

Britt T. McKinney
Sr. Vice President & Chief Nuclear Officer

PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603
Tel. 570.542.3149 Fax 570.542.1504
btmckinney@pplweb.com



MAY 27 2008

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

**SUSQUEHANNA STEAM ELECTRIC STATION
THREE-MONTH RESPONSE TO
NRC GENERIC LETTER 2008-01
PLA-6367**

**Docket Nos. 50-387
and 50-388**

- References: 1) NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008.*
- 2) PLA-6352, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "NRC Generic Letter 2008-01: Documentation of Extension Request," dated April 11, 2008.*

The U. S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01 (Reference 1) to address the issue of gas accumulation in Emergency Core Cooling (ECCS), Decay Heat Removal (DHR), and Containment Spray System (CSS).

The NRC requested each licensee to submit a written response in accordance with 10 CFR 50.54(f) within 9 months of the date of the GL.

NRC also requested licensees to provide a response within 3 months of the date of the GL if the requested 9-month response date cannot be met. As described in Reference 2, an extension was granted to PPL Susquehanna, LLC (PPL) for submittal of the 3-month response until May 30, 2008.

PPL does not expect to be able to complete the actions necessary to provide the required information by the requested 9-month response date. Attachment 1 provides the description of PPL's proposed alternative course of action, including the basis for acceptability as required by the GL for a 3-month response.

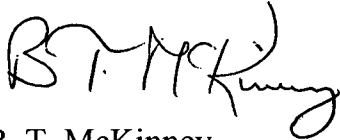
Attachment 2 contains four new regulatory commitments, established to complete walkdown and evaluation activities after the 9-month GL response date of October 11, 2008.

A134
NRB

Any questions regarding this GL response should be directed to Mr. Duane L. Filchner at (610) 774-7819.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 5-27-08

A handwritten signature in black ink, appearing to read "B. T. McKinney". The signature is written in a cursive, somewhat stylized font.

B. T. McKinney

Attachment 1: PPL 3 Month Response to Generic Letter 2008-01

Attachment 2: Regulatory Commitments

cc: NRC Region I
Mr. R. Janati, DEP/BRP
Mr. F. W. Jaxheimer, NRC Sr. Resident Inspector
Mr. B. K. Vaidya, NRC Project Manager

Attachment 1 to PLA-6367

PPL 3 Month Response to

Generic Letter 2008-01

As part of Generic Letter (GL) 2008-01, the NRC requested that each licensee evaluate its Emergency Core Cooling Systems (ECCS), Decay Heat Removal System (Residual Heat Removal (RHR)), and Containment Spray System (CSS) licensing basis, design, testing, and corrective actions. The evaluations are to ensure that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified.

PPL Susquehanna, LLC (PPL) will complete all requested actions, except those involving walkdowns and final evaluation for areas inside primary containment and/or high radiation areas by the NRC's requested 9-month completion date.

Since SSES system walkdowns inside primary containment and/or high radiation areas will not occur until the next unit refueling outages (Unit 2 – Spring 2009, Unit 1 – Spring 2010), only system walkdowns in accessible areas outside primary containment will be completed to support the 9-month response. Any conditions adverse to quality identified will be addressed under the SSES Corrective Action Process.

The following systems contain piping sections that will not be accessed until the next refueling outages on SSES Units 1 and 2:

- High Pressure Coolant Injection (HPCI) discharge piping – inside the main steam pipe tunnel up to and including the connection to Feedwater, and inaccessible areas outside containment, as determined during walkdowns.
- Core Spray (CS) discharge piping – from the containment penetration to the reactor pressure vessel, and inaccessible areas outside containment, as determined during walkdowns.
- Residual Heat Removal (RHR, Shutdown Cooling mode) – RHR pump discharge piping inside containment, and inaccessible areas outside containment, as determined during walkdowns.
- RHR (Low Pressure Coolant Injection (LPCI) mode) – RHR pump discharge piping from the containment penetration to the reactor pressure vessel, and inaccessible areas outside containment, as determined during walkdowns.

