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August 4, 1994

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
Emergency Diesel Generator Upgrade Project - Temporary Exemption Request

- REFERENCES:
- (a) Letter from Mr. R. E. Denton (BGE) to NRC Document Control Desk, dated December 17, 1993, Emergency Diesel Generator Upgrade Project - Temporary Exemption Request
 - (b) Letter from Mr. R. E. Denton (BGE) to NRC Document Control Desk, dated February 4, 1993, Emergency Diesel Generator Upgrade Project - Additional Information Concerning the Temporary Exemption Request (Unit 2 TAC No. M88454)
 - (c) Letter from Mr. R. A. Capra (NRC) to Mr. R. E. Denton (BGE), dated February 23, 1994, Temporary Exemption From the Requirements of 10 CFR 50, Appendix A, General Design Criteria 2, "Design Bases for Protection Against Natural Phenomena," Calvert Cliffs Nuclear Power Plant, Unit No. 2 (TAC No. M88454)
 - (d) Letter from Mr. R. E. Denton (BGE) to NRC Document Control Desk, dated August 17, 1993, Emergency Diesel Generator Upgrade Project

Emergency Diesel Generator (EDG) No. 21 will be modified during the upcoming Unit 2 refueling outage (spring 1995) to increase its rated electrical capacity. This modification will provide additional margin for the electrical loading of the 4.16 kv safety-related bus. As noted in Reference (b), we intend to perform the complete scope of the modification work required to obtain upgraded ratings on EDG No. 21. Following the physical modification work, qualification testing will be performed in accordance with the reviewed and approved testing program. Reliability testing will be done at either hot or ambient conditions as described by Reference (d) prior to the diesel being considered operable for Modes 1, 2, and 3. In order to perform this modification, an exemption from the requirements of General Design Criteria (GDC) 2 (1967 draft) is needed. This is similar to the temporary exemption requested in References (a) and (b), to support the

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upgrade work on EDG No. 11 during the Unit 1 refueling outage (spring 1994). Reference (c) issued that exemption on February 23, 1994.

Therefore, pursuant to 10 CFR 50.12(a), Baltimore Gas and Electric Company requests a temporary exemption from the requirements of (draft) GDC 2 or equivalent relief. This relief will permit the temporary removal of the steel missile door which provides missile protection for EDG No. 21 and support systems common to the other EDGs. The missile door protects the EDG and support systems from the effects of severe weather events, including tornados, which may affect the Calvert Cliffs site. Accordingly, temporary relief from (draft) GDC 2 is requested as it relates to the design of a system essential to accident mitigation to withstand the effects of natural phenomena. We have identified the need to remove the missile door approximately four times during the refueling outage for a period of about 24 hours each time.

As detailed below, this temporary exemption is necessary to permit upgrades to the EDG without a dual-unit shutdown. Support systems common to all three EDGs, such as the EDG Starting Air System, run through the EDG No. 21 room. Therefore, removal of the missile door affects the missile protection for all three EDGs. However, these modifications will lead to an increased capacity for EDG No. 21 following the Unit 2 refueling outage (spring 1995). This increased capacity will provide operators with increased flexibility in the addition of discretionary post-accident loads. This enhances our ability to respond to transient events at Calvert Cliffs.

Baltimore Gas and Electric Company believes that the standards of 10 CFR 50.12 are satisfied in this case. Special circumstances are present, as described in 10 CFR 50.12(a)(2)(iv) and (v), to warrant granting the temporary exemption. This temporary exemption will indirectly result in benefits to the public from the increased capacity of one of the EDGs. The temporary exemption is requested for a specific period; at all other times the facility will be in conformance with the requirements of (draft) GDC 2. Baltimore Gas and Electric Company is committed to minimizing the time the missile door is removed.

BACKGROUND

Draft GDC 2 states, "Those systems and components of reactor facilities which are essential to the prevention of accidents which could affect the public health and safety or to mitigation of their consequences shall be designed, fabricated, and erected to performance standards that will enable the facility to withstand, without loss of the capability to protect the public, the additional forces that might be imposed by natural phenomena such as earthquakes, tornados, flooding conditions, winds, ice, and other local site effects. The design bases so established shall reflect: (a) appropriate consideration of the most severe of these natural phenomena that have been recorded for the site and the surrounding area and (b) an appropriate margin for withstanding forces greater than those recorded to reflect uncertainties about the historical data and their suitability as a basis for design." As stated in our Final Safety Analysis Report submittal (1971), the plant design and construction proceeded based upon the intent of the draft GDC.

Our EDGs are systems which mitigate the consequences of an accident. The Calvert Cliffs site has three EDGs. Normally, EDG No. 11 is dedicated to Unit 1, EDG No. 21 is dedicated to Unit 2, and EDG No. 12 is able to swing to either unit. Each EDG is enclosed in a separate room in the Auxiliary Building. The Auxiliary Building is a Class 1 structure, one of whose functions is to protect the EDGs and their support systems from severe weather effects. Each of the EDG rooms was designed with a large opening on the

western side to allow for movement of the diesel engine into or out of the room. These openings are covered by steel doors which provide missile protection equivalent to that provided by the concrete walls. Each of these rooms contains a diesel generator, its local controls, and support systems. The room that contains EDG No. 21 contains the starting air header, which is common to all three diesel generators.

