



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 31, 2011

Mr. Timothy S. Rausch
Senior Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION (SSES), UNITS 1 AND 2 -
CLOSURE LETTER FOR THE SUSQUEHANNA RESPONSE TO GENERIC
LETTER 2008-01, "MANAGING GAS ACCUMULATION IN EMERGENCY CORE
COOLING, DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS"
(TAC NOS. MD7886 AND MD7887)

Dear Mr. Rausch:

On January 11, 2008, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML072910759). The stated purpose of GL 2008-01 was (a) to request addressees to submit information to demonstrate that the subject systems are in compliance with the current licensing and design bases and applicable regulatory requirements, and that suitable design, operational, and testing control measures are in place for maintaining this compliance; and, (b) to collect the requested information to determine if additional regulatory action is required.

GL 2008-01 requested that licensees provide the following information within 9 months of the date of the GL:

- (a) A description of the results of evaluations that were performed pursuant to requested actions specified in the GL. This description should provide sufficient information to demonstrate that you are or will be in compliance with the quality assurance criteria in Sections III, V, XI, XVI, and XVII of Appendix B to 10 CFR Part 50 and the licensing basis and operating license as those requirements apply to the subject systems;
- (b) A description of all corrective actions, including plant, programmatic, procedure, and licensing basis modifications that you determined were necessary to assure compliance with these regulations; and,
- (c) A statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

In Item c, licensees typically had to wait for a refueling outage to access parts of the plant that were inaccessible at power. Consequently, they provided or plan to provide supplementary responses following the outage. The NRC staff has reviewed the supplementary response where available, and the Region should address responses that have not been included in the NRC staff review.

By letters dated April 11, 2008 (ADAMS Accession No. ML081130679), May 27, 2008 (ML081560218), October 14, 2008 (ML083010240), August 10, 2009 (ML092240617), July 14, 2010 (ML101970097), and January 6, 2011 (ML110060808) PPL Susquehanna, LLC (PPL), the licensee, provided responses to GL 2008-01. The NRC staff has reviewed the licensee responses and has documented the evaluation in Suggestions for the Susquehanna Inspection (ML11137A188, non-publicly available) Using the Guidance Provided in Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems (NRC Generic Letter 2008-01)" (ADAMS Accession No. ML082950666). A list of regulatory commitments is contained in the licensee's letter dated May 27, 2008.

Specifically, the letter dated January 6, 2011, provided the following responses to the Request for Additional Information (RAI):

- RAI 1 addressed possible differences between the systems evaluated in the Boiling Water Reactor Owners Group (BWROG) Report and those at SSES and any differences between the pump suction void criteria in the BWROG Report and NRC Inspection Guidance, Rev. 9. The licensee stated that there were no discrepancies between systems discussed in the BWROG Report and the SSES systems. The licensee has established suction piping void acceptance criteria consistent with NRC guidance. The NRC staff concludes that this acceptably addresses the question.
- RAI 2 addressed the possibility of a void at a localized high point created within a pump. The licensee stated that the pumps in question are under positive pressure when in standby condition making it extremely unlikely that a void will form. Additionally, several pumps are multi-stage vertical pumps with the pump impellers situated below the suction piping. This configuration is not subject to gas voiding within the pumps. The NRC staff concludes that this acceptably addresses the question.
- RAI 3 addressed gas transport to suction piping from high points in the system at conditions other than minimum flow. The licensee stated that the suction piping evaluations considered all system operating conditions, where voids could be transported from high points in the system to the emergency core cooling system pumps. The NRC staff reviewed the licensee provided method used to develop the void acceptance criteria. The NRC staff concludes that this is responsive to the GL.

The NRC staff has reviewed the licensee's responses and has determined that for SSES, Units 1 and 2, the licensee has acceptably addressed each request, that the licensee has also acceptably demonstrated "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," as stated in GL 2008-01. Therefore, the NRC staff finds that the subject systems are currently operable.

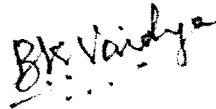
Consequently, your GL response is considered closed and no further information or action is requested of you with the exception of any commitments the licensee has made with respect to the GL responses.

Notwithstanding, the NRC's Region I staff may decide to perform (and would contact you to schedule) an inspection using TI 2515/177. The TI 2515/177 is confirmatory in nature in that it directs NRC inspectors (a) to assess applicable information that is available at the plant, (b) to selectively verify that the licensee has implemented or is in the process of acceptably implementing the commitments, modifications, and programmatically controlled actions described in the licensee's response to GL 2008-01, and (c) to confirm that the plant-specific information supports a conclusion that subject systems operability is reasonably ensured or, conversely, to identify items where additional follow-up is necessary to confirm the NRC staff conclusions.

The NRC staff is continuing to engage with stakeholders regarding the creation of durable guidance for Gas Management which may require additional actions by the licensee beyond the scope of GL 2008-01.

If you have any questions regarding this letter, please feel free to contact me at (301) 415- 3308.

Sincerely,



Bhalchandra K. Vaidya, Project Manager
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

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/RA/

Bhalchandra K. Vaidya, Project Manager
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