

FILE:

FROM: Iowa Electric Light and Power Co Cedar Rapids, Iowa EL Hammond		DATE OF DOC 9-5-74	DATE REC'D 9-13-74	LTR XXX	TWX	RPT	OTHER
TO: Mr Keppler		ORIG 1 signed	CC	OTHER	SENT AEC PDR XX SENT LOCAL PDR XX		
CLASS	UNCLASS XXXXXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-331		

DESCRIPTION:

Ltr trans the following:

DO NOT REMOVE
ACKNOWLEDGED

PLANT NAME: Duane Arnold #1**ENCLOSURES:**REPORT: Abnormal Occurrence #74-35 on
8-26-74 re low RHR Service water pump flow

(1 cy rec'd)

FOR ACTION/INFORMATION

9-13-74

ehf

BUTLER (L)	SCHWENCER (L)	ZIEMANN (L)	REGAN (E)
W/ CYS	W/ CYS	W/ CYS	W/ CYS
CLARK (L)	STOLZ (L)	DICKER (E)	✓ LEAR
W/ CYS	W/ CYS	W/ CYS	W/ CYS
PAER (L)	MISSALLO (L)	KNIGHTON (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
KNIEL (L)	PURPLE (L)	YOUNGBLOOD (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS

INTERNAL DISTRIBUTION

✓ REG FILE	TECH REVIEW	DENTON	LIC ASST	A/T IND
✓ AEC PDR		GRIMES	DIGGS (L)	BRAITMAN
✓ OGC	✓ SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓ MUNTZING/STAFF	✓ MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓ CASE	✓ KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓ PAWLICKI	SPANGLER	LEE (L)	PLANS
BOYD	✓ SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓ STELLO	ENVIRO	REED (E)	CHAPMAN
✓ DEYOUNG (L)(LWR-1)	✓ HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓ NOVAK	DICKER	SHEPPARD (L)	E. COUPE
GOLLER (L)	✓ ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓ IPPOLITO	YOUNGBLOOD	SMITH (L)	✓ D. THOMPSON (2)
DENISE	✓ TEDESCO	REGAN	✓ TEETS (L)	✓ KLECKER
✓ REG OPR	✓ LONG	PROJECT MGR	WILLIAMS (E)	✓ EISENHUT
✓ FILE & REGION (2)	✓ LAINAS		WILSON (L)	
✓ MORRIS	✓ BENAROYA	HARLESS		
✓ STEELE	✓ VOLLMER			

EXTERNAL DISTRIBUTION

✓ 1 - LOCAL PDR Cedar Rapids, Ia	(1)(2)(10)-NATIONAL LABS	1-PDR-SAN/LA/NY
✓ 1 - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-BROOKHAVEN NAT LAB
✓ 1 - NSIC (BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	1-G. ULRIKSON, ORNL
1 - ASLB	1-B&M SWINEBROAD, Rm E-201 GT	1-AGMED (RUTH GUSMAN)
1 - Newton Anderson	1-CONSULTANTS	Rm B-127 GT
✓ 5 - ACRS SENT TO LIC ASST Teets	NEWMARK/BLUME/AGBABIAN	1-RD..MUELLER, Rm F-300
		GT

Regulatory Docket File

IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA
DUANE ARNOLD ENERGY CENTER
PALO, IOWA
SEPTEMBER 5, 1974
DAEC - 74 - 313



Mr. James G. Keppler, Director
Regulatory Operations Regional Office
U. S. Atomic Energy Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

SUBJECT: Abnormal Occurrence No. DPR 50-331/74-35
FILE: A-118a

Dear Mr. Keppler:

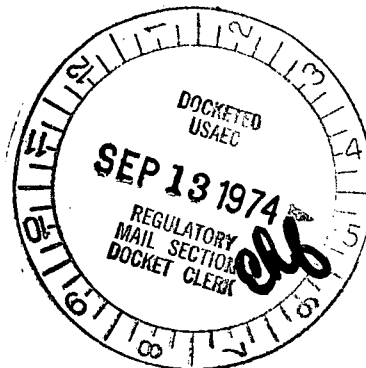
In accordance with Appendix A to Operating License DPR-49, Technical Specifications and Bases for Duane Arnold Energy Center, please find enclosed a written report on the subject abnormal occurrence.

Very truly yours,

Ellery L. Hammond
Assistant Chief Engineer
Duane Arnold Energy Center

JSA:ELH:bh
Enclosure

CC: E. G. Case
C. W. Sandford
J. A. Wallace
G. G. Hunt
B. R. York
D. L. Wilson
L. D. Root
H. W. Rehrauer
J. R. Newman
B. L. Hopkins



SEP 9 1974

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IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA

Subject: Abnormal Occurrence
Report Number: AO 50-331/74-35
Report Date: September 5, 1974
Occurrence Date: August 26, 1974
Facility: Duane Arnold Energy Center, Unit No. 1, Palo, Iowa

Identification of Occurrence

Low RHR Service Water Pump Flow reportable per Appendix A, Operating License DPR-49, Specification 1.0.4.b.

Conditions Prior to Occurrence

Slowly increasing reactor power to 100% from 22% at rated plant temperature and pressure.

Description of Occurrence

On August 26, 1974, while performing Surveillance Test Procedure 45C001, the flow of RHR Service Water Pumps A (2400 gpm at 280 psig) and C (2400 gpm at 272 psig) in Loop "A" was less than the required minimum (2400 gpm at 292 psig or a TDH of 674 feet) of Technical Specification 4.5.C.1.b.

Designation of Apparent Cause of Occurrence

The following potential causes of the occurrence are currently under investigation:

- 1) Excessive wear of pump internals.
- 2) RHR Service Water System relief valve prematurely relieving.
- 3) Normal wear of pump internals, the affect of which is not taken into account by the Technical Specification limit.

Results of further investigation into the cause of the occurrence will be reported in a supplementary report.

Analysis of Occurrence

It has been determined that the occurrence did not present an unsafe plant condition. The other RHR Service Water Subsystem was verified operable immediately after the occurrence in accordance with Technical Specification 3.5.C.3.

Corrective Action

After the identification of the occurrence on August 26, 1974, Surveillance Tests were immediately commenced in accordance with Technical Specification 3.5.C.3. On August 30, 1974, clearances between Loop "A" pump casings and impellers were decreased. This resulted in Pump A flow increasing to within specifications, and Pump C flow increasing but remaining below specification. Loop "A" was returned to service, less Pump C.

During the investigation of this occurrence an inconsistency between the RHR Service Water System design and Technical Specification flow limits has been noted and a Technical Specification change request is pending. Further corrective action taken as a result of the continuing investigation will be stated in a supplementary report.

Conclusion

The contents of this report, including corrective actions taken to date, were reviewed and approved by the DAEC Operations Committee on September 5, 1974. The Committee concluded that the occurrence does not present a hazard to the health and safety of the public.



Ellery L. Hammond
Assistant Chief Engineer
Duane Arnold Energy Center

JSA:ELH:bh