



Pennsylvania Power & Light Company

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

April 16, 1992

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

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 92-005-00
FILE R41-2
PLAS - 523

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

Attached is Licensee Event Report 92-005-00. This event was determined to be reportable per 10CFR50.73(a)(2)(ii) in that the Main Steam Line penetration leakage exceeded the Technical Specification limit during regularly scheduled Local Leak Rate Testing.

H.G. Stanley
Superintendent of Plant - Susquehanna

JJM/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
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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 1 8 7	PAGE (3) 1 OF 0 1 3
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TITLE (4)
"As Found" Main Steam Line Penetration Leakage Rate Exceeds Technical Specification Limits

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		
0 3	1 9	9 2	9 2	0 0 5	0 0	0 4	1 6	9 2	0 5 0 0 0		

OPERATING MODE (9) 5

POWER LEVEL (10) 0 10 10

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	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 368A)
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	X 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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Joseph J. Meter - Engineer II	TELEPHONE NUMBER 7 1 7 5 4 2 1 - 1 8 7 3
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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	S	B	I S V A 5 8 5	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)

At 1400 hours on March 19, 1992 with Unit 1 in its sixth refueling and inspection outage, an evaluation of data from the scheduled Main Steam Line (MSL) penetration Local Leak Rate Tests (LLRTs) determined that the "as found" leakage through both the inboard and outboard Main Steam Isolation Valves was in excess of the limit of Technical Specification 3.6.1.2(c) for the total MSL containment penetration leakage of 46.0 standard cubic feet per hour (SCFH). The total as found leakage rate was 51.7 SCFH. The evaluation concluded that these results meant that the minimum path leakage (as found) was above authorized limits and therefore reportable per 10CFR50.72(b)(2)(i) and 10CFR50.73(a)(2)(ii).

The "C" MSL inboard and outboard MSIV's were stroked and the "A" outboard MSIV was disassembled and reworked. The total "as left" containment MSL penetration leakage was reduced to 21.23 SCFH. No definitive cause could be attributed to the high "as found" leakage rate.

The leakage rate of this event was bounded by an assessment of previous similar events. Offsite and Control Room doses were found to be within 10CFR100 and 10CFR50 limits.

There was no safety significance or risk to the health and safety of the public attributed to the leakage rate of this event.

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

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

EVENT DESCRIPTION

At 1400 hours on March 19, 1992 with Unit 1 in its sixth refueling and inspection outage (Condition 5, 0% power), evaluation of data from the scheduled Main Steam Line (MSL, EIIS Code: SB) penetration Local Leak Rate Tests (LLRTs) determined that the leakage through both the inboard and outboard Main Steam Isolation Valves (MSIV, EIIS Code: BD) was in excess of the limit of Technical Specification 3.6.1.2(c) for the total MSL containment penetration leakage of 46.0 standard cubic feet per hour (SCFH). The total as found leakage rate was 51.7 SCFH. The evaluation concluded that these results meant that the minimum path leakage (as found) was above authorized limits and therefore reportable per 10CFR50.72(b)(2)(i) and 10CFR50.73(a)(2)(ii).

CAUSE OF EVENT

The high leakage rate was attributed to combined performance of all the Main Steam Isolation Valves. The "A" outboard MSIV was disassembled and the seat was lapped. However, no definitive cause of the high leakage rate could be determined for the "A" outboard or the other MSIV's. In the past, inspection of the MSIV's with significant leakage revealed no unusual conditions (e.g. significant seat or disc damage).

REPORTABILITY/ANALYSIS

This event was determined to be reportable under 10CFR50.73(a)(2)(ii) in that MSL containment penetration leakage through both the inboard and outboard MSIV's was in excess of Technical Specification limits. When this minimum path leakage is above the authorized limits, this constitutes a condition that resulted in the condition of the nuclear power plant, including its principal safety barriers, being degraded.

An assessment of the safety consequences of previous similar events had been performed by Nuclear Plant Engineering. Offsite and Control Room doses were found to be within 10CFR100 and 10CFR50 limits. In the previous cases, the largest total "as found" minimum path MSL containment penetration leakage was 992 SCFH. The assessment took into account the availability of the MSIV Leakage Control System (MSIV-LCS, EIIS Code: BD). The MSIV-LCS is designed to control and minimize the possible release of radioactive gases which could leak through the closed MSIVs following a Loss Of Cooling Accident LOCA. As such, there was no safety significance or risk to the health and safety of the public due to the leakage rate of this event.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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

In accordance with the guidance provided in NUREG 1022 Supplement 1 Items 14.1 and 14.10, the required submission date for this report was determined to be April 20, 1992.

CORRECTIVE ACTIONS

The C MSL inboard and outboard were stroked and the A MSL outboard MSIV was reworked. The rework included valve disassembly, stem replacement, and seat lapping. Following the corrective measures, the respective penetrations were retested and the total "as left" MSL penetration leakage was reduced to 21.23 SCFH.

ADDITIONAL INFORMATION

Past Similar Events: LER 83-062-00, Docket No. 387/License No. NPF-14
 LER 83-064-00, Docket No. 387/License No. NPF-14
 LER 86-007-00, Docket No. 388/License No. NPF-22
 LER 89-010-01, Docket No. 388/License No. NPF-22
 LER 90-020-00, Docket No. 387/License No. NPF-14

Failed Component: MSIVs, HV-141F022A-D and HV-141F028A-D

Manufacturer: Atwood and Morrill Co., Inc.

Model: 21190-H