

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8905160094      DOC. DATE: 89/05/08      NOTARIZED: NO      DOCKET #  
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva      05000387  
 AUTH. NAME      AUTHOR AFFILIATION  
 RUSANOWSKY, P.P.      Pennsylvania Power & Light Co.  
 BYRAM, R.G.      Pennsylvania Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 89-009-00: on 890409, ESF actuation, RHR sample isolation valve, caused by blown fuse.

DISTRIBUTION CODE: IE22D      COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4  
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc. w/8      ltr.

NOTES: LPDR 1 cy Transcripts.

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	PD1-2 LA	1	1		PD1-2 PD	1	1	
	THADANI, M	1	1					
INTERNAL:	ACRS MICHELSON	1	1		ACRS MOELLER	2	2	
	ACRS WYLIE	1	1		AEOD/DOA	1	1	
	AEOD/DSP/TPAB	1	1		AEOD/ROAB/DSP	2	2	
	DEDRO	1	1		IRM/DCTS/DAB	1	1	
	NRR/DEST/ADE 8H	1	1		NRR/DEST/ADS 7E	1	0	
	NRR/DEST/CEB 8H	1	1		NRR/DEST/ESB 8D	1	1	
	NRR/DEST/ICSB 7	1	1		NRR/DEST/MEB 9H	1	1	
	NRR/DEST/MTB 9H	1	1		NRR/DEST/PSB 8D	1	1	
	NRR/DEST/RSB 8E	1	1		NRR/DEST/SGB 8D	1	1	
	NRR/DLPQ/HFB 10	1	1		NRR/DLPQ/QAB 10	1	1	
	NRR/DOEA/EAB 11	1	1		NRR/DREP/RPB 10	2	2	
	NRR/DRIS/SIB 9A	1	1		NUDOCS-ABSTRACT	1	1	
	<u>REG FILE</u> 02	1	1		RES/DSIR/EIB	1	1	
	RES/DSR/PRAB	1	1		RGN1 FILE 01	1	1	
EXTERNAL:	EG&G WILLIAMS, S	4	4		FORD BLDG HOY, A	1	1	
	L ST LOBBY WARD	1	1		LPDR	1	1	
	NRC PDR	1	1		NSIC MAYS, G	1	1	
	NSIC MURPHY, G.A	1	1					
NOTES:		2	2					

NOTE TO ALL "RIDS" RECIPIENTS:

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Susquehanna Steam Electric Station - Unit 1</b>	DOCKET NUMBER (2) <b>0 5 0 0 0 3 8 7</b>	PAGE (3) <b>1 OF 0 3</b>
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TITLE (4)  
**ESF Actuation, RHR Sample Isolation Valve, Caused by a Blown Fuse**

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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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9) <b>5</b></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 rowspan="6">POWER LEVEL (10) <b>0 0 0</b></td> <td>20.402(b)</td> <td>20.405(e)</td> <td><input checked="" type="checkbox"/></td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <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>20.405(a)(1)(ii)</td> <td>50.38(c)(2)</td> <td></td> <td>50.73(a)(2)(vi)</td> <td rowspan="4">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td>20.405(a)(1)(iii)</td> <td>50.73(a)(2)(i)</td> <td></td> <td>50.73(a)(2)(vii)(A)</td> </tr> <tr> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td></td> <td>50.73(a)(2)(vii)(B)</td> </tr> <tr> <td>20.405(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td></td> <td>50.73(a)(2)(x)</td> </tr> </table>												OPERATING MODE (9) <b>5</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										POWER LEVEL (10) <b>0 0 0</b>	20.402(b)	20.405(e)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)	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)(vi)	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)(vii)(A)	20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)	20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)
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LICENSEE CONTACT FOR THIS LER (12)

NAME <b>P.P. Rusanowsky - Power Production Engineer</b>	TELEPHONE NUMBER AREA CODE: <b>7 1 7</b> NUMBER: <b>5 4 2 - 3 7 5 9</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

