NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Dresden Nuclear Power Station, Unit 3	0 5 0 0 0 2 4 9	1 OF 0 2

TITLE (4) Automatic Start of Standby Gas Treatment Resulting From a Grounded Wire and Blown Fuse During Maintenance Activity

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	DOCKET NUMBER(S)
0 8	1 7	8 6	8 6	0 1 1	0 0	0 9	1 6	8 6	Dresden Unit 2	0 5 0 0 0 2 3 7
									N/A	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 1 0 0	20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Jerry F. Lizalek Technical Staff Engineer X-421	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	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On August 17, 1986 at 1738 hours, with Unit 3 in the refuel mode (at 0 percent power) and Unit 2 at 94 percent power, the Electrical Maintenance (EM) Department caused fuse 595-718 to become blown while attempting to obtain a voltage reading on the open position indicating limit switch for air operated valve (AO) 3-1599-62 Consequently, the Reactor Building ventilation, drywell purge fans, the Reactor Building floor drain sump pump and the Reactor Building equipment drain sump pump tripped off, the standby gas treatment (SBGT) system automatically started, and all indication for pneumatic valves AO-3-4720 and AO-3-4721 valves became lost as they failed in the closed position. The Unit 3 Nuclear Station Operator (NSO) replaced fuse 595-718 and all affected equipment was immediately returned to normal.

An investigation of this event revealed that while the Electrician was removing the energized lead from the position indicating limit switch for valve AO-3-1599-62, inadvertent contact was made between the lead and metal valve body resulting in a direct ground of the circuit. This caused an overcurrent condition resulting in the blown fuse.

It is believed that this event was due to a miscommunication between the NSO and the EM Department. Although the EM Department did notify the NSO of maintenance on the AO 3-1599-62 valve, they did not mention the systems that may be affected if the circuit was grounded. Because of this the NSO did not anticipate the SBGT system autostarting. To help prevent similar events of this type from occurring, a memorandum discussing this event will be presented to the EM Department. The safety significance of this event was minimal since all safety systems initiated as designed. This is a first occurrence of this type.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Automatic Start of Standby Gas Treatment Resulting From a Grounded Wire and Blown Fuse During Maintenance Activity	0 5 0 0 0 2 4 9	8 6	— 0 1 1	— 0 0	0 2 OF 0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

On August 17, 1986 at 1738 hours, with Unit 3 in the refuel mode (at 0 percent power) and Unit 2 at 94 percent power, the Electrical Maintenance (EM) Department caused fuse 595-718 to become blown, while attempting to obtain a voltage reading on the locally mounted open position indicating limit switch for air operated valve AO-1599-62, "Loop I and loop II Low Pressure Coolant Injection (LPCI) (EIIS Code BM) Crosstie Drain Valve". Consequently, the Reactor Building ventilation (EIIS Code VA), drywell purge fans (EIIS Code VB), the Reactor Building floor drain sump pump (EIIS Code WK), and the Reactor Building Equipment Drain sump pump (EIIS Code WK) tripped off. The standby gas treatment (SBGT) (EIIS Code BH) system automatically started and all indication for pneumatic valves AO-3-4720 and AO-3-4721 became lost as they failed in the closed position. Fuse 595-718 was replaced and all affected equipment was immediately returned to normal.

An investigation of this event revealed that while the Electrician was removing the energized lead from the position indicating limit switch for valve AO-3-1599-62, inadvertent contact was made between the lead and metal valve body resulting in a direct ground of the circuit. This caused an overcurrent condition resulting in the blown fuse. Because a voltage check was being performed, the circuit could not be taken out of service.

The Unit 3 Nuclear Station Operator (NSO) suspected that a fuse had blown and replaced fuse 595-718, but was not sure if the maintenance activity had caused the event. Telephone conversation between the EM Foreman and unit NSO approximately one hour after the event, confirmed that the grounded circuit had caused the blown fuse.

It is believed that this event was due to a miscommunication between the NSO and the EM Department. Although the EM Department did notify the NSO of maintenance on the AO-3-1599-62 valve, they did not mention the systems that may be affected if the circuit was grounded. Because of this, the NSO did not anticipate that the SBGT system could automatically start.

To help prevent similar events of this type from occurring, a memorandum discussing this event will be presented to the EM Department. The memo will suggest de-energizing the circuit, whenever possible, prior to performing maintenance and notifying the Shift Engineer prior to performing any work on an energized circuit, and state the equipment that may be affected if the circuit is inadvertently grounded. The safety significance of this event was minimal since the SBGT (EIIS Code BH) system automatically started as designed, and all other affected equipment functioned as designed. This is the first occurrence of an event of this type.

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

September 16, 1986

EDE LTR #86-031

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

Licensee Event Report #86-011-0, Docket #050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73 (a)(2)(iv).

E.D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/kjl

Enclosure

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

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