

FILE:

FROM: Iowa Electric Light & Power Co Cedar Rapids, IO G. G. Hunt		DATE OF DOC 7-16-74	DATE REC'D 7-20-74	LTR X	TWX	RPT	OTHER
TO: James G. Keppler		ORIG 1	CC	OTHER	SENT AEC PDR XXX SENT LOCAL PDR XXX		
CLASS	UNCLASS XXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-331		

DESCRIPTION:
Ltr trans the following....

PLANT NAME: DUANE ARNOLD

ENCLOSURES:
Abnormal occ urren ce rpt #50-331/74-15....

ACKNOWLEDGED

DO NOT REMOVE

(1 cy encl rec'd)

FOR ACTION/INFORMATION 7-20-74 GMC

- | | | | |
|------------|---------------|----------------|-----------|
| 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/ 7CYS |
| W/ CYS | VASSALLO (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 | ✓ HENDRIE | 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 (3) | ✓ LAINAS | | WILSON (L) | |
| ✓ MORRIS | ✓ BENAROYA | HARLESS | | |
| ✓ STEELE | ✓ VOLLMER | | | |

EXTERNAL DISTRIBUTION

- | | | | |
|--|--------------------------|-------------------------------|-------------------------|
| ✓ 1 - LOCAL PDR CEDAR RAPIDS, IO | | | |
| ✓ 1 - TIC (ABERNATHY) | (1)(2)(10)-NATIONAL LABS | | 1-PDR-SAN/LA/NY |
| ✓ 1 - NSIC (BUCHANAN) | | 1-ASLBP(E/W Bldg, Rm 529) | 1-BROOKHAVEN NAT LAB |
| 1 - ASLB | | 1-W. PENNINGTON, Rm E-201 GT | 1-G. ULRIKSON, ORNL |
| 1 - P. R. DAVIS | | 1-B&M SWINEBROAD, Rm E-201 GT | 1-AGMED (RUTH GUSMAN) |
| ✓ 16 - AGRS SENT TO LIC ASST TEETS 7-22-74 | 1-CONSULTANTS | | Rm B-127 GT |
| | NEWARK/BLUME/AGBABLAN | | 1-RD..MUELLER, Rm F-309 |
| | | | CT |

LB

IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

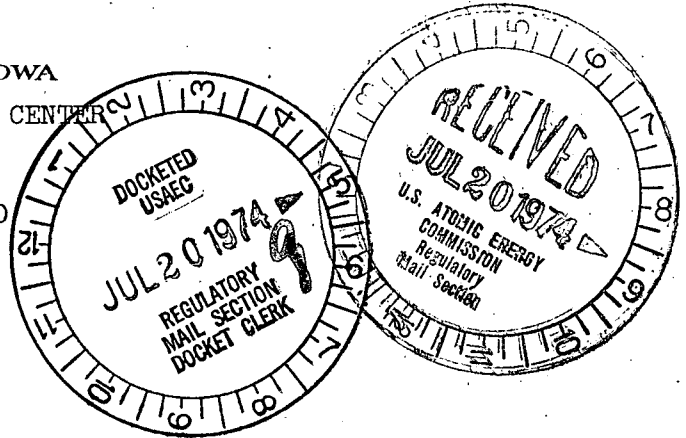
CEDAR RAPIDS, IOWA

DUANE ARNOLD ENERGY CENTER

PALO, IOWA

JULY 16, 1974

DAEC - 74 - 250



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

SUBJECT: Abnormal Occurrence No. 50-331/74-15
FILE: A-118a

Dear Mr. Keppler:

In accordance with Appendix A, Operating License DPR-49, Technical Specifications and Bases for Duane Arnold Energy Center, please find enclosed a written report on the subject abnormal occurrence. Mr. C. Feierabend, of your office, was notified of the occurrence on July 6, 1974.

Very truly yours,

G. G. Hunt
Chief Engineer
Duane Arnold Energy Center

OCS/GGH/bh
Enclosure

- CC: ✓ John O'Leary
C. W. Sandford
J. A. Wallace
E. L. Hammond
B. R. York
D. L. Wilson
H. W. Rehrauer-Chairman, Safety Committee
L. D. Root
J. R. Newman
B. L. Hopkins

REGULATORY DOCKET FILE COPY

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IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA

Subject: Abnormal Occurrence
Report Number: 50-331/74-15
Report Date: July 16, 1974
Occurrence Date: July 6, 1974
Facility: Duane Arnold Energy Center, Unit #1, Palo, Iowa

Identification of Occurrence

MOV 2312 did not open on automatic signal, reportable per Appendix A, Operating License DPR-49, Specification 1.0.4.d.

Conditions Prior to Occurrence

Reactor shutdown due to turbine trip test (Startup Test Instruction #27); Reactor pressure approximately 1050 psi, temperature approximately 525°F. Preparing to commence Startup Test Instruction Number 15 (HPCI injection).

Description of Occurrence

During the conduct of STI-15 the HPCI Subsystem did not inject because MOV-2312 (HPCI pump discharge valve) did not open. Immediate operability tests of the Reactor Core Isolation Cooling Subsystem, Low Pressure Coolant Injection Subsystems, both Core Spray Subsystems, and Automatic Depressurization System were begun per Technical Specification 3.5.D.2.

The Office of the Directorate of Regulatory Operations for Region III was notified by telephone on July 6, 1974, followed by written notification by telecopier.

Designation of Apparent Cause of Occurrence

The cause of the occurrence was high resistance short in the limit switch (LS-6) circuit on MOV-2202 (HPCI Turbine Steam Supply). This short kept relay K-15 (APED drawing 791E420RS, sheet 3) energized which prevented MOV 2312 (HPCI Pump Discharge) from opening (sheet 7) on the automatic initiation signal. The short was caused by moisture in the junction box on MOV-2202.

It was concluded that the moisture was present because a separate occurrence in the HPCI room caused the Fire Protection System to activate on June 11, 1974 (A.O. DPR 49/74-11).

Analysis of Occurrence

Reportable occurrence was recognized during an approved startup test situation with the reactor shutdown. Immediate operability tests of ADS, RCIC, Core Spray, and LPCI verified that the Core and Containment Cooling Subsystems were capable of performing their intended function.

There was no electrical or mechanical damage to the HPCI Subsystem and MOV-2312 could have been opened from the control room with switch S-5 which is in parallel with the automatic initiation circuit.

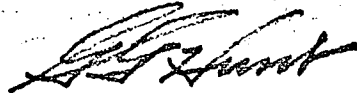
Corrective Action

The junction box and electrical connections were dried and the circuits checked. The gasket sealing the limit switch enclosure was replaced and checked for a tight seal. The HPCI Subsystem was considered operable at 0330, July 6, 1974. At 2200, July 6, 1974, a check of all other MOV junction boxes in the HPCI room was completed. No moisture was found in any of the other junction boxes.

At 1700, July 7, 1974, a HPCI operability test (STP-45D001) was satisfactorily completed.

Conclusion

The contents of this report were reviewed and approved by the DAEC Operations Committee on July 16, 1974. The Committee concluded that the occurrence did not present a hazard to the health and safety of the public.



G. G. Hunt
Chief Engineer
Duane Arnold Energy Center

MLS:OCS:GGH:bh