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)

At approximately 0100 on 4-9-89, with the unit shutdown and in a refueling outage, it was discovered that Residual Heat Removal System sample isolation valve, SV-E11-F079A, had cycled closed. The cause has been attributed to loss of power to the valve solenoid as a result of a blown fuse. The fuse, which didn't appear to have blown as a result of an unusual event or transient, was replaced and the valve was reopened. An Emergency Notification System (ENS) call was made at 0325 on 4-9-89. This event was determined to be reportable per 10CFR50.73(a) (2) (iv) in that the closure of the sample valve, which is designed to automatically close during a loss of coolant accident, constituted an unplanned Engineered Safety Feature (ESF) actuation. Since the valve functioned properly (i.e. failed closed on loss of power per design), there was no compromise to the health or safety of the public.

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PDR ADOCK 05000387  
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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			
		8 9	0 0 9	0 0	0 2	OF	0 3

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

DESCRIPTION OF EVENT

On April 9, 1989, with the unit shutdown and in a refueling outage, the Shift Technical Advisor (STA) was conducting a routine, Control Room panel walkdown. At approximately 0100, the STA noticed that Residual Heat Removal (RHR) System (EIIS Code: BO) inboard sample isolation valve, SV-E11-F079A, had lost its position indication. Further investigation determined that the sample isolation valve had cycled closed. This normally closed valve was open at the time of this event to provide a reactor coolant conductivity sample path with RHR in the shutdown cooling mode.

CAUSE OF EVENT

The cause of this event has been attributed to a blown fuse in that portion of the Primary Containment Isolation System (EIIS Code: JM) which, in addition to providing isolation signals to the sample valve on high containment (drywell) pressure and low reactor water level, supplies power to the valve solenoid and the valve position indication circuit. The fuse didn't appear to have blown as a result of an unusual event or transient.

CORRECTIVE ACTIONS

Electrical Maintenance personnel replaced the blown fuse, the sample valve was reopened and proper valve position indication was confirmed. An Emergency Notification System (ENS) call was made at 0325 on 4-9-89.

REPORTABILITY/ANALYSIS

This event was determined to be reportable per 10CFR50.73(a)(2)(iv) in that the closure of the RHR inboard sample isolation valve constituted an unplanned, Engineered Safety Feature (ESF) actuation.

RHR sample isolation valves, SV-E11-F079A (inboard) and 80A (outboard), receive automatic closure signals from the Primary Containment Isolation System and are thereby constituents of the closed piping system outside containment which, in conjunction with the RHR Pump Suppression Pool Suction Isolation Valve, HV-E11-F004A, is used to satisfy the redundant containment isolation provision for containment penetration X-203A in compliance with 10CFR50, Appendix A, General Design Criterion 54.\*

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

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

The safety function of the RHR sample isolation valves is to close on a loss of coolant accident. Since RHR Sample isolation valve SV-E11-F079A functioned properly (i.e. failed closed on loss of power per design), there was no compromise to the health or safety of the public.

ADDITIONAL INFORMATION

Failed Component Identification: Not applicable.

Previous Similar Events: None.

\* REFERENCES:

- a. FSAR Section 6.2.4 Containment Isolation System.
- b. FSAR Table 6.2-12 Containment Penetration Data.
- c. FSAR Table 6.2-22 Leakage Rate Test List.
- d. Technical Specification Table 3.6.3-1 Primary Containment Isolation Valves.



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215/770-5151

May 8, 1989

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 89-009-00  
FILE R41-2  
PLAS -363

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

Attached is Licensee Event Report 89-009-00. This event was determined to be reportable per 10CFR50.73(a)(2)(iv) in that an unplanned actuation of an Engineered Safety Feature occurred when a Residual Heat Removal system sample valve closed as a result of a blown fuse.

R.G. Byram  
Superintendent of Plant - Susquehanna

PPR/mjm

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