

George Vanderheyden
Vice President
Calvert Cliffs Nuclear Power Plant
Constellation Generation Group, LLC

1650 Calvert Cliffs Parkway
Lusby, Maryland 20657
410 495-4455
410 495-3500 Fax



September 30, 2003

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2; Docket Nos. 50-317 and 50-318
License Amendment Request: Increase the Unit 2 Spent Fuel Pool Maximum
Enrichment Limit with Soluble Boron and Burnup Credit

REFERENCE: (a) Letter from Mr. P. E. Katz (CCNPP) to Document Control Desk (NRC),
dated May 1, 2003, License Amendment Request: Increase to the Unit 1
Spent Fuel Pool Maximum Enrichment Limit with Soluble Boron Credit

Pursuant to 10 CFR 50.90, Calvert Cliffs Nuclear Power Plant, Inc. hereby requests an amendment to Renewed Operating License No. DPR-69 to incorporate the changes described below into the Technical Specifications for Unit 2. Specifically, the proposed changes will increase the maximum enrichment limit of the fuel assemblies that can be stored in the Unit 2 spent fuel pool (SFP) by taking credit for soluble boron, burnup, and configuration control in maintaining acceptable margins of subcriticality. The proposed changes will modify Technical Specification 4.3.1 "Criticality" and add Technical Specification 3.7.17 "Spent Fuel Pool Storage." This added Technical Specification follows the guidance of NUREG-1432, Revision 2. The proposed change will also add the requirements of Technical Specification 3.7.16 "Spent Fuel Pool Boron Concentration" to the Unit 2 Technical Specifications. A separate License Amendment Request for Unit 1 was submitted (Reference a) that proposed adding Technical Specification 3.7.16 "Spent Fuel Pool Boron Concentration" to the Unit 1 Technical Specifications. Attachment (1) contains further details and justification of the proposed changes and the marked-up Technical Specification pages are shown in Attachment (3). Attachment (4) contains the final Technical Specification pages. The Unit 2 SFP Criticality Analysis and the SFP Dilution Analysis used to support the proposed changes are included in Attachments (5) and (6). The Technical Specification Bases will be modified to address the proposed changes.

This proposed change is for the Unit 2 SFP only because of design differences between the Unit 1 and Unit 2 SFPs. The Unit 2 SFP storage racks contain boraflex. The Unit 1 SFP storage racks contain carborundum, not boraflex. Burnup credit and configuration control are not necessary for the Unit 1 SFP. A separate license amendment request was submitted for Unit 1 (Reference a) that will allow an increase in the maximum enrichment limit of the fuel assemblies that can be stored in the Unit 1 SFP by taking

ADD 1

credit for soluble boron in maintaining acceptable margins of subcriticality. The Unit 2 marked-up Technical Specification pages and the final Technical Specification pages were created assuming that the Unit 1 License Amendment Request will be approved first. If the Unit 2 License Amendment Request is approved first, new marked-up Technical Specification pages and final Technical Specification pages will be forwarded to the Nuclear Regulatory Commission.

Section 9.7 of the current Calvert Cliffs Updated Final Safety Analysis Report contains the results of similar calculations for the new fuel storage racks, new fuel elevator, spent fuel inspection platform, upenders, transfer carriage, and incore instrumentation trash container racks. The results show that k -effective is less than or equal to 0.95, including all biases and uncertainties, in unborated water for 5.0 weight percent fresh fuel. Therefore, this proposed change does not affect the fuel in the new fuel storage racks, new fuel elevator, spent fuel inspection platform, upenders, transfer carriage, and incore instrumentation trash container racks. These areas were already approved for fuel assemblies that are enriched to 5.0 weight percent U-235.

Although the Calvert Cliffs Technical Specifications will be modified to specify the higher enriched fuel as acceptable for storage in the new and spent fuel racks, evaluations of reload core designs using actual enrichments will continue to be performed on a cycle-by-cycle basis as part of the reload safety evaluation process. Each reload design will be evaluated to confirm that the cycle core design adheres to the limits that exist in the accident analyses and in the Technical Specifications to ensure that reactor operation is acceptable.

ASSESSMENT AND REVIEW

We have evaluated the significant hazards considerations associated with these proposed changes, as required by 10 CFR 50.92, and have determined that there are none (see Attachment 2 for a complete discussion). We have also determined that operation with the proposed amendment would not result in any significant change in the types, or significant increases in the amounts, of any effluents that may be released offsite, nor would it result in any significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed amendment is eligible for categorical exclusion as set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is needed in connection with the approval of the proposed amendment.

SAFETY COMMITTEE REVIEW

The Plant Operations and Safety Review Committee and Offsite Safety Review Committee have reviewed the proposed changes and concur that operation with the proposed changes will not result in an undue risk to the health and safety of the public.

SCHEDULE

To support the 2005 refueling outage schedule, we are requesting the proposed changes be approved and issued by November 1, 2004.

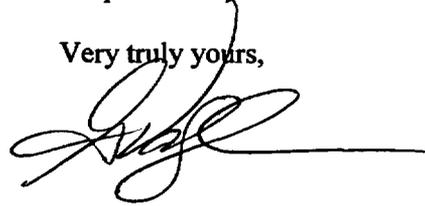
PRECEDENTS

- Oconee Nuclear Station, Units 1, 2, and 3— Amendment Nos. 323/323/324, dated April 22, 2002
- Palo Verde Unit Nos. 1, 2, and 3 – Amendment Nos. 125/125/125, dated March 2, 2000

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 30, 2003.

Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



GV/DJM/bjd

Attachment: (1) Background and Analysis
(2) Determination of Significant Hazards
(3) Technical Specifications Marked-Up Pages
(4) Final Technical Specifications Pages
(5) Calvert Cliffs Unit 2 SFP Criticality Analysis
(6) Calvert Cliffs Unit 2 SFP Dilution Analysis

cc: G. S. Vissing, NRC

(With Attachments 1, 2, 3, 4)

J. Petro, Esquire

J. E. Silberg, Esquire

Director, Project Directorate I-1, NRC

H. J. Miller, NRC

Resident Inspector, NRC

R. I. McLean, DNR