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FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315

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SUBJECT: LER 88-008-00:on 880907,hydrogen skimming dampers mispositioned for unknown reasons.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
D. C. Cook Nuclear Plant - Unit One	0 5 0 0 0 3 1 5	1 OF 0 3

TITLE (4) Hydrogen Skimming Dampers Mispositioned for Unknown Reasons Presenting the Potential for Restricting the Systems Ability to Mitigate the Consequences of an Accident

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 9	0 7	8 8	8 8	— 0 0 8 —	0 0	1 0	0 6	8 8		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 3

POWER LEVEL (10): .0 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check one or more of the following)* (11)

[ ] 20.402(b)	[ ] 20.405(c)	[ ] 50.73(a)(2)(iv)	[ ] 73.71(b)
[ ] 20.405(a)(1)(i)	[ ] 50.36(c)(1)	[X] 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)	[ ] 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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (AREA CODE)
K. R. Baker, Operations Superintendent	6 1 6 4 6 5 - 5 9 0 1

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
[X] YES *(If yes, complete EXPECTED SUBMISSION DATE)*	[ ] NO		0 2	0 1	8 8

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

Four containment air recirculation (CEQ) fan hydrogen skimming dampers (EIIS/BB-dmp) were found to be mispositioned such that flow would have been less than required. Analysis has shown that at no time was the flow reduced to a point where hydrogen buildup would exceed the 4 percent limit specified in Regulatory Guide 1.7. This condition did not constitute a significant safety problem nor inoperability of the system. The condition did create a potential for inoperability, therefore the event is considered reportable under the provisions of 10 CFR 50.73

On Septempter 7, 1988, at approximately 1130 hours, with Unit One in Mode 3 (hot standby) and cooling down, it was identified that three hydrogen skimming dampers were mispositioned. At 2300 hours September 7, 1988, while conducting a damper lineup and verification a fourth damper was identified as mispositioned. All four dampers were found to be one or two notches (on a 10 notch position plate) more closed than required. The previous lineup verification of this system had been conducted August 27, 1987, and showed all dampers correctly positioned.

All dampers were returned to their correct position and verified. Administrative controls have been implemented to prevent recurrance of this event. The cause of this event is unknown.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6) YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	PAGE (3)
D. C. Cook Nuclear Plant - Unit One	0 5 0 0 0 3 1 5	8 8	— 0 0 8	— 0 0	0 2 OF 0 3

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

Conditions Prior to Occurrence

Unit One was in Mode 3 (hot standby) with cooldown in progress toward Mode 4 (hot shutdown).

Description of Event

At approximately 1130 hours, September 7, 1988, while conducting a cooldown of Unit One three containment air recirculation (CEQ) fan hydrogen skimming dampers (EIIS/BB-dmp) were found to be mispositioned. Upon discovery plant personnel began a damper lineup and verification of the CEQ System. At 2300 hours a fourth damper (EIIS/BB-dmp) was identified as being out of position during this lineup verification. The last previous lineup verification had been conducted August 27, 1987, and showed that all dampers were correctly positioned.

All four dampers were found in a position one or two notches more closed than required by the damper lineup sheet. The required damper positions were established based on flow rate tests conducted in 1985 to ensure adequate flow to prevent excessive hydrogen buildup in containment subcompartments following a loss of coolant accident. The two dampers, in the line from the containment dome to the suction of the CEQ fans were in notch five rather than notch four (10 notches from full open to full closed). The other two dampers, which were in the lines from the #2 steam generator enclosure and the west containment ventilation fan room, were in notch nine rather than notch seven. This resulted in less flow from the affected areas than assumed during an accident and may have resulted in a higher than predicted hydrogen buildup in thoses areas.

There were no systems or components inoperable at the beginning of this event which contributed to the event.

No manual or automatic actuations of the safety systems occurred.

Cause of Event

The investigation into this event has not yet been able to determine the cause, but it is continuing and will be discussed in the supplemental report.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6) YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	PAGE (3)
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Analysis of Event

A sensitivity analysis was conducted using skimmer flow rates corrected for this "as found" damper positions. This analysis showed that the hydrogen concentrations remained at or below the 4 percent limit for each affected area. Since the concentration did not exceed the limit specified in Regulatory Guide 1.7 this condition did not constitute a significant safety problem nor inoperability of the system. However, since the condition created a potential for inoperability of the Hydrogen Skimmer System, the event is considered reportable under the provisions of 10 CFR 50.73.

Corrective Action

The dampers were repositioned to their correct position and verified. The lineup procedure will be rewritten to include an independent verification of each valve/damper in the system and the frequency of conduct will be increased from every refueling to every containment closeout inspection. Plant personnel will also investigate possible human factors improvements for position verification and the possibility of sealing the dampers in place. These corrective actions will be completed prior to startup of Unit Two in February, 1989, and will be reported in the supplemental report.

Failed Component Identification

There were no failed components.

Previous Similar Events

None

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AEP
INDIANA
MICHIGAN
POWER

October 7, 1988

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Operating License DPR-58
Docket No. 50-315

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:

88-008-00

Sincerely,

W. G. Smith, Jr.
Plant Manager

WGS:clw

Attachment

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