

January 19, 2006

Mr. James A. Spina, 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 -  
REQUEST FOR ADDITIONAL INFORMATION REGARDING MEASUREMENT  
UNCERTAINTY RECAPTURE POWER UPRATE (TAC NOS. MC6210 AND  
MC6211)

Dear Mr. Spina:

By letter dated January 31, 2005, as supplemented on June 30, July 18, and October 14, 2005, Calvert Cliffs Nuclear Power Plant, Inc. requested a change to the license and technical specifications (TSs) for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, to increase the steady state core thermal power level to 2737 megawatts thermal, which is a 1.38% increase in licensed power level. The power uprate is based on the improvement in core power uncertainty allowance required for the emergency core cooling system (ECCS) evaluations performed in accordance with Appendix K, "ECCS Evaluation Models," to Part 50 of Title 10 of the *Code of Federal Regulations*. Specifically, the reduced uncertainty will be obtained by using a more accurate measurement of feedwater flow.

During its review of the information provided in support of the application, the Nuclear Regulatory Commission (NRC) staff has determined that additional information is needed to complete its review. Enclosed is the NRC staff's request for additional information (RAI). This RAI was discussed with your staff on January 18, 2006, and it was agreed that your response would be provided within 45 days from the date of this letter.

If you have any questions, please contact me at 301-415-1457.

Sincerely,

/RA/

Patrick D. Milano, Senior Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

REGARDING MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

By letter dated January 31, 2005, as supplemented on June 30, July 18, and October 14, 2005 (Agencywide Documents Access and Management System Accession Nos. ML050380127, ML051880050, ML052230059, and ML052970106, respectively), Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) submitted an application to increase the core thermal power level by 1.38% for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. The Nuclear Regulatory Commission (NRC) staff has reviewed the information that the licensee provided and has determined that additional information is required in order to complete the evaluation.

1. In Licensee Event Report 2005-003-01, dated December 14, 2005, the licensee described its actions to determine the root cause of non-conservative flow correction factors determined during chemical tracer testing for main feedwater flow.

Provide a summary description of the followup tracer testing and the computational fluid dynamics (CFD) analyses that have been accomplished and the findings of each analysis and test. In the case of the followup testing, provide the unrecalibrated AMAG-indicated flow rates for each of the installed instruments (Crossflow and/or X-Beam), the flow rates determined using tracer testing, and flow rates from the venturis obtained during followup testing.

2. Provide a description of the tracer testing procedures to be used to support in-situ calibration of the Crossflow system. Include a discussion of (a) how the tracer testing is traceable to National standards, (b) the controls in place to assure the procedures are properly conducted, (c) the accuracy of the tracer testing, and (d) how the uncertainties associated with the tracer testing are factored into the overall uncertainty of the Crossflow system accuracy.
3. Provide a description of any periodic testing to be performed that will verify that the Crossflow systems remains calibrated over the range of operating conditions and changes in flow that may occur over time due to degradation of, modification to, and/or operational changes in the main feedwater system.

Enclosure

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

cc:

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