

August 25, 2005

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 -
ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT
IMPACT RE: EXEMPTION FROM REQUIREMENTS OF 10 CFR 50.68
(TAC NOS. MC5520 AND MC5521)

Dear Mr. Vanderheyden:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for an exemption dated December 21, 2004, as supplemented on May 31, 2005. The proposed exemption would allow the credit for soluble boron in the criticality analyses for the spent fuel pools at Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. Currently, the criticality analysis for Unit No. 1 credits 300 parts per million boron. No soluble boron is credited in the analysis for Unit No. 2. The exemption is needed to support spent fuel loading, unloading, and handling operations in a spent fuel storage container, licensed pursuant to 10 CFR Part 72, in a spent fuel pool.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

Patrick D. Milano, Senior 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: Environmental Assessment

cc w/encl: See next page

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

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UNITED STATES NUCLEAR REGULATORY COMMISSION
DOCKET NOS. 50-317 AND 50-318
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from Subsection (b)(1) of Section 50.68, "Criticality accident requirements," of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR) for Renewed Facility Operating License Nos. DPR-53 and DPR-69, issued to Calvert Cliffs Nuclear Power Plant, Inc. (the licensee), for operation of the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2 (CCNPP), located in Calvert County, Maryland. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt the licensee from the requirements of 10 CFR 50.68(b)(1) during the handling and storage of spent nuclear fuel in a 10 CFR Part 72 licensed spent fuel storage container that is in a CCNPP spent fuel pool. The proposed action is in accordance with the licensee's application dated December 21, 2004, as supplemented on May 31, 2005. The supplemental letter provided clarifying information that did not expand the scope of the original request.

The Need for the Proposed Action:

Under 10 CFR 50.68(b)(1), the Commission sets forth the following requirement that must be met, in lieu of a monitoring system capable of detecting criticality events. Plant

procedures shall prohibit the handling and storage at any one time of more fuel assemblies than have been determined to be safely subcritical under the most adverse moderation conditions feasible by unborated water. Section 50.12(a) allows licensees to apply for an exemption from the requirements of 10 CFR Part 50 if the regulation is not necessary to achieve the underlying purpose of the rule and other conditions are met. The licensee has stated that the NRC has previously established five criteria that, if met, would satisfy the intent of 10 CFR 50.68(b)(1).

Environmental Impacts of the Proposed Action:

The NRC has completed its safety evaluation of the proposed action and concludes that the exemption described above would continue to satisfy the underlying purpose of 10 CFR 50.68(b)(1). The details of the staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation. The proposed action will not significantly increase the probability or consequences of accidents. No changes are being made in the types of effluents that may be released off site. There is no significant increase in the amount of any effluent released off site. There is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, dated April 1984, and the Supplemental Environmental Impact Statement for License Renewal of Nuclear Plants, Calvert Cliffs Nuclear Power Plant (NUREG-1437, Supplement 1), dated October 1999.

Agencies and Persons Consulted:

In accordance with its stated policy, on August 24, 2005, the staff consulted with the Maryland State official, R. McLean of the Maryland Department of Natural Resources, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee’s letter dated December 31, 2004, as supplemented by letter dated May 31, 2005. Documents may be viewed, and/or copied for a fee, at the NRC’s Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available

records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or send an e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland, this 25th day of August 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Patrick D. Milano, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation