

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO:

Mr. James G. Keppler

FROM:

Iowa Electric Light & Power Company
Cedar Rapids, Iowa.
G. G. Hunt

DATE OF DOCUMENT

6/23/76

DATE RECEIVED

6/26/76

☒ LETTER☐ NOTORIZED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED

one signed

☐ ORIGINAL☒ UNCLASSIFIED☒ COPY

DESCRIPTION

Ltr. trans the following:

ENCLOSURE

Licensee Event Report (RO 50-331/76-43) on
6/22/76 concerning the performing of monthly
surveillance test 48001 on diesel when it
tripped on jacket high temperature.

ACKNOWLEDGED

DO NOT REMOVE

(1-P)

(3-P)

NOTE: IF PERSONNEL EXPOSURE IS INVOLVED
SEND DIRECTLY TO KREGER/J. COLLINS

PLANT NAME:

Duane Arnold

SAFETY

FOR ACTION/INFORMATION

ENVIRO

6/28/76

RJL

☒ BRANCH CHIEF: Lear
☐ W/3 CYS FOR ACTION
☒ LIC. ASST.: Parrish
☐ W/1 CYS
ACRS 16 CYS HOLDING/SENT TO LA

INTERNAL DISTRIBUTION

☒ REG FILE
☒ NRC PDR
☒ I & E (2)
☒ MIPC
☒ SCHROEDER/IPPOLITO
☒ HOUSTON
☒ NOVAK/CHECK
☒ GRIMES
☒ CASE
☒ BUTLER
☒ HANAUER
☒ TEDESCO/MACCARY
☒ EISENHUT
☒ BAER
☒ SHAO
☒ VOLLMER/BUNCH
☒ KREGER/J. COLLINS

EXTERNAL DISTRIBUTION

☒ LPDR: Cedar Rapids, Io.
☒ TIC:
☒ WSIC:

CONTROL NUMBER

6443

IOWA ELECTRIC LIGHT AND POWER COMPANY

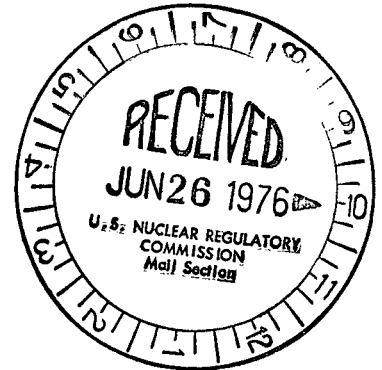
DUANE ARNOLD ENERGY CENTER

P. O. Box 351

Cedar Rapids, Iowa 52406

JUNE 23, 1976

DAEC -76 -208



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. 76-43
(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,

G. G. Hunt ELH
G. G. Hunt

Chief Engineer
Duane Arnold Energy Center

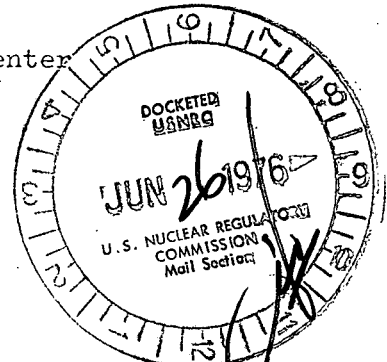
Docket 50-331

attachment

GGH/DLW/mg

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



Regulatory Docket File

6443

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 2 3 4 5 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME <div style="border: 1px solid black; padding: 2px; display: inline-block;">01</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">I</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">D</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">C</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div>	LICENSE NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">-</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">-</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div>	LICENSE TYPE <div style="border: 1px solid black; padding: 2px; display: inline-block;">4</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div>	EVENT TYPE <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div>		
CATEGORY <div style="border: 1px solid black; padding: 2px; display: inline-block;">01</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">CONT</div>	REPORT TYPE <div style="border: 1px solid black; padding: 2px; display: inline-block;">T</div>	REPORT SOURCE <div style="border: 1px solid black; padding: 2px; display: inline-block;">L</div>	DOCKET NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">5</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">-</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div>	EVENT DATE <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">6</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">7</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">6</div>	REPORT DATE <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">6</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">3</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">7</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">6</div>

