

# CATEGORY 1

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ACCESSION NBR: 9710170015      DOC. DATE: 97/10/08      NOTARIZED: NO      DOCKET #  
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 AUTH. NAME      AUTHOR AFFILIATION  
 SCHOEPP, P.      Indiana Michigan Power Co.  
 BLIND, A. A.      Indiana Michigan Power Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 97-017-00: on 970808, interim LER - condition outside design basis was discovered resulting in required TS shutdown. Cause unknown. Analysis being performed to confirm adequate water volume. W/971008 ltr.

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Bloomington, WI 54910



October 8, 1997

United States Nuclear Regulatory Commission  
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Operating Licenses DPR-58  
Docket No. 50-315

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:

97-017-00

Sincerely,

A handwritten signature in cursive script, appearing to read "A. A. Blind".

A. A. Blind  
Site Vice President

/mbd

Attachment

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

9710170015 971008  
PDR ADOCK 05000315  
S PDR



## 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 (HNB87714), 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 1DOCKET NUMBER (2)  
50-315

Page 1 of 1

## TITLE (4)

Interim LER - Condition Outside Design Basis Results in Technical Specification Required Shutdown

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
09	08	97	97	-- 017 --	00	10	08	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73(a)(2)(iii) (Check one or more) (11)							
POWER LEVEL (10)		74	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
			20.2203(a)(2)(iii)			50.36(c)(2)			50.73(a)(2)(viii)(A)	Abstract below
			20.2203(a)(2)(iv)		X	50.73(a)(2)(i)			50.73(a)(2)(viii)(B)	and in Text,
			20.2203(a)(2)(v)		X	50.73(a)(2)(ii)			50.73(a)(2)(x)	NRC Form 366A)

## LICENSEE CONTACT FOR THIS LER (12)

NAME  
Mr. Paul Schoepf, Safety Related Mechanical Engineering SuperintendentTELEPHONE NUMBER (Include Area Code)  
616/465-5901, x2408

## 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 checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
			11	17	97

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

On September 8, 1997, at 2000 hours, with Unit 1 at 74 percent Rated Thermal Power, it was discovered that under certain scenarios the volume of water resident in the active sump volume of the containment may not be adequate to support long term Emergency Core Cooling System (ECCS) or Containment Spray (CTS) pump operation during the recirculation phase of a LOCA event. This was determined to be reportable under 10CFR50.72(b)(1)(ii)(B), as a condition outside the design basis. A Technical Specification required shutdown was undertaken, which is reportable under 10CFR50.72(b)(1)(i)(A). This interim LER is being submitted in accordance with 10CFR50.73(a)(2)(ii) and 10CFR50.73(a)(2)(i)(A).

The containment drainage system is designed to ensure that water from an RCS break, ECCS injection, and ice melt flows back to the recirculation sump in sufficient quantities to provide adequate protection against vortexing in the sump during recirculation following a design basis accident. Existing analyses were unable to readily confirm that the minimum sump level would be achieved under all potential scenarios, particularly a very small break LOCA. Without sufficient sump level, long term integrity of the ECCS and CTS pumps could not be ensured due to potential air entrainment from vortexing in the sump.

A shutdown was conservatively commenced at 1655 hours for the unit, and when it became apparent that analysis was not able to confirm sufficient communication, an Unusual Event was declared at 2000 hours. On September 10, 1997 at 0303 hours Unit 1 entered Mode 5, cold shutdown, and the Unusual Event was terminated.

Analysis is being performed to confirm adequate water volume, and the physical configuration of the active sump volume boundary is being validated. A follow-up to this interim LER will be submitted by November 17, 1997.

