

50-331

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO: James G. Keppler

FROM: Iowa Elect. Light and Power Co.
Cedar Rapids, Iowa 52406
Ellery L. Hammond

DATE OF DOCUMENT

1-25-77

DATE RECEIVED

1-31-77

☒ LETTER☐ NOTORIZED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED

☐ ORIGINAL☒ UNCLASSIFIED☒ COPY

30 copies

DESCRIPTION

Ltr. Trans The Following:

(1 page)

PLANT NAME: DUANE ARNOLD

**DO NOT REMOVE
ACKNOWLEDGED**

ENCLOSURE

Licensee Event Report (RO-50-331/77-5) on 01-12-77 concerning 12 of 16 main steam line high flow instruments were found to be out of calibration during surveillance testing due to instrument drift...

(30 encl rec'd)

(2 pages)

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

FOR ACTION/INFORMATION

JCM 2-2-77

<input checked="" type="checkbox"/>	BRANCH CHIEF:	LEAR
<input type="checkbox"/>	W/3 CYS FOR ACTION	
<input checked="" type="checkbox"/>	LIC. ASST.:	PARRISH
<input type="checkbox"/>	W/1 CYS	
<input checked="" type="checkbox"/>	ACRS 16 CYS HOLDING/SENT	Cat "B" on 2-2-77

INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/>	REG FILE
<input checked="" type="checkbox"/>	NRC-PDR
<input checked="" type="checkbox"/>	I & E (2)
<input checked="" type="checkbox"/>	MIPC
<input checked="" type="checkbox"/>	SCHROEDER/IPPOLITO
<input checked="" type="checkbox"/>	HOUSTON
<input checked="" type="checkbox"/>	NOVAK/CHECK
<input checked="" type="checkbox"/>	GRIMES
<input checked="" type="checkbox"/>	CASE
<input checked="" type="checkbox"/>	BUTLER
<input checked="" type="checkbox"/>	HANAUER
<input checked="" type="checkbox"/>	TEDESCO/MACCARY
<input checked="" type="checkbox"/>	EISENHUT
<input checked="" type="checkbox"/>	BAER
<input checked="" type="checkbox"/>	SHAO
<input checked="" type="checkbox"/>	VOLLMER/BUNCH
<input checked="" type="checkbox"/>	KREGER/J. COLLINS

EXTERNAL DISTRIBUTION

<input checked="" type="checkbox"/>	LPDR: Cedar Rapids, IA
<input checked="" type="checkbox"/>	TIC:
<input checked="" type="checkbox"/>	NSIC:

CONTROL NUMBER

1031 60 a/b

Regulatory Docket File

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER

P. O. Box 351

Cedar Rapids, Iowa 52406

January 25, 1977

DAEC - 77 - 56

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. 77-5
(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

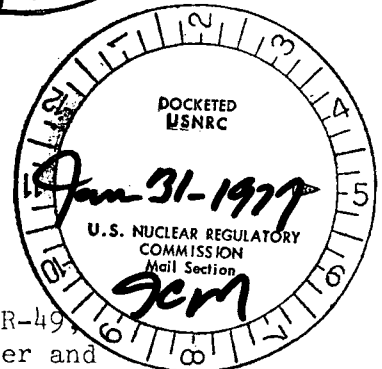
Docket 50-331

attachment

ELH/JVS/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



LICENSEE EVENT REPORT

CONTROL BLOCK: 1 2 3 4 5 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME														LICENSE NUMBER										LICENSE TYPE					EVENT TYPE	
01	I	A	D	A	C	1	0	0	-	0	0	0	0	-	0	0	4	1	1	1	1	0	1							
7	8	9				14	15										25	26					30	31	32					

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER					EVENT DATE					REPORT DATE											
01	CON'T		T	L	0	5	0	-	0	3	3	1	0	1	1	2	7	7	0	1	2	5	7	7	
7	8	57	58	59	60	61						68	69							74	75				80

EVENT DESCRIPTION

02	During Surveillance Testing 12 of 16 main steam line high flow instrume																								80
03	nts were found to be out of calibration. The requirement to have at lea																								80
04	st 2 operable channels per steam line was not met on 3 main steam lines.																								80
05	Repetitive occurrence. The instruments were recalibrated to less than																								80
06	the limiting safety setting and functionally tested. (RO 77-5)																								80

SYSTEM CODE		CAUSE CODE		COMPONENT CODE				PRIME COMPONENT SUPPLIER		COMPONENT MANUFACTURER				VIOLATION	
07	C	D	E	I	N	S	T	R	U	N	B	O	8	0	Y
7	8	9	10	11	12				17	43	44			47	48

CAUSE DESCRIPTION

08	Instrument drift. The instruments are Barton Model 288 pressure differe																								80
09	ntial indicating switches. Functional surveillance tests on these switc																								80
10	hes will be modified to require calibration if the as found setting is																								80

FACILITY STATUS		% POWER		OTHER STATUS				METHOD OF DISCOVERY		DISCOVERY DESCRIPTION					
11	E	0	8	3	NA				B	Surveillance Test					
7	8	9	10	12	13				44	45	46				80

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE		AMOUNT OF ACTIVITY				LOCATION OF RELEASE					
12	Z	Z	NA				NA						
7	8	9	10	11				44	45				80

PERSONNEL EXPOSURES

NUMBER		TYPE		DESCRIPTION										
13	0	0	0	Z	NA									
7	8	9	11	12	13								80	

PERSONNEL INJURIES

NUMBER		DESCRIPTION											
14	0	0	0	NA									
7	8	9	11	12									80

OFFSITE CONSEQUENCES

15	NA																								80
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LOSS OR DAMAGE TO FACILITY

TYPE		DESCRIPTION																							
16	Z	NA																							
7	8	9	10																						80

PUBLICITY

17	NA																								80
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ADDITIONAL FACTORS

18	Cause Desc. Cont. - greater than the limiting safety setting. In addition																								80
19	setpoint lock screws will be installed in these instruments.																								80