PPL has confidence the RHR, CS, and HPCI systems can fulfill their required functions, based upon past and current operating experience, detailed evaluations, and testing performed since plant licensing. The RHR, CS, and HPCI systems discharge piping is filled by a "Keep Fill" system to prevent the possibility of water hammer. In addition, a redundant passive keep fill system is connected to these systems, in the event of failure of the normal keep fill system. (FSAR Section 6.3.2.2.5)

Significant gas accumulation has not been found at the high point vents in these systems during technical specification surveillance testing. RHR system high point venting has been trended for several years. A water hammer analysis has been performed on the RHR system which demonstrates that the system can tolerate significant air accumulation in upper portions of the RHR discharge piping (containment spray header) without adversely impacting system operation. Acceptance criteria has been determined for the RHR system, which establishes an allowable vent time during surveillance testing. Meeting the vent time acceptance criteria ensures the system will respond in accordance with the system design basis. If the acceptance criteria is not satisfied during technical specification surveillance activities, a Condition Report (CR) is written and evaluated to determine system operability.

SSES has experienced inadvertent RHR pump starts without prior venting. No damage to hangers/pipe supports or process piping was identified during walkdowns following these events.

There are no known issues with regard to air accumulation in suction piping at SSES. The RHR and CS systems are routinely tested with their pump suctions aligned to the suppression pool. The pump / system flow rates during these periodic tests are expected to be sufficient for dynamic venting of their suction piping and portions of their discharge piping. During testing of the RHR and CS systems, or when the RHR system is placed in shutdown cooling (SDC), there have not been any effects on flow, or indication of a water hammer. These tests have not indicated any adverse impacts to the ability of RHR or CS to perform their design basis functions.

The HPCI system is periodically tested with its pump suction aligned to the CST. Since the system flow rate during these periodic tests is near the maximum flow rate expected under accident conditions, any voids present in the suction piping, while aligned to the CST, have not adversely affected pump performance. The HPCI system has not experienced any problems due to gas being transported to the pump suction.

The HPCI pump can also take suction from the suppression pool. This piping is at the suppression pool / HPCI system low point and therefore there is no mechanism for gas buildup at these locations. This piping remains full after it has been filled and vented. Periodic tests have not indicated any adverse impacts on HPCI system ability to perform its design basis functions. The HPCI system has experienced several injections to the reactor vessel over the years and there have been no reports of water hammer during these events.

Based on the above, completing the walkdowns of the inaccessible portions of the RHR, CS, and HPCI piping sections, beyond the requested 9 month period, but no later than startup from the next refuel outage (Spring 2009 for Unit 2 and Spring 2010 for Unit 1) is an acceptable alternative course of action. The results of the walkdowns of these Unit 1

and Unit 2 inaccessible piping sections will be used to complete evaluations of the GL 2008-01 subject systems. A supplemental response will be submitted to the NRC documenting completion of the walkdowns and any impact upon the original GL 2008-01 9-month response. Four new regulatory commitments associated with this alternative course of action are provided in Attachment 2.

Attachment 2 to PLA-6367

Regulatory Commitments

Regulatory Commitments for Susquehanna Steam Electric Station

The following list identifies those actions committed to by PPL Susquehanna, LLC, (PPL) for the Susquehanna Steam Electric Station in this submittal. Any other actions discussed in the submittal represent intended or planned actions by PPL, are described only for information, and are not regulatory commitments.

COMMITMENT	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
		ONE-TIME ACTION (YES / NO)	PROGRAM-MATIC (YES / NO)
Complete the walkdowns of Unit 2 inaccessible piping sections of GL 2008-01 subject systems.	Prior to startup from the Spring 2009 Refueling Outage.	Yes	No
Complete the walkdowns of Unit 1 inaccessible piping sections of GL 2008-01 subject systems.	Prior to startup from the Spring 2010 Refueling Outage.	Yes	No
Complete evaluations of the GL 2008-01 subject systems using results of the walkdowns of Unit 2 inaccessible piping sections and submit a supplemental response to the NRC documenting completion of the Unit 2 walkdowns and any impact upon the GL 2008-01 9 month response as a result of the completed evaluations.	Within 90 days following startup from the Spring 2009 Refueling Outage.	Yes	No
Complete evaluations of the GL 2008-01 subject systems using results of the walkdowns of Unit 1 inaccessible piping sections and submit a supplemental response to the NRC documenting completion of the Unit 1 walkdowns and any impact upon the GL 2008-01 9 month response as a result of the completed evaluations.	Within 90 days following startup from the Spring 2010 Refueling Outage.	Yes	No