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Nuclear Energy

Baltimore Gas and Electric Company  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, Maryland 20657  
410 495-4455



November 2, 1998

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  
Responses to Requests for Additional Information for the Calvert Cliffs Nuclear  
Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Reactor  
Coolant System, and Errata

**REFERENCES:**

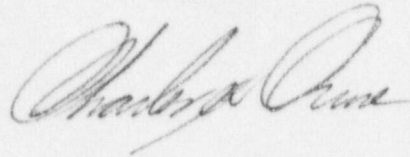
- (a) Letter from Mr. C. H. Cruse (BGE) to NRC Document Control Desk, dated December 17, 1997, "Request for Review and Approval of System and Commodity Reports for License Renewal"
- (b) Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), September 2, 1998, "Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for the Reactor Coolant System"

Reference (a) forwarded three Baltimore Gas and Electric Company (BGE) system and commodity reports for license renewal. Those reports were included, unchanged, in the BGE License Renewal Application, submitted to NRC on April 8, 1998. Reference (b) forwarded questions from NRC staff on the scoping section of one of those three reports, the Integrated Plant Assessment Report for the Reactor Coolant System. Attachment (1) provides our responses to the questions contained in Reference (b). Attachment (2) provides errata to Section 4.1 of the BGE LRA, Reactor Coolant System.

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Should you have further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,



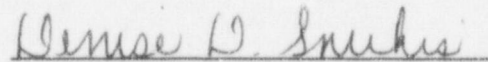
STATE OF MARYLAND :  
: TO WIT:  
COUNTY OF CALVERT :

I, Charles H. Cruise, being duly sworn, state that I am Vice President, Nuclear Energy Division, Baltimore Gas and Electric Company (BGE), and that I am duly authorized to execute and file this response on behalf of BGE. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other BGE employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.



Subscribed and sworn before me, a Notary Public in and for the State of Maryland and County of Calvert, this 2nd day of November, 1998.

WITNESS my Hand and Notarial Seal:

  
Notary Public

My Commission Expires:

2/1/2002  
Date

CHC/KRE/dlm

- Attachments: (1) Response to Request for Additional Information; Integrated Plant Assessment Report for the Reactor Coolant System  
(2) Errata to Section 4.1, Reactor Coolant System; License Renewal Application

- cc: R. S. Fleishman, Esquire  
J. E. Silberg, Esquire  
S. S. Bajwa, NRC  
A. W. Dromerick, NRC  
H. J. Miller, NRC

- C. I. Grimes, NRC  
D. L. Solorio, NRC  
Resident Inspector, NRC  
R. I. McLean, DNR  
J. H. Walter, PSC

**ATTACHMENT (1)**

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**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION;**

**INTEGRATED PLANT ASSESSMENT REPORT FOR THE REACTOR COOLANT SYSTEM**

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**Baltimore Gas and Electric Company  
Calvert Cliffs Nuclear Power Plant  
November 2, 1998**

## ATTACHMENT (1)

### RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION; INTEGRATED PLANT ASSESSMENT REPORT FOR THE REACTOR COOLANT SYSTEM

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#### NRC Question No. 4.1.1

Please explain why the pressurizer spray and auxiliary spray nozzles were not included within the scope of license renewal (*in Baltimore Gas and Electric Company's [BGE's] License Renewal Application [LRA]*).

#### BGE Response

Baltimore Gas and Electric Company evaluated the pressurizer spray nozzles for aging management review (AMR) in Groups 4 and 5 of Section 4.1.2. The Calvert Cliffs Nuclear Power Plant pressurizer spray system consists of two spray lines from the Reactor Coolant System cold leg piping (discharge side of the reactor coolant pumps [RCPs]) converging to a single line after the spray control valves, which intersects with the auxiliary spray line and then enters the pressurizer through a single spray nozzle leading to the spray head inside the pressurizer. The spray nozzle is an integral part of the pressurizer and was determined to be susceptible to general corrosion/fatigue. There is no auxiliary spray nozzle on the pressurizer since the auxiliary spray line interfaces with the pressurizer spray line upstream of the pressurizer. The spray head inside the pressurizer was not within the scope of license renewal because it does not provide a passive intended function (e.g., pressure boundary). The flow control valves and piping associated with the pressurizer spray system (including auxiliary spray lines) are within the scope of license renewal and evaluated for AMR in Section 4.1.2 of the BGE LRA.

