CHARLES H. CRUSE
Vice President
Nuclear Energy

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

BGE

November 4, 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 Diesel Fuel Oil System

REFERENCES:

(a) Letter from Mr. D. L. Solorio (NRC) to Mr. C. H. Cruse (BGE), September 7, 1998, "Clarification Regarding Selected Feedwater and Diesel Fuel Oil Requests for Additional Information Resulting from May 6, 1998, Meeting with Baltimore Gas and Electric Company"

(b) 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"

Reference (a) forwarded seven clarified NRC requests for additional information for Baltimore Gas and Electric Company (BGE) Integrated Plant Assessment system reports for license renewal for the Feedwater System (five questions) and the Diesel Fuel Oil System (two questions). Reference (b) forwarded a numbering system for tracking BGE's response to all of the BGE License Renewal Application requests for additional information and the resolution of the responses. Attachment (1) provides our responses to the two Diesel Fuel Oil System questions contained in Reference (a). The questions are renumbered in accordance with Reference (b).

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

Very truly yours,

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 4 day of November, 1998.

WITNESS my Hand and Notarial Seal:

Michelle D. Hall
Notary Public

My Commission Expires:

February 1, 2002
Date

CHC/KRE/dlm

Attachment: (1) Response to Clarified Request for Additional Information; Integrated Plant Assessment Report for the Diesel Fuel Oil 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 CLARIFIED REQUEST FOR ADDITIONAL INFORMATION;

INTEGRATED PLANT ASSESSMENT REPORT FOR THE DIESEL FUEL OIL SYSTEM

Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
November 4, 1998

NRC Question No. 5.7.1

As a result of subsequent staff review of the Diesel Fuel Oil (DFO) System report *[Section 5.7 of Baltimore Gas and Electric Company's (BGE's) License Renewal Application (LRA)]* in light of the May 6, 1998 meeting, the following clarifications or additional information is requested to be submitted along with your response to this question. For the DFO System provide a summary description of the piping material, piping design standard, seismic category, pipe sizes, operating temperature and pressure, any leak detection measures, such as from inservice inspection and pressure tests, and any evidence of ground surface settlements adjacent to DFO piping.

BGE Response

The specifications for DFO System piping within the scope of license renewal are as follows:

	Pipe Segment 0-HB-5-1056	All Others
Size(s):	3" and 2"	6", 3", and 2"
Material:	ASTM A-106, Grade B	ASTM A-106, Grade B
Design Code:	ASME B31.1	ASME B31.1
Seismic Category:	Category I	Category I
Operating Temperature:	Ambient	100°F
Operating Pressure:	9 psig	25 psig

There are no specific inservice inspection or pressure test programs for the DFO System piping within the scope of license renewal, other than routine system walkdowns performed in accordance with CCNPP Administrative Procedure MN-1-319, "Structure and System Walkdowns." However, Section 5.7.2 of the LRA addresses aging management programs for the DFO System piping to ensure that the effects of aging are adequately managed such that the piping will perform its intended function during the period of extended operation under all design loading conditions.

There is no evidence of ground surface settlement adjacent to DFO piping. The DFO System contains piping that is supported by the Emergency Diesel Generator Rooms (adiacent to the Auxiliary Building) and by the Fuel Oil Storage Tank (FOST) No. 21 Enclosure. Settlement of the EDG Rooms is addressed in BGE LRA Section 3.3E, "Auxiliary Building and Safety-Related Diesel Generator Building Structures." Settlement of the FOST 21 Enclosure is addressed in BGE LRA Section 3.3D, "Miscellaneous Tank and Valve Enclosures."

NRC Question No. 5.7.4

As a result of subsequent staff review of the DFO System report in light of the May 6, 1998 meeting, the part of this question related to operating experience was revised as follows. The staff's review found that the inspected minimum bottom plate thickness for the FOST was found to be 0.247 inch, which is greater than the required minimum thickness of 0.24 inch. This measurement was taken after 20 years of service. How does this measurement compare with the baseline measurements or dimensions? Based on the current wear rates, provide a projection of the plate thickness after another 40 years of plant operation.

BGE Response

On April 13, 1997, No. 21 FOST was inspected. The inspection included a visual inspection of the tank internal surfaces and ultrasonic thickness measurements at 11 points on the tank bottom. The minimum measured bottom plate thickness was 0.247 inch. The original nominal bottom plate thickness on the tank design drawing is 0.25 inch. Per American Society for Testing and Materials A-6, the permissible variations in thickness for 0.25 inch nominal plate indicates a maximum and minimum of 0.28 inch and 0.24 inch, respectively. There are no baseline data available that correspond to the 11 measurement points examined during the inspection. However, an evaluation of the inspection results concluded no significant age-related degradation of the carbon steel tank bottom has occurred in approximately 20 years of service.