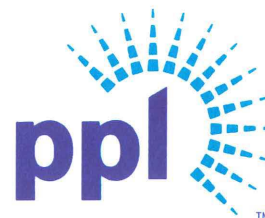


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FEB 12 2013

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

**SUSQUEHANNA STEAM ELECTRIC STATION  
LICENSEE EVENT REPORT 50-387/2012-010-00  
UNIT 1 LICENSE NO. NPF-14  
PLA-6976**

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**Docket No 50-387**

Attached is Licensee Event Report (LER) 50-387/2012-010-00. This event involved both trains of Control Structure Heating, Ventilation, and Air Conditioning (HVAC) being inoperable at the same time resulting in a condition that could have prevented the fulfillment of a safety function and is being reported in accordance with 10 CFR 50.73(a)(2)(v)(D). The condition is also reportable in accordance with 10CFR50.73(a)(2)(i)(B) as operation prohibited by Technical Specifications.

There were no actual consequences to the health and safety of the public as a result of this event.

No regulatory commitments are associated with this LER.

A handwritten signature in dark ink, appearing to read "Jeffrey M. Helsel", is written over a horizontal line.

J. M. Helsel

Attachment: LER 50-387/2012-010-00

Copy: NRC Region I  
Mr. P. W. Finney, NRC Sr. Resident Inspector  
Mr. J. A. Whited, NRC Project Manager  
Mr. L. J. Winker, DEP/BRP

<b>NRC FORM 366</b> (10-2010)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>			APPROVED BY OMB: NO. 3150-0104 Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to <a href="mailto:infocollects.resources@nrc.gov">infocollects.resources@nrc.gov</a> , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.						
<b>LICENSEE EVENT REPORT (LER)</b>  (See reverse for required number of digits/characters for each block)								EXPIRES: 10/31/2013			
<b>1. FACILITY NAME</b> Susquehanna Steam Electric Station Unit 1					<b>2. DOCKET NUMBER</b> 05000387			<b>3. PAGE</b> 1 OF 3			
<b>4. TITLE</b> <b>Both Trains of Control Structure HVAC at Susquehanna Were Rendered Inoperable</b>											
<b>5. EVENT DATE</b>			<b>6. LER NUMBER</b>			<b>7. REPORT DATE</b>			<b>8. OTHER FACILITIES INVOLVED</b>		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER	
12	14	2012	2012	- 010	- 00	02	12	2013	FACILITY NAME	DOCKET NUMBER <b>05000</b>	
<b>9. OPERATING MODE</b> Unit 1 - 1 Unit 2 - 1			<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 25%;"><input type="checkbox"/> 20.2201(b)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(3)(i)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(i)(C)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(vii)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2201(d)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(3)(ii)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(ii)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(viii)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(1)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(4)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(ii)(B)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(viii)(B)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(i)</div> <div style="width: 25%;"><input type="checkbox"/> 50.36(c)(1)(i)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(iii)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(ix)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(ii)</div> <div style="width: 25%;"><input type="checkbox"/> 50.36(c)(1)(ii)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(iv)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(x)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(iii)</div> <div style="width: 25%;"><input type="checkbox"/> 50.36(c)(2)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(v)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 73.71(a)(4)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(iv)</div> <div style="width: 25%;"><input type="checkbox"/> 50.46(a)(3)(ii)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(v)(B)</div> <div style="width: 25%;"><input type="checkbox"/> 73.71(a)(5)</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(v)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(i)(A)</div> <div style="width: 25%;"><input type="checkbox"/> 50.73(a)(2)(v)(C)</div> <div style="width: 25%;"><input type="checkbox"/> OTHER</div> <div style="width: 25%;"><input type="checkbox"/> 20.2203(a)(2)(vi)</div> <div style="width: 25%;"><input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)</div> <div style="width: 25%;"><input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)</div> </div>								
											<b>10. POWER LEVEL</b> Unit 1 - 99% Unit 2 - 99%
<b>12. LICENSEE CONTACT FOR THIS LER</b>											
FACILITY NAME D. L. Filchner, Senior Engineer - Nuclear Regulatory Affairs								TELEPHONE NUMBER (Include Area Code) (610) 774-7819			
<b>13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT</b>											
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		
B	KM	CHU	C150	Yes							
<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO						<b>15. EXPECTED SUBMISSION DATE</b>					
						MONTH		DAY		YEAR	
						05		17		2013	
<b>ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</b> On December 14, 2012 at 1350 while Susquehanna Unit 1 was operating in Mode 1, 99% Rated Thermal Power (RTP) and Susquehanna Unit 2 was also operating in Mode 1, 99% RTP, the 'A' Control Structure (CS) HVAC was inoperable during routine maintenance. Subsequently, Operations declared the 'B' CS HVAC inoperable when a CS 'B' loop circulating pump tripped during a swap from the 'A' to the 'B' train. Consequently, both trains of CS HVAC were inoperable simultaneously, although at least one train of CS HVAC was in operation during the event. This event required entry into Technical Specification (TS) 3.0.3 for both Units and a power reduction commenced at 1453 for Unit 1 and at 1459 for Unit 2. There were no SSC's out of service at the time of the event that could have complicated the plant's ability to mitigate the event. This event was reported on Event Notification #48595.  The direct cause of the event was a failure of the 'B' CS HVAC system to start when the 'B' loop circulating pump tripped during starting. The apparent cause is under investigation and will be provided at a later date.  An immediate corrective action was to restore the 'A' CS HVAC system to OPERABLE and suspend the power reductions on both units followed by restoration to the pre-event power levels. Additional corrective actions will be provided at a later date.  There were no adverse consequences to the health and safety of the public as a result of this event. This event is being reported under 10 CFR 50.73(a)(2)(v)(D) as a condition that could have prevented the fulfillment of a safety function and 10 CFR 50.73(a)(2)(i)(B) as operation prohibited by Technical Specifications.											

