NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Duane Arnold Energy Center	0 5 0 0 0 3 3 1	1 OF 0 2

TITLE (4)

1/2 Group III Isolation

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 1	2 7	8 4	8 4	— 0 0 7	— 0 0	0 2	2 6	8 4	NONE	0 5 0 0 0
									NONE	0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
N		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 1 0	0	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
Michael S. Harris, Technical Support Engineer	AREA CODE 3 1 9 — 8 5 1 - 7 3 0 6

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)		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)

At 0909 hrs, while the plant was in hot shutdown with the mode switch in the refuel mode, a group III was automatically initiated on a hi-hi radiation alarm from the "A" side of the refueling pool exhaust radiation monitors. As part of the group III, the "A" side of the reactor building isolated and the "A" standby gas treatment system initiated per design. An immediate inspection of the associated radiation recorder revealed that the hi-hi radiation alarm was a momentary spike and the rad level had since returned to normal. After the radiation levels in the vicinity of the "A" fuel pool exhaust monitor were checked by health physics personnel and found to be between 0.8 and 1.0 mR (normal) it was apparent that the hi-hi alarm was the result of a spurious electrical signal. The reactor building was unisolated and the "A" standby gas treatment system was secured without further incident.

Later investigation revealed that the spurious signal was most likely due to ongoing maintenance in the raceway containing the high radiation signal cable. Inspection of the cable for possible damage is underway.

No effect on public health and safety. All systems performed per design throughout the brief event.

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

At 0909 hrs, while the reactor was in hot shutdown, the mode switch in refuel, and reactor pressure stable at approximately 590 psig, a hi-hi radiation alarm from the "A" side of the refuel pool exhaust radiation monitor (IL-RT-4131-A) automatically initiated a group III isolation. A group III isolation results in the refueling pool ventilation dampers being closed, the ventilation fans being shut down, the standby gas treatment system being transferred from the reset mode to the operation mode and the primary containment purge and vent valves being closed, if open.

After it was confirmed that all systems required for the group III had initiated and were functioning per design, the associated radiation recorder was checked and health physics personnel were dispatched to survey the refuel pool exhaust and surrounding area. An inspection of the radiation recorder's chart (IL-RT-4131) revealed a momentary spike above the setpoint for Group III initiation ($\leq$9 mR/HR). After the spike, the reading of the refuel pool monitor was found less than 1 mR/HR and the radiation levels on the recorder had returned to normal. Health physics personnel dispatched to the vicinity of the refuel pool radiation monitor found the radiation levels to be between 0.8 and 1.0 mR.

In view of the nature of the momentary alarm and the fact that the redundant monitor showed no unusual response or similar spike and radiation levels in the area were immediately monitored and found normal, it was apparent that the alarm was the result of a spurious electrical signal; most likely due to ongoing maintenance in a cable tray containing the rad monitor signal cable. In light of this, the reactor building was subsequently unisolated and the "A" standby gas treatment system was secured without further incident.

Prior to startup, the radiation monitor was inspected and tested per the applicable surveillance test procedure and found to be in calibration and functioning properly. The monitor's signal cable was visually inspected and no physical damage could be found. However, to ensure that the cable has not been degraded, it will be meggered during the next refueling outage.

All systems required during the brief event initiated and functioned per design without incident. There was no effect on public health and safety. There have been no previous occurrences of a similar nature. Apart from the corrective actions outlined above, no further action is warranted or planned at this time.

Iowa Electric Light and Power Company
February 26, 1984
DAEC-84- 112

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. 84-007

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/MSH/pv

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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