

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8704070381      DOC. DATE: 87/04/01      NOTARIZED: NO      DOCKET #  
 FACIL: 50-331 Duane Arnold Energy Center, Iowa Electric Light & Pow      05000331  
 AUTH. NAME      AUTHOR AFFILIATION  
 CREW, V.      Iowa Electric Light & Power Co.  
 MINECK, D.L.      Iowa Electric Light & Power Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 87-002-01: on 870214, automatic isolation of control bldg ventilation sys & initiation of standby filter unit B occurred due to down-scale trip from air inlet radiation monitor. Caused by incorrect setting of monitor. w/870401 ltr.

DISTRIBUTION CODE: IE220      COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD3-1 LA	1 1	PD3-1 PD	1 1
	CAPPUCCI, A	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	1 1
	ACRS WYLIE	1 1	AEOD/DOA	1 1
	AEUD/DSP/ROAB	2 2	AEOD/DSP/TAPB	1 1
	NRR/ADT	1 1	NRR/DEST/ADE	1 0
	NRR/DEST/ADS	1 0	NRR/DEST/CEB	1 1
	NRR/DEST/ELB	1 1	NRR/DEST/ICSB	1 1
	NRR/DEST/MEB	1 1	NRR/DEST/MTB	1 1
	NRR/DEST/PSB	1 1	NRR/DEST/RSB	1 1
	NRR/DEST/SGB	1 1	NRR/DLPQ/HFB	1 1
	NRR/DLPQ/GAB	1 1	NRR/DUEA/EAB	1 1
	NRR/DREP/EPB	1 1	NRR/DREP/RAB	1 1
	NRR/PMAS/ILRB	1 1	NRR/PMAS/PTSB	1 1
	<u>RES FILE</u> 02	1 1	RES SPEIS, T	1 1
	RGN3 FILE 01	1 1		
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Duane Arnold Energy Center</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 3 1</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4)  
**Actuation of Standby Filter Unit Due to Spurious Downscale of Radiation Monitor**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																																																								
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)																																																						
02	14	87	87	002	01	04	01	87	None		0 5 0 0 0																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">OPERATING MODE (9)</td> <td colspan="10">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td colspan="2">N</td> <td>20.402(b)</td> <td>20.405(c)</td> <td>X</td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td colspan="2">POWER LEVEL (10) 01716</td> <td>20.405(a)(1)(i)</td> <td>50.38(c)(1)</td> <td></td> <td>50.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(ii)</td> <td>50.38(c)(2)</td> <td></td> <td>50.73(a)(2)(vii)</td> <td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(iii)</td> <td>50.73(a)(2)(i)</td> <td></td> <td>50.73(a)(2)(viii)(A)</td> <td></td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(viii)(B)</td> <td></td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(ix)</td> <td></td> </tr> </table>												OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										N		20.402(b)	20.405(c)	X	50.73(a)(2)(iv)	73.71(b)	POWER LEVEL (10) 01716		20.405(a)(1)(i)	50.38(c)(1)		50.73(a)(2)(v)	73.71(c)			20.405(a)(1)(ii)	50.38(c)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)			20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)				20.405(a)(1)(iv)	50.73(a)(2)(iii)		50.73(a)(2)(viii)(B)				20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(ix)	
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LICENSEE CONTACT FOR THIS LER (12)

NAME <b>Valerie Crew, Technical Support Engineer</b>	TELEPHONE NUMBER <b>3 1 9 8 5 1 - 7 4 3 3</b>
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	VIRIISI		N01315	NO					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15) MONTH:    DAY:    YEAR:
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On February 14, 1987 with the reactor in run mode, an automatic isolation of the Control Building ventilation system and initiation of the 'B' Standby Filter Unit (SFU) occurred as a result of a spurious downscale trip from the air inlet radiation monitor. This constitutes an unplanned actuation of an Engineering Safety Feature and is reportable per 10 CFR 50.73(a)(2)(iv). The root cause of this event was an incorrect setting of the downscale trip point of the radiation monitor. The trip setting was very close to the normal operating range of these instruments.

