

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9710150142 DOC. DATE: 97/10/08 NOTARIZED: NO DOCKET #
 FACIL: 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
 AUTH. NAME AUTHOR AFFILIATION
 SCHOEPPF, P. American Electric Power Co., Inc.
 BLIND, A.A. American Electric Power Co., Inc.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 97-005-00: on 970908, discovered that under certain scenarios vol of water resident in active sump vol of containment may not be adequate to support long term ECCS. Cause unknown. Analysis being performed. W/971008 ltr.

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Indiana Michigan
Power Company
Cock Nuclear Plant
One Cock Place
Bloomington, IN 47406



October 8, 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:

97-005-00

Sincerely,

A. A. Blind
Site Vice President

/mbd

Attachment

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

IE-21



9710150142 971008
PDR ADOCK 05000316
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 (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)
Donald C. Cook Nuclear Plant - Unit 2DOCKET NUMBER (2)
50-316

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	-- 005 --	00	10	08	97	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	96	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)	X 50.73(a)(2)(ii)	50.73(a)(2)(x)		

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)

X YES 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 2 at 96 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 Systems (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 was 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 1728 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 0015 hours Unit 2 entered Mode 5, cold shutdown. The Unusual Event was terminated at 0303 on September 10, 1997 when Unit 1, which was also engaged in a Technical Specification required shutdown, entered Mode 5 as well.

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.