

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7	PAGE (3) 1 OF 0 2
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TITLE (4)
HPCI Inoperable Due to Discharge Check Valve Not Seating.

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 7 0 3	8 4	8 4	8 4	0 3 1	0 0	0 8	0 2	8 4			0 5 0 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											

OPERATING MODE (9) 3	20.402(b)	20.406(e)	80.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 0 0	20.406(a)(1)(i)	80.38(e)(1)	X 80.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	80.38(e)(2)	80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	80.73(a)(2)(i)	80.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	80.73(a)(2)(ii)	80.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	80.73(a)(2)(iii)	80.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME L.A. Kuczynski - Nuclear Plant Specialist III	TELEPHONE NUMBER
	AREA CODE 7 1 7
	7 1 7 5 4 2 - 3 7 5 9

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	B J	V	A 3 9 1						

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On July 3, 1984, with the Unit in Operational Condition 3 and reactor power at 0%, the High Pressure Coolant Injection (HPCI) system was declared inoperable for fifteen minutes. The HPCI pump suction relief valve had lifted, which was an indication that the pump discharge check valve had not seated properly. Investigation showed that the check valve was mechanically operable, but the method used to seat it was not adequate. Procedure changes detailing actions to be taken if the check valve does not seat are being evaluated to prevent recurrence of this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Susquehanna Steam Electric Station Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 8 7 8 4	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		84	031	00	02	OF 02

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

On July 3, 1984, the Unit experienced a scram due to a lightning strike of a transmission line (see LER 84-029). Reactor pressure vessel (RPV) level reached -38", and the High Pressure Coolant Injection (HPCI) system initiated per design. After the HPCI system tripped upon restoration of RPV level to +54", the system was walked down by an operator as good operating practice. He noted that the HPCI pump suction relief valve was open and notified the Control Room. (The water discharged through the relief valve was contained within the HPCI pump room. The area survey map completed July 4, 1984, showed that the contaminated areas were properly roped off and posted, and subsequently decontaminated.) It was deduced that the HPCI pump discharge check valve did not seat properly, allowing the Keep-fill system to pressurize the HPCI pump suction piping. Limiting Condition for Operation 3.5.1.c was entered. The check valve is a 14" Anchor Darling tilting disc check valve located in a horizontal line. This type of valve will hang partially open when flow stops if adequate differential pressure is not maintained across the valve disc.

After a consultation with the on-call Maintenance Supervisor, actions were taken to seat the valve within 15 minutes. The LCO was cleared and the system was restored to normal lineup. There was no evidence that the check valve would not seat due to a mechanical failure. Procedural changes are being evaluated to address valve seating during system shutdown.

Had this occurrence been identified at full power, the HPCI system would have been able to inject to the RPV if required. The pump discharge check valve is intended to prevent draining feedwater through the HPCI system to the CST in the event that the valves upstream of the check valve fail. If that were to happen, and the check valve was leaking by as in the described event, the feedwater pressure would provide sufficient ΔP to seat the check valve as was done during this event.



Pennsylvania Power & Light Company

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August 2, 1984

U.S. Nuclear Regulatory Commission
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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 84-031-00
ER 100450 FILE 841-23
PLA-2265

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

Attached is Licensee Event Report 84-031-00. This event was determined reportable per 10CFR50.73(a)(2)(v), in that a Limiting Condition for Operation (LCO) was entered on the High Pressure Coolant Injection System due to the pump's discharge check valve not seating properly and the associated suction relief valve lifting. The LCO was cleared within fifteen minutes when the check valve was seated and the relief valve closed.

H.W. Keiser
Superintendent of Plant-Susquehanna

LAK/pjg

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