



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

June 24, 2011

Mr. Michael J. Annacone, Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 – CLOSEOUT OF
GENERIC LETTER 2008-01, "MANAGING GAS ACCUMULATION IN
EMERGENCY CORE COOLING, DECAY HEAT REMOVAL AND
CONTAINMENT SPRAY SYSTEMS" (TAC NOS. MD7802 AND MD7803)

Dear Mr. Annacone:

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 licensees 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 Part 50 of Title 10 of the *Code of Federal Regulations* 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.

Carolina Power & Light (the licensee) submitted letters dated October 10, 2008, July 27, 2009, December 21, 2009, and July 22, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML082950466, ML092160595, ML100040003, and ML102100026, respectively), providing information in response to GL 2008-01. In its letter dated December 21, 2009, the licensee responded to the NRC staff request for additional

information (RAI). The NRC staff has reviewed and evaluated the licensee response to the NRC staff RAIs, below:

- RAI 1 requested that the licensee describe the criteria used to develop the calculation that provides the analytical basis for the void acceptance criteria, and discuss how it differs from the NRC criteria. The licensee stated that for discharge piping “the void acceptance criteria was that the pressure change generated by a non-condensable gas due to a water-hammer event is not of sufficient magnitude to cause relief valves to lift or to exceed the piping design pressure.” The NRC criteria did not contain any specific criteria for discharge piping. For suction piping, the licensee stated, “Two criteria were used to develop the calculation, a steady-state criterion and a transient criterion.” The licensee described how the steady-state and transient criteria are different than the NRC criteria. The licensee then described how their criteria are bounded by the NRC criteria. The NRC staff concludes that this acceptably addresses the question, and that the subject systems are currently operable with respect to the issues identified in RAI 1.
- RAI 2 addressed the licensee’s training for GL 2008-01 issues. The licensee made use of existing procedures and processes to provide the necessary training. The licensee “is an active participant in the Nuclear Energy Institute Gas Accumulation Team, which is currently coordinating with the Institute of Nuclear Power Operations in the development of generic training modules for gas accumulation and management.” The NRC staff concludes that this acceptably addresses the question and the approach is acceptable.

Based on this review, no further information or action is requested from the licensee with the exception of any commitments that have been made with respect to the GL 2008-01 responses. Notwithstanding, the NRC’s Region II staff may decide to perform 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). The TI 2515/177 is confirmatory in nature in that it directs the 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 the subject systems’ operability is reasonably ensured.

The NRC staff has concluded that the licensee has 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.

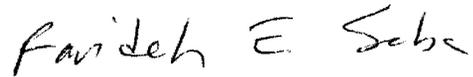
NRC is continuing to engage with stakeholders regarding the creation of durable guidance for gas management that may require additional actions by the licensee. This letter closes out the NRC review of the licensee’s response to GL 2008-01 under TAC Nos. MD7802 and MD7803.

M. Annacone

- 3 -

If you have any questions regarding this letter, please contact me at (301) 415-1447.

Sincerely,

A handwritten signature in black ink that reads "Farideh E. Saba". The signature is written in a cursive style with a clear, legible font.

Farideh Saba, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-324, 50-325

cc: Distribution via Listserv

M. Annacone

- 3 -

If you have any questions regarding this letter, please contact me at (301) 415-1447.

Sincerely,

/RA/

Farideh Saba, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

cc: Distribution via Listserv

DISTRIBUTION:

PUBLIC LPL2-2Reading	RidsAcrsAcnw_MailCTR Resource	RidsNrrDorLpl2-2 Resource
RidsOgcRp Resource	RidsNrrPMBrunswick Resource	RidsNrrLACSola Resource
RidsRgn2MailCenter Resource	RidsNrrDssSrx Resource	EBowman, NRR/DPR
AMarkley, NRR/DPR	DWoodyatt, NRR/DSS	WLyons, NRR/DSS
JGall, NRR		

ADAMS Accession No.: ML100890025

OFFICE	NRR/LPL2-2/PM	NRR/LPL2-2/LA	DSS/SRXB/BC*	NRR/LPL2-2/BC	NRR/LPL2-2/PM
NAME	FSaba	CSola	SUises	DBroaddus (SLingam for)	FSaba
DATE	05/24/11	05/24/11	10/29/10	06/24/11	06/24/11

OFFICIAL RECORD COPY