

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) D. C. Cook Nuclear Plant, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 6	PAGE (3) 1 OF 0 3
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TITLE (4)  
ESF Actuation Signal From Shorted Wiring

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	3	1	1	8	6	8	6	0	0	8	0	0	8	0	0	4	0	4	8	6			0 5 0 0 0

OPERATING MODE (9) 5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)																						
POWER LEVEL (10) 0 0 0	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.406(c)	50.36(e)(1)	50.36(e)(2)	50.73(a)(2)(i)	50.73(a)(2)(ii)	50.73(a)(2)(iii)	50.73(a)(2)(iv)	50.73(a)(2)(v)	50.73(a)(2)(vii)	50.73(a)(2)(viii)(A)	50.73(a)(2)(viii)(B)	50.73(a)(2)(ix)	73.71(b)	73.71(c)	OTHER (Specify in Abstract below and in Text, NRC Form 368A)		

LICENSEE CONTACT FOR THIS LER (12)

NAME A. A. Blind - Assistant Plant Manager	TELEPHONE NUMBER AREA CODE: 6 1 6 4 6 5 7 5 9 0 1
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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)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15) MONTH:    DAY:    YEAR:
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

On March 11, 1986, at 1305 hours with Unit 2 in Mode 5 (Cold Shutdown), an ESF Reactor Trip Signal was received caused by control power wires pulling free from a power range nuclear instrument (NI) drawer and shorting out during preventive maintenance. ESF signals were also generated when the shorted wires were disconnected at 1317 hours and when restoring power at 1355 hours, the wrong breaker was cycled.

There was no automatic actuation of Plant equipment as the signals are blocked when in Mode 5. It would have been possible for this event to have occurred during power operations as the NI drawers are pulled out on occasion. This would have resulted in a reactor trip.

The cause was due to a faulty electrical connector (IEEE/CON) and mislabeled power supply doors (doors were interchanged). The electrical connector has been repaired and the cabinets labeled properly and painted different colors to prevent interchanging doors.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D. C. Cook Nuclear Plant, Unit 2	0 5 0 0 0 3 1 6	8 6	- 0 0 8	- 0 0	0 2	OF	0 3

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

CONDITIONS PRIOR TO THE EVENT

Unit 2 in Mode 5 (Cold Shutdown) for a refueling outage.

DESCRIPTION OF EVENT

On March 11, 1986, at 1305 hours an ESF Reactor Trip Signal was received as a result of shorted control power wires in power range nuclear instrument (NI) drawer N-41A. The shorted wires caused the control power supply to trip. The Control Room then received a reactor trip signal from Source Range NI, Intermediate Range NI, Steam Generator Level Low (Number 3), Loop 4 Feedwater Low and a Turbine Trip signal from Steam Generator (1, 2 and 3) high level. There was no automatic actuation of equipment as ESF signals are normally blocked in Mode 5 (Cold Shutdown).

This event occurred while technicians were performing preventive maintenance on Nuclear Instrumentation (NI) Cabinets. Power Range NI Drawer N-41A was pulled out for inspection and cleaning when the control power wires to the drawer pulled out of the connector plug (IEEE/CON). The wires shorted together causing the loss of control power.

During recovery from the event an ESF signal was generated at 1317 hours while the technician was disconnecting the shorted wires. Following the removal of the shorted wires while restoring power at 1335 hours, the wrong breakers was initially cycled which resulted in ESF signals being generated from Power Range NI high, Power Range NI high rate, Reactor Coolant Pump low flow, Turbine Trip, Pressurizer Pressure low, and Source Range NI level trip. The correct circuit breaker was then reset and the electrical connector to Power Range NI Drawer N-41A repaired and the routine preventive maintenance completed.

It would have been possible for this event to have occurred during power operations as the NI drawers are pulled out on occasion. This would have resulted in a reactor trip.

CAUSE OF EVENT

1. The cause of the ESF signal at 1305 hours was due to the faulty electrical connector which resulted in the shorted control power wires to Power Range NI Drawer N-41A.
2. The cause of the ESF signal at 1317 hours was due to disconnecting the shorted wires from Power Range NI Drawer N-41A.
3. The cause of the ESF signals generated at 1335 hours was due to operating the wrong breaker. The root cause was a mislabeled cabinet. The cabinet doors to the Control Room power supplies Number 4 and Number 1 had been inadvertently interchanged which led the operator to cycle

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

the wrong breaker. The Control Room quickly realized the mistake and reset the correct breaker.

ANALYSIS OF EVENT

This event is being reported based on receiving an ESF signal. There was no safety hazard involved as the unit was in cold shutdown and no actuation of plant equipment occurred as the ESF signals are blocked while in this mode. The total elapsed time that this event occurred in was 30 minutes.

CORRECTIVE ACTIONS

The faulty electrical connector was repaired and returned to service. The failure of this connector is not considered to be a generic problem.

The label problem was initially corrected by a temporary label and since has been replaced with a permanent label in addition to the cabinets being painted different colors to prevent interchanging doors.

PREVIOUS SIMILAR EVENTS

None



**INDIANA & MICHIGAN ELECTRIC COMPANY**

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April 4, 1986

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

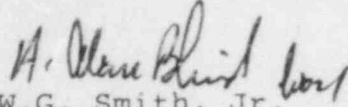
Operating License DPR-74  
Docket No. 50-316

Document Control Manager:

In accordance with the criteria established by 10CFR50.73  
entitled Licensee Event Reporting System, the following  
report/s are being submitted:

86-008-0

Sincerely,

  
W.G. Smith, Jr.  
Plant Manager

/cbm

Attachment

cc: John E. Dolan  
J.G. Keppler, RO:III  
M.P. Alexich  
R.F. Kroeger  
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