NAME: J. Van Sickel PHONE: 319-851-5611

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

LICENSEE EVENT REPORT-Supplemental Data

Licensee Event Report Date: 012577

Reportable Occurrence No: 77-5

Description of Occurrence

During Surveillance Testing on January 12, 1977 12 of 16 Main Steam Line High Flow Instruments were found to be out of calibration in the non conservative direction. The Technical Specification requirement to have 2 operable channels per steam line was not met on 3 of 4 main steam lines. The limiting safety setting is 115 PSID with a tolerance range of ± 3 PSID. The out-of-calibration instruments and their as found values are as follows:

<u>"A" Steam Line</u>	<u>"B" Steam Line</u>	<u>"C" Steam Line</u>	<u>"D" Steam Line</u>
4432A - 122	4434C - 119.5	4436A - 119	4438A - 120
4432B - 120		4436B - 123	4438B - 119
4432C - 122		4436C - 124.5	4438D - 121
4432D - 119		4436D - 120	

Cause of Occurrence

The immediate cause of this occurrence was non conservative instrument drift. A secondary cause was an inadequate surveillance test procedure. The testing requirement for these switches is a functional test every month and calibration every 3 months. The functional test did not require that the instrument be recalibrated if the as found setpoint exceeds the limiting safety setting but is still within the tolerance range.

Analysis of Occurrence

Although the high flow instrumentation setpoint was higher than the limiting safety setting, isolation would have occurred but a slightly higher flow value. Isolation protection for the steam line break situation, which the high flow instrumentation is designed to detect, was available in that main steam line low pressure, main steam line area high temperature and turbine building high temperature instrumentation were all operable.

Corrective Action

The instruments were calibrated to less than the limiting safety setting and functionally tested. The surveillance test procedure functional test will be modified to require that calibration be done on these instruments if the as found setpoint exceeds the limiting safety setting. Setpoint lock screws will be installed in all main steam line high flow instruments which should help curb the drift problem. Also, a monthly calibration will be performed for a three month period to determine if the problem has been corrected.

D. Latham

IOWA ELECTRIC LIGHT AND POWER COMPANY

DUANE ARNOLD ENERGY CENTER
P. O. Box 351
Cedar Rapids, Iowa 52406
January 25, 1977
DAEC - 77 - 56



Mr. James G. Keppler, Director ✓
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission-Region III
799 Roosevelt Road
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(14 day)

File: A-118a

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Very truly yours,

Ellery L. Hammond

Ellery L. Hammond
Chief Engineer
Duane Arnold Energy Center

Docket 50-331

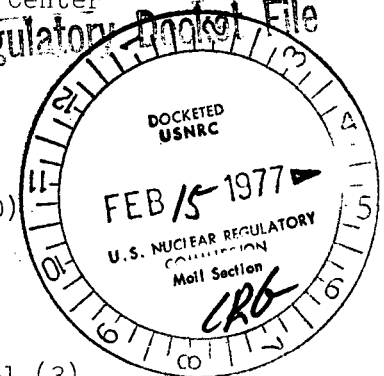
attachment

ELH/JVS/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



1596

JAN 31 1977

LICENSEE EVENT REPORT

CONTROL BLOCK:

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1 6

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME										LICENSE NUMBER										LICENSE TYPE					EVENT TYPE	
01	I	A	D	A	C	1	0	0	-	0	0	0	0	-	0	0	4	1	1	1	1	0	1			
7	8	9				14	15									25	26					30	31	32		

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER							EVENT DATE					REPORT DATE							
01	CON'T	T	L	0	5	0	-	0	3	3	1	0	1	1	2	7	7	0	1	2	5	7	7
7	8	57	58	59	60	61					66	69				74	75					80	

EVENT DESCRIPTION

02	During Surveillance Testing 12 of 16 main steam line high flow instrume	80
7 8 9		
03	nts were found to be out of calibration. The requirement to have at lea	80
7 8 9		
04	st 2 operable channels per steam line was not met on 3 main steam lines.	80
7 8 9		
05	Repetitive occurrence. The instruments were recalibrated to less than	80
7 8 9		
06	the limiting safety setting and functionally tested. (RO 77-5)	80
7 8 9		
	PRIME	80

SYSTEM CODE: 07 C D
 CAUSE CODE: E
 COMPONENT CODE: I N S T R U
 PRIME COMPONENT SUPPLIER: N
 COMPONENT MANUFACTURER: B O 8 0
 VIOLATION: Y

CAUSE DESCRIPTION

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09	ntial indicating switches. Functional surveillance tests on these switc	80
10	hes will be modified to require calibration if the as found setting is	80

FACILITY STATUS		% POWER			OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
11	E	0	8	3	NA		B	Surveillance Test		
7	8	9	10	11	12	13	14	15	16	17
FORM OF										

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE		AMOUNT OF ACTIVITY		LOCATION OF RELEASE	
1	2	Z		NA		NA	
7	8	9	10	11	44	45	80

PERSONNEL EXPOSURES

NUMBER				TYPE	DESCRIPTION
1	3	0	0	0	Z NA

PERSONNEL INJURIES

NUMBER			DESCRIPTION
1	4		NA

OFFSITE CONSEQUENCES

15	NA
89	80

LOSS OR DAMAGE TO FACILITY

TYPE		DESCRIPTION
16	Z	NA

PUBLICITY

17	NA
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ADDITIONAL FACTORS

18	Cause Desc. Cont. - greater than the limiting safety setting. In addition	80
89	setpoint lock screws will be installed in these instruments.	
19		
89		

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