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)
RCIC Steam Supply 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 5	0 7	8 4	8 4	-	0 1 8	-	0 0	0 6	0 7	8 4	None	0 5 0 0 0
												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)	X 50.73(a)(2)(v)	73.71(c)
0 7 2		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
James C. Smith, Technical Support Engineer	AREA CODE 3 1 9 — 8 5 1 - 7 3 0 8

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	
A	B N	R L Y	G 0 8 2	Y							

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)

While operating at 72% power with steam line "C" isolated because of an inoperable inboard Main Steam Isolation Valve, a monthly surveillance test was being performed on the RCIC Steam Line High Differential Pressure (Steam Line Break Detection) system. While removing the cover from a RCIC Steam Leak High Differential Pressure Relay to perform one of the test steps, the relay was inadvertently jarred and the relay energized. This caused spurious RCIC isolation and RCIC turbine trip signals and closed the RCIC turbine inboard steam isolation valve. The RCIC system was in normal standby condition. Operators immediately reset the turbine trip signal and opened the turbine isolation valve. No changes in plant conditions were observed.

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

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

At 1602 hours on May 7, 1984, the plant was in run mode at 72% power with the "C" steam line isolated because of an inoperable inboard Main Steam Isolation Valve. A monthly surveillance test was being performed on the RCIC Steam Line High Differential Pressure (Steam Line Break Detection) system which required removing the cover from a relay in the RCIC Steam Leak Detection High Differential Pressure circuit (BN-RLY-E51A-K32). The relay was inadvertently jarred which caused it to be energized. RCIC isolation and turbine trip signals were received and the inboard turbine steam supply isolation valve (BN-ISV-2400) closed. The RCIC system was in normal standby mode at the time of the event. Operators immediately reset the turbine trip signal and reopened the valve.

Throughout the event, no changes in plant conditions were observed. HPCI was operable and available for high pressure coolant, and all low pressure systems and ADS were also operable. A search of past plant deviations revealed no other instances of RCIC turbine isolations or other spurious Type HGA relay actuations caused by jarring or vibrating the relays. However, when reviewing the event with Electrical Maintenance and involved technicians, it was stated that it is difficult to remove the covers from some of the Type HGA relays. This is caused by slight misalignment of the mounting spring tab clips on the sides of the covers.

Iowa Electric is currently conducting an engineering study to determine the feasibility of installing handwired test circuits and switches to perform safety related surveillance test procedures. These will be used instead of temporary jumpers and complicated test sequences that alter circuit configurations. A request has been made to specifically include HGA relays that meet the above criteria.

Note that this event is reportable under 10 CFR 50.73(a)(2)(IV) because an engineered safety feature (Containment Isolation) was initiated. It is also reportable under 10 CFR 50.73(a)(2)(V) as inoperability of single train Engineered Safety features (RCIC, EIIS System BN).

Iowa Electric Light and Power Company

June 7, 1984
DAEC-84-344

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. 84-018

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/JCS/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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