#### NRC Question No. 4.1.2

In Table 4.1-2, "Tank (TK)" was listed as a device type requiring AMR. But, Figure 4.1-1 shows that the Quench Tank No. 11 is not within the scope of license renewal. Please clarify this apparent discrepancy.

#### BGE Response

The device type "Tank (TK)" in Section 4.1 of the BGE LRA referred to the RCP lube oil reservoir tanks. These RCP lube oil reservoir tanks have a license renewal intended function to act as a pressure boundary for fire protection purposes. The RCP lube oil reservoir tanks were evaluated and did not have any plausible aging related degradation mechanisms (ARDMs), as shown in Table 4.1-3 of Section 4.1. The quench tanks for Calvert Cliffs Units 1 and 2 were not in scope of license renewal because these non-safety-related components did not provide a license renewal intended function.

#### NRC Question No. 4.1.3

The device type, "Miscellaneous (XL)," listed in Table 4.1-1 has been classified as only associated with active functions and, therefore, was excluded from the AMR. Please describe the types of components that make up this device type.

#### BGE Response

An XL device type is a status indicating lamp. Indication is an active function for license renewal. Therefore, XL device type components are not subject to AMR.

#### NRC Question No. 4.1.4

In Table 4.2-2 in Section 4.2, footnotes were used to indicate that "not all components of a device type were affected by the ARDM." This has been interpreted to mean that some components within the device type category are not subject to the effects of the listed plausible ARDM. Referring to

ATTACHMENT (1)

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION;  
INTEGRATED PLANT ASSESSMENT REPORT FOR THE REACTOR COOLANT SYSTEM

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Table 4.1-3 in subsection 4.1.2, please clarify whether any subcomponents of the components listed in the table are similarly not subject to the plausible ARDMs shown.

**BGE Response**

There were some components within the device type categories listed in Table 4.1-3 of the BGE LRA that were not affected by the listed ARDMs. Due to the large number of components in the Reactor Coolant System report, BGE elected not to individually list those components that were not affected by the ARDMs listed in Table 4.1-3. The AMR report for the Reactor Coolant System contains all of the components for each device type subject to AMR and describes those that were and were not susceptible to specific ARDMs.

ATTACHMENT (2)

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ERRATA TO SECTION 4.1 REACTOR COOLANT SYSTEM;  
LICENSE RENEWAL APPLICATION

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Baltimore Gas and Electric Company  
Calvert Cliffs Nuclear Power Plant  
November 2, 1998

## ATTACHMENT (2)

### ERRATA TO SECTION 4.1, REACTOR COOLANT SYSTEM; LICENSE RENEWAL APPLICATION

The following editorial corrections apply to Section 4.1 of the Baltimore Gas and Electric Company License Renewal Application:

- On page 4.1-24, in the second full paragraph, pertaining to procedures SG-5 and SG-6, the bracketed references should read " [References 27 and 38] " vice "... [References 27 and 28]. . .," and the last sentence should start "Both SG-5 and SG-6 are. . ." vice "Both SG-1 and SG-2 are. . ."
- On page 4.1-31, in the fourth line of the first full paragraph, the phrase "under Methods to Manage Aging." should read "under Aging Management Effects)."
- On page 4.1-36, near the end of the paragraph starting with "Internal," "Group 2 (wear)" should read "Group 1 (denting)."
- On page 4.1-48, near the end of the paragraph starting with "Technical Procedures STP-M-574-1/2," "Group 2 (wear)" should read "Group 1 (denting)."
- On page 4.1-48, the first sentence of the paragraph starting with "Calvert Cliffs Administrative Procedure MN-3-110 . . ." should read, in part, "... is credited with discovering SCC/IGSCC . . ." vice "... is credited with discovering SCC . . ."
- On page 4.1-54, Table 4.1-4, for existing program "CCNPP 'Specification and Surveillance Primary Systems' (CP-204)," the "Credited As" block should read, in part, "... SCC, IGSCC (Group 7). . ." vice "... SCC, IGSCC, and PWSCC (Group 7). . ."