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February 21, 2003

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit No. 1; Docket No. 50-317
Reactor Vessel Water Level Monitoring System Special Report

The attached special report is submitted in accordance with Calvert Cliffs Nuclear Power Plant Technical Specification 3.3.10. The report is required due to the Unit 1 Reactor Vessel Water Level Monitoring System having less than the required minimum number of operable channels.

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

Very truly yours,

A handwritten signature in black ink, appearing to read "KJ Nietmann".

KJN/ALS/bjd

Attachment: (1) Unit 1 Reactor Vessel Water Level Monitoring System Special Report

cc: J. Petro, Esquire
J. E. Silberg, Esquire
Director, Project Directorate I-1, NRC
D. M. Skay, NRC

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

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ATTACHMENT (1)

UNIT 1

REACTOR VESSEL WATER LEVEL MONITORING SYSTEM

SPECIAL REPORT

ATTACHMENT (1)

UNIT 1 REACTOR VESSEL WATER LEVEL MONITORING SYSTEM SPECIAL REPORT

Calvert Cliffs Nuclear Power Plant, Inc. (CCNPP) submits this Special Report concerning an inoperable Unit 1 Reactor Vessel Water Level Monitoring System channel. This Special Report is required by Technical Specification 3.3.10, Condition B, Required Action B.1.

ACTION TAKEN

On January 12, 2003 at approximately 0400 hours, the CCNPP Unit 1 Reactor Vessel Water Level Monitoring System, Channel A experienced a failure of the 29 inch level position sensor. The failure of the 29 inch level position sensor, coupled with previous failures of the 19 inch and 50 inch position sensors (all three position sensors are located in the lower, reactor vessel plenum region) resulted in Channel A being declared inoperable. Calvert Cliffs Technical Specification Bases Section B3.3.10, "Post-Accident Monitoring (PAMS) Instrumentation," requires one of the upper three (vessel head region) and three of the lower five (plenum region) sensors for operability of each Reactor Vessel Water Level Monitor Channel. As a result of the subject failures, CCNPP immediately entered Technical Specification 3.3.10, Condition A.

EFFECT ON OPERATION

The Reactor Vessel Water Level Monitoring System instrumentation is designated for post-accident monitoring use. It provides the plant operator with information to assess void formation in the reactor vessel head region and the trend of liquid level in the reactor vessel plenum. The Reactor Vessel Water Level Monitoring System consists of two redundant channels. Reactor Vessel Water Level Monitoring Channel B remains operable. The removal of Channel A from operable status eliminates a means of redundant indication. However, alternate methods of monitoring for core and Reactor Coolant System voiding, using pressurizer level, Reactor Coolant System subcooling, hot and cold leg temperature, and core exit thermocouple instrumentation, have been initiated as required by plant procedures.

CAUSES OF INOPERABILITY

The cause of inoperability is the failure of three of the lower five (plenum region) sensors. The cause of these failures is unknown at this time. A causal analysis is in progress to determine the cause of these failures and similar failures on Unit 2 Channel A and Channel B Reactor Vessel Water Level Monitoring System. The Special Report required due to the inoperability of both Channels A and B of the Unit 2 Reactor Vessel Water Level Monitoring System was submitted to the NRC by letter dated February 15, 2002.

PLANS AND SCHEDULES FOR RESTORING THE SYSTEM TO OPERABLE STATUS

Calvert Cliffs Nuclear Power Plant will replace or refurbish the Channel A Reactor Vessel Water Level sensor during the scheduled Unit 1 2004 Refueling Outage. Following this maintenance, it is expected that the Reactor Vessel Water Level Monitor Channel A will be returned to operable status.