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A Member of the
Constellation Energy Group

June 15, 2000

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Response to Request for Additional Information Concerning the License
Amendment Request to Modify Containment Closure During Core
Alterations/Fuel Handling and Loss of Shutdown Cooling

REFERENCES:

- (a) Telephone Conference between Ms. D. J. Moeller, et.al. (BGE) and Mr. A. W. Dromerick, et.al. (NRC), dated May 24, 2000, same subject
- (b) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated January 27, 2000, "License Amendment Request: Modification of Containment Closure During Core Alterations/Fuel Handling and Loss of Shutdown Cooling"

This letter provides the information we agreed to provide you during Reference (a). This information supports and/or clarifies the information provided in Reference (b).

Requested Information:

1. *In the event of a fuel-handling accident (FHA) inside containment with the proposed containment outage door open, the release would be assumed to occur through that opening directly to the environment. The current control room habitability analysis, performed to allow the personnel air lock to remain open during fuel movement and core alterations, assumed a different release point, as well as the previous location of the control room intake. Explain how the control room X/Q used in the current analysis is applicable to the proposed situation.*

A001

BGE Response:

The X/Q value for the design basis FHA, i.e., from the containment surface to the control room inlet, is limiting. Based on the ARCON96 code and utilizing the current Nuclear Regulatory Commission guidance on ARCON96 inputs, the source-to-receptor X/Q values are ranked as follows:

- (1) Containment to control room;
- (2) Vent stack to control room;
- (3) Containment to west road inlet;
- (4) Containment outage door to control room;
- (5) Vent stack to west road inlet; and
- (6) Containment outage door to west road inlet.

It has been determined that the design basis configuration (containment to control room) is 3.5 times more limiting than the current configuration (containment outage door to west road inlet).

2. *The staff is currently reviewing another application on control room habitability for the Calvert Cliffs plant. In that review, the control room unfiltered inleakage was reported as being higher than that assumed in the current FHA control room analysis. The control room habitability analysis for this amendment request should use the updated value.*

BGE Response:

Calvert Cliffs Nuclear Power Plant's current design basis FHA analysis assumes 910 cfm unfiltered inleakage and credits donning self-contained breathing apparatus within three hours to comply with 10 CFR Part 50 Appendix A General Design Criteria 19 limits. Calvert Cliffs is implementing a 10 CFR 50.59 change to the Updated Final Safety Analysis Report to modify the design basis FHA analysis to 4600 cfm unfiltered inleakage and self-contained breathing apparatus utilization to within 70 minutes to comply with General Design Criteria 19 limits. Note that this Updated Final Safety Analysis Report change utilizes the same methodology as our current design basis. It also relies on updated procedures (Emergency Response Plan Implementation Procedure 108) and control room detection monitors (SPA3 monitors) and counters (MS2 counters) to implement the change.

Also note that the containment outage door to west road inlet configuration is still bounded by the containment to control room configuration.

