

September 10, 2004

Mr. George Vanderheyden, Vice President  
Calvert Cliffs Nuclear Power Plant, Inc.  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) - CALVERT CLIFFS  
NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 - BULLETIN 2003-01,  
"POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY SUMP  
RECIRCULATION AT PRESSURIZED-WATER REACTORS" (TAC NOS.  
MB9564 AND MB9565)

Dear Mr. Vanderheyden:

In reviewing your 60-day response to Bulletin 2003-01 of August 8, 2003, concerning the potential impact of debris blockage on emergency sump recirculation at pressurized-water reactors, the Nuclear Regulatory Commission staff has determined that additional information contained in the enclosure to this letter is needed to complete its review. This information was discussed with your staff on September 9, 2004. As agreed to by your staff, we request you respond within 60 days of the date of this letter.

If you have any questions, please contact me at 301-415-1030.

Sincerely,

*/RA/*

Richard V. Guzman, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosure: RAI

cc w/encl: See next page

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\* Provided RAI input by memo. No substantive changes made.

Accession Number: ML042540359

OFFICE	PDI-1/PM	PDI-1/LA	SPLB/SC*	PDI-1/SC
NAME	RGuzman	SLittle	JHannon	RLaufer
DATE	9/9/04	9/9/04	08/20/04	9/10/04

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REQUEST FOR ADDITIONAL INFORMATION  
RELATING TO BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON  
EMERGENCY SUMP RECIRCULATION AT PRESSURIZED-WATER REACTORS"  
FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2  
CONSTELLATION ENERGY GROUP  
DOCKET NOS. 50-317 AND 50-318

By letter dated August 8, 2003, Constellation Energy Group (the licensee/CEG) provided the 60-day response to Nuclear Regulatory Commission (NRC) Bulletin 2003-01 for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. The Bulletin requested CEG to either (1) state that the emergency core cooling system (ECCS) and containment spray system (CSS) recirculation functions have been analyzed with respect to the potentially adverse post-accident debris blockage effects identified in the Bulletin and are in compliance with all existing applicable regulatory requirements, or (2) describe any interim compensatory measures that have been implemented or that will be implemented to reduce the interim risk associated with potentially degraded or nonconforming ECCS and CSS recirculation functions until an evaluation to determine compliance is complete. The NRC staff has completed its preliminary review of your response and has determined it needs the following additional information to complete its review:

1. On page 5 of Attachment 1 of CEG's response to Bulletin 2003-01, it states that enhancements to operator training on indications of and responses to sump clogging were being assessed, with an evaluation completion date of September 15, 2003, and an implementation date of January 31, 2004. However, CEG's response does not completely discuss the operator training to be implemented. Please provide a detailed discussion of the operating procedures to be implemented, the indications of sump clogging that the operators are instructed to monitor, and the response actions the operators are instructed to take in the event of sump clogging and loss of ECCS recirculation capability.
2. On page 4 of Attachment 1 of CEG's response to Bulletin 2003-01, it states: "... in collaboration with the Westinghouse Owner's Group (WOG), Calvert Cliffs is evaluating the benefit of the following procedural actions:
  - i. Terminate one train of high pressure safety injection (HPSI) following a recirculation actuation signal (RAS).
  - ii. Review safety injection stop/throttle criteria to terminate unneeded safety injection pumps prior to RAS.
  - iii. Review stop and reset criteria to enable early termination and subsequent cycling of containment spray pumps as needed."

Enclosure

On page 4 of Attachment 1 of CEG's response to Bulletin 2003-01, it states that potential actions to delay the onset of the RAS were to be evaluated in conjunction with the WOG. The stated evaluation completion date was March 31, 2004, and the implementation date of any changes to operator actions was to be determined. WOG has developed operational guidance in response to Bulletin 2003-01 for Westinghouse and Combustion Engineering type pressurized-water reactors.

- i. Please provide a discussion of your plans to consider implementing this new WOG guidance. Include a discussion of the WOG recommended compensatory measures that have been or will be implemented at your plant, and the evaluations or analyses performed to determine which of the WOG-recommended changes are acceptable at your plant. Provide technical justification for those WOG-recommended compensatory measures not being implemented by your plant.
  - ii. Include a detailed discussion of the procedures being modified, the operator training being implemented, and your schedule for implementing these compensatory measures.
3. NRC Bulletin 2003-01 provides possible interim compensatory measures licensees could consider to reduce risks associated with sump clogging. In addition to those compensatory measures listed in Bulletin 2003-01, licensees may also consider implementing unique or plant-specific compensatory measures, as applicable. Please discuss any possible unique or plant-specific compensatory measures you considered for implementation at your plant. Include a basis for rejecting any of these additional considered measures.

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

cc:

Mr. George Vanderheyden  
Vice President  
Calvert Cliffs Nuclear Power Plant, Inc.  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

President  
Calvert County Board of  
Commissioners  
175 Main Street  
Prince Frederick, MD 20678

James M. Petro, Esquire  
Counsel  
Constellation Energy  
750 East Pratt Street, 17<sup>th</sup> floor  
Baltimore, MD 21202

Jay E. Silberg, Esquire  
Shaw, Pittman, Potts, and Trowbridge  
2300 N Street, NW  
Washington, DC 20037

Lou Larragoite  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

Resident Inspector  
U.S. Nuclear Regulatory  
Commission  
P.O. Box 287  
St. Leonard, MD 20685

Mr. R. I. McLean, Administrator  
Radioecology Environ Impact Prog  
Department of Natural Resources  
Nuclear Evaluations  
580 Taylor Avenue  
Tawes State Office Building  
Annapolis, MD 21401

Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Kristen A. Burger, Esquire  
Maryland People's Counsel  
6 St. Paul Centre  
Suite 2102  
Baltimore, MD 21202-1631

Patricia T. Birnie, Esquire  
Co-Director  
Maryland Safe Energy Coalition  
P.O. Box 33111  
Baltimore, MD 21218

Mr. Loren F. Donatell  
NRC Technical Training Center  
5700 Brainerd Road  
Chattanooga, TN 37411-4017