

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9404150238      DOC. DATE: 94/04/12      NOTARIZED: NO      DOCKET #  
 FACIL: 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv      05000388  
 AUTH. NAME      AUTHOR AFFILIATION  
 LLOYD, H.      Pennsylvania Power & Light Co.  
 STANLEY, H.G.      Pennsylvania Power & Light Co.  
 RECIPIENT NAME      RECIPIENT AFFILIATION

SUBJECT: LER 94-005-00: on 940314, reactor instrumentation line excess flow check valve failed its surveillance test. Cause of valve failure not yet determined. Correction action: work documents were generated to replace defective valve. W/940412 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:

	RECIPIENT ID CODE/NAME	COPIES LTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTR ENCL
	PD1-2 PD	1 1	CLARK, R	1 1
INTERNAL:	ACRS	1 1	AEOD/DOA	1 1
	AEOD/DSP/TPAB	1 1	AEOD/ROAB/DSP	2 2
	NRR/DE/EELB	1 1	NRR/DE/EMEB	1 1
	NRR/DORS/OEAB	1 1	NRR/DRCH/HHFB	1 1
	NRR/DRCH/HICB	1 1	NRR/DRCH/HOLB	1 1
	NRR/DRIL/RPEB	1 1	NRR/DRSS/PRPB	2 2
	NRR/DSSA/SPLB	1 1	NRR/DSSA/SRXB	1 1
	REG FILE 02	1 1	RES/DSIR/EIB	1 1
	RGNA FILE 01	1 1		
EXTERNAL:	EG&G BRYCE, J.H	2 2	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

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED  
 TOTAL NUMBER OF COPIES REQUIRED: LTR 28 ENCL 28

A04

R  
I  
D  
S  
/  
A  
D  
D  
S  
/  
A  
D  
D  
S



**Pennsylvania Power & Light Company**

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


April 12, 1994

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 94-005-00  
PLAS -598 FILE R41-2

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

Attached is Licensee Event Report 94-005-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(A), in that a Technical Specification required shutdown was completed following failure of an instrument line excess flow check valve during surveillance testing.

  
H.G. Stanley  
VP - Nuclear Operations

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

9404150238 940412  
PDR ADDCK 05000388  
S PDR

*JE22*

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 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		
--	--	--	--	--	--	--	--------------------------------------	--	--	----------------------	--	--

TITLE (4)  
Technical Specification Required Shutdown Due to Check Valve Surveillance Failure

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 3	1 4	9 4	9 4	0 0 5	0 0	0 4	1 2	9 4			0 5 0 0 0																																													
<table border="1"> <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">1</td> <td>20.402(b)</td> <td>20.405(c)</td> <td>50.73(a)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td colspan="2">POWER LEVEL (10)</td> <td>20.405(a)(1)(i)</td> <td>50.36(c)(1)</td> <td>50.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td colspan="2">0 9 9</td> <td>20.405(a)(1)(ii)</td> <td>50.36(c)(2)</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 colspan="2"></td> <td>20.405(a)(1)(iii)</td> <td>50.73(a)(2)(i)</td> <td>50.73(a)(2)(vii)(A)</td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(iv)</td> <td>50.73(a)(2)(ii)</td> <td>50.73(a)(2)(viii)(B)</td> </tr> <tr> <td colspan="2"></td> <td>20.405(a)(1)(v)</td> <td>50.73(a)(2)(iii)</td> <td>50.73(a)(2)(ix)</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)										1		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)	POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)	0 9 9		20.405(a)(1)(ii)	50.36(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)(viii)(B)			20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																																																						
1		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)																																																			
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)																																																			
0 9 9		20.405(a)(1)(ii)	50.36(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)(viii)(B)																																																				
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)																																																				

LICENSEE CONTACT FOR THIS LER (12)

NAME		TELEPHONE NUMBER	
Harrison Lloyd, Jr. - Power Production Engineer		7 1 7 5 4 2 - 3 9 1 7	

