

August 27, 1998

Mr. Charles H. Cruse, Vice President
Nuclear Energy Division
Baltimore Gas and Electric Company
1650 Calvert Cliffs Parkway
Lusby, MD 20657-47027

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 & 2, INTEGRATED PLANT ASSESSMENT ON WATER CHEMISTRY PROGRAM (TAC NOS. MA1016, MA1017, M99223, MA0601, MA0602, M99227, MA0297, MA0304, M99213, M95453, M95454, AND M99178)

Dear Mr. Cruse:

By letter dated April 8, 1997, Baltimore Gas and Electric (BGE) submitted its license renewal application. The NRC staff is reviewing the integrated plant assessment reports contained in the application against the requirements of 10 CFR 54.21(a)(1) and 10 CFR 54.21(a)(3). Based on a review of the information submitted, the staff has identified in the enclosure, areas regarding the water chemistry program where additional information is needed to complete its review.

Please provide a schedule by letter or telephonically for the submittal of your responses within 30 days of the receipt of this letter. Additionally, the staff would be willing to meet with BGE prior to the submittal of the responses to provide clarifications of the staff's requests for additional information.

Sincerely,

Original Signed By

David L. Solorio, Project Manager
License Renewal Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-317, 50-318

Enclosure: Request for Additional Information

cc w/encl: See next page

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Mr. Charles H. Cruse
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

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REQUEST FOR ADDITIONAL INFORMATION
CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NOS. 1 & 2
INTEGRATED PLANT ASSESSMENT
DOCKET NOS. 50-317 AND 50-318

Water Chemistry Program

The following questions apply to the secondary water chemistry as discussed in Section 5.12, "Main Steam and Blowdown System," and Section 5.9, "Feedwater System," of Appendix A to the Baltimore Gas and Electric Company (BGE) license renewal application:

1. Control of the secondary water chemistry plays an important role in ensuring that steam generators and other components exposed to secondary water will not be damaged by corrosion and will preserve their integrity. Please include the following information on your secondary water chemistry control program:
 - a) What amine is being used for controlling pH in the secondary water system?
 - b) Specify major differences in the secondary water chemistry (feedwater and/or steam generator) for power operation, startup, and shutdown.
 - c) Describe and provide technical bases for any significant differences in secondary water chemistry parameters specified in the BGE CP-217 procedure and the values recommended by the Electric Power Research Institute (EPRI) in their guideline reports, referenced in Section 5.12 of Appendix A to the BGE license renewal application.
 - d) Specify the upper limits of the major chemistry parameters and the allowable time period to restore chemistry parameters to acceptable limits.
2. Were there any significant secondary water chemistry excursions in the past? If such excursions have occurred, describe any significant impact on the condition of the plant, such as increased potential for corrosion damage of the components in the secondary water system.

The following questions apply to the primary water chemistry as discussed in Section 4.1, "Reactor Coolant System," and Section 5.2, "Chemical and Volume Control System," of Appendix A to the BGE license renewal application:

3. The scope of BGE Procedure CP-204, "Specification and Surveillance Primary Systems," includes the reactor coolant system (RCS) and the chemical and volume control system (CVCS). These systems perform different functions and consequently have different chemistry procedures. Please describe how CP-204 is applied to the RCS and CVCS.

Enclosure

4. The two factors important to minimize corrosion of the primary coolant system components are pH and lithium hydroxide. Describe the pH level and lithium concentrations during a fuel cycle, or describe the procedure for their control.