

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 1	PAGE (3) 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	1	0	7	2	0	9	5			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 9	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(i)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(f)	<input type="checkbox"/> 50.73(a)(2)(v)(ii)		<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(g)	<input type="checkbox"/> 50.73(1)(2)(v)(iii)		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(h)	<input type="checkbox"/> 50.73(1)(2)(v)(iv)			
	<input type="checkbox"/> 20.405(a)(1)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(v)(v)		<input type="checkbox"/> 20.405(a)(1)(vii)	<input type="checkbox"/> 50.73(a)(2)(j)	<input type="checkbox"/> 50.73(a)(2)(v)(vi)		<input type="checkbox"/> 20.405(a)(1)(viii)	<input type="checkbox"/> 50.73(a)(2)(k)	<input type="checkbox"/> 50.73(a)(2)(v)(vii)			
	<input type="checkbox"/> 20.405(a)(1)(viii)	<input type="checkbox"/> 50.73(a)(2)(l)	<input type="checkbox"/> 50.73(a)(2)(v)(viii)											

(LICENSEE CONTACT FOR THIS LER (12))

NAME Richard R. Wehry - Project Engineer, Nuclear Licensing	TELEPHONE NUMBER
	AREA CODE: 7 1 7 NUMBER: 5 4 2 - 3 6 6 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	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

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. 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. The defective valve was replaced. Inspection and evaluation of the failed check valve was unable to determine the exact cause of the failure.

**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	DOCKET NUMBER (2) Susquehanna Steam Electric Station	LER NUMBER (6)						PAGE (3)				
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER						
	0 5 0 0 0 3 8 8	9 4	—	0	0	5	—	0	1	2	OF	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 was 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. After removal, the valve was disassembled and inspected in an attempt to determine the cause of the valve failing to check flow. However, the exact cause of the failure could not be determined.

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 public plant

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

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

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. In accordance with NURED 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. The defective valve was replaced. After removal, the valve was disassembled and inspected in an attempt to determine the cause of the valve failing to seat. However, the exact cause of the failure could not be determined.

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.