EVENT DESCRIPTION

<div style="border: 1px solid black; padding: 2px;">02</div>	While performing monthly Surveillance Test 48001 on diesel, it tripped	80
<div style="border: 1px solid black; padding: 2px;">03</div>	on jacket high temperature. Due to the potential serious nature of this	80
<div style="border: 1px solid black; padding: 2px;">04</div>	event, a supplemental report is attached. (R076-43) 14 day	80
<div style="border: 1px solid black; padding: 2px;">05</div>		80
<div style="border: 1px solid black; padding: 2px;">06</div>		80

SYSTEM CODE <div style="border: 1px solid black; padding: 2px; display: inline-block;">W</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div>	CAUSE CODE <div style="border: 1px solid black; padding: 2px; display: inline-block;">E</div>	COMPONENT CODE <div style="border: 1px solid black; padding: 2px; display: inline-block;">F</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">I</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">L</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">T</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">E</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">R</div>	PRIME COMPONENT SUPPLIER <div style="border: 1px solid black; padding: 2px; display: inline-block;">A</div>	COMPONENT MANUFACTURER <div style="border: 1px solid black; padding: 2px; display: inline-block;">Z</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div>	VIOLATION <div style="border: 1px solid black; padding: 2px; display: inline-block;">N</div>
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CAUSE DESCRIPTION

<div style="border: 1px solid black; padding: 2px;">08</div>	The diesel jacket high temperature trip was caused by a low flow condi-	80
<div style="border: 1px solid black; padding: 2px;">09</div>	tion in the Emergency Service Water system. Strainer plugging due to a	80
<div style="border: 1px solid black; padding: 2px;">10</div>	buildup of mud caused the low flow.	80

FACILITY STATUS <div style="border: 1px solid black; padding: 2px; display: inline-block;">E</div>	% POWER <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">7</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">6</div>	OTHER STATUS <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>	METHOD OF DISCOVERY <div style="border: 1px solid black; padding: 2px; display: inline-block;">B</div>	DISCOVERY DESCRIPTION Surveillance Testing
FORM OF ACTIVITY RELEASED <div style="border: 1px solid black; padding: 2px; display: inline-block;">Z</div>	CONTENT OF RELEASE <div style="border: 1px solid black; padding: 2px; display: inline-block;">Z</div>	AMOUNT OF ACTIVITY <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>	LOCATION OF RELEASE <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>	

PERSONNEL EXPOSURES

<div style="border: 1px solid black; padding: 2px;">13</div>	NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div>	TYPE <div style="border: 1px solid black; padding: 2px; display: inline-block;">Z</div>	DESCRIPTION <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>
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PERSONNEL INJURIES

<div style="border: 1px solid black; padding: 2px;">14</div>	NUMBER <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div>	DESCRIPTION <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>
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OFFSITE CONSEQUENCES

<div style="border: 1px solid black; padding: 2px;">15</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>	80
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LOSS OR DAMAGE TO FACILITY

<div style="border: 1px solid black; padding: 2px;">16</div>	TYPE <div style="border: 1px solid black; padding: 2px; display: inline-block;">Z</div>	DESCRIPTION <div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>
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PUBLICITY

<div style="border: 1px solid black; padding: 2px;">17</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">NA</div>	80
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ADDITIONAL FACTORS

<div style="border: 1px solid black; padding: 2px;">18</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> </div>	80
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<div style="border: 1px solid black; padding: 2px;">19</div>	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> </div>	80
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NAME: E. Hammond

PHONE: 319-851-5611

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data

Licensee Event Report Date: 6/23/76

Reportable Occurrence No: RO 76-43

Description of Occurrence

While performing monthly Surveillance Test 48001 on the diesel generators, 1G-31 diesel tripped on jacket high coolant temperature.

Cause of Occurrence

The diesel jacket high coolant temperature trip was caused by a low flow condition in the Emergency Service Water system. The pump discharge strainer became plugged due to a buildup of mud thus it caused low flow to the diesel.

Analysis of Occurrence

The 1G-31 diesel was declared inoperable and the other Emergency Service Water system and associated diesel were demonstrated to be operable for 1 hour and 40 minutes with no increase in jacket coolant temperature. As this diesel loop was operable there were no unsafe conditions present.

Corrective Action

During the recent refueling, a design change was initiated to increase the cooling air flow in certain portions of the HPCI room thus the Emergency Service Water system flow was not required for the room coolers on a continuous basis. As the ESW pumps have not been running as much as before refueling, the potential for mud and silt buildup in the ESW pits has increased.

