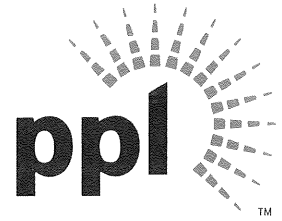


Faber A. Kearney
Site Vice President

PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603
Tel. 570.542.2904 Fax 570.542.1504
fakearney@pplweb.com



FEB 13 2012

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-387/2011-004-00
LICENSE NO. NPF-14
PLA-6812**

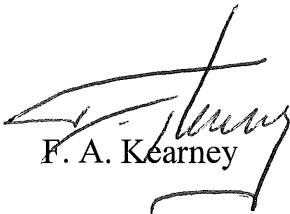
Docket No. 50-387

Attached is Licensee Event Report (LER) 50-387/2011-004-00. The event involved the inoperability of the 'C' Emergency Diesel Generator. This event was determined to be reportable under 10 CFR 50.73(a)(2)(i)(B) as a condition that was 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.

Sincerely,



F. A. Kearney

Attachment

Copy: NRC Region I
Mr. P. W. Finney, NRC Sr. Resident Inspector
Mr. R. R. Janati, DEP/BRP
Mr. B. K. Vaidya, NRC Project Manager

NRC FORM 366 (10-2010)		U.S. NUCLEAR REGULATORY COMMISSION		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 infocollects.resources@nrc.gov , 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.		
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 5px 0;">(See reverse for required number of digits/characters for each block)</p>						
1. FACILITY NAME Susquehanna Steam Electric Station Unit 1			2. DOCKET NUMBER 05000387		3. PAGE 1 OF 3	
4. TITLE "C" Emergency Diesel Generator Inoperable						
5. EVENT DATE		6. LER NUMBER		7. REPORT DATE		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	
09	21	2011	2011	- 004 -	00	
		MONTH	DAY	YEAR		
		02	13	2012		
8. OTHER FACILITIES INVOLVED						
FACILITY NAME				DOCKET NUMBER		
Susquehanna Steam Electric Station Unit 2				05000388		
FACILITY NAME				DOCKET NUMBER		
				05000		
9. OPERATING MODE <div style="text-align: center; font-size: 24px;">1</div>		11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: <i>(Check all that apply)</i>				
10. POWER LEVEL <div style="text-align: center; font-size: 24px;">100%</div>		<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> 50.73(a)(2)(vii)				
		<input type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(A)				
		<input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(viii)(B)				
		<input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(ix)(A)				
		<input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(x)				
		<input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 73.71(a)(4)				
		<input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 50.46(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input type="checkbox"/> 73.71(a)(5)				
		<input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(i)(A) <input type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> OTHER				
				Specify in Abstract below or in NRC Form 366A		
12. LICENSEE CONTACT FOR THIS LER						
Name				Telephone Number (Include Area Code)		
Cornelius T. Coddington, Senior Engineer - Nuclear Regulatory Affairs				(610) 774-4019		
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT						
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		
B	EK	DG	C634	N		
14. SUPPLEMENTAL REPORT EXPECTED					15. EXPECTED SUBMISSION DATE	
<input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i>					<input checked="" type="checkbox"/> NO	
					MONTH DAY YEAR	
ABSTRACT <i>(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</i> <p>On December 6, 2011, Susquehanna Steam Electric Station declared the common "C" Emergency Diesel Generator (EDG) (EILS: EK) inoperable due to loss of firing from cylinder 8R during surveillance testing. LCO 3.8.1 was entered, the "E" Emergency Diesel Generator was substituted for the "C" EDG and the LCO exited. The direct cause of the loss of firing was due to interruption of the spray pattern in the fuel injection nozzle and partial blockage. The root causes were determined to be 1) the work package to install the delivery valve springs was insufficient, 2) the work crew proceeded using an inadequate work package and 3) Quality Control activities were insufficient to prevent the incorrect reassembly of the fuel injector pump components. Immediate corrective action was to replace the 12 fuel injection pumps. Additional corrective actions include revision to the procedure on work package standards, reinforcement of stopping work when the work package is inadequate, and revision to the procedure on Quality Control Inspection Program to include guidance on construction, formatting, wording and use of notes and verification steps in hold point development.</p> <p>A review of past maintenance on the "C" EDG determined that the EDG was inoperable from the time maintenance was performed on September 21, 2011 until it was shutdown on December 6, 2011 because it could not have fulfilled its mission time. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.</p> <p>There were no actual adverse consequences to the health and safety of the public as a result of this event.</p>						

**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
		2011	- 004 -	00	

NARRATIVE

EVENT DESCRIPTION

On December 6, 2011, Susquehanna Steam Electric Station declared the common "C" Emergency Diesel Generator (EDG) (EIS: EK) inoperable due to loss of firing from cylinder 8R during surveillance testing. LCO 3.8.1 was entered, the "E" Emergency Diesel Generator was substituted for the "C" EDG and the LCO exited. A review of past maintenance on the "C" EDG determined that the EDG was inoperable from the time maintenance was performed on September 21, 2011 until it was shutdown on December 6, 2011 because it could not have fulfilled its mission time.

CAUSE OF THE EVENT

The direct cause of the loss of firing was due to interruption of the spray pattern in the fuel injection nozzle and partial blockage. The root causes were determined to be:

- 1) the work package to install the delivery valve springs was insufficient,
- 2) the work crew proceeded using an inadequate work package, and
- 3) Quality Control (QC) activities were insufficient to prevent the incorrect reassembly of the fuel injector pump components.

ANALYSIS/SAFETY SIGNIFICANCE

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications in that the "C" Emergency Diesel Generator could not fulfill its mission time in the event it was called upon to do so.

Actual Consequences

"C" EDG was unknowingly inoperable and unavailable to perform its 24 hour Probability Risk Assessment (PRA) mission time and its 30 day design bases mission time for a period of approximately 76 days. As a result, there were short periods of time when both units were unknowingly in elevated risk conditions without taking associated risk management actions.

Potential Consequences:

The potential consequence of the unavailability of the "C" EDG is an increase in core damage frequency and large early release frequency in the event of a Loss of Offsite Power combined with random failures of the remaining available EDGs, ultimately resulting in a high pressure containment challenge for the units. The increase in core damage frequency was less than 1.0 E-6 and the increase in large early release frequency was less than 1.0 E-7.

**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
		2011	--004--	00	

NARRATIVE**CORRECTIVE ACTIONS**

The following corrective actions have been completed:

- The 12 fuel injection pumps, which contained the incorrectly installed delivery springs, have been replaced.
- The procedure on Work Package development has been revised to provide a clear standard for Human Factoring of work instructions.

The following corrective actions are planned:

- Revise the procedure governing Work Package Standards such that work packages are properly Human Factored and verified.
- Ensure that Human Factoring is part of the Maintenance Planner Qualification.
- Prior to performing work on of the remaining EDGs ensure the work packages meet the updated Human Factoring /Procedure Writing standards.
- Revise the procedure on "Hold and Notification Point Inspection and Documentation," to include guidance on the construct, formatting, wording, and use of notes and inspection steps in hold and notification point development. Ensure this guidance is consistent with procedure standards that have been established.
- Develop and implement an action plan to determine if potentially latent broken delivery valve springs exist on the A, D, or E EDGs. If broken springs are found in the investigation, then correct the condition.

No regulatory commitments are associated with this report.

ADDITIONAL INFORMATION**Failed Component Information:**

Component: Delivery spring associated with the fuel injector pump

Manufacturer: Bendix

Previous Similar Events:

None