

August 4, 2008

Mr. James A. Spina
Vice President
Calvert Cliffs Nuclear Power Plant, Inc.
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT UNIT 2 – RE: GENERIC LETTER 2008-01, “MANAGING GAS ACCUMULATION IN EMERGENCY CORE COOLING, DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS,” PROPOSED ALTERNATIVE COURSE OF ACTION (TAC NO. MD7808)

Dear Mr. Spina:

On January 11, 2008, the 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 GL requested licensees to submit information to demonstrate that the emergency core cooling, decay heat removal, and containment spray systems (hereinafter referred to as 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.

In accordance with Section 50.54(f) of Title 10 of the *Code of Federal Regulations* (10 CFR), GL 2008-01 required that each licensee submit the requested information within 9 months (hereinafter referred to as the “9-month submittal”) of the date of the GL. The GL also stated that if a licensee cannot meet the requested 9-month response date, the licensee is required to provide a response within 3 months (hereinafter referred to as the “3-month submittal”) of the date of the GL, describing the alternative course of action it proposes to take, including the basis for the acceptability of the proposed alternative course of action.

By letter dated April 11, 2008, as supplemented by letter dated June 25, 2008, Constellation Energy Company, the licensee, submitted a 3-month response to GL 2008-01 for Calvert Cliffs Nuclear Power Plant, Unit 2 (CCNPP2). The NRC staff’s assessment of the response for CCNPP2 is contained in the enclosure.

The NRC staff reviewed the licensee’s proposed alternative course of action and concluded that for CCNPP2, with the exception of the clarifications and associated requests discussed in the enclosure, your proposed alternative course of action related to your 9-month supplemental (post-outage) response is acceptable. However, the NRC staff requests you submit a 3-month supplemental response to revise your alternative course of action related to your 9-month initial response for CCNPP2 as described in the enclosure. This letter allows the licensee to implement its proposed alternative course of action provided that implementation is consistent with the clarifications and associated requests discussed in the enclosure.

J. A. Spina

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If you have any questions regarding this letter, please feel free to contact Douglas Pickett at (301) 415-1364.

Sincerely,

/RA/

Mark G. Kowal, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-318

Enclosure:
As stated

cc w/encl: See next page

J. A. Spina

- 2 -

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Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2

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NRC STAFF ASSESSMENT OF 3-MONTH RESPONSE

TO GENERIC LETTER 2008-01

CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

DOCKET NO. 50-318

1.0 Background

On January 11, 2008, the 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 GL requested licensees to submit information to demonstrate that the emergency core cooling, decay heat removal, and containment spray systems (hereinafter referred to as 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. Specifically, the GL requested licensees to provide: (1) a description of the results of evaluations that were performed in response to the GL; (2) a description of all corrective actions that the licensee determined were necessary; and (3) a statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

In accordance with Section 50.54(f) of Title 10 of the *Code of Federal Regulations* (10 CFR), GL 2008-01 required that each licensee submit the requested information within 9 months (hereinafter referred to as the "9-month submittal") of the date of the GL. The GL also stated that if a licensee cannot meet the requested 9-month response date, the licensee is required to provide a response within 3 months (hereinafter referred to as the "3-month submittal") of the date of the GL, describing the alternative course of action it proposes to take, including the basis for the acceptability of the proposed alternative course of action.

2.0 Licensee's Proposed Alternative Course of Action

By letter dated April 11, 2008, as supplemented by letter dated June 25, 2008, Constellation Energy Company, the licensee, submitted a 3-month response to GL 2008-01 for Calvert Cliffs Nuclear Power Plant, Unit 2 (CCNPP2). The licensee indicates that for CCNPP2, the evaluations requested by GL 2008-01 require physical walkdowns to confirm locations of point vents, as-built configurations, and performance of non-intrusive examinations of piping with potential to contain accumulated gases. CCNPP2 cannot complete the required walkdowns within the GL response reporting time because portions of the GL subject systems that are located in the CCNPP2 containment and CCNPP2 27' west penetration room are inaccessible during power operation for the concern of high radiation exposures. The licensee indicates that it will complete for CCNPP2 as much of the requested GL actions within the required 9-month period as is practical, based upon accessibility of the subject systems.

