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September 25, 2003

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Response to Request for Additional Information, Technical Specification Change
to Remove the Charging Pumps from the Technical Specifications (TAC Nos.
MB6989 and MB6990)

This letter provides the information requested in Reference (a), and supports and/or clarifies the information provided in Reference (b). This information does not affect the No Significant Hazards Consideration Determination or the Environmental Impact Review of Reference (b).

Requested Information:

The licensee proposed to remove the charging pumps from the Technical Specifications (TSs) because they have demonstrated that the charging pumps are not required for the small-break-loss-of-coolant accident. The charging pumps are the only components capable of injecting boron and coolant into the reactor vessel above the 80-percent power level or 1700 psi. In order to remove the charging pumps from the TSs, we request that you demonstrate that the plant can mitigate the consequences of accidents and transients such as anticipated transient without scram (ATWS) and steam generator tube rupture (SGTR), which require boron and coolant injection at power levels above 80 percent or pressure greater than 1700 psi without reliance on the charging pumps. If the charging pumps are required to mitigate the consequences of design-basis accidents and transients such as ATWS and a SGTR, then they satisfy the requirements of Criterion 3 of 10 CFR 50.36 for inclusion in the TSs.

CCNPP Response:

The charging pumps are not required to mitigate the consequences of any design basis accident or transient. Specific information related to the two events discussed is provided.

The charging pumps are not required to mitigate the consequences of a SGTR at Calvert Cliffs. Only the high-pressure safety injection pumps are credited in the safety analysis to maintain inventory and satisfy boration requirements during a SGTR. Charging pumps are not required to mitigate the consequences of this event. The Calvert Cliffs Emergency Operating Procedures for SGTR currently instruct the operators to start all available charging pumps in order to maintain pressurizer level. The Calvert Cliffs Technical

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Requirements Manual requires two boration paths (including a charging pump) to be operable in Mode 1. This requirement will not be deleted as part of the proposed Technical Specification change.

The SGTR accident analysis does assume that all three charging pumps are available at the start of the transient. This assumption delays the reactor trip on low pressurizer pressure and maximizes the calculated radiological consequences. Without charging pumps, the reactor trip would occur sooner and Reactor Coolant System pressure would decrease more rapidly, reducing the primary-to-secondary leakage. Therefore, maintaining the assumption that charging pumps are available serves to maximize the event consequences. This assumption would remain in the accident analysis after the Technical Specification is changed as long as it maximizes the event consequences.

The charging pumps are not required to mitigate the consequences of an ATWS at Calvert Cliffs. As noted in Reference (c), Calvert Cliffs has installed a Diverse Scram System (DSS). The Nuclear Regulatory Commission concluded in Reference (d) that the DSS met the requirements of 10 CFR 50.62. Reference (e) stated that the installation of the DSS, diverse turbine trip and diverse auxiliary feedwater actuation system maintain the probability and consequences of an ATWS as low, and eliminate the need to consider an ATWS as a design basis event.

Therefore, because charging pumps are not required to mitigate the consequences of a design basis accident, such as a SGTR, and an ATWS is not assumed to occur, the charging pumps do not satisfy Criterion 3 of 10 CFR 50.36 and do not need to be maintained in the Technical Specifications.

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 25, 2003.

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

Very truly yours,



GV/DJM/bjd

REFERENCES:

- (a) Letter from G. S. Vissing (NRC) to G. Vanderheyden (CCNPP), dated August 8, 2003, Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Request for Additional Information, Technical Specification Change to Remove the Charging Pumps from the Technical Specifications (TAC Nos. MB6989 and MB6990)
- (b) Letter from P. E. Katz (CCNPP) to Document Control Desk (NRC), dated December 13, 2002, License Amendment Request: Removal of the Charging Pumps from the Emergency Core Cooling System Technical Specification
- (c) Letter from A. W. Dromerick (NRC) to C. H. Cruse (BGE), dated October 2, 1997, Issuance of Amendments from Calvert Cliffs Nuclear Power Plant Unit 1 (TAC No. M95181) and Unit No. 2 (TAC No. M95182)
- (d) Letter from S. A. McNeil (NRC) to J. A. Tiernan (BGE), dated November 2, 1988, Safety Evaluation Concerning Conformance to the ATWS Rule (TAC Nos. 59079 and 59080)

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- (e) Letter from C. H. Cruse (CCNPP) to Document Control Desk (NRC), dated July 31, 1997, Response to Request for Additional Information Regarding the Technical Specification Change to the Moderator Temperature Coefficient (TAC Nos. M95181 and M95182)

cc: J. Petro, Esquire
J. E. Silberg, Esquire
Director, Project Directorate I-1, NRC
G. S. Vissing, NRC

H. J. Miller, NRC
Resident Inspector, NRC
R. I. McLean, DNR