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IES UTILITIES

July 21, 1995
NG-95-2301

Mr. Hubert J. Miller
Regional Administrator
Region III
U. S. Nuclear Regulatory Commission
801 Warrenville Road
Lisle, IL 60532

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Licensee Event Report #95-006.
File: A-118a

Gentlemen:

Please find attached a copy of the subject Licensee Event Report in accordance with 10CFR50.73. There are no new commitments associated with this report.

Sincerely,

Gary VanMiddlesworth
Plant Superintendent - Nuclear

cc: Director of Nuclear Reactor Regulation
Document Control Desk
U. S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D. C. 20555-0001

NRC Resident Inspector - DAEC

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NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Duane Arnold Energy Center	05000-331	1 OF 3

TITLE (4)
PCIS Half Group III Isolation Due to Failed Fuel Pool Rad. Monitor

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 NAME	DOCKET NUMBER
06	25	95	95	-- 006 --	00	07	21	95		05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL	100	20.402(b)	20.405(c)	X 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
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366a)
		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 (Include Area Code)
Bruce Klotz, Principal Licensing Specialist	(319) 851-7599

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
X	ED	CAP	GE	No					

SUPPLEMENTAL REPORT EXPECTED (14)

				EXPECTED	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On June 25, 1995, the plant was operating at 100% power when a Primary Containment Isolation System (PCIS) Group III ('B' side) isolation occurred along with the initiation of the 'B' Standby Gas Treatment System. Investigation of the isolation determined that a fuse in the power supply to the 'B' fuel pool exhaust radiation monitor had blown, causing the monitor (Group III PCIS input) to fail downscale. All automatic actions (primary and secondary containment isolations) were completed satisfactorily, and all systems functioned as required. Following repair of the power supply and replacement of the fuse, the isolation was reset.

The cause of the Group III isolation was loss of power to the 'B' fuel pool exhaust radiation monitor. On a loss of power, the monitor defaults to the tripped condition. Investigation into the cause of the blown fuse revealed that a capacitor across the input to the power supply voltage regulator had shorted causing the fuse to blow. The failed capacitor and fuse were replaced and the power supply and monitor were returned to service.

This event had no effect on the safe operation of the plant.

NRC FORM 366A (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Duane Arnold Energy Center	05000-331	95	-- 006 --	00	2 OF 3

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

I. DESCRIPTION OF EVENT

On June 25, 1995 at 18:13 hours, the plant was operating at 100% power when a Primary Containment Isolation System (PCIS) Group III ('B' side) isolation occurred along with the initiation of the 'B' Standby Gas Treatment System. All automatic actions (Primary and Secondary Containment Isolations) were completed satisfactorily, and all systems functioned as required. Investigation into the cause of the blown fuse revealed that a capacitor across the input to the power supply voltage regulator had shorted. The failed capacitor and fuse were replaced and the power supply and monitor returned to service. At 14:02 hours on June 26, 1995 the isolation was reset.

II. CAUSE OF EVENT

The cause of the Group III isolation was loss of power to the 'B' fuel pool exhaust radiation monitor. On a loss of power, the monitor defaults to the tripped condition. Investigation into the cause for the shorted capacitor did not identify any conditions which would have caused it to fail. No breakers tripped and no other electrical malfunctions occurred. At the time of the event, there were no ongoing maintenance or surveillance activities that could have affected this equipment.

III. ANALYSIS OF EVENT

This event had no effect on the safe operation of the plant. The Group III isolation functioned as designed in response to the trip signal received from the 'B' fuel pool exhaust radiation monitor. Had this event occurred under different plant conditions, the effect on safe operation would have been the same.

IV. CORRECTIVE ACTION

Immediate corrective actions were to determine the cause for the isolation. Following determination that the Group III isolation was caused by a failed power supply and not a radiation release, the power supply was repaired. At 14:02 hours on June 26, 1995 the isolation was reset.

The capacitor (50 V, 500 microfarad, electrolytic located in the voltage regulator circuit of the -24 VDC power supply) which failed was the correct size and type as indicated by the vendor drawing. A review of the maintenance history for this power supply showed that the capacitor was replaced in 1988 as part of corrective maintenance to fix a "drifting output" problem.

NRC FORM 366A (4-95) U.S. NUCLEAR REGULATORY COMMISSION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Duane Arnold Energy Center	05000-331	95	-- 006 --	00	3 OF 3

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

The capacitor failure is considered a random unpredictable failure. The failure of this capacitor results in the conservative actuation of a safety system. For these reasons, no further actions are considered necessary.

The Duane Arnold Energy Center currently has a program which is evaluating the useful service life of electrolytic capacitors in critical components and equipment. The results of this evaluation have been provided to that program.

V. ADDITIONAL INFORMATION

A) PREVIOUS SIMILAR EVENTS

A similar event occurred in 1991 when a fuse failed in the 'A' side fuel pool exhaust radiation monitor. No reason for the fuse failure was found at that time. (LER 91-006)

B) EIIS SYSTEM AND COMPONENT CODES

Systems:
- JM Containment Isolation Control System
- BH Emergency Standby Gas Treatment System
- ED Low Voltage Power System - Class 1E

Components: ED-CAP Capacitor