NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	LICENSEE CODE: I A D A C 1 (2)	LICENSE NUMBER: 0 0 - 0 0 0 0 0 - 0 0 (3)	LICENSE TYPE: 4 1 1 1 1 (4)	CAT (5)

CON'T 0 1	REPORT SOURCE: L (6)	DOCKET NUMBER: 0 5 0 0 0 3 3 1 (7)	EVENT DATE: 0 6 2 9 8 2 (8)	REPORT DATE: 0 7 2 9 8 2 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During cold shutdown surveillance testing, the "B" control building SFU
0 3 flow controller would not control SFU discharge valve AV-7318B and the l
0 4 ow-flow alarm could not be cleared. Redundant "A" SFU was operable. Beca
0 5 use reactor in cold shutdown with no fuel movements, requirements of T.S
0 6 . 3.10.A.1 were already met. No previous similar occurrences with the sa
0 7 me causes. However, moisture in the instrument air has been a problem on
0 8 ce previously in another system. (See Ro 82-16)

0 9	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
	S G (11)	E (12)	E (13)	I N S T R U (14)	C (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 2	—	0 4 4	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
D (18)	X (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	A (25)	G 0 8 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Discharge valve inoperability due to moisture in instrument air from ins
1 1 ufficient capacity dryers. Alarm inop. due to inop. square-rooter and ou
1 2 t-of-calib. flow transmitter and low-flow switch. Inop. components of SF
1 3 U repaired or replaced. Design Review initiated to investigate excess pr
1 4 essure drop across dryers. Square-rooter surveillance to be increased.

1 5	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
	G (28)	0 0 0 (29)	NA	B (31)	Surveillance Test

1 6	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

1 7	NUMBER	TYPE	DESCRIPTION (39)
	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

1 4	NUMBER	DESCRIPTION (41)
	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE	DESCRIPTION
	Z (42)	NA

PUBLICITY

2 0	ISSUED	DESCRIPTION (45)	NRC USE ONLY
	N (44)	NA	

8208090096 820729
PDR ADOCK 05000331
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DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: 7/29/82

Reportable Occurrence No: 82-044

Event Description:

During cold shutdown while performing surveillance testing, the "B" control building standby filter unit (SFU) flow controller would not control the SFU discharge valve (AV-7318B). In addition, the low-flow alarm could not be cleared. The redundant "A" SFU was operating properly. Because the reactor was in a cold shutdown condition with no fuel movement being performed, the requirements of Technical Specification 3.10.A.1 were already met. There have been no previous occurrences, in either SFU train, of failure of the flow controller to control the discharge valve due to moisture in the instrument air. There have been no previous occurrences of instrument drift in either SFU. There have been no previous occurrences of moisture problems with either SFU square-rooter. However, moisture in the instrument air has been a problem once previously in another system. (See RO 82-16)

Cause Description:

The inability of the flow controller to control AV-7318B was due to the inoperability of solenoid valve SV-7318B (Asco Model HT 8300 B9U) and air-modulating valve E/PC-7320B (Johnson Controls Model N-6810). The inoperability of solenoid valve SV-7318B and air-modulating valve E/PC-7320B were attributed to moisture in the instrument air system. Moisture in the instrument air was due to the air dryers having insufficient capacity to supply air at the present system demand without causing an excessive pressure drop across the dryers. The inability to clear the low-flow alarm was due to inoperable flow controller signal-conditioning square-rooter SQ-7321B (GE Model 565) as well as out-of-calibration flow transmitter FT-7320B (GE Model 554) and low-flow switch FS-7321B (GE Model 560). The failure of the square-rooter SQ-7321B was attributed to water of undetermined origin found on the circuits. The failures of flow transmitter FT-7320B and low-flow switch FS-7321B were attributed to instrument drift.

Corrective Action:

The flow controller square-rooter was repaired. Flow transmitter FT-7320B and low-flow switch FS-7321B were calibration checked. Air-modulating valve E/PC-7320B was replaced. Solenoid valve SV-7318B was cleaned and lubed. Dryers and moisture traps are present in the instrument air supply system. These measures have reduced the amount of moisture in the instrument air, but have not totally alleviated the problem. A Design Review has been initiated to investigate the cause of the high pressure drop across the dryers and to identify proper corrective action. Surveillance of the square-rooter will be increased to determine if the moisture is recurring.