

# PRIORITY

(ACCELERATED RIDS PROCESSING)

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9504280107      DOC. DATE: 95/04/21      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 95-003-00: on 950324, reactor instrumentation line excess flow check valve failed surveillance test. Cause not yet been identified. Excess flow check valve replaced & plant put in hot shutdown per TS requirements. W/950421 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:

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April 21, 1995

U.S. Nuclear Regulatory Commission  
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Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION**  
**LICENSEE EVENT REPORT 95-003-00**  
**PLAS- 628                      FILE R41-2**

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

Attached is Licensee Event Report 95-003-00. 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 excess flow check valve during surveillance testing.

  
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VP - Nuclear Operations

/toc

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## 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 7 1 OF 0 3

PAGE (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   | 2    | 4   | 9                 | 5               | 9                | 5   | 0    | 0                             | 3 | 0                | 5  | 0 | 0 | 0 |  |  |
| OPERATING MODE (9) |     |      | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5 : (Check one or more of the following) (11) |                   |                 |                  |     |      |                               |   |                  |  |   |   |   |  |  |
| 1                  |     |      | 20.402(b)   |                   |                 | 20.405(c)        |     |      | 50.73(a)(2)(vi)               |   |                  | 73.71(b)   |   |   |   |  |  |
| POWER LEVEL (10)   |     |      | 20.405(a)(1)(i)   |                   |                 | 50.36(c)(1)      |     |      | 50.73(a)(2)(v)                |   |                  | 73.71(c)   |   |   |   |  |  |
| 1                  |     |      | 20.405(a)(1)(ii)  |                   |                 | 50.36(c)(2)      |     |      | 50.73(a)(2)(vii)              |   |                  | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |   |   |   |  |  |
|                    |     |      | 20.405(a)(1)(iii)   |                   |                 | X 50.73(a)(2)(i) |     |      | 50.73(a)(2)(viii)(A)          |   |                  |  |   |   |   |  |  |
|                    |     |      | 20.405(a)(1)(iv)  |                   |                 | 50.73(a)(2)(ii)  |     |      | 50.73(1)(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                                  | AREA CODE | TELEPHONE NUMBER    |
|---------------------------------------|-----------|---------------------|
| Richard R. Wehry - Licensing Engineer | 7         | 1 7 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 NRC | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRC |   |  |  |  |  |  |  |  |  |  |
|-------|--------|-----------|--------------|-------------------|-------|--------|-----------|--------------|-------------------|---|--|--|--|--|--|--|--|--|--|
| 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 |
|---|----|-------------------------------|-------|-----|------|
|   | X  |                               |       |     |      |

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

At 1555 hours on March 24, 1995, with Unit 1 in Condition 1 (Power Operation) at 100% power, a reactor instrumentation line excess flow check valve failed its surveillance test when the valve failed to exhibit a significant decrease in flow at the point of draining. The Technical Specification Action statement requires a return to operability or line isolation within 4 hours. Having not met either of these, the Technical Specifications requires the unit to be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. This was accomplished at 0120 hours and 1425 hours, respectively, on March 25, 1995 via the planned shutdown for the Unit 1 8th Refueling Outage. 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 or compromises to public health and safety as a result of this event. The excess flow check valve was replaced. The failed excess flow check valve is being disassembled and failure analysis will be performed to attempt to determine its failure mechanism.



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

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

DESCRIPTION OF EVENT

At 1555 hours on March 24, 1995, with Unit 1 in Condition 1 (Power Operation) at 100% power, a reactor instrumentation line excess flow check valve (EILS Code: BD) failed its Technical Specification surveillance test. The valve failed to exhibit a significant decrease in flow at the point of draining. Technical Specification Limiting Condition for Operation (LCO) 3.6.3 Action b. requires that the valve be restored to operability or the line be isolated within 4 hours. Having not accomplished either, Technical Specification LCO 3.6.3 require that the unit be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, which was completed at 0120 and 1425 hours, respectively, on March 25, 1995, via the planned shutdown for the Unit 1 8th Refueling Outage. This 18 month surveillance testing is normally scheduled just prior to a planned unit shutdown.

CAUSE OF EVENT

Technical Specification LCO 3.6.3 Action b. requires a unit shutdown if an excess flow check valve is inoperable and if, within 4 hours, it is not repaired nor its instrument line isolated. The valve could not be repaired and restored to operable status within 4 hours. It was also undesirable to isolate the line, due to the loss of instrument indication which was being monitored by Operations personnel (utility; licensed) during the planned Unit 1 shutdown for its 8th Refueling outage.

The root cause of the excess flow check valve failure has not yet been identified, but failure analysis is being performed to attempt to determine the failure mechanism.

REPORTABILITY / ANALYSIS

This event 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 plan with no difficulties 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.

In accordance with NUREG 1022, Supplement 1, Item 14.1, and 10CRF50.4(d), the required submission date for this report was determined to be April 24, 1995.

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)-

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Unit 1

Susquehanna Steam Electric Station

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| YEAR  | SEQUENTIAL<br>NUMBER | REVISION<br>NUMBER |
|-------|----------------------|--------------------|
| 9   5 | -   0   0   3        | -   0   0          |

0 | 3 | OF | 0 | 3

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

CORRECTIVE ACTION

The required Technical Specification LCO Actions were complied with and Unit 1 was shut down per the planned shutdown for the Unit 1 8th Refueling Outage. The excess flow check valve was replaced. The failed excess flow check valve is being disassembled and failure analysis will be performed to attempt to determine its failure mechanism.

ADDITIONAL INFORMATION

## Failed Component Identification:

Valve: Excess Flow Check Valve

Model: FV16FD

Manufacturer: Marotta Valve Corp.

## Previous Similar Event:

LER50-388 / 94-005-00 documented a shutdown required per the Technical Specification on Susquehanna Unit 2 due to a failed excess flow check valve.

