

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM
REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9002260258 DOC.DATE: 90/02/12 NOTARIZED: NO DOCKET #
FIL:50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316
TH.NAME AUTHOR AFFILIATION
BEILMAN,T.P. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
BLIND,A.A. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 90-001-00:on 900112,unplanned ESF actuation from contact
of control circuit wires due to inadequate work preparation.
W/8 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 4
TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
PD3-1 LA	1 1	PD3-1 PD	1 1
GIITTER,J.	1 1		
INTERNAL: ACRS MICHELSON	1 1	ACRS MOELLER	2 2
ACRS WYLIE	1 1	AEOD/DOA	1 1
AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
DEDRO	1 1	NRR/DET/ECMB 9H	1 1
NRR/DET/EMEB9H3	1 1	NRR/DET/ESGB 8D	1 1
NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
NRR/DOEA/OEAB11	1 1	NRR/DREP/PRPB11	2 2
NRR/DST/SELB 8D	1 1	NRR/DST/SICB 7E	1 1
NRR/DST/SPLB8D1	1 1	NRR/DST/SRXB 8E	1 1
REG FILE 02	1 1	RES/DSIR/EIB	1 1
RGN3 FILE 01	1 1		

EXTERNAL: EG&G WILLIAMS,S	4 4	L ST LOBBY WARD	1 1
LPDR	1 1	NRC PDR	1 1
NSIC MAYS,G	1 1	NSIC MURPHY,G.A	1 1
NUDOCS FULL TXT	1 1		

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Indiana Michigan
Power Company
Cook Nuclear Plant
P.O. Box 458
Bridgman, MI 49106
616 465 5901



INDIANA
MICHIGAN
POWER

February 12, 1990

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

Operating License DPR-74
Docket No. 50-316

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73
entitled Licensee Event Reporting System, the following
report is being submitted:

90-001-00

Sincerely,

A.A. Blind
Plant Manager

AAB:clw

Attachment

cc: D.H. Williams, Jr.
A.B. Davis, Region III
M.P. Alexich
P.A. Barrett
J.E. Borggren
R.F. Kroeger
NRC Resident Inspector
J.G. Gitter, NRC
R.C. Callen
G. Charnoff, Esq.
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S.J. Brewer/B.P. Lauzau

9002260258 900212
PDR ADDCK 05000316
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11

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

D. C. COOK NUCLEAR PLANT - UNIT 2

DOCKET NUMBER (2)

0 5 0 0 0 3 1 6 1 OF 0 3

PAGE (3)

TITLE (4)

UNPLANNED ESF ACTUATION (EMERGENCY DIESEL GENERATOR START DUE TO SENSED DEGRADED VOLTAGE) FROM CONTACT OF CONTROL CIRCUIT WIRES DUE TO INADEQUATE WORK PREPARATION

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	1	1	2	9	0	9	0	0	0	0
0	1	1	2	9	0	9	0	0	0	0
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)								
5		20.402(b) <input type="checkbox"/> 20.405(c) <input checked="" type="checkbox"/> 50.73(a)(2)(iv) <input checked="" type="checkbox"/> 73.71(b) <input type="checkbox"/>								
POWER LEVEL (10)		20.405(a)(1)(i) <input type="checkbox"/> 50.38(c)(1) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 73.71(c) <input type="checkbox"/>								
0		20.405(a)(1)(ii) <input type="checkbox"/> 50.38(c)(2) <input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 366A) <input type="checkbox"/>								
0		20.405(a)(1)(iii) <input type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/>								
		20.405(a)(1)(iv) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/>								
		20.405(a)(1)(v) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(ix) <input type="checkbox"/>								

LICENSEE CONTACT FOR THIS LER (12)

