

A 6/12/78

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL 50-331

REC: KEPPLER J G  
NRC

ORG: HAMMOND E L  
IA ELEC LIGHT & PWR

DOC DATE: 06/02/78  
DATE RCVD: 06/08/78

DOCTYPE: LETTER NOTARIZED: NO  
SUBJECT:

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LTR 1 ENCL 1

FORWARDING LICENSEE EVENT REPT (RO 50-331/78-025) ON 05/19/78 CONCERNING  
DURING HPCI SYSTEM SURV. TESTING HPCI PUMP DID NOT REACH REQUIRE D DISCHARGE  
FLOW RATE OF 3000 GPM DUE TO FAILURE OF TURBINE TO REACH FULL RATED  
SPEED. . . W/ATT.

PLANT NAME: DUANE ARNOLD

REVIEWER INITIAL: XJM  
DISTRIBUTOR INITIAL: DL

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

INCIDENT REPORTS  
(DISTRIBUTION CODE A002)

FOR ACTION: BR CHIEF ORB#3 BC\*\*W/4 ENCL

INTERNAL:	REG FILE**W/ENCL	NRC PDR**W/ENCL
	I & E**W/2 ENCL	MIPC**W/3 ENCL
	I & C SYSTEMS BR**W/ENCL	EMERGENCY PLAN BR**W/ENCL
	NOVAK/CHECK**W/ENCL	EEB**W/ENCL
	AD FOR ENG**W/ENCL	PLANT SYSTEMS BR**W/ENCL
	HANAUER**W/ENCL	AD FOR PLANT SYSTEMS**W/ENCL
	AD FOR OPER TECH**W/ENCL	REACTOR SAFETY BR**W/ENCL
	ENGINEERING BR**W/ENCL	VOLLMER/BUNCH**W/ENCL
	KREGER/J. COLLINS**W/ENCL	POWER SYS BR**W/ENCL
	K SEYFRIT/IE**W/ENCL	

EXTERNAL: LPDR'S  
CEDAR RAPIDS, IA\*\*W/ENCL  
TIC\*\*W/ENCL  
NSIC\*\*W/ENCL  
ACRS CAT B\*\*W/16 ENCL

COPIES NOT SUBMITTED PER  
REGULATORY GUIDE 10.1

DISTRIBUTION: LTR 45 ENCL 45  
SIZE: 1P+1P+1P

CONTROL NBR: 781600335

AD 460

\*\*\*\*\* THE END \*\*\*\*\*

# IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER  
P. O. Box 351  
Cedar Rapids, Iowa 52406  
June 2, 1978  
DAEC - 78 - 278

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. 78-025  
(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,

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

Docket 50-331

attachment  
ELH/DLW/nf

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

781600335

RECEIVED  
NRC SERVICES  
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JUN 8 10 25

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DISTRICT OFFICE  
DIVISION OF REGULATION

Acc  
S/c



Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data

Docket Number 050-0331

Licensee Event Report Date: 6-2-78

Reportable Occurrence No: 78-025

Event Description

During surveillance testing of the HPCI System, the HPCI pump did not reach the required discharge flow rate (3000 gpm) due to failure of the turbine to reach full rated speed. The HPCI system was declared inoperable and redundant emergency core cooling systems were demonstrated to be operable. This occurrence is repetitive (see RO 77-77, 77-95 and 77-96).

Cause

The cause of the occurrence remains under investigation. Investigation as to the result of previous occurrences has been inconclusive. Following RO 77-096, the most probable cause was thought to be wear in the turbine shaft driven oil pump. It was thought that the capacity of the shaft driven oil pump at low turbine speeds was insufficient to fully open the turbine stop valve and allow the turbine to reach rated speed. However, disassembly and inspection of the shaft driven oil pump during the recent refueling outage did not reveal any abnormal wear or other problems which would limit the pumps capability to reach full capacity.

The continuing investigation has identified another possible cause for the repetitive occurrences. Abnormal amounts of water have been discovered in the HPCI turbine lube oil system. The water in the oil may be causing abnormal operation of the HPCI turbine control system. The source of the water and determination of appropriate corrective actions are under investigation by the licensee's Engineering Department.

Corrective Action

As a temporary measure, the auxiliary oil pump cutoff pressure switch setpoint has been raised slightly to extend pump run time during HPCI system start. Special testing performed as a result of the previous occurrences demonstrated that satisfactory starts of the HPCI system are obtained with the auxiliary oil pump cutoff pressure switch setpoint elevated slightly. Pending completion of investigation into the cause of the occurrences and implementation of corrective actions, the frequency for performance of HPCI surveillance testing has been increased to bi-weekly.