

July 25, 2003

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, TECHNICAL SPECIFICATION
CHANGE TO INCREASE SPENT FUEL POOL MAXIMUM ENRICHMENT LIMIT
WITH SOLUBLE BORON CREDIT (TAC NO. MB8896)

Dear Mr. Vanderheyden:

By letter dated May 1, 2003, you submitted a license amendment to incorporate changes into the Technical Specifications for Calvert Cliffs Nuclear Power Plant, Unit No. 1. The proposed changes would increase the maximum enrichment limit of the fuel assemblies that can be stored in the Unit 1 spent fuel pool by taking credit for soluble boron in maintaining acceptable margins of subcriticality.

The U.S. Nuclear Regulatory Commission staff has reviewed the information provided and determined that additional information is required in order to complete the evaluation. The additional information being requested is enclosed. We have discussed this with your staff who indicated that you could provide a response within 60 days from the date of this letter.

Sincerely,

/RA/

Guy S. Vissing, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-317

Enclosure: As stated

cc w/encl: See next page

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**Memo from JUhle dated 7/9/03

*Memo from KManoly dated 7/8/03

ACCESSION NUMBER: ML031980609

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DATE	07/24/03	07/24/03	07/8/03	07/09/03	07/24/03

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Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

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REQUEST FOR ADDITIONAL INFORMATION
FOR CALVERT CLIFFS NUCLEAR POWER PLANT, INC.
TECHNICAL SPECIFICATION AMENDMENT REQUEST
RELATED TO THE INCREASE OF MAXIMUM ENRICHMENT LIMIT
WITH SOLUBLE BORON CREDIT
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-317

1. In your letter of May 1, 2003, you proposed increasing the maximum enrichment for standard fuel assemblies to 5.0 weight percent, while the current Technical Specification of Calvert Cliffs Nuclear Power Plant (CCNPP) limits the maximum enrichment for standard fuel assemblies to 4.52 weight percent. Indicate whether the weight of the fuel assemblies supported by the spent fuel racks will increase as result of the enrichment. If the weight of the fuel assemblies is increased, what are the affects on the spent fuel racks and the spent fuel pool structure due to the increased weight?
2. In consideration of the possibility for increased loads from spent fuel racks, discuss your past operation, inspection and maintenance experience of the CCNPP spent fuel racks and spent fuel pool structures. As applicable, discuss any pool wall/bottom slab cracking, settlement and/or pool water leakages observed to date and repair measures taken to remedy them.
3. What is the maximum bulk pool temperature at a full core off-load during a refueling outage? If the temperature exceeds 150 °F, provide technical justifications for exceeding a gross temperature of 150 °F in accordance with the guidance in the American Concrete Institute Code 349 for long term-operation.
4. In Section 7.0, Technical Assumptions, of the license amendment request, the licensee cites that the NRC acknowledged commitment in Section 2.1.3.7 of the license renewal application for CCNPP. In this commitment, the licensee stated it would perform an analysis on carborundum to demonstrate that it can perform its criticality control function for 70 years. According to Section 3.10.2.4, "Time-Limited Aging Analysis," of the Final Safety Evaluation Report regarding the license renewal of CCNPP Unit Nos. 1 and 2, the licensee's analysis was to be completed in 2000.

If the licensee proposes to credit this analysis for its amendment request, CCNPP should provide the analysis to support the amendment request.

5. In Attachment (1), under Background and Analysis in the System Design section, the licensee states that CCNPP has a coupon surveillance program to test the condition of the carborundum material. Also, the licensee indicates that as a result of License Renewal, that the boron loss from the carborundum between 40 and 70 years has been

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analyzed. The staff requests the licensee explain how the coupon surveillance program will be modified to account for boron depletion due to the added neutron fluence of fuel with a greater enrichment as well as the increased plant operating lifespan.