NAME

T. P. BEILMAN
MAINTENANCE DEPARTMENT SUPERINTENDENT

TELEPHONE NUMBER

AREA CODE

6 1 1 6 4 1 6 5 1 - 1 5 1 9 1 0 1 1

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/>	<input checked="" type="checkbox"/>				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On January 12, 1990 at 0612 hours while Unit 2 was in Mode 5, an unplanned Engineered Safety Features (ESF) actuation (B Train Emergency Diesel Generator start due to sensed degraded voltage) occurred during calibration of time delay relays for the Degraded Voltage, undervoltage relay circuits for Technical Specification 4.3.2.1.1, Table 4.3-2, Item 8.b. These time delay relays serve to delay the opening of the ESS bus tie breaker when degraded voltage conditions (but not loss of voltage) exist in excess of two minutes while power is being fed from normal offsite power. Although the offsite power is tied to the ESS bus only during unit shutdown, present Technical Specifications require the relay circuits to be operable in Modes 1 through 4.

While a technician was lifting leads to defeat the automatic breaker opening function of the circuit, the lead accidentally contacted an adjacent lead, completing the circuit and causing the breaker to open. The normal offsite power to the ESS bus was lost, which consequently started the Emergency Diesel Generator.

Personnel were instructed to disable the circuit by an appropriate method of knife switch opening, lifting wires at terminal blocks or protecting wires on terminals of close proximity before lifting wires on the time delay relay to be tested. This instruction will be incorporated into the time delay relay testing procedure before its next use.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

D. C. COOK NUCLEAR PLANT - UNIT 2

0 5 0 0 0 3 1 6

YEAR SEQUENTIAL REVISION

NUMBER NUMBER NUMBER

9 0 - 0 0 1 - 0 0

0 2 OF 0 3

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

Conditions Prior To Occurrence

Unit One in Mode 1 (100 percent reactor thermal power).
Unit Two in Mode 5 (cold shutdown).

Description of Event

On January 12, 1990, routine calibrations were being performed on time delay relays (EIIS/EK-2) per Technical Specification (T.S) 4.3.2.1.1, Table 4.3-2, Item 8.b. These time delay relays serve to delay the opening of the ESS bus tie breaker (EIIS/EB-BKR) when degraded voltage conditions (not loss of voltage) exist in excess of two minutes while power is being fed from normal offsite power (EIIS/EA) during Modes 1 through 4.

Technicians were making preparations to calibrate the fourth and final relay by lifting wires to defeat the automatic breaker opening function of the circuit. As the wire was being lifted, it contacted an adjacent terminal, completing the circuit to cause an immediate opening of the tie breaker and resulting in a loss of voltage on the ESS bus (EIIS/EB). Consequently, at 0612 hours, the Emergency Diesel Generator (EIIS/EK) was automatically started.

Cause of the Event

The following actions were all contributors to this event:

1. Temporary insulation that could have been placed over terminals of close proximity on the time delay relay could have prevented an inadvertent short.
2. The wiring on the terminals that were inadvertently shorted could have been lifted at the panel terminal strip that is more accessible and has greater clearance between the terminals.
3. Failure of the holding screwdriver such that it let go of the screw prematurely and caused the wire being removed to touch the terminal below it.

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D. C. COOK PLANT - UNIT 2

0 5 0 0 0 3 1 6 9 0 - 0 0 1 - 0 0 0 3 OF 0 3

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

Analysis of Event

This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv) as an event that resulted in an unplanned automatic actuation of an Engineered Safety Feature. All automatic actions were verified to have occurred properly as a result of the Engineered Safety Features actuation. Based on the above, it is concluded that the event did not constitute an unreviewed safety question as defined in 10 CFR 50.59(a)(2) nor did it adversely impact the health and safety of the public.

Corrective Action

Immediate corrective actions involved Operations personnel implementing plant procedures to verify proper response of the automatic protection system and to assess plant conditions for initiation of appropriate recovery actions. Personnel were instructed to disable the circuit by an appropriate method of knife switch opening, lifting wires at terminal blocks or protecting wires on terminals of close proximity on the time delay to be tested. This instruction will be incorporated into the time delay relay testing procedure before its next use.

Failed Component Identification

None.

Previous Similar Events

There were no previous similar events identified which involved starting of the Emergency Diesel Generator caused by contact of energized wires due to personnel error.