As corrective actions, personnel involved with this project were counselled. The downscale setpoint of the instrument is being lowered per the vendor recommendation to alleviate this problem. The SFU was reset and declared operable on February 14 after investigation into the cause of the incident. The SFU initiated and functioned as designed during this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)  Duane Arnold Energy Center	DOCKET NUMBER (2)  0   5   0   0   0   3   3   1	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		87	0102	01	02	OF 03

TEXT (If more space is required, use additional NRC Form 388A's) (17)

On February 14, 1987 with the reactor at 76.4% power, an automatic isolation of the Control Building ventilation system and initiation of the 'B' Standby Filter Unit (SFU) occurred at 0330 as a result of a spurious downscale trip from the air inlet radiation monitor. This constitutes an unplanned actuation of an Engineering Safety Feature and is reportable per 10 CFR 50.73(a)(2)(iv). The root cause of this event was an incorrect setting of the downscale trip point of the radiation monitor. The incorrect setting was specified on installation. The trip setting was very close to the normal operating range of the instrument. The two SFU radiation monitors were replaced and relocated in November 1986 with newer models. This event is the first downscale trip of either monitor. The SFU was reset and declared operable at 1153 on February 14.

The Control Building ventilation system will isolate the building from the normal outside air intake and recirculate the ventilation air through the essential switchgear rooms, battery rooms, and the control room on inlet air high radiation or low temperature. The safety-related functions of the SFU's and Control Building isolation is to minimize operator radiation exposure by filtration of the make-up outside air being provided in place of full flow make-up. In addition, the system supplies treated make-up air through the Standby Filter Units (EIIS system code VI) to balance the exhaust of the battery rooms.

The function of this radiation monitor (EIIS System Code IL) (EIIS component code IL-RIS-6101B) is to provide the isolation signal for the Control Building Atmosphere on a high radiation signal. This instrument also will isolate the control building ventilation system and initiate the Standby Filter Unit on a downscale trip, indicating an inoperative monitor. The high alarm setpoint of the radiation monitor is 5.0 millirem/hr.

The instrument is set to provide a downscale (inoperative) trip at 0.05 millirem/hr. There is a radioactive source inside this instrument to keep it from drifting downscale. The source combined with the natural background of the system are calibrated together to equal 0.1 millirem/hr, but this will fluctuate with variance in the natural background. In this instance, the background and the source drifted downward to the downscale setpoint of 0.05 millirem/hr.

Personnel involved with this project were aware prior to the equipment being placed in service that the potential for a downscale trip existed with the .05 millirem trip setpoint. They were counselled of their responsibilities to communicate with others concerning problems and to ensure corrective actions are implemented.

As further corrective actions, the downscale trip point is being lowered per vendor recommendations. The 0.05 millirem/hr setting is currently the lowest indication of the monitor dial, although room exists between this indication and the downscale stop peg. In order to properly

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FACILITY NAME (1)  Duane Arnold Energy Center	DOCKET NUMBER (2)  0   5   0   0   0   3   3   1	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8   7	-   0   0   2	-   0   1	0   3	OF	0   3

TEXT (If more space is required, use additional NRC Form 388A's) (17)

properly calibrate the downscale trip setting, a modification to the monitor dial will also be performed to provide an indication for the lower trip point. These corrective actions will be completed before startup from the spring, 1987 refuel outage. This will allow continued operation of the system in its normal range with the expected variance due to natural background radiation levels and will not interfere with the function of the downscale trip point on this monitor.

There was no effect on the safe operation of the plant from this event. The SFU functioned as designed. The radiation monitor performed conservatively in initiating the control room ventilation isolation and SFU initiation.

Iowa Electric Light and Power Company

April 1, 1987  
DAEC-87- 0297

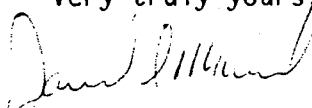
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Subject: Duane Arnold Energy Center  
Docket No. 50-331  
Op. License DPR-49  
Licensee Event Report No. 87-002, Revision 1

Gentlemen:

In accordance with 10 CFR 50.73 please find attached a copy of the subject revised Licensee Event Report.

Very truly yours,



Daniel L. Mineck  
Plant Superintendent - Nuclear

DLM/VJC/go

Attachment - LER 87-002, Revisions 1

cc: Mr. A. Bert Davis  
Regional Administrator  
Region III  
U. S. Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

NRC Resident Inspector - DAEC

File A-118a

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11