

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Duane Arnold Energy Center										DOCKET NUMBER (2) 0 5 0 0 0 3 3 1 1										PAGE (3) 1 OF 2															
TITLE (4) RCIC Barometric Condenser Vacuum Pump Inoperability																																			
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 None						DOCKET NUMBER(S) 0 5 0 0 0											
0 9		0 3		8 4		8 4		0 3		1 0		0 0		1 0		0 3		8 4		0 5 0 0 0															
OPERATING MODE (9) N				THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																															
POWER LEVEL (10) 0 7 2				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 356A)							
				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)(ix)																			
LICENSEE CONTACT FOR THIS LER (12)																																			
NAME James R. Probst, Technical Support Engineer																TELEPHONE NUMBER 3 1 9 8 5 1 - 7 3 0 7																			
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																			
CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC				CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC															
X		BIN		MLOI		GIOI 810		Yes																											
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 September 3, 1984 during normal operation and routine RCIC surveillance a Barometric Condenser High Pressure Alarm in the Reactor Core Isolation Cooling System occurred. Investigation showed the barometric condenser vacuum pump to be inoperable. RCIC was declared inoperable and a 7 day LCO initiated. Pump function was successfully restored following pump motor commutator cleaning. RCIC was declared operable September 5, 1984 and the 7 day LCO terminated.

All necessary safety systems remained operable during the period RCIC was not operable, and the safe operation of the plant was not compromised.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Duane Arnold Energy Center	05000331	84	031	00	02	OF	02

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

On September 3, 1984, while in the final stages of Reactor Core Isolation Cooling (BN) routine scheduled monthly surveillance testing, a RCIC Barometric Condenser High Pressure Alarm was received. The reactor was in run mode at approximately 72% power. Upon investigation, the barometric condenser vacuum pump (BN-1P-227) was found inoperable, although Control Room indication showed it to be energized. RCIC was declared inoperable at 1551 hours and a 7 day LCO was entered per Technical Specification 3.5.E.2. HPCI (BJ) operability was then demonstrated as required by Technical Specification 4.5.E.1.f. Maintenance personnel examined the pump (Nash Engineering, CSM Series 40) on 9/4/84 and determined the source of the problem to be the commutator of the pump motor (GE Type CD, Frame L186AY), which had an accumulation of dust and grime on its surface. Following cleaning of the commutator, the pump was successfully restarted several times. After RCIC operability tests were successfully completed, RCIC was declared operable 9/5/84 at 2032 hours and the 7 day LCO ended. New brushes are being procured, and will be installed upon receipt. A similar problem involving an unclean commutator resulted in the HPCI barometric condenser vacuum pump being removed from service in 1983. (See LER 83-031.) The frequency of commutator and brush inspection is being increased.

Throughout the period RCIC was inoperable (approximately 52.5 hours), the reactor remained in run mode and all necessary safety systems were fully operable. The safe operation of the plant was not compromised. There have been two previous occurrences of RCIC inoperability in 1984. (See LER 84-018 and LER 84-025.) Neither involved the pump in question, or a commutator problem in general.

Iowa Electric Light and Power Company

October 3, 1984  
DAEC-84-619

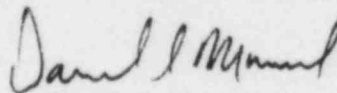
U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
Licensee Event Report No. 84-031

Gentlemen:

In accordance with 10 CFR 50.73 please find attached a copy of the subject Licensee Event Report.

Very truly yours,



Daniel L. Mineck  
Plant Superintendent - Nuclear  
Duane Arnold Energy Center

DLM/JRP/kp

attachment

cc: Mr. James G. Keppler  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

NRC Resident Inspector - DAEC

File A-118a

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