

**NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
(TEMPORARY FORM)

CONTROL NO: 14336

FILE: INCIDENT REPORT FILE

FROM: Iowa Electric Light & Pwr Cedar Rapids, Ia G G Hunt		DATE OF DOC 12-19-75	DATE REC'D 12-30-75	LTR xxx	TWX	RPT	OTHER
TO: Mr Keppler		ORIG one signed	CC	OTHER	SENT AEC PDR <u>xx</u> SENT LOCAL PDR <u>xx</u>		
CLASS	UNCLASS XXXXXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-331		

**DESCRIPTION:**

Ltr trans the following:

**ENCLOSURES:**

Abnormal Occurrence #75-66 on 12-10-75 concern  
ing inoperable main steam isolation valve.....  
.....

PLANT NAME: Duane Arnold

**FOR ACTION/INFORMATION**

1-2-76

ehf

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
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**INTERNAL DISTRIBUTION**

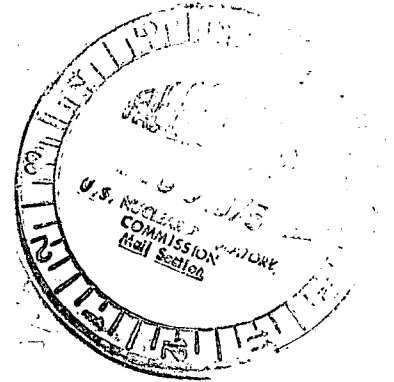
<del>REG FILE</del>	TECH REVIEW	DENTON	LIC ASST	A/T IND.
<del>NRC PDR</del>	<del>SCHROEDER</del>	**GRIMES	R. DIGGS (L)	BRAITMAN
<del>OGC, ROOM P-506A</del>	<del>MACCARY</del>	<del>GAMMILL</del>	H. GEARIN (L)	SALTZMAN
<del>GOSSICK/STAFF</del>	KNIGHT	KASTNER	E. GOULBOURNE (L)	MELTZ
<del>CASE</del>	PAWLICKI	BALLARD	P. KREUTZER (E)	
<del>GIAMBUSSO</del>	SHAO	SPANGLER	J. LEE (L)	PLANS
BOYD	**STELLO		M. RUSHBROOK (L)	MCDONALD
MOORE (L)	**HOUSTON	ENVIRO	S. REED (E)	CHAPMAN
DEYOUNG (L)	**NOVAK	MULLER	M. SERVICE (L)	DUBE (Ltr)
SKOVHOLT (L)	<del>ROSS</del>	DICKER	S. SHEPPARD (L)	E. COUPE
GOLLER (L) (Ltr)	<del>IPPOLITO</del>	KNIGHTON	M. SLATER (E)	PETERSON
P. COLLINS	<del>TEDESCO</del>	YOUNGBLOOD	H. SMITH (L)	HARTFIELD (2)
DENISE	J. COLLINS	REGAN	S. TEETS (L)	<del>KLECKER</del>
REG OPR	LAINAS	PROJECT LDR	G. WILLIAMS (E)	EISENHUT
<del>FILE &amp; REGION (2)</del>	BENAROYA		V. WILSON (L)	*WIGGINTON
<del>MIPC/PE (3)</del>	<del>VOLLMER</del>	HARLESS	R. INGRAM (L)	<del>F. WILLIAMS</del>
STEELE			M. DUNCAN (E)	<del>HANAUER</del>

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1 - TIC (ABERNATHY) (1)(2)(10)	1 - W. PENNINGTON, Rm E-201 GT	1 - BROOKHAVEN NAT LAB
1 - NSIC (BUCHANAN)	1 - CONSULTANTS	1 - G. ULRIKSON, ORNL
1 - ASLB	NEWMARK/BLUME/AGBABIAN	1 - AGMED (RUTH GUSSMAN) Rm B-127 GT
1 - Newton Anderson		1 - J. D. RUNKLES, Rm E-201 GT
15 - ACRS SENT TO LIC ASST Teets		
** SEND ONLY TEN DAY REPORTS		

# IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER  
P. O. Box 351  
Cedar Rapids, Iowa 52406  
DAEC - 75 - 458  
December 19, 1975



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: Abnormal Occurrence AO 50-331/75-66

File: A-118a

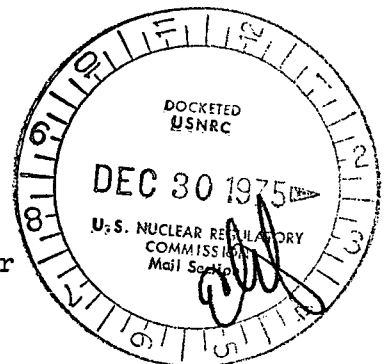
Dear Mr. Keppler:

In accordance with Appendix A to Operating License DPR-49,  
Technical Specifications and Bases for the Duane Arnold Energy Center,  
please find enclosed a written report on the subject abnormal occurrence.

Very truly yours,

*G. G. Hunt*  
G. G. Hunt

Chief Engineer  
Duane Arnold Energy Center



OCS/GGH/mg

cc: B. C. Rusche  
D. Arnold  
J. A. Wallace  
L. Liu  
H. W. Rehrauer - Chairman, Safety Committee  
J. R. Newman  
E. L. Hammond

14336

DEC 22 1975

# IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

P. O. Box 351

Cedar Rapids, Iowa 52406

Subject: Abnormal Occurrence  
Report Number: AO 50-331/75-66  
Report Date: December 19, 1975  
Occurrence Date: December 10, 1975  
Facility: Duane Arnold Energy Center, Unit No. 1, Palo, Iowa

## Identification of Occurrence

Inoperable Main Steam Isolation Valve, reportable in accordance with Appendix A to Operating License DPR-49, Specifications 3.7.D.1 and 1.0.4.b.

## Conditions Prior to Occurrence

The plant was in the process of a scheduled shutdown when the occurrence was discovered and the valve was declared inoperable.

## Description of Occurrence

During the performance of Surveillance Test Procedure No. 47D004, Main Steam Isolation Valve Trip/Closure Time Check, MSIV CV 4420 closed in 2.97 seconds. In accordance with the requirements of the surveillance procedure and Table 2.7-3 of the Technical Specifications the limit for MSIV closing time is  $3 < T < 5$  seconds. The closing times of the other three MSIV's were as follows: CV 4412 - 3.60 seconds, CV 4415 - 4.01 seconds and CV 4418 - 3.08 seconds.

## Designation of Apparent Cause of Occurrence

The apparent cause of the occurrence was an out-of-adjustment "Close Throttle".

## Analysis of Occurrence

MSIV closure in less than 3 seconds has not been analyzed. The analysis of the worst overpressure transient (3-second closure of all main steam line isolation valves) neglecting the direct scram has been analyzed and results in a maximum vessel pressure of 1295 psig (at vessel bottom) if a flux scram is assumed. The code allowable over-pressure limit is 1375 psig. The closure time of the three other inboard MSIV's in conjunction with CV 4420 closure time will result in a less severe transient than the 3 second closure time assumed in the analysis. Therefore, this occurrence is not detrimental to the health and safety of the public.

Corrective Action

The "Close Throttle" which regulates the MSIV closing time was adjusted to allow the MSIV to close in 4 seconds.

Conclusion

This report was reviewed and approved by the DAEC Operations Committee on December 19, 1975. The Committee concluded that the occurrence did not present a hazard to the health and safety of the public.

*G. G. Hunt*

G. G. Hunt  
Chief Engineer  
Duane Arnold Energy Center

OCS/GGH/mg