During the period of the exemption, Unit 1 will be operating in Mode 1, and Unit 2 will be in either Mode 5 or 6, for the spring 1995 refueling outage. Emergency Diesel Generator No. 21 will be inoperable for the duration of the upgrade. Unit 1 requires two operable EDGs in Mode 1 (Technical Specification 3.8.1.1). Both EDG Nos. 11 and 12 will be operable for Unit 1. Unit 2 requires one operable EDG while in Modes 5 or 6 (Technical Specification 3.8.1.2.b). Emergency Diesel Generator No. 12 will operate as a swing diesel with Unit 1 to satisfy this requirement. When the missile door is removed from the EDG No. 21 room, the missile protection is also degraded for EDG Nos. 11 and 12 because of common support systems present in the EDG No. 21 room.

Performance of the upgrade on EDG No. 21 will entail removal and replacement of several large components on the engine. The following components are of a size and weight which makes rigging in and out of EDG No. 21 labyrinth personnel door impossible, thereby requiring missile door removal:

Blower	42" x 40" x 48"	2400 lbs
Turbos (2)	28" dia. x 34" deep	1800 lbs
Air Inlet Pipe	28" x 40" x 25"	430 lbs
Intercoolers (2)	15" x 15" x 59"	520 lbs
Heat Exchanger Tube Bundles (2)	14" dia. x 95" long	1154 lbs

The upgrade work has been scheduled to begin February 28, 1995, and end on March 13, 1995. Based on the current work scope, we expect to remove the missile door four times during the upgrade work. Each removal is expected to be less than 24 hours in duration. When the missile door is removed, it will remain connected to the crane used to remove it. This will permit rapid re-installation, if necessary. We are requesting a temporary exemption to (draft) GDC 2 only for those periods when the missile door is removed from the opening to the EDG room.

THE REQUIREMENTS OF 10 CFR 50.12 ARE MET

The standards set forth in 10 CFR 50.12 provide that specific exemptions will be granted which:

- are authorized by law;
- are consistent with the common defense and security;
- will not present an undue risk to the public health and safety; and
- are accompanied by special circumstances.

Baltimore Gas and Electric Company believes that the activities to be conducted under the temporary exemption are clearly authorized by law and are consistent with the common defense and security. The remaining standards for the temporary exemption are also satisfied, as described below.

No Undue Risk

The temporary exemption will not present an undue risk to the public health and safety.

Baltimore Gas and Electric Company will take compensatory actions to reduce the risk of missile damage to the common EDG support system for the period of the exemption. The removal of the missile door will be for such a short period of time that the missile door will remain connected to the crane used to remove it. While the missile door is removed, operations personnel will remain cognizant of approaching weather systems. Emergency Response Plan Implementing Procedure (ERPIP) 3.0, Attachment 17, provides actions to be taken for severe weather conditions. Personnel responsible for supervising the installation of the modification will be notified if a tornado or hurricane watch is issued for the plant site, or if sustained winds are predicted to be greater than 50 miles/hour for the site. If a watch is issued, a concerted effort will be made to reinstall the missile door before the arrival of the storm. This effort will be limited only by the need to ensure the safety of the individuals performing the work.

In addition, the likelihood of missile damage to the EDGs resulting from severe weather is small at Calvert Cliffs, especially during the period for which the exemption would apply. The primary risk is associated with missiles that could be generated by tornados. Calvert Cliffs has a defined "tornado season" when the probability of a tornado is greater than other periods. As defined in Technical Specification 3.8.1.1, tornado season extends from April 1 to September 30. Based on the current schedule, we anticipate all of the physical work (and therefore all of the missile door removals) to occur before tornado season; however, the compensatory actions described above will ensure the risk of damage to the EDGs is acceptably low, even within the defined tornado season.

Special Circumstances

This request involves special circumstances as set forth in 10 CFR 50.12 (a)(2)(iv) and (v). The temporary exemption will indirectly result in benefits to the public from the increased capacity of EDG No. 21. In addition, the exemption would provide only temporary relief from the applicable regulation. The temporary exemption is requested for a specified, limited period of time: approximately 100 hours during the scheduled 65 day outage. Therefore, the exemption would provide only temporary relief for the period necessary to move equipment in and out of the room.

Without the requested exemption, it will not be possible to perform the upgrade work on the EDG without requiring the operating unit (Unit 1) to be shut down and without entering Action Statement 3.8.1.2.a for the shutdown unit (Unit 2). We are committed to making good faith efforts to provide missile protection for the EDG support system during the temporary exemption period. As noted above, we will be prepared to reinstall the missile door whenever there is a threat of a tornado, hurricane, or severe winds at the Calvert Cliffs site. We are also limiting the amount of time the missile door is removed.

SCHEDULE

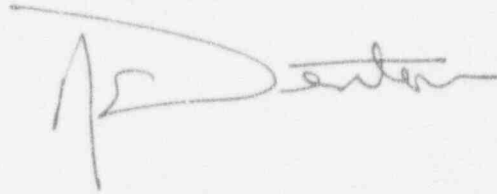
The first removal of the missile door is currently scheduled to take place on February 28, 1995. Therefore, we request that this temporary exemption be granted prior to that date.

CONCLUSION

Baltimore Gas and Electric Company believes the standards of 10 CFR 50.12 are satisfied, including the existence of special circumstances as required by 50.12(a)(2)(iv) and (v). This temporary exemption is necessary to permit a desirable upgrade to the EDG without an unnecessary unit shutdown.

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

Very truly yours,

A handwritten signature in dark ink, appearing to read "J. E. Silberg", is written over a horizontal line.

RED/NH/dlm

cc: D. A. Brune, Esquire
J. E. Silberg, Esquire
M. K. Boyle, NRC
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