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## IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

P. O. Box 351 Cedar Rapids, Iowa 52406

> December 29, 1977 DAEC -77 - 654

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. 77-94

(14 day)

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,

Clery L. Hammond

Ellery L. Hammond Chief Engineer

Duane Arnold Energy Center

Docket 50-331

attachment ELH/DLW/mg

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

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### LICENSEE EVENT REPORT

Interim Report

P. Barr	CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
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CON'T 0 1 7 8	REPORT L 6 0 5 0 0 0 3 3 1 7 1 2 1 5 7 7 8 1 2 2 9 7 7 9  EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10
0 2	During a routine plant inspection, it was determined that the RHR cross
0 3	tie valve was in the closed position when the valve position lights indi
0 4	cated open in the control room. Subsequent investigation determined that
0 5	motor operated properly but valve did not move.Manual hand wheel also tu
0 6	rned freely. Valve is normally open and required for LPCI injection capa
0 7	bility to either recirculation loop. LPCI declared inoperable and survei
0 8	llance testing initiated on ECCS. TS 3.5.A.3.
0 9	SYSTEM CAUSE CODE SUBCODE COMPONENT CODE SUBCODE SUBCODE  CODE SUBCODE SUBCODE  COMPONENT CODE SUBCODE SUBCODE  SEQUENTIAL OCCURRENCE REPORT REVISION
10	LER/RO REPORT YEAR REPORT NO.  ACTION FUTURE EFFECT SHUTDOWN HOURS 22 ATTACHMENT FORM SUB. SUPPLIER MANUFACTURER  IN TAKEN ACTION ON PLANT METHOD HOURS 22 SUBMITTED FORM SUB. SUPPLIER MANUFACTURER  IN TAKEN ACTION ACTIO
1 1	Ing final corrective action. Valve closing requirement not a safety funct
1 2	ion. Limitorque Type SMB-1 operator. Preliminary inspection of operator
1 3	internals indicates physical damage to worm and worm gear. Investigation
1 4 7 8	by licenses and vendor in progress.
1 5	FACILITY SPOWER OTHER STATUS 30 METHOD OF DISCOVERY DESCRIPTION 32  E 28 0 9 5 29 NA A A 44 45 A6 OPERATOR OBSERVATION 32
	ELEASED OF RELEASE AMOUNT OF ACTIVITY (35)  LOCATION OF RELEASE (36)  NA 10 NA 44 45
1 7	PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39  O O O 37 38 NA  9 PERSONNEL INJUSTIES 13  80
1 3	NUMBER DESCRIPTION 41  NUMBER DESCRIPTION 41  NA
•	
1 9	LOSS OF OR DAMAGE TO FACILITY 43  TYPE DESCRIPTION NA  9 10 NA
1 9 7 8	Z 42 NA  9 10 PUBLICITY ISSUED DESCRIPTION 45 NRC USE ONLY
1 9 7 8	Z 42 NA  9 10 NA  9 PUBLICITY ISSUED DESCRIPTION 45  NRC USE ONLY

PHONE:

**DUANE ARNOLD ENERGY CENTER** 

### Iowa Electric Light and Power Company

# LICENSEE EVENT REPORT-Supplemental Data Docket Number 50-331

December 29, 1977

Licensee Event Report Date: 7

77–094

Reportable Occurrence No:

121577

### Description of Occurrence

During a routine plant inspection a plant operator observed that normally open RHR crosstie valve, MOV 2010, was in the closed position. The valve position lights in the control room indicated that the valve was in the "open" position. Operating personnel attempted to open the valve manually but the hand wheel turned "freely". Since the closed crosstie valve would inhibit the capability for full LPCI injection to either recirculation loop, the LPCI system was declared inoperable and appropriate surveillance testing was initiated.

### Cause of Occurrence

A preliminary inspection of the limitorque valve operator (SMB-1) internals revealed mechanical damage to the worm and worm gear. Fractured teeth were observed on both the worm and worm gear. The damaged components have been shipped to the vendor for evaluation. Final determination of cause of occurrence will be included in a supplemental report.

#### Corrective Action

Replacement parts for the valve operator are on order. In the interim, the valve has been locked in the open position and the LPCI system declared operable. (The closing function of the crosstie valve performs no safety function).

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