

DCS

April 28, 1988

Docket Nos. 50-317; 50-318
License Nos. DPR-53; DPR-69
EA 87-77

Baltimore Gas and Electric Company
ATTN: Mr. J. A. Tiernan
Vice President
Nuclear Energy
Post Office Box 1475
Baltimore, Maryland 21203

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY
(NRC INSPECTION REPORTS NOS. 50-317/87-07; 50-318/87-08)

This refers to the NRC inspection conducted on March 23-27, 1987 to review the program for the environmental qualification (EQ) of equipment at Calvert Cliffs, Units 1 and 2. The inspection report was sent to you on April 28, 1987. During the inspection, violations of NRC requirements were identified involving the lack of qualification of certain items of electric equipment used in both units. On May 13, 1987, an enforcement conference was conducted with you and members of your staff to discuss the extent of the violations known at that time (as your review was continuing), the causes of the violation, and the corrective actions taken or planned.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), included the failure to include, on the list of electric equipment important to safety, certain equipment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of safety functions; and the failure to maintain, for certain items of electric equipment, a complete file of documentation to demonstrate that the items were qualified to perform their intended function(s) during the postulated environmental conditions. One of these items identified by the NRC included the use of unqualified tape splices on the electrical leads of the Auxiliary Feedwater System solenoid operated blocking valves at both units.

After you performed an additional evaluation subsequent to the NRC inspection and found additional unqualified items, you shut down Unit 1 on April 1, 1987 (Unit 2 was shut down at the time) to conduct an extensive review of the EQ program. During this review, your staff determined that these unqualified tape splices were used in several other areas at Calvert Cliffs, and also determined that other unqualified electrical components were used extensively in many systems and affected many components, including heat shrink splices, terminal blocks, relays, T-drains, a coil, and handswitches.

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These deficiencies clearly should have been known to you, particularly in the case of tape splices, since it was reasonable to expect that a licensee would (1) assure that these connections would be included on the master EQ list, and (2) perform field verification for electrical equipment which should have included these connections. Tape splices are able to be qualified only under specific installation procedures and for specific tape materials, whereas the tape splices utilized at Calvert Cliffs consisted of several wraps of standard electrical tape.

With respect to other unqualified components, you clearly should have known that qualification was incomplete in light of the nature of the items, the systems involved, previous guidance provided by the NRC (i.e., IE Bulletins, Circulars, and Information Notices), and problems identified during NRC inspections in 1984 and 1985. Although these prior problems included findings related to the lack of adequate documentation to support qualification of certain electrical equipment, effective corrective actions were not taken at that time. If adequate field verifications and qualification file reviews had been performed, these EQ deficiencies would have been identified earlier.

The violations described in this Notice demonstrate that Baltimore Gas and Electric Company's management did not provide adequate attention to the EQ program at Calvert Cliffs in that the engineering department responsible for establishing and implementing the EQ program did not clearly communicate to craft personnel in the field the guidelines for installing and maintaining electrical equipment to ensure that they were environmentally qualified. In addition, the lines of responsibility for personnel involved in establishing, implementing, and monitoring these EQ activities were not clearly defined, and the Quality Assurance Department oversight of EQ program implementation was not adequate.

Furthermore, a deficiency concerning the use of unqualified tape splices was identified by your staff in December 1986 during a review of slow stroke times for certain solenoid valves; however, an extensive evaluation was not performed at that time and the extent of the problem was not recognized. The failure to identify unqualified tape splices, at that time, represented another example of the NRC concern expressed during previous SALP evaluations that your staff was, at times, slow to recognize the existence of potential safety issues and was not always effective in reviewing, evaluating, and resolving potential safety problems, including their underlying deficiencies. This concern was also conveyed in a Notice of Violation and Proposed Imposition of Civil Penalties issued to Baltimore Gas and Electric Company on September 26, 1985 for failure to aggressively identify and correct deficiencies that existed in the Post Accident Sampling System at Calvert Cliffs.

While progress has been made to improve your process for identifying, evaluating, and resolving safety issues, to emphasize the importance of (1) lasting management attention to, and control of, the EQ program, and (2) aggressive management action to ensure that problems are promptly identified and corrected, I have been authorized, after consultation with the Commission and the Deputy Executive Director for Regional Operations, to issue the Notice of Violation and Proposed Imposition of Civil Penalty (Enclosure 1) in the amount

of Three Hundred Thousand Dollars (\$300,000) for the violations described in the enclosed Notice. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49," contained in Generic Letter 88-07 (Enclosure 2), the violations described in the enclosed Notice have been determined to be extensive and to have affected many systems and components, and therefore are considered to be an EQ Category A problem. The base value of a civil penalty for an EQ Category A problem is \$300,000.

In determining the civil penalty amount, the NRC considered the four factors set forth in the "Modified Enforcement Policy Relating to 10 CFR 50.49", for escalation and mitigation of the base civil penalty amount. These factors consist of (1) identification and prompt reporting of the EQ deficiencies ($\pm 50\%$); (2) best efforts to complete EQ within the deadline ($\pm 50\%$); (3) corrective actions to result in full compliance ($\pm 50\%$); and (4) duration of a violation which is significantly below 100 days (-50%).

With respect to the first factor, even though the majority of items were identified by your staff, only 25% mitigation is warranted since you had an opportunity in December 1986 to identify these deficiencies, but they were not identified until after the NRC inspection in March 1987. With respect to the second factor, 50% escalation is warranted since best efforts were not applied to complete EQ within the deadline, and the NRC had previously identified problems in this area. With respect to the third factor, only 25% mitigation is warranted, even though extensive corrective actions were taken after NRC identification of the tape splice violation in March 1987, since those actions should have been taken in December 1986. With respect to the fourth factor, mitigation is inappropriate since these EQ violations existed in excess of 100 days. Therefore, on balance, no adjustment to the base civil penalty amount is appropriate.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget, otherwise required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,

Original Signed By
WILLIAM T. RUSSELL

William T. Russell
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed
Imposition of Civil Penalty
2. Generic Letter 88-07

cc w/encls: See Next Page

cc w/encl:

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Thomas Magette, Administrator, Nuclear Evaluations

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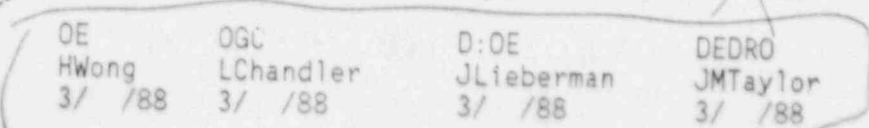
NRC Resident Inspector

State of Maryland (2)

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Their's + Commission
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