The following actions have been taken with Operations Committee approval:

- a) Remove mud and silt from pit with an eductor.
- b) Run ESW pump continuously until resolution of mud and silt problem.
- c) Make one ESW loop inoperable and use its pump to remove remaining mud and silt via a temporary hose connection on discharge of pump.

Since item a) and b) above have been accomplished, there has been no significant increase in strainer ΔP .

A design change request has been initiated to provide a sparger arrangement at the bottom of the ESW pits to prevent mud and silt buildup. A program will be established to determine the effectiveness of the final design change configuration.

June 23, 1976

Page 2

Until the design change is implemented, a monitoring program will be established to determine the appropriate time that the ESW pumps can be idle with no sparger agitation and no strainer plugging.

D. Lasham

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

P. O. Box 351

Cedar Rapids, Iowa 52406

JUNE 23, 1976

DAEC -76 -208



50-331

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. 76-43
(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,

G. G. Hunt ELH
G. G. Hunt

Chief Engineer
Duane Arnold Energy Center

Docket 50-331

attachment

GGH/DLW/mg

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

6519

JUN 25 1976

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data

Licensee Event Report Date: 6/23/76

Reportable Occurrence No: RO 76-43

Description of Occurrence

While performing monthly Surveillance Test 48001 on the diesel generators, 1G-31 diesel tripped on jacket high coolant temperature.

Cause of Occurrence

The diesel jacket high coolant temperature trip was caused by a low flow condition in the Emergency Service Water system. The pump discharge strainer became plugged due to a buildup of mud thus it caused low flow to the diesel.

Analysis of Occurrence

The 1G-31 diesel was declared inoperable and the other Emergency Service Water system and associated diesel were demonstrated to be operable for 1 hour and 40 minutes with no increase in jacket coolant temperature. As this diesel loop was operable there were no unsafe conditions present.

Corrective Action

During the recent refueling, a design change was initiated to increase the cooling air flow in certain portions of the HPCI room thus the Emergency Service Water system flow was not required for the room coolers on a continuous basis. As the ESW pumps have not been running as much as before refueling, the potential for mud and silt buildup in the ESW pits has increased.

The following actions have been taken with Operations Committee approval:

- a) Remove mud and silt from pit with an eductor.
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- c) Make one ESW loop inoperable and use its pump to remove remaining mud and silt via a temporary hose connection on discharge of pump.

Since item a) and b) above have been accomplished, there has been no significant increase in strainer ΔP .

A design change request has been initiated to provide a sparger arrangement at the bottom of the ESW pits to prevent mud and silt buildup. A program will be established to determine the effectiveness of the final design change configuration.

Until the design change is implemented, a monitoring program will be established to determine the appropriate time that the ESW pumps can be idle with no sparger agitation and no strainer plugging.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

6/28/76

Incident Notification From: Iowa Electric Light & Power Co. 50-331
(Licensee & Docket No. (or License No.))

Transmittal Date: June 28, 1976 Duane Arnold Energy Center

Distribution:

IE Chief, FOSB
IE Chief, FC&EB
IE:HQ(4)
Licensing(4)
DR Central Files
IE Files

Distribution:

IE Chief, FOSB
IE Chief, FC&EB
IE:HQ(4)
L:D/D for Fuels & Materials
DR Central Files
IE Files

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

P. O. Box 351

Cedar Rapids, Iowa 52406

June 22, 1976

DAEC -76 -206

(Mr. James G. Keppler, Director)
Office of Inspection and Enforcement-Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Prompt Notification of a
Reportable Occurrence

File: A-118a

Dear Mr. Keppler:

This letter, telecopied to your office, is intended to satisfy the requirement for prompt notification of a Reportable Occurrence in accordance with Specification 6.11.2.a of the Duane Arnold Energy Center Technical Specifications.

Technical Specification paragraph(s) violated: 3.8.C.1

Description Occurrence: While performing surveillance test 48A001 operability test on 1G-31 diesel, "A" Emergency service water pump strainer became plugged. This caused loss of cooling water flow to the diesel.

Very truly yours,

G. G. Hunt EAH
G. G. Hunt

Chief Engineer

Duane Arnold Energy Center

GGH/DLW/mg

RO 76-43

Director, Management Information and Program Control (2)

U. S. Nuclear Regulatory Commission

Washington, D.C. 20555

JUN 28 1976