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Nuclear Energy

Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
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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
Response to Request for Additional Information for the Review of the Calvert
Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Report for
the Saltwater System

- 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 Reports for License Renewal"
 - (b) Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), August 28, 1998, "Request for Additional Information for the Review of the Calvert Cliffs Nuclear Power Plant, Units 1 & 2, Integrated Plant Assessment Reports for the Saltwater Cooling System"
 - (c) Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), September 24, 1998, "Renumbering of NRC Requests for Additional Information on Calvert Cliffs Nuclear Power Plant License Renewal Application Submitted by the Baltimore Gas and Electric Company"

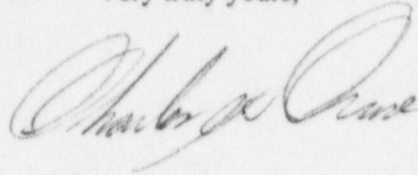
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Reference (a) forwarded three Baltimore Gas and Electric Company (BGE) system reports for license renewal. Reference (b) forwarded questions from NRC staff on one of those three reports, the Integrated Plant Assessment Report for the Saltwater System. Reference (c) forwarded a numbering system for tracking BGE's response to all of the BGE License Renewal Application requests for information and the resolution of the responses. Attachment (1) provides our response to the questions contained in Reference (b). The questions are renumbered in accordance with Reference (c).

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

Very truly yours,



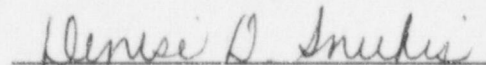
STATE OF MARYLAND :
: TO WIT:
COUNTY OF CALVERT :

I, Charles H. Cruse, 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

Attachment: (1) Response to Request for Additional Information; Integrated Plant Assessment Report for the Saltwater System

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)

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

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 SALTWATER SYSTEM

NRC Question No. 5.16.1

According to Figure 5.16-1 and Subsection 5.16.1.1, essentially all of the saltwater system is within the scope of license renewal. The saltwater supply to the circulating water system (CWS) pump seals and the CWS discharge conduits are identified as not within the scope of license renewal. Since Figure 5.16-1 does not show any valves, it is not clear where the interface location is between the portions of the system that are within and outside the scope of license renewal, and how the interfacing locations were chosen. Please identify more clearly the interfaces between the portions of the saltwater system that are within and outside the scope of license renewal, and if possible, provide a revised drawing that shows the interface locations more clearly. Please provide the basis for the interfaces that define the portions of the saltwater system that are within and outside the scope of license renewal, and if possible, a more general discussion of the process used for identifying interfaces to assist the NRC staff with its review of other sections of the License Renewal Application (LRA) where scoping interfaces are discussed.

BGE Response

Section 2.0 of the Baltimore Gas and Electric Company (BGE) LRA, Integrated Plant Assessment Methodology, describes the system level scoping process and the component level scoping process. These processes were used by BGE to determine which systems and components are within the scope of license renewal. Saltwater System interfaces are listed on the bottom of page 5.16-4.

The safety-related Saltwater System discharges back to the Chesapeake Bay via non-safety-related circulating water discharge conduits (two conduits per Unit). The discharge conduits are not within the scope of license renewal because they do not meet 10 CFR 54.4(a)(1), (2) or (3) scoping criteria. The interface is at the embedded spool pieces that join the safety-related saltwater piping to the non-safety-related concrete discharge conduits.

The safety-related Saltwater System supplies cooling water to the non-safety-related circulating water pump seals. The interface is composed of safety-related orifices (two per Unit) at the interface with the non-safety-related circulating water piping.

License Renewal Application Figure 5.16-1 is a simplified diagram and is not intended to depict each component in the Saltwater System that is within the scope of license renewal. Figures 9-8 (Unit 1) and 9-26 (Unit 2) of the Calvert Cliffs Nuclear Power Plant Updated Final Safety Analysis Report provide a more detailed representation of the Saltwater System.

Detailed information concerning these interfaces is readily available onsite for review.

NRC Question No. 5.16.2

Figure 5.16-1 shows an emergency discharge line coming off the pump discharge header (in lieu of the system discharge header). The NRC staff believes, based on the information provided, that the emergency discharge line coming off the pump discharge would be a safety-related alternative to the system's normal discharge path to the CWS discharge conduits. Please describe the function of this line.

ATTACHMENT (1)
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION;
INTEGRATED PLANT ASSESSMENT REPORT FOR THE SALTWATER SYSTEM

BGE Response

The saltwater emergency discharge line is safety-related and within the scope of license renewal. This flowpath is not used for normal operation of the Saltwater System. This flowpath is safety-related because it is required to mitigate a passive failure of the common saltwater discharge line post-accident.

The simplified diagram correctly depicts the emergency discharge line coming off of the pump discharge header. Utilization of the emergency overboard discharge line requires that one of the two saltwater supply trains be used as the discharge path.

Detailed information concerning the configuration and operation of the emergency overboard discharge line is readily available onsite for review.

NRC Question No. 5.16.3

Figure 5.16-1 does not show the suction piping to the saltwater pumps. Please identify whether the suction piping is included within the scope of license renewal. If so, provide a cross reference to where the suction piping is addressed in the LRA. Also, identify any strainers and/or screens associated with this system and discuss whether these components are within the scope of license renewal. If so, provide a cross reference to where these components are addressed in the LRA. If either of these components are not within the scope of license renewal, provide the basis of their exclusion.

BGE Response

Supply to the saltwater pumps is not provided by pipes, but is provided by saltwater tunnel/cavity walls that are part of the Intake Structure. These cavities are addressed in the BGE LRA Section 3.3C, Intake Structure, and are within the scope of license renewal.

The Intake Structure contains trash racks and traveling screens to protect the non-safety-related condensers from foreign bodies present in the bay water. The trash racks and traveling screens are not within the scope of license renewal because they do not meet 10 CFR 54.4(a)(1), (2) or (3) scoping criteria.

Basket strainers are currently installed upstream of the Emergency Core Cooling System pump room air coolers. They are within the scope of license renewal and subject to aging management review; see LRA Tables 5.16-1 and 5.16-2. Aging management programs for these basket strainers is discussed on page 5.16-19.

Note that new Service Water Heat Exchangers were installed in Calvert Cliffs Unit 1 during the 1998 refueling outage. These new heat exchangers have basket strainers associated with them, whereas the removed service water heat exchangers did not have basket strainers. Information concerning these new heat exchangers, basket strainers, and other associated equipment changes will be provided to the NRC as part of the annual LRA update.