



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

February 28, 2011

Mr. Paul Freeman
Site Vice President
c/o Michael O'Keefe
Seabrook Station
NextEra Energy Seabrook, LLC
P.O. Box 300
Seabrook, NH 03874

SUBJECT: SEABROOK STATION UNIT NO. 1-CLOSEOUT OF GENERIC LETTER 2008-01 "MANAGING GAS ACCUMULATION IN EMERGENCY CORE COOLING, DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS" (TAC NO. MD7878)

Dear Mr. Freeman:

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. The description was to 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.

By letters dated October 14, 2008, and October 6, 2009 (ADAMS Accession Nos. ML082910040 and ML092860055, respectively), NextEra Energy Seabrook, LLC (NextEra or the licensee) provided a response to GL 2008-01. The October 6, 2009, letter provided a

response to NRC staff questions in a request for additional information (RAI), which are evaluated below:

- In RAI 1, the NRC staff questioned the frequency of surveillances for systems not covered by Technical Specifications (TSs). NextEra stated that subject systems not covered by Surveillance Requirement (SR) 4.5.2.b are verified full during Modes 1-4 using ultrasonic testing (UT) at the same frequency as systems covered by SR 4.5.2.b with the exception of inaccessible locations inside containment. Further, the licensee stated that, during plant cooldown, Residual Heat Removal (RHR) suction lines from the Reactor Coolant System (RCS) are verified full of water before being placed in service. While in Mode 5, all locations are verified full of water before entering Mode 4. The NRC staff finds the frequency and method of verification to be responsive to the GL.
- In RAI 2, the NRC staff questioned the testing used after venting to verify that the gas was removed and not transported to a high point previously found to be gas-free. NextEra stated that, per procedure, piping is verified full using UT methods after a fill and vent and before starting pumps. The NRC staff finds this to be responsive to the GL.
- In RAI 3, the NRC staff requested a description of the controls for actions taken to mitigate gas voids determined to be unacceptable. NextEra stated that plant evolutions are procedurally controlled. Additionally, NextEra indicated that detailed troubleshooting may be necessary depending on the source of the bubble, TS requirements, current Mode, and allowable system configurations. Special temporary procedures may be developed, reviewed, and approved. Further, any bubbles identified at monitoring locations are documented in the corrective action program. Therefore, the NRC staff finds that the actions taken in response to identified gas voids to be responsive to the GL.
- In RAI 4, the NRC requested additional information on how the occurrence of gas voids are trended by the system engineer. NextEra stated that trending is performed in accordance with existing plant engineering guidelines. The results of UT surveillances are documented on procedure data sheets and trended in a database. Further, NextEra indicated that the data is typically entered while preparing the quarterly Chemical and Volume Control System health report. Adverse trends are entered into the corrective action program. The NRC staff finds the method and frequency of trending to be responsive to the GL.
- In RAI 5, the NRC staff requested additional information on measures taken to prevent gas intrusion due to inadvertent draining, system realignments, incorrect maintenance procedures, or other evolutions. NextEra stated that system operating procedures, human performance tools, work planning and Operations Department control of system configurations are employed to guard against gas intrusion. The NRC staff finds this to be responsive to the GL.
- In RAI 6, the NRC staff requested additional information on the control of work packages and revisions thereto. NextEra described their tag-out and work control process. Revisions to a work activity that result in a change to the intent or scope of the work

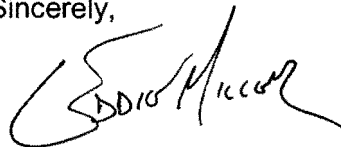
instructions are required to be re-planned and re-authorized. The NRC staff finds this responsive to the GL.

- In RAI 7, the NRC staff requested additional information on the licensee's training programs with respect to gas intrusion. NextEra stated that, on a periodic basis, training is provided to the Operations, Maintenance, and Engineering staff regarding Institute of Nuclear Power Operators Significant Operating Event Report 97-1, "Potential Loss of High Pressure Injection and charging Capability from Gas Intrusion," and that this training has been updated to include past industry experience. Further, NextEra stated that operations personnel are trained on procedures including those used for fill and vent activities. Engineers that perform UT are trained on UT procedures and equipment. The NRC staff finds this to be responsive to the GL.

Based upon the information in NextEra's October 14, 2008, letter and the response to NRC staff questions in NextEra's October 6, 2009, letter, the NRC staff finds NextEra's response to the GL to be acceptable. Consequently, your GL 2008-01 response is considered closed and no further information or action is requested of you. Notwithstanding, an inspection using 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) may be performed by the NRC's Region I staff. TI 2515/177 is confirmatory in nature in that it directs NRC inspectors 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 the plant-specific information supports a conclusion that subject systems operability is reasonably ensured.

If you have any questions regarding this letter, please feel free to contact me at (301) 415-2481.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Edward Miller", with a stylized flourish at the end.

G. Edward Miller, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-443

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/ra/

G. Edward Miller, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
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