

June 2, 1998

EA 98-280

Mr. Charles H. Cruse
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: NRC INSPECTION REPORT NOS. 50-317/98-05 AND 50-318/98-05

Dear Mr. Cruse:

This refers to the special onsite safety inspection conducted by NRC Region I inspectors during the period April 20-24, May 11-14, and May 19-20, 1998, at the Calvert Cliffs Nuclear Power Station. The findings of the onsite inspection effort were discussed with your staff on April 24, 1998, by Messrs. R. Nimitz, J. Noggle, and J. White of this office, and on May 14 and 20, 1998, by Mr. Nimitz. This also refers to your letter dated April 20, 1998, in response to our letter and Notice of Violation dated March 20, 1998.

Areas reviewed during the inspection are important to safety and are discussed in the enclosed inspection report. The principal focus of the inspection were the circumstances, licensee evaluations, and corrective actions associated with several deficiencies in the application of radiological controls experienced during replacement of nuclear instrumentation detectors in the Unit 1 reactor annulus on April 9, 1998. The inspectors also reviewed the adequacy and implementation of radiological controls for the Unit 1 refueling outage including external and internal exposure controls, radioactive material and contamination controls, and efforts to reduce occupational radiation exposure to as low as is reasonably achievable. This latter review focused on corrective actions taken in response to problems identified during NRC Inspection Report Nos. 50-317; 318/97-02 and 50-317; 318/98-03.

Based on the results of this inspection, several apparent violations were identified that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. Specifically, during the early morning hours of April 9, 1998, at least six workers entered the reactor cavity without the use of alarming dosimetry as prescribed by the applicable Special Specific Work Permit. Four of those workers subsequently entered the reactor annulus, a locked high radiation area exhibiting radiation dose rates ranging from 2,000 mR/hr to 6,000 mR/hr. Later that same morning, a worker also entered the reactor annulus wearing radiation teledosimetry devices with incorrectly set alarms. The worker was permitted to continue to work in the reactor annulus even after three of his five teledosimetry devices alarmed. Consequently, the worker received unplanned exposure to radiation.

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Subsequent licensee and NRC review determined that radiation protection personnel failed to respond to the alarming dosimeters and require the worker to exit the area as specified by station procedures. In addition, it was later determined that radiation protection personnel incorrectly calculated workers' permissible stay times in the high radiation areas for both work activities. As a result, the stay time calculations were nonconservative for the entries and contributed to a worker (during the latter entry) exceeding his allowable shift radiation dose limit specified on the applicable Special Specific Work Permit.

Although no exposures in excess of NRC limits were identified, these observations reflect significant personnel performance deficiencies, ineffective supervisory oversight of work activities, ineffective oversight and control of high risk radiological work activities, and ineffective implementation of corrective actions for previously identified similar matters. These performance errors are of safety and regulatory significance in light of previous programmatic problems identified by you and the NRC during the last Unit 2 outage at Calvert Cliffs, and are similar to those which prompted previous NRC enforcement action (i.e., Notice of Violation and Proposed Imposition of Civil Penalties, dated August 1, 1997). As a result of the radiation protection program deficiencies associated with the April 9, 1998, event, the NRC issued Confirmatory Action Letter 1-98-006, dated April 29, 1998, to confirm your planned and implemented actions to effect improved radiological controls performance at Calvert Cliffs during the Unit 1 outage.

No Notice of Violation is presently being issued for these inspection findings. The number and characterization of apparent violations, described in the enclosed inspection report, may change as a result of further NRC review.

Based on a May 20, 1998, telephone discussion between Mr. Thomas Pritchett of your organization and Mr. J. White of this office, a predecisional enforcement conference has been scheduled for June 18, 1998, at 1:00 p.m. at the NRC Region I, Public Meeting Room to discuss these apparent violations. The decision to hold a predecisional enforcement conference does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference is being held to obtain information to enable the NRC to make an enforcement decision, such as a common understanding of the facts, root causes, missed opportunities to identify the apparent violation sooner, corrective actions, significance of the issues and the need for lasting and effective corrective action. In particular, we expect you to address why previous corrective actions were not effective in preventing the deficient radiological performance demonstrated on April 9, 1998, with respect to work in the reactor vessel annulus. The conference is also an opportunity for you to point out any errors in our inspection report and for you to provide any information concerning your perspectives on 1) the severity of the violations, 2) the application of the factors that the NRC considers when it determines the amount of a civil penalty that may be assessed in accordance with Section VI.B.2 of the Enforcement Policy, and 3) any other application of the Enforcement Policy to this case, including the exercise of discretion in accordance with Section VII.

In addition, as discussed between Mr. Pritchett of your staff and Mr. White, of this office, the meeting will also serve to satisfy the specifications in the Confirmatory Action Letter (i.e., Items B.2. and B.3) to inform this office of the findings of your assessment efforts relative to this matter, including root causes and actions taken or planned.

You will be advised by separate correspondence of the results of our deliberations on these matters. No response regarding these apparent violations is required at this time.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be placed in the NRC Public Document Room (PDR).

Sincerely,

ORIGINAL SIGNED BY:

James T. Wiggins, Director
Division of Reactor Safety

Docket Nos. 50-317; 50-318
License Nos. DPR-53; DPR-69

Enclosure: NRC Combined Inspection Report Nos. 50-317/98-05 and 50-318/98-05

cc w/encl:

T. Pritchett, Director, Nuclear Regulatory Matters (CCNPP)
R. McLean, Administrator, Nuclear Evaluations
J. Walter, Engineering Division, Public Service Commission of Maryland
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