



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

April 27, 2011

Vice President, Operations
Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775

SUBJECT: RIVER BEND STATION, UNIT 1 - CLOSEOUT OF GENERIC LETTER 2008-01,
"MANAGING GAS ACCUMULATION IN EMERGENCY CORE COOLING,
DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS" (TAC
NO. MD7870)

Dear Sir or Madam:

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). 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 the above 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.

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. By letter dated October 14, 2008 (ADAMS Accession No. ML082950483), Entergy Operations, Inc., the licensee for the River Bend Station, Unit No. 1 (RBS), provided responses to GL 2008-01. By letter dated December 10, 2010 (ADAMS Accession No. ML103550495), the licensee responded to an NRC staff request for additional information (RAI) dated October 20, 2010 (ADAMS Accession No. ML102930282).

The NRC RAI dated December 10, 2010, had six questions. Below is a summary of the NRC staff's review of each of Entergy's responses and its closure:

- RAI 1 addressed pump monitoring operations in all modes. The licensee maintains various operating procedures that provide guidance on monitoring pump operations. Additionally, system operating procedures contain guidance on pump operating limits, expected operating indications, as well as guidance on the pump operations in various system modes. Monthly venting and verification of valve alignment are controlled by surveillance test procedures. The NRC staff concludes that this response and the approach are acceptable.
- RAI 2 addressed the definition of "significant air." The licensee used Engineering Calculation G13.18.2.0-082 in order to determine a conservative gas venting time to trigger trending before a void volume of 5 cubic feet of air is reached. Significant air is reached when the venting time exceeds 3 seconds, which equates to 3.9 cubic feet of air. The NRC staff concludes that this response is acceptable.
- RAI 3 addressed the performance of ultrasonic testing. The licensee uses the corrective action process (CAP) whenever an excess of air is encountered. This air gets quantified and compared to acceptance requirements. The CAP is utilized to determine if the system is operable and the actions that need to be taken to resolve the issue. The NRC staff concludes that this response and the approach are acceptable.
- RAI 4 addressed measures to guard against gas intrusion based on various evolutions. The licensee uses operating procedures to provide guidance on system operating limits, expected operating indications, as well as guidance on the pump operation in various system modes. The licensee also conducts operator training on the use of the procedures. The NRC staff concludes that this response and the approach are acceptable.
- RAI 5 addressed the control and revision of work packages. The licensee states that work packages are prepared and revised by the planning department in accordance with administrative work control procedures. These packages are then reviewed and approved by the appropriate personnel. The NRC staff concludes that this response and the approach are acceptable.
- RAI 6 addressed training. The licensee states that it provides training to personnel that are responsible for the design, performance monitoring, and operation of systems susceptible to gas intrusion or systems and components that may cause gas intrusion in all safety systems. This training is in the continuing training program. The NRC staff concludes that this response and the approach are acceptable.

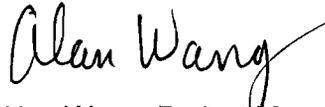
The NRC staff concludes that the licensee has acceptably demonstrated "that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified," as stated in

GL 2008-01. The NRC 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.

The NRC staff has reviewed the submitted information and concludes that for RBS your response to GL 2008-01 is acceptable. Based on this review, your response to GL 2008-01 is considered closed and no further information or action is requested. Notwithstanding, the NRC's Region IV staff may decide to perform, and would contact you to schedule, 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). 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.

If you have any questions regarding this letter, please feel free to contact me (301) 415-1445 or Alan.Wang@nrc.gov.

Sincerely,



Alan Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-458

cc: Distribution via Listserv

GL 2008-01. The NRC 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.

The NRC staff has reviewed the submitted information and concludes that for RBS your response to GL 2008-01 is acceptable. Based on this review, your response to GL 2008-01 is considered closed and no further information or action is requested. Notwithstanding, the NRC's Region IV staff may decide to perform, and would contact you to schedule, 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). 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.

If you have any questions regarding this letter, please feel free to contact me (301) 415-1445 or Alan.Wang@nrc.gov.

Sincerely,

/RA/

Alan Wang, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-458

cc: Distribution via Listserv

DISTRIBUTION:

PUBLIC
LPL4 R/F
RidsAcrcAcnw_MailCTR Resource
RidsNrrDorIDpr Resource
RidsNrrDorLpl4 Resource
RidsNrrDssSrxsb Resource

RidsNrrLAJBurkhardt Resource
RidsNrrPMRiverBend Resource
RidsOgcRp
RidsRgn4MailCenter Resource
DCunanan, NRR/DSS/SRXB

ADAMS Accession No. ML111010405

*memo dated

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA	NRR/DSS/SRXB/BC	NRR/DORL/LPL4/BC	NRR/DORL/LPL4/PM
NAME	AWang	JBurkhardt	AUises*	MMarkley (BSingal for)	AWang
DATE	4/27/11	4/12/11	4/1/11	4/27/11	4/27/11

OFFICIAL RECORD COPY