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Constellation Energy

March 3, 2005

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 NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors"

REFERENCE: (a) NRC Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors

The purpose of this letter is to forward Calvert Cliffs Nuclear Power Plant, Inc.'s response to the Nuclear Regulatory Commission (NRC) Generic Letter 2004-02 (Reference a). The Generic Letter was issued to request evaluation of the Emergency Core Cooling System (ECCS) and Containment Spray System (CSS) recirculation functions and, if appropriate, take additional actions to ensure system function. The request is based on the identified potential susceptibility of pressurized-water reactor (PWR) recirculation sump screens to debris blockage during design basis accidents.

The Generic Letter contains two sets of requests for information. The first set of request for information is due to the NRC within 90 days of the date of the safety evaluation report on industry guidance. With the issuance of the safety evaluation report on December 6, 2004, the 90-day response is due by March 7, 2005. The second set of request for information is due by September 1, 2005. The primary purpose of this letter is to provide Calvert Cliffs' response to the first set of request for information [Requested Information (1) below]. Additionally, this letter contains our response to Requested Information (b) from the second set with a request for extension of the completion date for Unit 1 corrective actions from December 31, 2007, to May 31, 2008.

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Requested Information (1)

Within 90 days of the date of the safety evaluation report providing the guidance for performing the requested evaluation, addressees are requested to provide information regarding their planned actions and schedule to complete the requested evaluation. The information should include the following:

a) A description of the methodology that is used or will be used to analyze the susceptibility of the ECCS and CSS recirculation functions for your reactor to the adverse effects identified in this generic letter of post-accident debris blockage and operation with debris-laden fluids identified in this generic letter. Provide the completion date of the analysis that will be performed.

b) A statement of whether you plan to perform a containment walkdown surveillance in support of the analysis of the susceptibility of the ECCS and CSS recirculation functions to the adverse effects of debris blockage identified in this generic letter. Provide justification if no containment walkdown surveillance will be performed. If a containment walkdown surveillance will be performed, state the planned methodology to be used and the planned completion date.

Calvert Cliffs' Response

Calvert Cliffs has analyzed the susceptibility of Unit 1 ECCS and CSS recirculation functions to the adverse effects of post-accident debris blockage and operation with debris-laden fluids identified in Generic Letter 2004-02 using the industry guidance document NEI-04-07, "Pressurized-Water Reactor (PWR) Sump Performance Methodology," dated May 28, 2004. The data used in the analysis was collected by performing containment walkdown in accordance with NEI-02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1, with the exception of latent debris sampling. The results of the analysis indicated that the existing sump strainer does not meet the new NRC design guidance and a corrective action is required.

After evaluating several options for corrective action, we have elected to install a dual train self-cleaning strainer device designed by General Electric Company. The functionality of this device is largely independent of debris load. The only plant-specific criterion for self-cleaning strainer is debris loading rate. The self-cleaning strainer that will be installed at Calvert Cliffs will be qualified to debris loading rates several orders of magnitude greater than predicted for Unit 1. Since Unit 2 is of nearly identical design to Unit 1, we will not be performing a containment debris walkdown for Unit 2.

Requested Information (2b)

A general description of and implementation schedule for all corrective actions, including any plant modifications, that you identified while responding to this generic letter. Efforts to implement the identified actions should be initiated no later than the first refueling outage starting after April 1, 2006. All actions should be completed by December 31, 2007. Provide justification for not implementing the identified actions during the first refueling outage starting after April 1, 2006. If all corrective actions will not be completed by December 31, 2007, describe how the regulatory requirements discussed in the Applicable Regulatory Requirements section will be met until the corrective actions are completed.

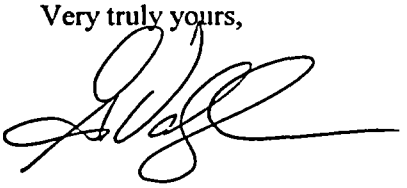
Calvert Cliffs' Response

As we indicated above, we plan to install a dual train self-cleaning strainers in both Calvert Cliffs Unit 1 and 2 for corrective action. Based on our current project plan, installation of these devices will be completed for both units during the first refueling outage starting after April 1, 2006. However, for Unit 1 the first refueling outage starting after April 1, 2006, is in spring 2008; as a result, Unit 1's corrective action will not be completed by December 31, 2007. Without the implementation of the planned corrective actions, we will not be able to meet the regulatory requirement based on the new

analysis. Therefore, we request an extension of the completion date for Calvert Cliffs Unit 1 corrective action to May 31, 2008. We acknowledge, the request for completion date extension should have been made in the 30-day response to the Generic Letter which was due October 13, 2004. However, since we were still evaluating several options for corrective actions, we did not anticipate not meeting the completion date until a final decision to select the self-cleaning strainer and an optimum installation schedule was established in January of 2005.

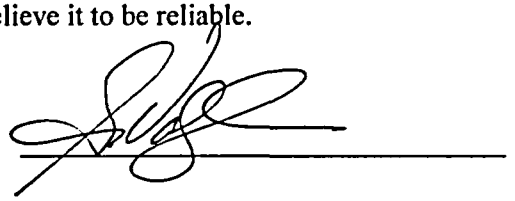
Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



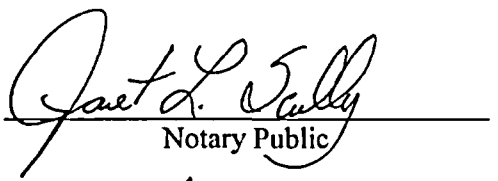
STATE OF MARYLAND :
: **TO WIT:**
COUNTY OF CALVERT :

I, George Vanderheyden, being duly sworn, state that I am Vice President - Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP), and that I am duly authorized to execute and file this response on behalf of CCNPP. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other CCNPP employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.



Subscribed and sworn before me, a Notary Public in and for the State of Maryland and County of St. Mary's, this 3rd day of March, 2005.

WITNESS my Hand and Notarial Seal:



Notary Public

My Commission Expires:

March 15 2007

Date

GV/GT/bjd

cc: C. W. Fleming, Esquire
R. V. Guzman, NRC
S. J. Collins, NRC
Resident Inspector, NRC
R. I. McLean, DNR