

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 0 2
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TITLE (4)  
Unplanned RWCU Isolations

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	25	8	4	8	4	0	3	None		0 5 0 0 0
0	9	25	8	4	8	4	0	1	0 0 1 0 2 5 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 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 50.36(e)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 50.36(e)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)							

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME Kenneth S. Putnam, Technical Support Engineer		AREA CODE	NUMBER
		3 1 9	8 5 1 - 7 4 5 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	
X	C	E		No						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO					

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

On September 25, 1984 during normal power operation, and on September 30, 1984 and October 20, 1984 with the reactor shut down, the Reactor Water Cleanup System isolated as a result of momentary spurious signals in the Reactor Water Cleanup leak detection logic. In each case the system was verified to be free of actual leakage and returned to normal service.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Duane Arnold Energy Center	DOCKET NUMBER (2)  0 5 0 0 0 3 3 1	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	- 0 3 6	- 0 0 0	2	OF 0 2

TEXT (If more space is required, use additional NRC Form 368A's) (17)

At 0331 hours on September 25, 1984 the Reactor Water Cleanup (RWCU) system isolated upon a signal from its leak detection logic. The reactor was in normal run mode at approximately 70 percent power. A high differential flow alarm was received in the Control Room. The high differential flow logic is designed to initiate when a differential flow condition of greater than 40 gallons per minute exists between the inlet and outlet of the RWCU system. This parameter is a portion of the "B" leak detection isolation logic. No evolutions in the system were in progress at the time of the isolation. Motor operated isolation valves on the inlet line (CE-ISV-2701) and the outlet line (CE-ISV-2740) closed per design. Operators immediately inspected the RWCU system and found that no actual leakage condition existed. The system was unisolated and restored to normal service at 0418 hours without further difficulties.

On September 30, 1984 at 0256 hours with the reactor shutdown for an unrelated maintenance outage, the RWCU system again isolated as a result of a momentary spurious isolation signal in the "B" leakage detection logic. An RWCU high ambient temperature alarm was received. Operators confirmed that no actual leak existed and restored the system to operation without further problem.

On October 20, 1984 at 1515 hours an isolation signal from the "B" isolation logic again resulted in isolation of the RWCU system. Operators verified no leakage condition existed and restored the system to normal status at 1545 hours.

The root cause of these spurious isolations is unknown. The RWCU system has experienced numerous spurious isolations in the past (see LER 84-024). Investigation of the source/sources of the spurious isolation signals and possible corrective measures is continuing, however no immediate engineering or maintenance actions have been identified that would eliminate the occasional spurious isolations.

These isolations of the reactor water cleanup system are reportable as actuations of an engineered safety feature (containment isolation). Throughout the events the isolation components of the system performed their safety function as designed.

Iowa Electric Light and Power Company

October 25, 1984  
DAEC-84- 685

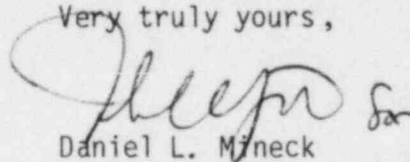
U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
Licensee Event Report No. 84-036

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/KSP/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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