(10-2010)

# **LICENSEE EVENT REPORT (LER) CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Susquehanna Steam Electric Station Unit 1	05000387	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2012	- 010	- 00	

**NARRATIVE**CONDITION PRIOR TO THE EVENT

Unit 1 – Mode 1, 99 percent Rated Thermal Power

Unit 2 – Mode 1, 99 percent Rated Thermal Power

EVENT DESCRIPTION

On December 14, 2012 at 1350 while the 'A' Control Structure (CS) HVAC was inoperable during routine maintenance. Operations declared the 'B' CS HVAC inoperable when a 'B' loop circulating pump tripped during a swap from the 'A' to the 'B' train. Consequently, both trains of CS HVAC were inoperable simultaneously, although at least one train of CS HVAC was in operation during the event. This event required entry into Technical Specification (TS) 3.0.3 for both Units and a power reduction commenced at 1453 for Unit 1 and at 1459 for Unit 2. This event was reported on Event Notification #48595.

The 'A' CS HVAC system was declared inoperable per LCO 3.7.3 Condition A and LCO 3.7.4 Condition A for replacement of the fan belts. Following completion of the physical work, the 'A' CS subsystem had operated for 24 hours during a post maintenance break-in period for the new belts and to monitor fan vibrations. At the conclusion of the 'A' break-in run, the 'B' CS chiller recirculation pump was being placed in service and it tripped when started. This resulted in the declaration that the 'B' train of CS HVAC was inoperable. The concurrent inoperability of both trains of CS HVAC resulted in entry into LCO 3.0.3 for Units 1 and 2 in accordance with the TS. The 'A' CS HVAC train remained in operation while the 'B' Control Structure HVAC was successfully placed in service.

Sequence of Events

The following is a summary of the events related to this reportable condition:

- 12/10/2012 – At 0:09 entered LCO's 3.7.3 and 3.7.4 for CS 'A' train fan belt replacements
- 12/14/2012 – At 13:50 during start of CS 'B' loop circulating pump the breaker tripped
- 12/14/2012 – At 13:50 entered LCO 3.0.3 for both Units 1 and 2
- 12/14/2012 – At 14:08 CS 'B' loop circulating pump breaker reset
- 12/14/2012 – At 14:53 Unit 1 began power reduction
- 12/14/2012 – At 14:59 Unit 2 began power reduction
- 12/14/2012 – At 15:00 provided 4 hour ENS notification to NRC
- 12/14/2012 – At 16:25 removed clearances from CS 'A' train fans
- 12/14/2012 – At 16:30 transferred CS chillers, 'A' train placed in-service, 'B' train shutdown
- 12/14/2012 – At 17:10 cleared LCO 3.0.3
- 12/14/2012 – At 18:19 Unit 1 returned to 98% power
- 12/14/2012 – At 19:43 Unit 2 returned to 98% power
- 12/15/2012 – At 13:48 cleared LCOs 3.7.3 and 3.7.4

CAUSE OF THE EVENT

The direct cause of the event was a failure of the 'B' CS HVAC system when the 'B' loop circulating pump tripped during starting. The apparent cause is under investigation and will be provided at a later date.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Susquehanna Steam Electric Station Unit 1	05000387	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		2012	- 010	- 00	

**NARRATIVE**ANALYSIS/SAFETY SIGNIFICANCEActual Consequences:

There were no adverse consequences to the health and safety of the public as a result of this event. The 'A' CS HVAC subsystem remained in service and functional at all times throughout the event. With the 'A' train in service, the failure of the 'B' train to start when called upon did not create any adverse consequences to public health and safety.

This event is being reported under 10 CFR 50.73(a)(2)(v)(D) as a condition that could have prevented the fulfillment of a safety function and 10 CFR 50.73(a)(2)(i)(B) as operation prohibited by Technical Specifications.

Potential Consequences:

There are no potential consequences as a result of this event.

CORRECTIVE ACTIONS

An immediate corrective action was to restore the 'A' CS HVAC system to OPERABLE and suspend the power reductions on both units followed by restoration to pre-event power levels. Additional corrective actions related to identifying and correcting equipment problems will be provided at a later date.

PREVIOUS SIMILAR EVENTS

Following is a listing of similar Susquehanna related CS HVAC LER's:

Unit 1 – LER 2012-001, 'Both Control Structure Chillers Inoperable'

Unit 1 – LER 2012-002, 'Inoperability of 'B' Control Structure Chiller coincident with inoperability of 'A' EDG'

Unit 2 - LER 2012-001, 'Loss of Two Control Room Floor Cooling Systems'