

September 7, 2004

EA-04-110

Mr. George Vanderheyden
Vice President - Calvert Cliffs Nuclear Power Plant
Constellation Generation Group, LLC
1650 Calvert Cliffs Parkway
Lusby, Maryland 20657-4702

SUBJECT: FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING
(NRC Special Inspection Report 05000317/2004008 AND 05000318/2004008)
Calvert Cliffs Nuclear Generating Station, Unit 2

Dear Mr. Vanderheyden:

The purpose of this letter is to provide you with the final results of our significance determination for the preliminary White finding identified at the Calvert Cliffs Nuclear Generating Station, Unit 2, during an inspection completed on May 14, 2004. The results of the inspection were discussed with you and other members of your staff during an exit meeting on June 18, 2004. The inspection finding was assessed using the significance determination process and was preliminarily characterized as White, a finding with low to moderate importance to safety, which may require additional NRC inspections.

This preliminary White finding involved a reactor regulating system (RRS) relay at Unit 2 that was not designed for the voltage conditions to which it was exposed and had been in-place since the original construction of the facility. When Calvert Cliffs implemented a modification to the turbine bypass valve (TBV) and atmospheric dump valve (ADV) control system in 1992, site personnel did not perform an adequate design review as required by site procedures and, as a result, missed an opportunity to identify the inappropriate "application" or "voltage rating" of the RRS relay. Following a reactor trip on January 23, 2004, the TBVs and ADVs automatically Quick Opened as designed. However, the Quick Open signal did not clear when the reactor coolant temperature dropped below the Quick Open setpoint because of the RRS relay failure. As a result, an over-cooling of the reactor coolant system occurred, which in turn initiated a steam generator isolation signal and a safety injection actuation signal. A loss of normal heat removal also occurred.

This finding was assessed using the reactor safety Significance Determination Process (SDP) as a potentially safety-significant finding that was preliminarily determined to be White for Unit 2 because the likelihood of core damage increased due to the loss of normal decay heat removal and loss of low pressure feedwater supply. Based on analysis of the failed relay, the RRS condition would have resulted in a similar uncontrolled cooldown following a reactor trip any time during the previous eight months.

In a letter dated July 29, 2004, the NRC transmitted the referenced inspection report and informed you that the staff had sufficient information to make a final significance determination. However, you were given an opportunity to request a Regulatory Conference or to provide a written response. In a telephone conversation on August 12, 2004, Ms. Pat Furio, Licensing

Manager, informed Mr. James Trapp, NRC, Region I, that Constellation did not contest the risk significance of this finding, and did not want to discuss this finding in a Regulatory Conference or provide a written response.

After considering the information developed during the inspection, the NRC has concluded that the inspection finding at Calvert Cliffs Unit 2 is appropriately characterized as White, an issue with low to moderate importance to safety, which may require additional NRC inspection. Although you have not indicated a desire to do so, our process allows 30 calendar days from the date of this letter to appeal the staff's determination of significance for the identified White finding. Such appeals will be considered to have merit only if they meet the criteria given in NRC Inspection Manual Chapter 0609, Attachment 2.

Although this finding has been characterized as White, no violations of regulatory requirements were identified because the reactor regulating system, atmospheric dump valves, and turbine bypass valves are not safety-related, and thus the design control requirements of 10 CFR 50 Appendix B do not apply. Nonetheless, the NRC recognizes that you placed this finding into your corrective action program.

This issue causes the Calvert Cliffs facility to be in the regulatory response band of the NRC Action Matrix, and we will notify you, by separate correspondence, of any further action we plan to take.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Samuel J. Collins
Regional Administrator

Docket No: 50-318
License No: DPR-69

cc w/encl:

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