

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9208200186      DOC. DATE: 92/08/14      NOTARIZED: NO      DOCKET #  
 FACIL: 50-389 Susquehanna Steam Electric Station, Unit 2, Pennsylvania      05000388  
 AUTH. NAME      AUTHOR AFFILIATION  
 LLOYD, H.      Pennsylvania Power & Light Co.  
 STANLEY, H. G      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 92-003-00: on 920717, unplanned ESF actuation occurred during restoration from surveillance testing due to failure of electrical trace on relay board in radiation monitoring device. Defective relay board replaced. 4/920814 ltr.

DISTRIBUTION CODE: IE22Y      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, MAXWELL, G      05000388/

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	PD1-2 LA	1 1	PD1-2 PD	1 1	A
	RALEIGH, J.	1 1			D
INTERNAL:	ACNW	2 2	ACRS	2 2	D
	AEOB/DOA	1 1	AEOB/DSP/TPAB	1 1	S
	AEOB/ROAB/DSP	2 2	NRR/DET/EMEB 7E	1 1	
	NRR/DLPQ/LHFB10	1 1	NRR/DLPQ/LPEB10	1 1	
	NRR/DOEA/OEAS	1 1	NRR/DREF/PRPB11	2 2	
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	<del>NRR/DST/SPL8B1</del>	1 1	NRR/DST/SRXB 8E	1 1	
	REG FILE 02	1 1	RES/DSIR/EIS	1 1	
	RONI FILE 01	1 1			
EXTERNAL:	EG&G BRYCE, J. H	2 2	L ST LOBBY WARD	1 1	R
	NRC PDR	1 1	NSIC MURPHY, G. A	1 1	I
	NSIC POORE, W.	1 1	NUDOCS FULL TXT	1 1	D

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August 14, 1992

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 92-003-00  
FILE R41-2  
PLAS - 534

Docket No. 50-388  
License No. NPF-22

Attached is Licensee Event Report 92-003-00. This report is being made pursuant to 10CFR50.73(a)(2)(iv), in that an unplanned Engineered Safety Feature actuation occurred when a circuit board in a radiation monitoring device failed during Surveillance Testing. The circuit board failure caused a Reactor Building Zone III ventilation isolation and start of associated equipment. The condition was corrected and all systems returned to normal operation.

H.G. Stanley  
Superintendent of Plant - Susquehanna

HL/mjm

cc: Mr. T. T. Martin  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. G. S. Barber  
Sr. Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 35  
Berwick, PA 18603-0035

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9208200186 920814  
PDR ADOCK 05000388  
S PDR

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 2							DOCKET NUMBER (2) 0 5 0 0 0 3 8 8			PAGE (3) 1 OF 0 3	
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TITLE (4)  
Unplanned ESF Actuation of Rx Bldg Ventilation During Surveillance Testing

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)																																																										
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LICENSEE CONTACT FOR THIS LER (12)

NAME Harrison Lloyd, Jr. - Power Production Engineer							TELEPHONE NUMBER 7 1 1 7 5 4 2 - 1 3 9 1 7				
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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
X	V	A R I L Y	G I O 8 2	YES					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On July 17, 1992, with Units 1 & 2 at 100% power, an unplanned ESF actuation occurred during restoration from surveillance testing of the Refuel Floor Exhaust Radiation Monitoring System. A failed circuit board in a radiation monitoring device relay cause automatic isolation of the Zone III ventilation system and initiation of the Standby Gas Treatment, Control Room Emergency Outside Air, and Ventilation Recirculation Systems. The defective board was replaced and the ventilation systems were restored to normal. The cause of the event was the circuit board failure which is considered an isolated component failure. A contributing factor was the lack of procedural steps to verify system voltage prior to restoration from testing. This event was determined to be reportable per 10CFR50.73(a)(2)(iv) as an unplanned ESF actuation. There were no safety consequences or compromises as a result of this event. The failed device was entered into the equipment performance trending database and procedure changes were generated to verify system voltage prior to restoration from testing.

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-630), 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 2 Susquehanna Steam Electric Station	DOCKET NUMBER (2)  0   5   0   0   0   3   8   8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   2	-   0   0   3	-   0   0	0   2	OF	0   3

TEXT (If more space is required, use additional NRC Form 305A's) (17)

DESCRIPTION OF EVENT

On July 17, 1992, with Units 1 & 2 in Condition 1 at 100% power, an unplanned Engineered Safety Feature (ESF) actuation occurred during restoration from Surveillance Testing; Secondary Containment Isolation: Refuel Floor Exhaust Radiation Monitoring Channel Calibration. Per the procedure a lead had been lifted to prevent the radiation monitor from initiating a Zone III lockout (isolation) while performing the time response portion of the procedure. However, when the lead was re-landed, a Division II Zone III lockout occurred causing a Zone III isolation, start of the "B" Standby Gas Treatment System (SGTS), "B" Control Room Emergency Outside Air Supply System (CREOASS), and the "B" Ventilation Recirculation System. The system response was per design upon actuation. Investigation revealed that an adjacent series relay had failed due to an open in an electrical trace on the relay card. The defective card was replaced and the ventilation systems were restored to normal operation. NRC notification was completed per 10CFR50.72(b)(2)(ii) via the ENS.

CAUSE OF EVENT

The cause of this event was the failure of an electrical trace on a relay board in a radiation monitoring device. The relay containing this failed board was not the one being tested at the time of the event, but its failure was coincidental with the restoration of the relay under test. The failed relay board was adjacent to and in series with the relay under test. The failure is considered an isolated component failure. A causal factor was that the procedure did not contain steps to check system voltage prior to re-landing the lead to ensure the logic was in the proper reset condition. This would not have been necessary had it not been for the failed relay card but it was judged prudent for future performance of the surveillance test.

REPORTABILITY/ANALYSIS

This event was determined to be reportable per 10CFR50.73(a)(2)(iv), in that an unplanned ESF actuation occurred when a circuit board in a radiation monitoring relay failed, causing a Reactor Building Ventilation Zone III isolation and auto-initiation of the SGTS, CREOASS, and Ventilation Recirculation Systems. There were no safety consequences or compromises as a result of this event and the event did not affect our ability to protect the health and safety of the public and/or plant personnel. The systems operated properly and per design upon system initiation. This event would not have been more significant at any other initial operating condition.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 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 2 Susquehanna Steam Electric Station	DOCKET NUMBER (2)  0   5   0   0   0   3   8   8	LER NUMBER (8)			PAGE (3)		
		YEAR 9   2	SEQUENTIAL NUMBER —   0   0   3	REVISION NUMBER —   0   0			

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

In accordance with guidance provided in NUREG 1022, Supplement 1, item 14.1 and 10CFR50.4(d), the required submission date for this report was determined to be August 17, 1992.

CORRECTIVE ACTION

The defective relay board for the radiation monitoring device was replaced. An Instrument Performance Indication corrective action worksheet was completed and entered into the database for equipment performance trending. Procedure changes were generated for the applicable procedures to check system voltage prior to restoration to ensure the logic is in the properly reset condition prior to restoration.

ADDITIONAL INFORMATION

Failed Component Identification: Relay Board  
Manuf: General Electric  
P/N 136B2190G006

Previous Similar Events:

Although there have been previous events involving auto-initiation of Zone III isolation, SGTS, and CREOASS, there were none caused by a failed circuit board in a radiation monitoring device relay.