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Detroit Edison

10CFR50.73

October 8, 1998
NRC-98-0134

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

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

Subject: Licensee Event Report (LER) No. 98-009

Pursuant to 10CFR50.73(a)(2)(iv), Detroit Edison is hereby submitting the enclosed LER No. 98-009 which documents the inadvertent deenergization of safety bus 72F while transferring from the alternate to the normal power supply. This deenergization resulted in several ESF actuations.

There are no commitments made in this LER. Please contact Norman K. Peterson, Director Nuclear Licensing, at (734) 586-4258 if you have any questions.

Sincerely,

DRGipson

cc: Regional Administrator, Region III
B. L. Burgess
G. A. Harris
A. J. Kugler
M. V. Yudasz, Jr.
Region III
Wayne County Emergency Management Division

IE22

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)
Inadvertent Deenergization of Safety Bus 72F while Transferring from Alternate to Normal Power Resulting in ESF Actuations

EVENT DATE (5)			LER NUMBER (6)						REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MON	DAY	YR	YR	SEQUENTIAL NUMBER			REVISION NUMBER		MON	DAY	YR	FACILITY NAMES	DOCKET NUMBER (8)
9	14	98	98	- 0 0 9 -			0	0	10	8	98		0 5 0 0 0
													0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)
5	

POWER LEVEL (10): 0 0 0

_____ 10 CFR 50.73(a)(2)(iv)
_____ OTHER -
(Specify in Abstract below and in text, NRC Form 366A)

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER AREA CODE	TELEPHONE NUMBER
Ron W. Gaston	734	586-5134

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		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 (16)

On September 14, 1998 at 1505 hours, while transferring the 480V Engineered Safety Features (ESF) 72F bus from its alternate to its normal feed in accordance with System Operating Procedure 23.321 "Engineered Safety Features Auxiliary Electrical Distribution System," an unexpected deenergization of bus 72F occurred when the alternate feed breaker was opened without power available on the normal feed. Power was lost to the Reactor Protection System (RPS) "B" bus and a half reactor scram was received. All control rods were already inserted, as the plant was in Operational Condition 5 (Refueling) at the time of this event. The expected plant isolations and actuations occurred.

The cause of this event was personnel error. While transferring 480V Engineered Safety Features (ESF) 72F bus from its alternate to its normal source, the operator performing the evolution failed to ensure that the 72F transformer (normal feed) was energized, as required by the prerequisites in System Operating Procedure 23.321. Thus, when the alternate feed was opened, an unexpected deenergization of bus 72F occurred. The ESF actuations/isolations associated with this event were as expected for a loss of the 72F Bus and were within the design bases for those systems affected. The loss of an entire division of offsite power, including loss of the associated 480V ESF Buses and subsequent loss of the associated RPS MG set, is an analyzed condition which bounds this scenario. Therefore, this event did not adversely affect the health or safety of the public.

The operator involved in this event was counseled and a human performance presentation concerning this event was made to the licensed operators by Operations Management and the individuals involved.

Initial Plant Conditions

Operational Condition: 5 (Refueling)
Reactor Power 0 percent
Reactor Pressure 0 psig
Reactor Temperature 95 degrees Fahrenheit

Description of the Event:

On September 14, 1998 at 1505 hours, while transferring the 480V Engineered Safety Features (ESF) 72F bus from its alternate to its normal feed in accordance with System Operating Procedure 23.321, "Engineered Safety Features Auxiliary Electrical Distribution System" an unexpected deenergization of bus 72F occurred when the alternate feed breaker was opened without power available on the normal feed. Power was lost to the Reactor Protection System (RPS) "B" bus and a half reactor scram was received. All control rods were already inserted, as the plant was in Operational Condition 5 (Refueling) at the time of this event. The following actuations/isolation signals occurred:

*Group 1 - Main Steam Line Drain (Outboard)
*Group 2 - Reactor Water Sample System (Outboard)
*Group 4 - Residual Heat Removal Shutdown Cooling and Head Spray System
*Group 11 - Reactor Water Cleanup System (Outboard)
*Group 12 - Torus Water Management System
Group 13 - Drywell Sumps
Group 14 - Drywell and Suppression Pool Ventilation System
Group 17 - Recirculation Seal Purge (Outboard) and Primary Containment Radiation Monitoring System
*Group 18 - Primary Containment Pneumatic Supply

* These systems had already been properly removed from service: therefore, no valve movement occurred.

The Reactor Building Heating Ventilation and Air Conditioning (HVAC) System isolated and the Standby Gas Treatment System automatically started to maintain Secondary Containment Integrity. The Division 1 Control Center HVAC System was operating in the Recirculation Mode at the time of this event. The RHR Shutdown Cooling System did not isolate because the suction isolation valve, a direct current motor driven valve, had already been tagged in the open position to allow work on the Division 2 batteries. These isolations and actuations comprise the expected result of the loss of the Division 2 safety bus 72F, and were reported to the NRC in accordance with 10CFR50.72(b)(2)(ii).

Power was restored to the 72F Bus at 1532 hours and to RPS "B" using the alternate source at 1627 hours. The affected system lineups were restored by 1830 hours on September 14, 1998.

Cause of the Event

The cause of this event was personnel error. While transferring the 480V Engineered Safety Features (ESF) 72F bus from its alternate to its normal source, the operator performing the evolution failed to ensure that the 72F transformer (normal feed) was energized, as required by the prerequisites in System Operating Procedure 23.321. Thus, when the alternate feed was opened, an unexpected deenergization of bus 72F occurred.

Analysis of the Event

The ESF actuations/isolations associated with this event were as expected for a loss of the 72F Bus and were within the design bases for those systems affected. The loss of an entire division of offsite power, including loss of the associated 480V ESF Buses and subsequent loss of the associated RPS MG set, is an analyzed condition which bounds this scenario. Additionally, the other division of AC power was operable and energized, and was unaffected by this event. Therefore, this event did not adversely affect the health or safety of the public.

Corrective Actions

The operator involved in this event was counseled and a human performance presentation concerning this event was made to the licensed operators by Operations Management and the individuals involved.

Additional Information

A. Failed Components

None

B. Previous Similar Events

There have been no previous LERs involving a failure to heed prerequisites which have led to ESF actuations.