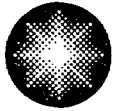


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## Constellation Energy

November 23, 2004

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  
Supplemental Response to NRC Generic Letter 2003-01, "Control Room  
Habitability"

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**REFERENCES:** (a) Letter from Mr. G. Vanderheyden (CCNPP) to Document Control Desk (NRC), dated December 5, 2003, Response to NRC Generic Letter 2003-01, "Control Room Habitability"  
(b) NRC Generic Letter 2003-01: Control Room Habitability, dated June 12, 2003

By letter dated December 5, 2003 (Reference a), the Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP) provided a response to Nuclear Regulatory Commission (NRC) Generic Letter 2003-01 (Reference b). This letter provides an update of our plan for completing the formal reanalysis of the applicable accidents using an alternate source term and submittal of a license amendment request to the NRC.

We have completed the initial reanalysis of applicable Updated Final Safety Analysis Report, Chapter 14 accidents using an alternate source term per Regulatory Guide 1.183. In addition to the use of the alternate source term, modifications to the plant and revisions to several other related analyses, will be needed to achieve the required total effective dose equivalent of  $\leq 5$  Rem to the Control Room operators.

Due to the complexity of options evaluated, it has taken longer than anticipated to develop modification recommendations and obtain appropriate approval to proceed. The approach selected is a combination of plant modifications, procedural changes, and Technical Specification changes. For each accident analysis, multiple modification scenarios were evaluated to determine the best resolution to the issues raised in the Generic Letter.

At this time, the following list outlines the changes we propose to meet Generic Letter 2003-01 objectives. These changes are dependent on finalizing the accident analyses.

### Hardware Modifications

1. Automatically isolate Access Control Ventilation Units 11/13 on a radiation monitor signal.
2. Add new radiation monitors.

A102

3. Replace the existing 2,000 cfm post loss-of-coolant incident filters, fan and dampers with a 10,000 cfm system.

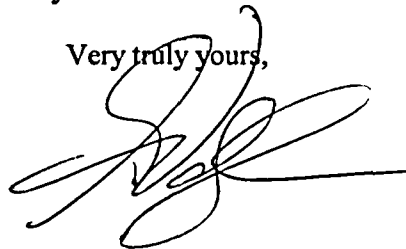
Analytical/Licensing Changes

1. Revise the Updated Final Safety Analysis Report assumption for the control element assembly ejection event from 10% melted fuel to 5% melted fuel, plus 5% clad failure.
2. Revise the time assumed to isolate the affected steam generator following a steam generator tube rupture from eight hours to two hours.
3. Reduce the Technical Specification limit for Reactor Coolant System activity to 0.5  $\mu\text{Ci/gm}$ .
4. Reduce the leakage acceptance criteria through the safety injection tank leakage to refueling water tank isolation valve (SI-459) and the safety injection pump minimum-flow return to refueling water tank isolation valves (MOV-659/660) to 1000 cc/hr and implement more precise testing.
5. Assume a bypass flow rate from Containment into the Auxiliary Building of 30%.
6. Reduce the Technical Specification limit for containment leakage,  $L_a$ , from 0.20% to 0.16%.

Our revised plan calls for completing the analyses and submitting the associated license amendment request by September 15, 2005. Upon submittal of the license amendment request, detailed engineering for the modifications will begin with an estimated completion date of September 24, 2007. Once the engineering is issued, construction packages will be prepared and implemented. Without completed engineering, it is not practical at this time to estimate an implementation completion date.

Should you have questions or insights regarding our approach to resolving the issues raised by the Generic Letter, we will be pleased to discuss them with you.

Very truly yours,



GV/GT/bjd

cc: J. Petro, Esquire  
J. E. Silberg, Esquire  
R. V. Guzman, NRC

S. J. Collins, NRC  
Resident Inspector, NRC  
R. I. McLean, DNR