

# CATEGORY 1

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9706170121      DOC. DATE: 97/06/09      NOTARIZED: NO      DOCKET #  
 FACIL: 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M      05000316  
 AUTH. NAME:      AUTHOR AFFILIATION  
 BOESCH, J.      Indiana Michigan Power Co.  
 BLIND, A.A.      Indiana Michigan Power Co.  
 RECIP. NAME:      RECIPIENT AFFILIATION

SUBJECT: LER 97-002-00: on 970508, shutdown of Unit 2 occurred, resulting from inability to return 2 AB EDG to svc within 72 h allowed by TS LCO. Appropriate administrative actions have been implemented for individual involved. W/970609 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
PD3-3 PD	1 1	HICKMAN, J	1 1
INTERNAL: AEOD/SPD/RAB	2 2	AEOD/SPD/RRAB	1 1
<u>FILE CENTER</u>	1 1	NRR/DE/ECGB	1 1
NRR/DE/EELB	1 1	NRR/DE/EMEB	1 1
NRR/DRCH/HHFB	1 1	NRR/DRCH/HICB	1 1
NRR/DRCH/HOLB	1 1	NRR/DRCH/HQMB	1 1
NRR/DRPM/PECB	1 1	NRR/DSSA/SPLB	1 1
NRR/DSSA/SRXB	1 1	RES/DET/EIB	1 1
RGN3 FILE 01	1 1		
EXTERNAL: L ST LOBBY WARD	1 1	LITCO BRYCE, J H	1 1
NOAC POORE, W.	1 1	NOAC QUEENER, DS	1 1
NRC PDR	1 1	NUDOCS FULL TXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:  
 PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTTR      24      ENCL      24

C  
A  
T  
E  
G  
O  
R  
Y  
  
1  
  
D  
O  
C  
U  
M  
E  
N  
T

Indiana Michigan  
Power Company  
Cook Nuclear Plant  
One Cook Place  
Bridgman, MI 49106



June 9, 1997

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Operating Licenses DPR-74  
Docket No. 50-316

Document Control Manager:

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

97-002-00

Sincerely,

A. A. Blind  
Site Vice President

/mbd

Attachment

c: A. B. Beach, Region III  
E. E. Fitzpatrick  
P. A. Barrett  
S. J. Brewer  
M. R. Padgett  
D. Hahn  
Records Center, INPO  
NRC Resident Inspector

9706170121 970609  
PDR ADOCK 05000316  
S PDR

1/1  
Lezz



160091

## 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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  
Donald C. Cook Nuclear Plant - Unit 2DOCKET NUMBER (2)  
50-316

Page 1 of 3

## TITLE (4)

Unit Shutdown in Accordance with Technical Specifications for Electrical Power Systems - AC Sources

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 NAME	DOCKET NUMBER
05	08	97	97	-- 02 --	00	06	09	97	None	
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		100	20.2201(b)			20.2203(a)(3)(i)			50.73(a)(2)(iii)	73.71(b)
			20.2203(a)(1)			20.2203(a)(3)(ii)			50.73(a)(2)(iv)	73.71(c)
			20.2203(a)(2)(i)			20.2203(a)(4)			50.73(a)(2)(v)	OTHER
			20.2203(a)(2)(ii)			50.36(c)(1)			50.73(a)(2)(vii)	(Specify in Abstract below and in Text, NRC Form 366A)
			20.2203(a)(2)(iii)			50.36(c)(2)			50.73(a)(2)(viii)(A)	
			20.2203(a)(2)(iv)		X	50.73(a)(2)(i)			50.73(a)(2)(viii)(B)	
			20.2203(a)(2)(v)			50.73(a)(2)(ii)			50.73(a)(2)(x)	

## LICENSEE CONTACT FOR THIS LER (12)

NAME  
Mr. John Boesch, Maintenance SuperintendentTELEPHONE NUMBER (Include Area Code)  
616/465-5901, x2634

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs

## SUPPLEMENTAL REPORT EXPECTED (14)

YES  
(If yes, complete EXPECTED SUBMISSION DATE). X NO

## EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 8, 1997, at 1509 hours, Unit 2 commenced a shutdown in accordance with Technical Specification 3.8.1.1 for Electrical Power Systems - AC Sources. This shutdown resulted from the inability to return the 2 AB Emergency Diesel Generator (EDG) to service within the 72 hours allowed by the Technical Specification LCO, due to a failed voltage regulator. A conservative decision was made to suspend EDG troubleshooting and to commence the shutdown at hour 60 of the LCO to ensure adequate time for an orderly, controlled shutdown to take place. EDG troubleshooting was restarted once the unit was placed in Mode 5. This report is made in accordance with 10CFR50.73(a)(2)(i)(A), which requires an LER to be submitted upon completion of a Technical Specification shutdown.