Enclosure

The licensee defers the required walkdown for these identified inaccessible piping until the next CCNPP2 refueling outage that is scheduled for the spring of 2009.

As an alternative course of action, the licensee states that:

“within six months after the end of the next scheduled Calvert Cliffs Unit 2 refueling outage, we will submit a written response informing the NRC of the activities performed consistent with the actions and information requested by GL 2008-01.”

In letter dated June 25, 2008, the licensee revised the quoted statement as follows:

“within 90 days after the end of the next scheduled Calvert Cliffs Unit 2 refueling outage, we will submit a written response informing the NRC of the activities performed consistent with the actions and information requested by GL 2008-01.”

The licensee has confidence that the subject systems can fulfill their design functions, based on over 30 years of operating experience, including system walkdowns, detailed evaluations, and system improvements. In addition, the subject systems are routinely tested in accordance with Technical Specifications (TSs) and inservice testing program, and previous issues involving gas accumulation have been documented, evaluated, and corrected. As such, the licensee concludes that for CCNPP2, the alternative course of action is acceptable.

3.0 NRC Staff Assessment

The NRC staff finds that for CCNPP2, with the exception of the clarifications and associated requests discussed below, the licensee's proposed alternative course of action related to its 9-month supplemental (post-outage) response is acceptable. This is based on the above-described operating experience and testing associated with managing gas accumulation at CCNPP2. However, the NRC staff requests that the licensee submit a 3-month supplemental response for CCNPP2 to revise its proposed alternative course of action related to its 9-month initial response as described below.

The NRC staff notes that the licensee is silent on when the work (including the results of walkdowns and evaluations for the accessible piping) completed before October 11, 2008, will be documented and submitted to the NRC. The NRC staff requests that the licensee submit the information requested in the GL as follows:

- (1) 9-Month Initial Submittal - For the portions of the subject systems that are accessible prior to the next refueling outage that is currently scheduled in the spring of 2009 for the CCNPP2, provide all GL requested information to the NRC by October 11, 2008. The NRC staff requests the licensee to submit a 3-month supplemental response to provide a revised commitment that meets the NRC's request regarding the 9-month initial submittal for CCNPP2.
- (2) 9-Month Supplemental (Post-Outage) Submittal - Except for the long-term items described below, provide all remaining GL requested information for the subject systems to the NRC within 90 days following completion of spring 2009 refueling outage for the CCNPP2. The NRC staff finds that the licensee's alternative course of action related to

the 9-month supplemental submittal as stated in the licensee's letter dated June 25, 2008, discussed in Section 2.0 above, is acceptable for CCNPP2.

For each of these two submittals (the 9-month initial and supplemental submittals), and consistent with the information requested in the GL, the licensees should provide: (1) a description of the results of evaluations that were performed in response to the GL; (2) a description of all corrective actions that the licensee determined were necessary; and (3) a statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

The NRC staff noted that the licensee's submittals dated April 11, 2008, and June 25, 2008, did not mention other potential long-term actions that are identified in the GL. For instance, the industry is assessing whether it is necessary to perform pump testing to determine the allowable limits on ingested gas volume in pump suction piping, as well as, whether analysis development is needed to assess gas transport in the subject system piping as a function of system flow. It is unlikely this industry effort will be complete for the 9-month initial or supplemental submittals. Further, TS changes may be necessary to reflect the improved understanding achieved during response to the GL, but these cannot be fully developed for the 9-month initial or supplemental submittals. A Technical Specifications Task Force traveler may provide a generic example that can be adopted by licensees. The NRC staff requests that the licensee address in its 9-month submittal how it plans to track such long-term actions (e.g., Corrective Action Program and/or commitment tracking). The NRC plans to perform follow-up inspections of licensee responses to GL 2008-01 at all plants using a Temporary Instruction inspection procedure.