and bleeding of N<sub>2</sub> to the torus commenced promptly. The previous occurrence of this type was documented in LER/RO #78-016-03L-0.

The failure was attributed to the shearing of the "flathead" mounting bolts which caused the valve operator to become disoriented from the valve body leaving the valve slightly open. The bolts became loose and were sheared when the valve was cycled. Further investigation proved that SAE Grade 8 bolts would better serve in preventing this problem from occurring in the future. Therefore, the "flathead" mounting bolts were replaced with "Allen" bolts. This change also allows a much greater torque to be applied during installation. Work Request numbers 38270 and 38271 request that these "Allen" bolts be installed on all H. Pratt valves during the next scheduled refueling outages.

The shearing of the mounting bolts during the valve cycling process also caused an air line to be damaged. This air line was repaired during the maintenance of the vacuum breaker. Testing of the repairs performed on 3-1601-20B during the maintenance process proved successful.



**Commonwealth Edison**

Dresden Nuclear Power Station

R.R. #1

Morris, Illinois 60450

Telephone 815/942-2920

September 6, 1984

DJS Ltr #84-880

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Licensee Event Report #84-009-0, Docket #C50249 is being submitted  
as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73  
(a)(2)(i)(B).

D.J. Scott  
Station Superintendent  
Dresden Nuclear Power Station

DJS/kjl

Enclosure

cc: J.G. Keppler, Regional Administrator, Region III  
File/NRC  
File/Numerical

IE22  
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