February 8, 2001

Mr. Charles H. Cruse
Vice President - Nuclear Energy
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 - AMENDMENT RE: THE ADDITION OF TWO ANALYTICAL METHODS TO THE LIST OF APPROVED METHODS IN THE TECHNICAL SPECIFICATIONS (TAC NOS. MB0005 AND MB0006)

Dear Mr. Cruse:

The Commission has issued the enclosed Amendment No. 241 to Renewed Facility Operating License No. DPR-53 and Amendment No. 215 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated September 14, 2000.

The amendments add two analytical methods to the list of approved core operating limit analytical methods in TS 5.6.5.b for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. The change facilitates future reload calculations to support refueling outages and provides operational flexibility.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,
/RA/

Donna Skay, Project Manager, Section 1
Project Directorate 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures: 1. Amendment No. 241 to DPR-53
2. Amendment No. 215 to DPR-69
3. Safety Evaluation

cc w/encls: See next page

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** See previous concurrence

Accession Number: ML010020427 *Input provided by memo dated 12/15/00

OFFICE	PDI-1\PM		PDI-1\LA		PDI-1\SC		SRXB		OGC	
NAME	DSkay		SLittle*		MGamberoni		KDesai*		RWeisman*	
DATE	2/6/01		01/23/01		2/7/01		12/15/00		01/29/01	

Official Record Copy

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 241
Renewed License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated September 14, 2000, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-53 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 241, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Marsha Gamberoni, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 8, 2001

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 215
Renewed License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated September 14, 2000, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 215 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Marsha Gamberoni, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 8, 2001

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 241 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 215 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
5.0-38	5.0-38
5.0-39	5.0-39
5.0-40	5.0-40

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 241 TO RENEWED

FACILITY OPERATING LICENSE NO. DPR-53

AND AMENDMENT NO. 215 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

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

DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By letter dated September 14, 2000, Calvert Cliffs Nuclear Power Plant, Inc. (CCNPPI or the licensee) requested a Technical Specification (TS) change to add two analytical methods to the list of approved core operating limits analytical methods in TS 5.6.5.b for Calvert Cliffs Nuclear Power Plant (CCNPP) Units 1 and 2. This proposed TS change would facilitate future reload calculations to support refueling outages and would provide operational flexibility.

2.0 EVALUATION

Calvert Cliffs currently uses fuel assemblies with a non-mixing vane grid design. To provide additional operating margin, the licensee seeks to implement different critical heat flux correlations for its current non-mixing fuel design and for the new Turbo mixing vane fuel design. To improve fuel performance, CCNPPI plans to insert fuel assemblies designed with a mixing vane grid (Turbo fuel) during the next refueling outage.

Topical Report CENPD-387-P-A, Revision 00, "ABB Critical Heat Flux Correlation for PWR Fuel" describes the critical heat flux correlations for ABB 14X14 non-mixing (ABB-NV) and Turbo mixing vane (ABB-TV) fuel designs and the impact of using either correlation on the reload analysis and the approach for using ABB-NV and ABB-TV in transition cores. The NRC staff reviewed the detailed application of the ABB-NV and ABB-TV correlations on existing topical reports. As set forth in the staff's safety evaluation report dated March 16, 2000 (see reference 1), the staff concluded that the methods described are acceptable, as long as they are followed explicitly. Any change from what is described in Section 7.1 of CENPD-387-P-A requires NRC approval. Additionally, the staff concluded that Topical Report CENPD-387-P-A is acceptable for licensing applications, subject to the conclusions and conditions as listed in the staff's March 16, 2000, safety evaluation.

Topical Report CENPD-387-P-A, Section 7.2.2 describes the application of the new critical heat flux (CHF) correlations during the transition to Turbo fuel cores. The TORC code is used to predict the flow conditions in adjacent fuel bundles that contain grids with different designs and loss coefficients. Topical Report CENPD-199-P, Supplement 2-P-A , Appendix A, "CE Setpoint Methodology," describes the mixed core hydraulic methodology. Section A.4 of this topical report concluded that the TORC code accurately predicts the flow conditions in the transition core. The NRC had previously determined that this Topical Report is acceptable for referencing in licensing application for ABB-CE plants (See reference 2). The staff finds that the safety evaluation approving CENPD-199-P is applicable to CCNPP, Units 1 and 2.

The use of the ABB-NV or ABB-TV correlation requires the addition of CENPD-387-P-A to the list of approved topical reports. The mixed core hydraulic methodology described in CENPD-199-P, Supplement 2-P-A, Appendix A is being added to Technical Specification 5.6.5.b because it demonstrates that TORC accurately predicts the flow conditions in adjacent fuel assemblies that contain grids with significantly different designs and grid loss coefficients. Therefore, the licensee proposes to revise TS 5.6.5.b to include CENPD-387-P-A and CENPD-199-P, Supplement 2-P-A, Appendix A in the list of analytical methods so that it can use them to determine the core operating limits in the future. The licensee stated in its application dated September 14, 2000, that it agrees with the six conditions provided in the NRC's safety evaluation that approved Topical Report CENPD-387-P-A. In addition, the staff finds that its approval of Topical Report CENPD-199-P, Supplement 2-P-A, Appendix A for reference by licensees, is applicable for CCNPP, Units 1 and 2. Therefore, the staff finds that the use of Topical Reports CENPD-387-P-A and CENPD-199-P, Supplement 2-P-A, Appendix A and their incorporation into the core operating limits report, is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (65 FR 62383). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the

Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

6.0 REFERENCES

1. Letter from S. A. Richards (NRC), to I. C. Rickard (ABB-CE), dated March 16, 2000, Acceptance for Referencing of CENPD-387-P, Revision-00-P, “ABB Critical Heat Flux Correlations for PWR Fuel”

2. Letter from Thomas Essig (NRC) to I. C. Rickard (ABB-CE), dated March 5, 1998, “Acceptance for Referencing of the Topical Report CENPD-199(P), Revision 1-P-A, Supplement 2-P, “CE Setpoint Methodology”

Principal Contributor: K. Desai

Date: February 8, 2001

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

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