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 3

TITLE (4) Reactor Scram During Power Operation Due to a Load Reject Signal Resulting From Personnel Error Cabinet Vibration

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)
									N/A	0 5 0 0 0
0 3	2 1	8 7	8 7	— 0 0 6	— 0 0	0 4	1 0	8 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 9 8	20.402(b)	20.405(a)	X 50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(a)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(a)(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
Michael E. Moy Technical Staff Engineer (X-489)	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 March 21, 1987 at 1125 hours with Unit 3 at 98.5% power, a full reactor Generator Load Reject scram signal, followed by Group II and III isolations, was received. The scram was reset at 1134 hours.

The root cause of the event was personnel error. At the time of the scram, Substation Construction personnel were pulling cables through a cable tray in the Unit 2/3 Auxiliary Electric Room and an electrical worker jarred panel 903-29 causing SGC 12A main generator negative sequence relay to trip, thus causing the scram.

The safety significance of the event was minimal since the Reactor Protection System (RPS) performed as designed. There were no equipment malfunctions or degraded equipment as a result of this event.

As corrective actions, Substation Construction personnel discussed the scram and its cause and were instructed to exercise care when working in the Auxiliary Electric Room and anytime near sensitive equipment. Dresden Station personnel and Operational Analysis Department performed a walkdown of the Auxiliary Electric Room and identified all cabinets containing sensitive equipment. The cabinets will be posted to require the Shift Engineer's approval before performing any work. Also, an administrative procedure will be developed to address the proper precautions when working in potential reactor trip areas throughout the plant. The last previous event related to instrument jarring or vibration was Licensee Event Report #85-02 on Docket #050249.

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NRC Form ___ (9-83)

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Dresden Nuclear Power Station, Unit 3	0 5 0 0 0 2 4 9	8 7	— 0 0 6	— 0 0	0 2 OF 0 3

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

PLANT AND SYSTEM IDENTIFICATION:

General Electric Boiling Water Reactor - 2527 MWt rated core thermal power. Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

EVENT IDENTIFICATION:

Unit 3 Reactor Scram During Power Operation Due to a Generator Load Reject Signal Resulting from Personnel Error Cabinet Vibration.

A. CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: March 21, 1987 Event Time: 1125 hours
Reactor Mode: N Mode Name: Run Power Level: 98.5%
Reactor Temperature: 540°F Reactor Pressure: 1005 psig

B. DESCRIPTION OF EVENT:

On March 21, 1987 at 1125 hours with Unit 3 in the run mode at 98.5% power, a full reactor Generator Load Reject scram signal was received followed by Group II and III Primary Containment [JM] isolations due to reactor water level passing the low level setpoint as a result of normal void collapse following the scram. Prior to the reactor scram, the following alarms initiated: Electro-Hydraulic Control (EHC) [TG] power/load unbalance trip, Generator field breaker [TB] open, and Turbine Generator load reject [TB]. The scram signal was reset at 1134 hours.

C. APPARENT CAUSE OF EVENT:

This event is being submitted to comply with 10 CFR 50.73(a)(2)(iv) which requires the reporting of any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature [JE], including the Reactor Protection System (RPS).

The root cause of this event has been determined to be personnel error. At the time of the reactor scram, Substation Construction electrical personnel were pulling cables through a cable tray in the Unit 2/3 Auxiliary Electric Room. In doing so, an electrical worker, due to confined workspace, climbed on top of panel 903-29 to feed the cable. However, panel 903-29 was inadvertently jarred, causing SGC 12A Main Generator negative sequence relay to trip, thus causing the scram. Subsequent investigation by the Operational Analysis Department verified that a slight impact on the upper left corner of panel 903-29 would cause SGC 12 Main Generator negative sequence relay to trip.

D. SAFETY ANALYSIS OF THE EVENT:

The safety significance of the event was minimal since all RPS functions performed as required. There were no equipment malfunctions or degraded equipment as a result of this event.

E. CORRECTIVE ACTIONS:

Subsequent investigation of the event revealed that the worker who climbed on top of panel 903-29 was not aware of the potential of scramming the reactor. Substation Construction personnel discussed the scram and its cause and were instructed to exercise care when working in the Auxiliary Electric Room and anytime near sensitive equipment. The cognizant site supervisor was counselled on the importance of providing guidance and direct supervision to crews working on or near vital plant equipment. In addition, representatives from the Electrical Maintenance Department, Instrument Maintenance Department and Operational Analysis Department performed a walkdown of the Auxiliary Electric Room to identify all cabinets containing sensitive electrical equipment. The cabinets will be posted to require the Shift Engineer's approval prior to performing work in the area. Also, an administrative procedure will be developed to address the proper precautions required when working in potential reactor trip areas throughout the plant.

F. PREVIOUS EVENTS:

There have been no previous Licensee Event Reports at Dresden Station specifically related to Main Generator relay vibration and subsequent scrams. Two previous events in which a reactor scram resulted from instrument rack vibration are shown below:

Licensee Event Report	Docket No.	Title
85-02-0	050249	Reactor Scram During Normal Unit Operation Due to Low Water Level Caused by Instrument Rack Vibration. A heavy object had been dropped near instrument.
86-017	050249	Contractor Inadvertently Jars Main Steam Line High Flow Sensing Lines Resulting in Group I Isolation and Subsequent Reactor Scram

The corrective action for LER #85-02-0 was to place a fence around the affected instrument rack and to discuss the event in a station tailgate. The corrective actions for LER #86-17-0 included placing a chain restraint near access to the rack along with a posted sign requiring shift engineering permission for entry. The event was also discussed in a station tailgate.

G. COMPONENT FAILURE DATA:

There were no component failures in this event. All necessary systems and equipment functioned as designed.

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

April 10, 1987

EDE LTR #87-242

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

Licensee Event Report #87-006-0, 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: A. Bert Davis, Acting Regional Administrator, Region III
File/NRC
File/Numerical

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