

APPENDIX A
NOTICE OF VIOLATION

Baltimore Gas and Electric Company
Calvert Cliffs Units 1 and 2
Lusby, Maryland

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

As a result of the inspection conducted on March 2 to April 3, 1992 and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (Enforcement Policy) (1992), the following violations were identified:

1. 10 CFR 50, Appendix B, Criterion XI, requires that all testing be performed in accordance with written test procedures which incorporate the requirement and acceptance limits contained in applicable design documents. Criterion XI further requires that the test results be documented and evaluated to assure that requirements have been satisfied.

The Baltimore Gas and Electric Company Quality Assurance Policy, Revision 29, Section 1B.11 requires that all testing required to demonstrate that system will perform satisfactorily in service be performed with written test procedures that incorporate the requirements and acceptance criteria contained in the design. Also, tests results are documented and evaluated to assure that requirements are satisfied.

Contrary to the above,

- 1) the testing performed in accordance with the test procedure STP-M-522-2, dated November 5, 1991, for degraded bus relay did not incorporate the requirements and acceptance limits for reset points contained in design document E 90-31. The as-left value (3675 Volts) was found to be above the design value (3668 Volts) and was not reviewed to assure that requirements have been satisfied.
- 2) the testing performed in accordance with EDG surveillance test procedure STP-04, dated June and November 1991, did not adequately document the test data with respect to frequency (recorded frequency as 61 Hz instead of the actual visicoder traces of 66.2 Hz) in that the test group had not evaluated the test results to assure that requirements had been satisfied.

This is a Severity Level IV Violation (Supplement I).

2. The Baltimore Gas and Electric Company Technical Specification, Section 6.8.1, states that written procedures shall be established and implemented covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2.

Regulatory Guide 1.33, Revision 2, Appendix A, paragraphs 8.a and b, state that procedures appropriate to the circumstances should be provided to ensure that instruments and controls are properly controlled and calibrated to maintain accuracy and specific surveillance test procedures written to cover these activities.

Contrary to the above, written surveillance procedures were not adequately implemented in that, on and before March 30, 1992, surveillance procedures such as STP-04 and STP-M-522-2 for the emergency diesel generator and degraded bus protection did not include instrument inaccuracies and calibration errors for instruments such as voltage relays, voltmeter, wattmeter, ammeter, visicorder frequency meter, current transformer and potential transformer to ensure that the diesel generator and degraded bus protective relays operated within the design values.

This is a Severity Level IV Violation (Supplement I).

3. 10 CFR 50, Appendix B, Criterion III, requires that design control measures provide for verifying or checking the adequacy of the design.

The Baltimore Gas and Electric Company Quality Assurance Policy, Revision 29, Section 1B.3, requires that design methods provide for verifying or checking the adequacy of the design.

Contrary to the above, design control measures did not provide means to verify or check the adequacy of the design as evidenced by the following examples:

- 1) As of March 2, 1992, calculations E90-28 dated October 1990, E90-41 dated November 1990, E90-24 dated June 1990, E92-16 dated March 1992 and E90-31 dated March 1992 were issued without properly verifying or checking the adequacy of the design assumptions utilized in the calculations. Assumptions such as conductor temperature of 75°F, motor starting capabilities at 75% of name plate rating for 460 Volts load center loads and 4 kV loads and 70% of nameplate rating for MCC loads, computer modelling without considering all power cables, starting and running values of motor torque were assumed to be the same, and 460 Volts running voltages were less than the required 90% of rated nameplate rating were utilized without adequate design verification or checking. This would result in non-conservative and unacceptable voltage conditions for the safety-related equipment.

- 2) As of March 2, 1992, the design documents E90-31 and E87-13 for degraded bus protection and E88-15 and E90-39 for diesel generator loading calculation were not verified or checked properly to ensure that test criteria are developed correctly with instrument inaccuracies, tolerances and errors. Furthermore, the licensee's "master calibration data sheets" record the various meter tolerances. These have not been factored into any engineering calculations including the above.

This is a Severity Level IV Violation (Supplement I)

Pursuant to the provisions of 10 CFR 2.201, Baltimore Gas and Electric Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region I, and, a copy to the NRC Resident Inspector, within thirty days of the receipt date of the letter which transmitted this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include, for each violation: (1) the reason for the Violation, or, if contested, the basis for disputing the violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps which will be taken to avoid further violations; and (4) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending this response time.