

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Susquehanna Steam Electric Station - Unit 2	DOCKET NUMBER (2) 0500031818	PAGE (3) 1 OF 012
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TITLE (4)  
SBLC Low Boron.

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	
10	16	84	84	024	00	11	16	84	DOCKET NUMBER(S) 050000	

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)

OPERATING MODE (9) 4	20.402(b)	20.406(e)	60.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 01010	20.406(a)(1)(i)	60.38(a)(1)	X 60.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	60.38(a)(2)	60.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iii)	60.73(a)(2)(i)	60.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	60.73(a)(2)(ii)	60.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	60.73(a)(2)(iii)	60.73(a)(2)(viii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME L.A. Kuczynski - Nuclear Plant Specialist, Level III	TELEPHONE NUMBER
	AREA CODE: 7117   NUMBER: 51421-1371519

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
X	BIR	IAIBLS	*	N					

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 October 16, 1984, during the performance of a routine 31-day surveillance test of the sodium pentaborate (Na<sub>2</sub>B<sub>10</sub>) solution of the Standby Liquid Control (SBLC) System, the total pounds of boron available for injection were determined to be less than required by Technical Specification 3.1.5. Chemicals were added to the tank and the pounds of boron was brought within limits. To prevent recurrence, an administrative lower limit greater than the Technical Specification limit will be established in the surveillance test to reduce the probability of obtaining an analytical result less than the Technical Specification limit.

\*Not Applicable.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1) Susquehanna Steam Electric Station Unit 2	DOCKET NUMBER (2) 05000388	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		84	024	00	02	OF	02

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

On October 16, 1984, with the Unit in Operational Condition 4, the results of the routine 31-day surveillance test of the sodium pentaborate ( $\text{Na}_2\text{B}_{10}$ ) solution in the Standby Liquid Control (SBLC) system storage tank showed that the pounds of boron available for injection to the reactor was below the value required by Technical Specification 3.1.5. Chemical addition commenced at 0905, and after sufficient mixing a sample was taken and determined to be satisfactory at 1835. To prevent recurrence, an administrative lower limit of 5600 pounds will be established to reduce the probability of obtaining an analytical result of less than the Technical Specification limit of 5500 pounds. A bi-monthly check has been instituted on an interim basis to monitor solution concentration more closely. Alternative methods of boron analysis were evaluated. No significantly superior method was found. The current procedure was revised to reduce experimental error.

Previous LER's detailing occurrences of low boron concentration or insufficient pounds of  $\text{Na}_2\text{B}_{10}$  have included the following as actions to prevent recurrence:

- procedural changes to: maintain the SBLC storage tank level near its upper limit; require three samples be used to reduce analytical error (LER 82-074/03L-0);
- procedural change to require sampling of the SBLC storage tank to verify that the available weight of boron is greater than 5500 pounds following flow testing; a system modification to add a flow meter to the test line to permit the use of demineralized water (rather than  $\text{Na}_2\text{B}_{10}$  from the storage tank) during flow testing (LER 83-127/03L-0);
- a Technical Specification change is near in-house finalization which will modify the upper limit of allowable boron concentration in the SBLC tank (LER 84-023-00);
- actual tank volume is being determined on a monthly basis for a sufficient length of time to provide assurance that bubbler tube blockage is not a common occurrence. Investigation of an alternate means of tank level indication and/or changes to facilitate cleaning the bubbler tube is continuing (LER 84-030-00).

**PP&L**

SUSQUEHANNA STEAM ELECTRIC STATION  
PO BOX 467, BERWICK, PA 18603

November 16, 1984

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

SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 84-024-00  
ER 100450 FILE 841-23  
PLAS-012

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

Attached is Licensee Event Report 84-024-00. This event was determined reportable per 10CFR50.73(a)(2)(v), in that during a routine surveillance test of the standby liquid control system sodium pentaborate solution, it was determined that the pounds of sodium pentaborate available for injection were less than required by Technical Specification 3.1.5.

*H. W. Keiser*

H.W. Keiser  
Superintendent of Plant-Susquehanna

LAK/pjg

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