The root cause of this event is personnel error. The personnel performing the work on the 2 AB EDG voltage regulator failed to properly tighten the electrical connections (screws) to the circuit boards, and did not recheck the electrical connections prior to calling the work complete. Appropriate administrative actions have been taken with the individuals involved. Actions are being taken to prevent recurrence by strengthening the self checking program and strengthening the understanding of the responsibilities of members of multi-person work teams.

At the time of the event all other safety related equipment was operable, except for a train associated containment air recirculation fan that was removed for planned work. The shutdown was completed without incident. This event has been evaluated and determined to have no safety significance.

## LICENSEE EVENT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (HNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
		YEAR	SEQUENTIAL	REVISION	
Cook Nuclear Plant - Unit 2	50-316	97	-- 002 --	00	2 OF 3

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

**Conditions Prior to Event**

Unit 2 was in Mode 1 at 100 percent Rated Thermal Power.

**Description of Event**

At 0302 hours on May 6, 1997, the 2AB EDG was removed from service for routine maintenance. One of the schedule tasks was a 72 week preventive maintenance task to remove, clean, inspect and replace 3 circuit boards for the voltage regulator on the voltage regulator mounting plate.

In the course of replacing the second circuit board, the technician was distracted from the task before he had tightened the electrical connections. When the voltage regulator was re-energized, the circuit board failed and disabled the manual voltage control portion of the regulator.

Efforts to replace the failed voltage regulator with a spare unit were not successful, and a decision was made to commence a unit shutdown at hour 60 of the 72 hour LCO. The decision to commence the shutdown at hour 60 of the 72 hour LCO was conservative. The decision was based on the expectation that the EDG would not be returned to service during the 12 hours remaining on the LCO time clock and that it would be appropriate to utilize the additional time to allow the operators adequate time for a controlled, orderly shutdown. All attempts to return the EDG to operable status were stopped during the shutdown to allow Operations to focus entirely on shutdown activities.

The shutdown was commenced at 1509 hours on May 8, 1997, and the unit brought to cold shutdown satisfy the Technical Specification requirements and to facilitate repairs to the EDG. The shutdown itself was controlled and uneventful.

The unit was returned to service on May 16, 1997 after installation of a temporary modification to allow the 2AB EDG to be returned to service with only the automatic portion of the voltage regulator operable.

**Cause of Event**

The cause of the event is personnel error. While reinstalling the second of the three circuit boards for the voltage regulator, the technician was distracted from the task by a second technician asking a question. When the technician returned to his task, he did not realize that he had failed to tighten the electrical connectors. The technician did not ensure the electrical connectors were tight prior to calling the task complete, even though it was called out by the Job Order to do so.

**Analysis of Event**

This event is reportable in accordance with 10CFR50.73(a)(2)(i)(A), which requires an LER to be submitted upon completion of a Technical Specification shutdown.

Technical Specification 3.8.1, Electrical Power Systems - AC Sources, allows one EDG to be inoperable for 72 hours. If the EDG cannot be restored with that time period, then the unit must be in Hot Shutdown within 6 hours, and in Cold Shutdown within the following 30 hours. These requirements were fulfilled when the unit was brought to Mode 4, hot shutdown at 1928 hours on May 9, 1997 and then to cold shutdown, Mode 5, on May 10, 1997 at 0735 hours.

## LICENSEE EVENT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
		YEAR	SEQUENTIAL	REVISION	
Cook Nuclear Plant - Unit 2	50-316	97	-- 002 --	00	3 OF 3

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

**Analysis of Event (cont'd)**

When 2AB EDG was removed from service, all other safety related equipment, except a train associated containment air recirculation fan that was removed on a clearance to perform planned work for twenty-three hours, was operable, and remained operable for the duration of the unit shutdown.

As the shutdown was uneventful, with all safety related equipment, except as noted above, remaining operable during the time that the shutdown was in progress, this event is deemed to have no safety significance.

**Corrective Actions**

Appropriate administrative actions have been implemented for the individuals involved in the event.

Steps are being taken to communicate management policy and expectations regarding quality checks.

Improvements to the self checking program and to the understanding of the responsibilities of members of multi-person work teams will be implemented. These improvements will include definition of technique to reduce and eliminate errors, the clarification of expectations for both workers and supervisors relative to formal communications, and training for all Maintenance skilled workers.

**Failed Component Identification**

Not Applicable

**Previous Similar Events**

None

