

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9203260230 DOC. DATE: 92/03/23 NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylvania 05000387
 AUTH. NAME AUTHOR AFFILIATION
 WEHRY, R.R. Pennsylvania Power & Light Co.
 STANLEY, H.G. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-004-00: on 920220, determined that operator was unable to open Unit 2 drywell nitrogen make-up outboard isolation valve. Caused by failure of a relay circuit board in Standby Gas Treatment Sys. Relay board was replaced. W/920323 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: LPDR 1 cy Transcripts. 05000387

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INTERNAL:	ACNW		2	2		ACRS		2	2	
	AEOD/DOA		1	1		AEOD/DSP/TPAB		1	1	
	AEOD/ROAB/DSP		2	2		NRR/DET/EMEB 7E		1	1	
	NRR/DLPQ/LHFB10		1	1		NRR/DLPQ/LPEB10		1	1	
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	NRR/DST/SPLB8D1		1	1		NRR/DST/SRXB 8E		1	1	
	REG FILE 02		1	1		RES/DSIR/EIB		1	1	
	RGNI FILE 01		1	1						
EXTERNAL:	EG&G BRYCE, J.H		3	3		L ST LOBBY WARD		1	1	
	NRC PDR		1	1		NSIC MURPHY, G.A		1	1	
	NSIC POORE, W.		1	1		NUDOCS FULL TXT		1	1	
NOTES:			2	2						

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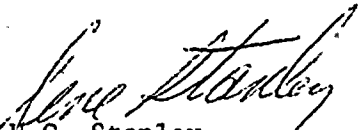
March 23, 1992

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 92-004-00
FILE R41-2
PLAS - 520

Docket No. 50-387
License No. NPF-14

Attached is Licensee Event Report 92-004-00. This event was determined reportable per 10CFR50.73(a)(2)(iv) in that an unplanned Engineered Safety Feature (ESF) logic actuation occurred due to failure of a relay circuit board. Actuation of the ESF logic affected containment isolation valves on Unit 1 and Unit 2 for drywell nitrogen make-up and drywell vent bypass lines.


H.G. Stanley
Superintendent of Plant - Susquehanna

RRW/mjm

cc: Mr. T. T. Martin
Regional Administrator, Region I
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200047

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Handwritten initials/signature

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 8 1 7	PAGE (3) 1 OF 0 3
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TITLE (4)
Unplanned ESF Logic Actuation When Relay Circuit Board Failed

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)
0 2	2 0	9 2	9 2	0 0 4	0 0	0 3	2 3	9 2	SSES - Unit 2		0 5 0 0 0 3 8 1 8
											0 5 0 0 0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											
POWER LEVEL (10) 0 9 1	20.402(b)			20.406(c)			<input checked="" type="checkbox"/> 60.73(a)(2)(iv)			73.71(b)		
	20.406(a)(1)(i)			60.36(c)(1)			60.73(a)(2)(v)			73.71(c)		
	20.406(a)(1)(ii)			60.36(c)(2)			60.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	20.406(a)(1)(iii)			60.73(a)(2)(ii)			60.73(a)(2)(viii)(A)					
	20.406(a)(1)(iv)			60.73(a)(2)(iii)			60.73(a)(2)(viii)(B)					
	20.406(a)(1)(v)			60.73(a)(2)(i)			60.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)

NAME Richard R. Wehry - Compliance Evaluator	TELEPHONE NUMBER
	AREA CODE: 7 1 1 7 NUMBER: 5 1 4 1 2 1 - 1 3 1 6 1 4

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
X	BIH	IRIIS	G101810	Y					

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

On February 20, 1992, with Unit 1 in Condition 1 at 91% power and Unit 2 in Condition 1 at 100% power, operators were preparing to add nitrogen to the Unit 2 drywell. The operator was unable to open the Unit 2 drywell nitrogen make-up outboard isolation valve. Further investigation determined that neither the corresponding isolation valve on Unit 1 nor the drywell vent bypass outboard isolation valves on either unit could be opened. The root cause of the event was attributed to failure of a relay circuit board in the Standby Gas Treatment System exhaust radiation monitoring circuit. Failure of the circuit board resulted in an isolation signal which prevented the subject valves from opening. Although all the subject isolation valves were already in the closed position, failure of the circuit board resulted in actuation of ESF logic, thus constituting an unplanned ESF actuation. The circuit board was replaced and satisfactorily retested. There were no safety consequences or compromise to public health or safety as a result of the unplanned ESF logic actuation.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Unit 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 2	- 0 0 4	- 0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

DESCRIPTION OF EVENT

On February 20, 1992, with Unit 1 in Condition 1 at 91% power and Unit 2 in Condition 1 at 100% power, operators were preparing to add nitrogen to the Unit 2 drywell. The operator was unable to open the Unit 2 drywell nitrogen make-up (EIIS Code: LK) outboard isolation valve. Further investigation revealed that neither the corresponding isolation valve on Unit 1 nor the drywell vent (EIIS Code: LK) bypass isolation valves on either unit could be opened.

CAUSE OF EVENT

The root cause of this event was attributed to failure of a relay circuit board in the Standby Gas Treatment System (SGTS; EIIS Code: BH) exhaust radiation monitoring circuit. Specifically, the failure of relay circuit board subcomponent(s) resulted in internal localized overheating which caused circuit discontinuities and, hence, a faulted output signal from the relay circuit board. This was the only documented failure of this type at Susquehanna.

REPORTABILITY/ANALYSIS

This event was determined reportable per 10CFR50.73(a)(2)(iv) in that an unplanned ESF logic actuation occurred due to failure of the relay circuit board. Actuation of the ESF logic provided an isolation signal to containment isolation valves on Unit 1 and Unit 2 for drywell nitrogen make-up and drywell vent bypass lines. The applicable Limiting Condition for Operation (LCO) ACTION was taken for both units per the Technical Specifications. All affected valves were already in the closed position prior to this occurrence, which is the position the valves would move to on a valid ESF signal. There was no valve movement. As such, there were no safety consequences or compromise to public health or safety as a result of the unplanned ESF logic actuation. In accordance with the guidelines provided in NUREG 1022 Supp. 1 Item 14.1 and 10CFR50.4(d), the required submission date for this report was determined to be March 23, 1992.

CORRECTIVE ACTIONS

The relay circuit board was replaced, satisfactorily retested and the LCOs were cleared on both units.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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FACILITY NAME (1) Unit 1 Susquehanna Steam Electric Station	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9 2	- 0 0 4	- 0 0	0 3	OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

ADDITIONAL INFORMATION

Failed Component Identification:

Component: Radiation Indicator Trip Unit (RIS)
 Manufacturer: General Electric
 Model No.: 129B2802

An industry search via INPO's Nuclear Plant Reliability Data System yielded two similar occurrences in which circuit board traces were found open (circuit discontinuities). In both instances, the cause of the circuit discontinuities was unknown.

Previous Similar Events: None identified.