

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Fermi-2										DOCKET NUMBER (2) 0 5 0 0 0 3 4 1										PAGE (3) 1 OF 0 3																																	
TITLE (4) Reactor Building HVAC Trip on Freezestat Failure																																																					
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 7			2 7			8 5			8 5			0 4			5			0 0			0 8			2 6			8 5															0 5 0 0 0											
0 7			2 7			8 5			8 5			0 4			5			0 0			0 8			2 6			8 5															0 5 0 0 0											
OPERATING MODE (9) 4									THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																																												
POWER LEVEL (10) 0 0 0									20.402(b)									20.406(e)									XX 90.73(a)(2)(iv)									73.71(b)																	
									20.406(a)(1)(i)									90.36(a)(1)									90.73(a)(2)(v)									73.71(c)																	
									20.406(a)(1)(ii)									90.36(a)(2)									90.73(a)(2)(vi)									OTHER (Specify in Abstract below and in Text, NRC Form 366A)																	
									20.406(a)(1)(iii)									90.73(a)(2)(i)									90.73(a)(2)(viii)(A)																										
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LICENSEE CONTACT FOR THIS LER (12)																																																					
NAME L.P. Bregni, Compliance Engineer															TELEPHONE NUMBER AREA CODE 3 1 3 5 8 6 1 5 3 1 3																																						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																																					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC																								
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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 July 27, 1985, at 0540 hours with the plant in Operational Condition 4, the Reactor Building (R/B) HVAC system tripped. The R/B HVAC is the system normally used to maintain secondary containment vacuum. The Nuclear Supervising Operator manually initiated Division I of the Standby Gas Treatment System (SGTS) to maintain secondary containment. The SGTS is an engineered safeguard feature at Fermi 2 and its manual initiation is a reportable event. An investigation indicated that a R/B HVAC freezestat had tripped and could not be reset properly. The freezestat was removed for examination and recalibration and it was determined that the failure of a switch internal to the freezestat had caused the trip.

The operation of the SGTS was a conservative action taken to maintain secondary containment integrity, but was not required by technical specifications under Operational Condition 4. The SGTS operated as designed, and there is no safety significance to this event.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO 3150-0104  
EXPIRES 8/31/85

FACILITY NAME (1)  Fermi-2	DOCKET NUMBER (2)  0 5 0 0 0 3 4 1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 5	— 0 4 5	— 0 1 0	0 2	OF	0 3

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

On July 27, 1985, with the plant in Operational Condition 4, secondary containment established and Divisions I and II of the Standby Gas Treatment System (SGTS) in auto mode, the Reactor Building (R/B) HVAC system tripped at 0540 hours. R/B HVAC is the system normally used to maintain secondary containment vacuum. After receiving the motor trip alarm in the control room for the R/B HVAC fans, the Nuclear Supervising Operator (NSO) manually initiated Division I of the SGTS to maintain secondary containment. The SGTS is an engineered safeguard feature at Fermi 2 and its manual initiation is a reportable event. Although secondary containment vacuum was less than the required technical specification value of 0.125 inch of vacuum water gauge for about 15 seconds before the SGTS was initiated, secondary containment vacuum was never less than zero, and the limiting condition for operation for secondary containment integrity was met.

An operator sent to one of the R/B HVAC local control panels identified an indicating light which indicated that freezestat T41-N054B had tripped. The freezestat monitors steam coil temperature and initiates a R/B HVAC trip signal at 35 degrees F. The steam coil heats R/B supply air at the inlet dampers and must be protected from freezing. The operator was unable to reset the tripped freezestat. Further investigation determined that the freezestat could be reset at ambient temperature, but that once it tripped at its designated setpoint of 35 degrees F, it would not automatically reset at 40 degrees F as required. Removing the freezestat for examination had cleared the trip signal, and the Nuclear Shift Supervisor returned the R/B HVAC system to operation at 1115 hours and the SGTS to auto mode. A new freezestat was installed on August 2, 1985.

The cause of the R/B HVAC system trip was due to erratic operation of freezestat T41-N054B. The failure of the freezestat was caused by a failed switch internal to the freezestat which resulted in the closing of relays in the trip circuit for the R/B Supply and Exhaust Fans. The failed freezestat switch was replaced with a like-for-like switch, MCC Powers Model 134-1504. All MCC Powers Model 134-1511 freezestat switches were replaced with Model 134-1504 switches in May 1985, because of their high failure rate. This is the first failure of a Model 134-1504 freezestat. However, freezestat failures will be trended via the established deviation reporting system to determine if additional corrective action is required.

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

The operation of the SGTS was a conservative action taken to maintain secondary containment integrity, but was not required by technical specifications under Operational Condition 4. However, this was the proper response had the plant been in Operational Conditions 1, 2, or 3, or when irradiated fuel is being handled in secondary containment, during core alterations, and operations with a potential for draining the reactor vessel. The SGTS operated as designed, and there is no safety significance to this event.

**Detroit  
Edison**

2000 Second Avenue  
Detroit, Michigan 48226  
(313) 237-8000

August 26, 1985  
NP850052

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

Gentlemen:

Reference: Fermi 2  
NRC Docket No. 50-341  
NRC Operating License No. NPF-43

Subject: Transmittal of Licensee  
Event Report 85-045

Please find enclosed LER No. 85-045-00, dated August 26, 1985, for a reportable event which occurred on July 27, 1985. As indicated below, a copy of this LER is being sent to the Administrator Region III.

If you have any questions, please contact us.

Sincerely,



R. S. Lenart  
Plant Manager

Enclosure: NRC Forms 366, 366A

cc: P.M. Byron  
M.D. Lynch

Regional Administrator  
USNRC Region III  
799 Roosevelt Rd.  
Glen Ellyn, IL 60137

Director/Coordinator  
Monroe City-County Office of Civil Preparedness  
965 South Raisinville Road  
Monroe, MI 48161

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