

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER
P. O. Box 351
Cedar Rapids, Iowa 52406

September 7, 1979
DAEC 79-204

Mr. James G. Keppler, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission-Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Licensee Event Report No. 77-028
(14 day)

UPDATE REPORT
PREVIOUS REPORT
DATE 041877

File: A-118a

Dear Mr. Keppler:

In accordance with Appendix A to Operating License DPR-49, Technical Specifications and Bases for Duane Arnold Energy Center and Regulatory Guide 10.1, please find attached a copy of the subject Licensee Event Report. (Total of 3 copies transmitted)

Very truly yours,

Ellery L. Hammond
Ellery L. Hammond
Chief Engineer
Duane Arnold Energy Center

Docket 50-331

attachment
ELH/JCZ/lh

cc: Director, Office of Inspection and Enforcement (40)
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director, Management Information and Program Control (3)
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

SEP 12 1979
7909140367

CONTROL BLOCK:

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 (1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

[illegible]

CON'T

0 1 7 8

REPORT SOURCE L 6 0 5 0 0 0 3 3 1 7 0 4 0 5 7 7 8 0 9 0 7 7 9 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | During the performance of preventive maintenance thirteen control rod
0 3 | drive hydraulic control unit water level switches would not respond to
0 4 | initial water level increase tests. The HCU level switches functioned
0 5 | properly on all repeat test flow cycles. These instruments detect
0 6 | water leakage past the HCU accumulator piston. The switches are Gems
0 7 | Company liquid level switches.
0 8 |

SYSTEM CODE R B (11)		CAUSE CODE D (12)		CAUSE SUBCODE Z (13)		COMPONENT CODE I N S T R U (14)				COMP. SUBCODE S (15)		VALVE SUBCODE Z (16)	
7 8		9 10		11 12		13 14 15 16 17 18				19 20		21 22	
LER/RO REPORT NUMBER 17		EVENT YEAR 7 7 (21) (22)		SEQUENTIAL REPORT NO. 0 2 8 (24) (25) (26)		OCCURRENCE CODE 0 1 (28) (29)		REPORT TYPE X (30)		REVISION NO. 1 (32)			
23		24		25		26		27		28		29	
ACTION TAKEN C (33)		FUTURE ACTION G (34)		EFFECT ON PLANT Z (35)		SHUTDOWN METHOD Z (36)		HOURS 0 0 0 0 (40)		ATTACHMENT SUBMITTED Y (41)		NPRD-4 FORM SUB. N (42)	
33 34		35 36		37 38 39 40		41 42		43 44		45 46 47 48		49 50	
PRIME COMP. SUPPLIER N (43)		COMPONENT MANUFACTURER G 0 5 0 (50)											
51 52		53 54		55 56 57 58		59 60		61 62		63 64		65 66	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Engineering evaluation indicated that initial tests may fail if compressed air is not completely discharged from the instrument bloc. Also test cartridge valve has small port and thus high flow restriction causing initial fill problem. Normal operation flow enters block via piston not cartridge valve. Changed maintenance procedures accordingly.

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

FACILITY STATUS (28) H % POWER (29) 0 0 0 OTHER STATUS (30) NA METHOD OF DISCOVERY (31) B DISCOVERY DESCRIPTION (32) Preventive Maintenance

ACTIVITY CONTENT
RELEASED OF RELEASE AMOUNT OF ACTIVITY (35)
1 6 Z (33) Z (34) NA
7 8 9 10 11 44
45 NA LOCATION OF RELEASE (36) 20

PERSONNEL EXPOSURES									
NUMBER			TYPE		DESCRIPTION				
1	7		0	0	0	(37)	Z	(38)	NA

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	2	0	0	0	NA

		LOSS OF OR DAMAGE TO FACILITY		
TYPE		DESCRIPTION		(43)
1	9	Z	(42) NA	

8 9 10 80
PUBLICITY
ISSUED DESCRIPTION (45)
2 0 N (44) NA NRC USE ONLY

10 J. C. Zimmerman

NAME OF PREPARER _____

PHONE: 319-851-5611

NRC USE ONLY

917-928

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: Update, September 7, 1979 Previous Report Date 4/18/77

Reportable Occurrence No: 77-28

EVENT DESCRIPTION

During the performance of preventive maintenance, thirteen (13) control rod drive hydraulic control unit (HCU) water level switches would not respond to initial water level increase tests. The HCU level switches functioned properly on all repeat test flow cycles. The subject instruments detect water leakage past the HCU accumulator piston.

CAUSE DESCRIPTION

One of the failed HCU level switches was sent to General Electric for further evaluation and testing. The results indicated that the first flow test cycle HCU level switch failures were caused by; 1) inadequate venting of the instrument block, and 2) the restrictive flow characteristics of the test cartridge valve. No abnormalities were found that would prevent the switches from operating under normal conditions.

CORRECTIVE ACTION

Based on their test results, General Electric recommended that the compressed air in the instrument block be completely discharged before testing, and that the test be performed several times should the initial cycle fail. In addition they recommended that a level switch be considered failed only if it will not actuate after three (3) cycles. The necessary procedures have been revised to reflect the above recommendations.