

FILE: _____

FROM: Iowa Electric Light & Power Company Cedar Rapids, Iowa G. G. Hunt		DATE OF DOC 7-25-74	DATE REC'D 8-1-74	LTR X	TWX	RPT	OTHER
TO: Mr. Keppler		ORIG 1 signed	CC	OTHER	SENT AEC PDR X SENT LOCAL PDR X		
CLASS	UNCLASS XXXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-331		

DESCRIPTION:
Ltr trans the following;

PLANT NAME: Duane Arnold

ENCLOSURES:
Abnormal Occurrence # AO 50-331/74-22,
on 6-30- & 7-1-74, concerning inoperable
HPCI Injection Valve.

Do Not Remove
ACKNOWLEDGED

(1 cy rec'd)

FOR ACTION/INFORMATION

8-1-74 AB

- | | | | |
|------------|---------------|----------------|-----------|
| 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/7 CYS |
| DARR (L) | 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

- | | | | | |
|---------------------|--------------------|----------------|-----------------|-------------------|
| <u>REG FILE</u> | <u>TECH REVIEW</u> | <u>DEN'ON</u> | <u>LIC ASST</u> | <u>A/T IND</u> |
| ✓ 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) | <u>PLANS</u> |
| BOYD | ✓ SHAO | | MAIGRET (L) | MCDONALD |
| MOORE (L)(LWR-2) | ✓ STELLO | <u>ENVIRO</u> | 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 | <u>HARLESS</u> | | |
| ✓ STEELE | ✓ VOLLMER | | | |

EXTERNAL DISTRIBUTION

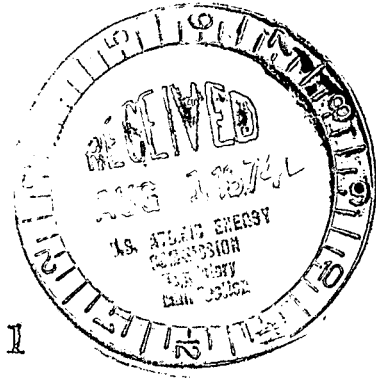
- | | | | |
|---------------------------------------|-------------------------------|--|-------------------------|
| ✓ 1 - LOCAL PDR Cedar Rapids, Iowa | | | |
| ✓ 1 - TIC (ABERNATHY) | (1)(2)(10)-NATIONAL LABS | | 1-PDR-SAN/LA/NY |
| ✓ 1 - NSIC (BUCHANAN) | 1-ASLBP(E/W Bldg, Rm 529) | | 1-BROOKHAVEN 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 GUSSMAN) |
| ✓ 16 - ACRS SENT TO LIC ASST S. TEETS | 1-CONSULTANTS | | Rm. B-127 GT |
| | NEWMARK/BLUME/AGBABIAN | | 1-RD..MUELLER, Rm E-201 |
| | | | GT |

BW

IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA
DUANE ARNOLD ENERGY CENTER
PALO, IOWA
JULY 25, 1974
DAEC - 74 - 263



50 - 331

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. 50-331/74-22
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 18, 1974.

It was originally intended to make this report in accordance with Specification 6.11.2A.2. However, while in the process of preparing the report, a reevaluation of available data indicated that the occurrence should be reported under Specification 1.0.4.d.

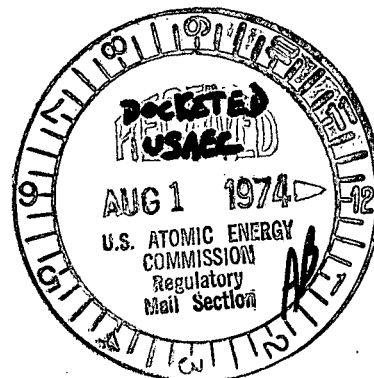
Very truly yours,

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



JUL 29 1974

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IOWA ELECTRIC LIGHT AND POWER COMPANY

General Office

CEDAR RAPIDS, IOWA

Subject: Abnormal Occurrence
Report Number: AO 50-331/74-22
Report Date: July 25, 1974
Occurrence Date: June 30, 1974 and July 1, 1974
Facility: Duane Arnold Energy Center, Unit #1, Palo, Iowa

Identification of Occurrence

On June 30, 1974, HPCI Injection Valve (MOV-2312) did not operate in the minimum time required during the performance of Startup Test Instruction (STI)-15 (HPCI) (Event 1). On July 1, 1974, HPCI Injection Valve (MOV-2312) did not operate during the performance of STI-15 (Event 2). These events are reportable per Appendix A, Operating License DPR-49, Specification 1.0.4.d..

Conditions Prior to Occurrence

June 30, 1974 (Event 1)

Reactor and plant at steady-state conditions, 700 MWt (44% power), preparing to commence STI-15.

July 1, 1974 (Event 2)

Reactor and plant at steady-state conditions, 700 MWt (44% power), preparing to commence STI-15.

Description of Occurrence

June 30, 1974 (Event 1)

1630 - Commenced STI-15

1700 - MOV-2312 did not operate in the minimum time specified by STI-15.

1831 - Reactor Scram due to unrelated event.

2130 - HPCI was declared operable following satisfactory completion of STP45D001 (HPCI Pump and Operability Tests).

July 1, 1974

0840 - Satisfactory completion of STI-15 (HPCI System) lined up to pump condensate storage tank to condensate storage tank.

July 1, 1974 (Event 2)

2120 - Commenced STI-15

MOV-2312 did not operate.

HPCI turbine steam supply valve (MOV-2202) was cycled.

2230 - STI-15 completed satisfactorily.

The Office of the Directorate of Regulatory Operations for Region III was notified by telephone on July 18, 1974, followed by written notification by telecopier on the same day stating that both events had been classified as an abnormal occurrence.

Designation of Apparent Cause of Occurrence

Event 1 - The cause of the occurrence was slow opening of the HPCI turbine stop valve which is interlocked with MOV-2312 by relay K-13. Investigation revealed that the bypass valve around the hydraulic operating cylinder of the stop valve should have been closed further since the bypass controls the rate at which the stop valve operates.

Event 2 - The cause of the occurrence was thought to be Relay K-51 which deenergizes when MOV-2202 is opened to allow MOV-2312 to open. After inspection and manual actuation of Relay K-51 contacts MOV-2202 was cycled several times from panel 1C-03 with switch S-3. MOV-2202 and Relay K-51 operated normally and the condition which caused the problem could not be reproduced. Subsequent investigation revealed that the problem with Relay K-51 was the accumulation of moisture in the MOV-2202 junction box.

Analysis of Occurrence

The causes of the reportable occurrence are specified above. Surveillance Tests specified in Specification 4.5.D.2 were not required because the reactor scrammed (due to an unrelated event) before the tests could be initiated in the case of Event 1 and in the case of Event 2 the HPCI was again operable before the tests could be initiated.

Corrective Action

Event 1 - HPCI turbine stop valve operating speed was increased by an adjustment of the bypass valve.

Event 2 - Corrective action could not be completed immediately after the occurrence due to the proper operation of K-51 and MOV-2202 once the K-51 Relay was manually actuated.

Conclusion

The contents of this report were reviewed and approved by the DAEC Operations Committee on July 25, 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