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	N H	I S V	M 0 9 0	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR
0 6	0 1	9 4

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

On March 14, 1994, with Unit 2 at 99% power, a reactor instrumentation line excess flow check valve failed its' surveillance test when it would not seat. The applicable Technical Specification action statement requires isolating the affected instrument line; which in turn rendered the associated instrument (#7 jet pump flow) inoperable. The action statement for the inoperable jet pump flow instrument requires being in at least Hot Shutdown within 12 hours. The shutdown was completed approximately 8 hours after entering the action statement. The cause of the check valve failure has not yet been determined, but following removal of the valve, it will be disassembled to determine the cause. This condition was determined to be reportable per 10CFR50.73(a)(2)(i)(A) in that a Technical Specification required shutdown was completed. There were no safety consequences as a result of this event. Work documents were generated to replace the defective valve. After the cause and any actions to prevent recurrence are identified, an update to this report will be submitted.

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

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

DESCRIPTION OF EVENT

On March 14, 1994, with Unit 2 in Condition 1 (RUN) at 99% power, during performance of surveillance testing of reactor instrumentation line excess flow check valves, one of the excess flow check valves failed the procedure acceptance criteria when it would not seat. The Technical Specification action statement for Primary Containment Isolation Valves was entered, the affected instrument line was isolated, and the associated instrument (jet pump flow for #7 jet pump) was declared inoperable. Inoperability of the jet pump flow instrument resulted in entering the Technical Specification action statement for Jet Pumps which requires being in at least Hot Shutdown within 12 hours. A Technical Specification initiated shutdown was commenced at 0837 hours. The ENS notification as required by 10CFR50.72(b)(1)(i)(A) was completed at 0906 hours. The shutdown was completed at 1650 hours by manually scrambling the reactor from 18.5% power. Unit 2 was scheduled to be shutdown at 2400 hours on 3/14/94 for the Sixth Refueling and Inspection outage. Therefore, this shutdown resulted in starting of the Refueling Outage approximately seven hours earlier than scheduled.

CAUSE OF EVENT

The cause of the Technical Specification required shutdown was the failure of the excess flow check valve during surveillance testing. This failure required entry into a Limiting Condition for Operation action statement which requires being in at least Hot Shutdown within 12 hours. The cause of the excess flow check valve failure has not yet been determined since the valve has not yet been removed. After removal, the valve will be disassembled to attempt to determine the cause of the valve failing to check flow. When this determination has been made, an update to this report will be provided.

REPORTABILITY/ANALYSIS

This condition was determined to be reportable per 10CFR50.73(a)(2)(i)(A) in that a nuclear plant shutdown was completed as required by the plant's Technical Specifications. There were no safety consequences as a result of this event. The plant shutdown was proper and as per design and no difficulties were encountered. There were no compromises to the safety of the public or plant personnel as a result of the inoperable excess flow check valve or as a result of the plant shutdown.

This event would not have been more significant at any other plant operating condition.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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 (6)			PAGE (3)		
		YEAR 9   4	SEQUENTIAL NUMBER —   0   0   5	REVISION NUMBER —   0   0			

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

In accordance with NUREG 1022, Supplement 1, item 14.1, the required submission date for this report was determined to be April 13, 1994.

CORRECTIVE ACTION

The instrument line associated with the failed excess flow check valve was isolated and the required Limiting Condition for Operation action statements were entered. Work documents were generated to replace the defective valve. After removal, the valve will be disassembled to determine the cause of the valve failing to seat. Based on this determination, any additional actions to prevent recurrence will be identified. Any additional corrective actions and/or actions to prevent recurrence will be provided in an update. The expected submission date for the update is June 1, 1994.

ADDITIONAL INFORMATION

Failed Component Identification:

- Valve: Excess Flow Check Valve
- Model: FVL16FD
- Manufacturer: Marotta Valve Corp.

Previous Similar Events:

Although there have been previous reports of Technical Specification required shutdowns, there were none caused by failure of instrument line excess flow check valves.