William S. Orser
Vice President
Nuclear Operations

Detroit Edison

Fermi 2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-5201

10CFR50.73

January 22, 1990
NRC-90-0009

Nuclear Generation

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

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

Subject: Licensee Event Report (LER) No. 89-038-00

Please find enclosed LER No. 89-038-00, dated January 22, 1990, for a reportable event that occurred on December 23, 1989. A copy of this LER is also being sent to the Regional Administrator, USNRC Region III.

If you have any questions, please contact Patricia Anthony at (313) 586-1617.

Sincerely,

Enclosure: NRC Forms 366, 366A

cc: A. B. Davis
J. R. Eckert
R. W. Defayette/W. L. Axelson
W. G. Rogers
J. F. Stang

Wayne County Emergency
Management Division

1/1

IE22

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Fermi 2	0 5 0 0 0 3 4 1	1 OF 3

TITLE (4)
Reactor Scrammed When Fire Occured in the Vicinity of the Main Turbine

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 5 0 0 0
1 2	2 3	8 9	8 9	0 3 8	0 0	0 1	1 2	9 0		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 4 2	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
	AREA CODE
Patricia Anthony, Compliance Engineer	3 1 3 5 8 6 - 1 6 1 7

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	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 December 23, 1989, smoke was discovered in the vicinity of the high pressure turbine. The fire brigade was dispatched, and reactor was manually scrammed. The brigade discovered the lagging insulation pads were burning and extinguished the fire.

Investigation has determined that the insulation pads were soaked with oil and the turbine casing had heated up to the oil's flash point. An oil spill had occurred several weeks earlier during a flush of the turbine lube oil system during turbine reassembly. Apparently, the spill was not adequately cleaned up.

The damaged insulation pads were replaced and an inspection for other damage performed. No other damage was noted. An accountability meeting was held between management and the personnel involved in the maintenance on the turbine. In order to prevent recurrence, Detroit Edison has developed an action plan which includes a reiteration of the importance of attention to detail.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fermi 2	0 5 0 0 0 3 4 1	8 9	— 0 3 8	— 0 0	2 OF 3

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

TEXT

Initial Plant Conditions:

Operational Condition: 1 (Power Operation)
Reactor Power: 42 percent
Reactor Pressure: 940 psig
Reactor Temperature: 520 degrees Fahrenheit

Description of Occurrence:

On December 23, 1989, at 0500 hours, smoke was discovered around the high pressure turbine [(TA)(TRB)]. In response to this condition, the fire brigade was dispatched and a fire was reported at the south end of the turbine at 0540 hours. The operator promptly manually scrammed the reactor. The brigade extinguished the fire by 0544 hours, which was in the vicinity of the lagging.

The scram signal was reset at 0547 hours. Isolation valve groups 13, 14 and 15 isolated on low reactor vessel water level (Level 3) at 0552 hours.

A reflash occurred at 0658 hours which was controlled by the brigade member stationed after the fire.

Investigation has determined that several of the lagging insulation pads were soaked with oil and that there were traces of oil around the casing bolts and the casing's horizontal surfaces. It has been determined that the residual oil originated from an oil spill during the post-reassembly flush of the turbine lube oil system which had occurred several weeks earlier. At the time, supervision believed that the spill had been adequately cleaned up.

Cause of Event:

This event was caused by oil soaked lagging pads which ignited when the oil's flash point was reached. This condition existed due to inadequate inspection of the insulation pads and failure to adequately clean up spilled oil in the vicinity of the turbine following a maintenance activity.

*U.S. GPO: 1988-520-589-00070

Analysis of Event:

The turbine generator system does not perform any safety function. The Reactor Protection System (JC) responded to the manual scram signal per its design. All of the engineered safety features which actuated responded correctly, allowing the plant to be secured in safe shutdown. Therefore, this event did not represent any danger to the health and safety of the public.

Prompt actions on the part of site personnel controlled the fire and prevented it from posing a danger.

Corrective Actions:

The eleven damaged insulation pads were replaced. All traces of oil were removed using approved cleaning agents. A visual inspection was performed to determine if there was other related damage from the fire. No other damage was discovered.

An accountability meeting was held between management and the individuals involved in maintenance activity on the turbine.

In order to prevent similar events from occurring, Detroit Edison has developed an action plan which is described in NRC-89-0300, dated December 26, 1989. This plan addresses personnel performance weaknesses discovered during the first refueling outage and during the return to power operation.

Previous Similar Events:

This is the only Licensee Event Report which has occurred due a fire caused by inadequate job site clean up and inspection.