



July 2, 2008

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
Technical Specification 3.2, Appendix B, Reporting Related to National Pollutant
Discharge Elimination System Permit

REFERENCE: (a) Calvert Cliffs Nuclear Power Plant, Environmental Protection Plan (Non-Radiological) Technical Specifications, Section 3.2.1

In accordance with Reference (a), Calvert Cliffs Nuclear Power Plant is submitting a Special Report [Attachment (1)]. The special report is related to the site's National Pollutant Discharge Elimination System permit.

Should you have questions regarding this matter, please contact Mr. Jay S. Gaines at (410) 495-5219.

Very truly yours,

A handwritten signature in black ink, appearing to read "JSG", with a horizontal line extending to the right.

Jay S. Gaines
Director -- Licensing

JSG/RDW/bjd

Attachment: (1) Special Report: Noncompliance with Effluent Limitations

cc: D. V. Pickett, NRC
S. J. Collins, NRC

Resident Inspector, NRC
S. Gray, DNR

ATTACHMENT (1)

**SPECIAL REPORT: NONCOMPLIANCE WITH EFFLUENT
LIMITATIONS**



June 12, 2008

Maryland Department of the Environment
Water Management Administration
1800 Washington Boulevard
Baltimore, MD 21230

ATTENTION: Mr. Tom Boone

SUBJECT: Calvert Cliffs Nuclear Power Plant
Special Report: Noncompliance with Effluent Limitations

REFERENCE: (a) NPDES Discharge Permit 02-DP-0187

In response to Reference (a), on June 8, 2007, at 10:00 am, Calvert Cliffs Nuclear Power Plant personnel identified that a chemical drum overflowed into its secondary containment, which in turn overflowed into a storm drain. The drum had originally contained 31 gallons of a 35% solution of hydrazine. The leakage spilled across approximately 30' of asphalt and entered the storm water system.

Hydrazine is added to the vendor supplied demineralized make-up water system at Calvert Cliffs to remove oxygen. Based on calculations using final hydrazine concentrations in the drum and secondary containment, it is estimated that less than 2 gallons of the 35% hydrazine solution entered the storm water system. The storm water piping discharges into the non-contact cooling water system leading to the Chesapeake Bay. Thus the leakage was diluted by the cooling water system flow of 2,400,000 gallons per minute prior to entering the Bay. As a result of the dilution volume, there was no impact to the environment. Hydrazine also reacts with oxygen in water to form nitrogen and water, therefore the hazard was eliminated during the dilution process.

The cause of the overflow was the failure of a pump and a check valve in the chemical feed line. The duration of the discharge to the storm water system was less than 2 hours. The discharge to the Chesapeake Bay was stopped by isolation of the make-up water system which stopped the backflow to the drum.

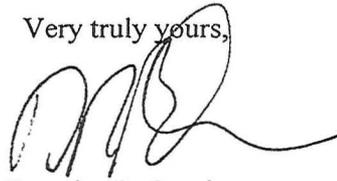
The hydrazine addition equipment remained out-of-service until the pump and check valves were replaced. An additional check valve was also installed in the chemical feed line to prevent recurrence. Each check valve (suction, pump head, and discharge) was independently checked to ensure no system backflow. The system will be monitored around the clock until a large area containment device is placed under all of the chemical addition equipment.

There was no accelerated or additional sampling, as the nature and impact of the discharge had been determined.

Mr. Tom Boone
June 12, 2008
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Should you have questions regarding this matter, please contact Mr. Jay S. Gaines at (410) 495-5219 or Ms. Brenda D. Nuse at (410) 495-4913.

Very truly yours,

A handwritten signature in black ink, appearing to read 'DRB', with a long horizontal flourish extending to the right.

Douglas R. Bauder
Plant General Manager

DRB/SMR/bjd