

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9011070118 DOC.DATE: 90/11/02 NOTARIZED: NO DOCKET #  
 FACIL:50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316  
 AUTH.NAME AUTHOR AFFILIATION  
 BREWER,S.J. 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 90-010-00:on 901005,plant determined to be outside  
 design basis due to polar crane hoist downgrading.

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INTERNAL:	ACNW		2	2		AEOD/DOA		1	1
	AEOD/DSP/TPAB		1	1		AEOD/ROAB/DSP		2	2
	NRR/DET/ECMB 9H		1	1		NRR/DET/EMEB 7E		1	1
	NRR/DLPQ/LHFB11		1	1		NRR/DLPQ/LPEB10		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		<del>REG FILE 02</del>		1	1
	RES/DSIR/EIB		1	1		RGN3 FILE 01		1	1
EXTERNAL:	EG&G BRYCE,J.H		3	3		L ST LOBBY WARD		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



November 2, 1990

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


Operating Licenses DPR-75  
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:

90-010-00

Sincerely,

*for*   
A.A. Blind  
Plant Manager

AAB:clj

Attachment

cc: D.H. Williams, Jr.  
A.B. Davis, Region III  
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P.A. Barrett  
J.E. Borggren  
R.F. Kroeger  
B. Walters - Ft. Wayne  
NRC Resident Inspector  
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*1622*  
*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-630), 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				PAGE (3) 1   OF   0   3			
TITLE (4) Plant Outside Design Basis Due to Downgrading of Polar Crane Hoists																	
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)				
1	0	0	59	09	0	0	10	0	0	1	1	0	2	9	0	D. C. Cook, Unit 1	0   5   0   0   0   3   1   5
OPERATING MODE (9) 6			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)														
POWER LEVEL (10) 0   0   0			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)		
			20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)		
			20.405(a)(1)(ii)				50.36(c)(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)				X 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)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																	
NAME S. J. Brewer, Nuclear Safety and Licensing Section Manager										TELEPHONE NUMBER							
										AREA CODE							
										6   1   4		2   2   3   -   2   0   2   0					
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)										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 October 5, 1990, it was determined that a Part 21 notification filed by the Whiting Crane Company results in a reportable condition per 10 CFR 50.73 (a) (2) (ii) (B) as a "condition that was outside the design basis of the Plant." The Part 21 notification informed the Plant that as a result of a design error, the polar cranes were derated from 250 tons to 55 tons for the main hoists and from 35 tons to 8 tons for the auxiliary hoists. The design error was discovered during an analysis which revealed significant overstress on connection points of the crane trolley. The overstressed connections can result in metal fatigue and subsequent failure.

The corrective actions involved the removal of the subject cranes from general service until the time repairs could be made. Repairs have been completed to return the cranes to their original rating. The Unit 1 modifications were completed on 10-11-90, and the Unit 2 modifications were completed on 9-10-90.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 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

LER NUMBER (6)

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
9 0	0 1	0 0

PAGE (3)

0 2 OF 0 3

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

Conditions Prior to Occurrence

Unit 1 in Mode 1, Power Operation, 100 percent of Rated Thermal Power

Unit 2 in Mode 6 (Refueling)

Description of Event

On October 5, 1990, it was determined that a Part 21 notification filed by the Whiting Crane Company results in a reportable condition per 10 CFR 50.73 (a)(2)(ii)(B) as "a condition that was outside the design basis of the Plant." The Part 21 notification informed the Plant that as a result of a design error, the polar cranes (EIIS/IR) were derated from 250 tons to 55 tons for the main hoists (EIIS/IR-HOI) and from 35 tons to 8 tons for the auxiliary hoists (EIIS/IR-HOI). The design error was discovered during an analysis which revealed significant overstress on connection points of the crane trolley. The overstressed connections can result in metal fatigue and subsequent failure. As a result of the notification, the subject cranes were removed from general service until modifications could be performed to return the cranes to their original ratings. Cranes were restored to their original design ratings on 10-11-90 and 9-10-90 for Unit 1 and Unit 2, respectively.

Cause of Event

The cause of the event was a design error. An analysis performed revealed significant overstress on connection points of the crane trolley. These overstressed connections can result in metal fatigue and subsequent failure.

Analysis of Event

Since the crane has been used to lift loads in excess of the derated capacity (e.g., the reactor vessel head), the condition is considered reportable per 10 CFR 50.73 (a)(2)(ii)(B) as "a condition that was outside the design basis of the Plant." It is not considered reportable pursuant to 10 CFR 50.72 (b)(1)(ii)(B) because it is a concern during periods of reactor shutdown, not operation.

Regarding the implication of the condition for public health and safety, a representative of the Crane Company has inspected both Unit's cranes and saw no visible evidence of fatigue in the affected components. There is, therefore, reasonable assurance that failure of the crane was not imminent.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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FACILITY NAME (1)

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Unit 2

DOCKET NUMBER (2)

0 5 0 0 0 3 1 6

LER NUMBER (6)

PAGE (3)

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
9 0	0 1 0	0 0

0 3 OF 0 3

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

Corrective Actions

The corrective actions involved the removal of the subject cranes from general service until the time repairs could be made. Repairs have been completed to return the cranes to their original ratings. Repair modifications were completed under 12-MM-133. The Unit 1 modifications were completed on 10-11-90, and the Unit 2 modifications were completed on 9-10-90.

Failed Component Identification

Not applicable

Previous Similar Events

None