December 14, 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: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 (CCNPP 1 AND 2) - REQUEST FOR ADDITIONAL INFORMATION RE: INCORPORATING CORE OPERATING LIMITS ANALYTICAL METHODOLOGY REFERENCES INTO TECHNICAL SPECIFICATIONS (TAC NOS. MC4019 AND MC4020)

Dear Mr. Vanderheyden:

In reviewing your submittal of July 15, 2004, concerning the subject request for amendment to incorporate the references to the list of approved core operating limits analytical methods in the Technical Specifications for CCNPP 1 and 2, the Nuclear Regulatory Commission (NRC) staff has determined that additional information contained in the enclosure to this letter is needed to complete its review. The NRC staff discussed the issue with your staff on December 1, 2004. As agreed to by your staff, we request you respond within 30 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: As stated

cc w/encl: See next page

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OFFICE	PDI-1/PM	PDI-1/LA	SRXB/SC	PDI-1/SC
NAME	RGuzman	SLittle	JUhle	RLaufer
DATE	12/06/04	12/13/04	12/06/04	12/14/04

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REQUEST FOR ADDITIONAL INFORMATION (RAI) CONCERNING

AMENDMENT REQUEST TO INCORPORATE METHODOLOGY

REFERENCES INTO THE TECHNICAL SPECIFICATIONS

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NOS. 1 AND 2 (CCNPP 1 AND 2)

DOCKET NOS. 50-317 AND 50-318

1. In Attachment 3 to the July 15, 2004, letter, which provides supplemental information to demonstrate the applicability of the Westinghouse nuclear physics code package to CCNPP 1 and 2, Table 2.2-3 provides comparisons between the measurements and predictions (using the Phoenix-P/ANC codes) of the CCNPP Unit 2 Cycles 13 and 14 control rod worth. These comparisons show that the differences between measured and predicted values are as large as -6.9% and 7% for control element assembly (CEA) groups 2 and 5, respectively.

   Provide justification for using the Westinghouse nuclear physics package to CCNPP 1 and 2 in light of these large differences.

2. The Nuclear Regulatory Commission (NRC) has approved WCAP-16072-P-A, "Implementation of Zirconium Diboride Burnable Absorber in CE Nuclear Power Fuel Assembly Designs," with conditions and limitations specified in Section 4.0 of the Safety Evaluation (SE). In referencing WCAP-16072-P-A for the use of Zirconium Diboride (ZrB_2) in the CCNPP 1 and 2 integral fuel burnable absorber design, the licensee states (in Section 4 of Attachment 1 to the July 15, 2004, letter) that it agrees to all conditions and limitations in the SE that approved the Zirconium Diboride Topical. The licensee also states that it will update staff training and procedures for the operating strategy that may result in the peak positive moderator temperature coefficient occurring after the beginning of the fuel cycle.

   Provide a regulatory commitment for the conditions and limitations specified in the SE on WCAP-16072, including actions committed by Calvert Cliffs, the types of actions (either one-time action or continuing compliance) and scheduled completion dates if required.

3. Section 4 of Attachment 1 states that "Calvert Cliffs will confirm that the peak positive hot full power (HFP) moderator temperature coefficient (MTC) is within the Technical Specification limits at the highest Reactor Coolant System soluble boron concentration predicted during full power operation. The peak positive HFP MTC will be determined by adjusting the HFP MTC measured at beginning of cycle to the maximum HFP soluble boron concentration expected during the fuel cycle." However, Condition 3 in the NRC staff's SE for WCAP-16072-P-A states that, "in order to ensure a conservative adjustment, a direct measurement of MTC is required at the highest reactor coolant system soluble boron concentration predicted during full power operation. This direct measurement is only required for the first application of ZrB_2 IFBA in a Combustion Engineering 14x14 or 16x16 fuel assembly design."

Enclosure

Since CCNPP 1 and 2 may be the first application of ZrB_2 IFBA in a CE 14x14 fuel assembly design, provide justification or a regulatory commitment to include that a direct measurement of MTC at the peak soluble boron concentration will be performed.

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

cc:

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

James M. Petro, Esquire
Counsel
Constellation Energy
750 East Pratt Street, 17th 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