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March 2, 2009

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  
Additional Information Re: Replacement of the Trisodium Phosphate Buffer  
with a Sodium Tetraborate Buffer

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**REFERENCES:**

- (a) Letter from Mr. J. A. Spina (CCNPP) to Document Control Desk (NRC), dated August 27, 2008, License Amendment Request: Replacement of the Trisodium Phosphate Buffer with a Sodium Tetraborate Buffer
- (b) Letter from Mr. J. A. Spina (CCNPP) to Document Control Desk (NRC), dated June 18, 2008, Request for Extension for Completion of Activities Related to Generic Letter 2004-02

In Reference (a), Calvert Cliffs Nuclear Power Plant, Inc. proposed a license amendment to change the containment buffering agent from trisodium phosphate to sodium tetraborate. The purpose of the request was to minimize the potential for sump screen blockage concerns under post loss-of-coolant accident conditions due to potential adverse interaction between trisodium phosphate and certain insulation materials used in Containment. As part of this request we asked for an implementation date for the license amendment of no later than June 1, 2009 for Unit 1 to meet a commitment to change the buffer material in Unit 1 as described in Reference (b). Since then, we have performed additional testing using conservative inputs and appropriate guidance for the existing configuration (including the trisodium phosphate buffer material) of Unit 1. The results of that testing and the resultant conservative net positive suction head (NPSH) calculations indicate adequate NPSH for all safety injection and containment spray pumps on Unit 1.

Note that we are changing the buffer material and removing additional aluminum material inside the Unit 2 Containment during the current refueling outage as discussed in Reference (b). These changes are also supported by testing using conservative inputs and appropriate guidance. The results of that testing and the resultant conservative NPSH calculations indicate adequate NPSH for all safety injection and containment spray pumps on Unit 2.

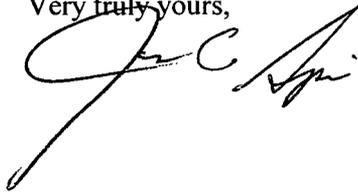
Therefore, we are completing the identified actions associated with Generic Letter 2004-02 and will provide our final supplemental response to Generic Letter 2004-02 following the Unit 2 refueling outage.

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Additionally, we plan to change the buffer material in Unit 1 during the next Unit 1 refueling outage in the spring of 2010 to eliminate the differences in buffer material between the two Units and better manage the NPSH margin. The testing supporting Unit 2 bounds Unit 1 as well after buffer replacement. Therefore, we are changing our requested implementation date for the containment buffer Technical Specification change for Unit 1 from no later than June 1, 2009 to startup from the spring 2010 refueling outage for Unit 1.

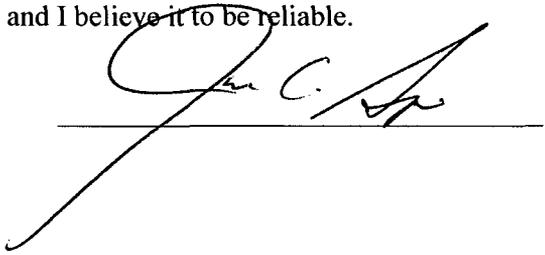
Should you have questions regarding this matter, please contact Mr. Jay S. Gaines at (410) 495-5219.

Very truly yours,



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

I, James A. Spina, 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 License Amendment Request 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.



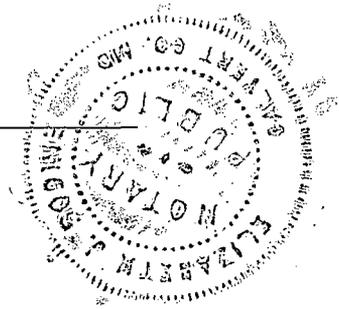
Subscribed and sworn before me, a Notary Public in and for the State of Maryland and County of Calvert, this 2 day of March, 2009.

WITNESS my Hand and Notarial Seal:

  
Notary Public

My Commission Expires: 7/1/10

3/2/09  
Date



JAS/PSF/bjd

cc: D. V. Pickett, NRC  
S. J. Collins, NRC

Resident Inspector, NRC  
S. Gray, DNR