BALTIMORE
GAS AND
ELECTRIC

CHARLES CENTER · P. O. BOX 1475 · BALTIMORE, MARYLAND 21203

May 18, 1981

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2, Dockets Nos. 50-317 & 50-318
10 CFR Part 50.48 and Appendix R
Request for Relief

References: (a) BG&E letter dated 3/19/81 from A. E. Lundvall, Jr. to D. G. Eisenhut, Fire Protection Modifications.

Dear Mr. Denton:

Baltimore Gas and Electric Company, pursuant to 10 CFR Part 50 Paragraph 50.12, hereby requests relief from the provisions of Paragraph 50.48(c)(5) of that Part to allow an extension of the required submittal date for the plans, schedules and design descriptions of the modifications needed to satisfy Section III.G.3 of Appendix R as described below. In addition, we hereby reiterate our request for other exemptions to specific requirements of Appendix R as detailed in Reference (a).

BACKGROUND

Our letter of 3/19/81, Reference (a), requested exemptions from certain requirements of 10 CFR 50 Appendix R, and submitted a design description of our plans to meet Appendix R, Section III.G.3, as required by 10 CFR 50.48(c)(5). In a telephone conversation on 4/23/81, your staff clarified the requirements for safe shutdown design description and associated circuits, and informed us that our design description was of insufficient detail. Since the submittal deadline for such detailed information was already past, your staff stated that a request for an exemption for this item would be appropriate. Attachment 1 is a summary of our understanding of requirements for information submittal as discussed in the 4/23/81 phone conversation. Please let us know if our understanding is not correct.

DESCRIPTION OF REQUEST

Information meeting the requirements summarized in Attachment 1 will be generated as part of the continuing detailed design resulting from our "Report on Alternate Safe Shutdown". This process was described in Reference (a). The detailed information that you require is scheduled to

A006
S 1/1

F

be complete for Unit 1 by 10/1/81 and for Unit 2 by 2/1/82, and will be submitted for your review by those dates. We therefore request an exemption from the schedule requirements of 10 CFR 50.48(c)(5) for detailed design descriptions of modifications needed to meet Appendix R Section III.G.3. Descriptions of our requests for exemptions from other provisions of Appendix R are contained in Reference (a) and are not repeated here.

JUSTIFICATION

Our safe shutdown study is extremely detailed and comprehensive, and involves engineering and field analyses of all parts of all systems which may be involved in plant shutdown. A large amount of work has already been done in preparation of the "Report on Alternate Safe Shutdown", submitted to you on 3/19/81. This report provides the ground work and the basis for the detailed design which you wish to review. With this comprehensive basis already completed, the detailed design - though extensive and time-consuming - involves relatively straightforward engineering and modifications of the type routinely conducted under 10 CFR 50.59. Therefore, it would seem that the most significant part of your review could be completed based on information submitted on 3/19/81.

Because the detailed design involves possible modifications to vital functions of the plant, many of which are interrelated, anything less than an extremely careful and deliberate process would increase the possibility of an error that could have an adverse impact on plant operation or safe shutdown capabilities.

SAFETY REVIEW

This request for relief from the provisions of 10 CFR 50 has been reviewed by our Engineering Staff, and they have concluded that granting of the requested relief will not endanger life or property or the common defense and security and is otherwise in the public interest.

FEE DETERMINATION

We have determined that the requested relief and exemptions are fee-exempt.

Sincerely,

C. A. Poindexter for

A. E. Lundvall, Vice President
Supply

cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
Messrs. E. L. Conner, Jr. - NRC
R. E. Architzel - NRC

SUMMARY OF 4/23/81 PHONE CONVERSATION, BG&E/NRC,
CONCERNING INFORMATION REQUIREMENTS FOR
ALTERNATE SHUTDOWN AND ASSOCIATED CIRCUITS

(1) The only modifications which constitute an installation of alternate shutdown capability are those which alter the piping diagrams or the electrical schematics for systems or devices as previously reviewed by the NRC and covered in the FSAR.

(2) Design details of modifications such as cable relocation or the installation of barriers to provide separation in accordance with Section III.G.2 of Appendix R do not need to be submitted or reviewed by the NRC. Detailed submittals are required only for modifications covered by item (1) above. In this regard, only the "after modification" state of cables and devices will be considered when determining if separation in accordance with Section III.G.2 "exists".

(3) Concerning "associated circuits": our understanding of the response required to satisfy the "Request for Additional Information" (enclosure 2 of Mr. Eisenhut's letter dated 2/20/81) is as follows:

(a) The additional information is required only for areas where the present installation cannot or will not be altered to meet the requirements of III.G.2.

(b) Alternative shutdown capabilities necessary to achieve and maintain hot shutdown conditions only are of concern for this requirement.

(c) The first category of associated circuits are cables that have a separation from the fire areas less than that required by Section III.G.2 and have a common power source with the alternate shutdown equipment and the power source is not electrically protected from the post-fire shutdown circuit of concern by coordinated circuit breakers, fuses or similar devices.

No associated circuits in this category will be addressed since cabling and equipment required for shutdown are supplied from 4 KV switchgear, 480 volt switchgear, 480 volt motor control centers and 125 volt D.C. distribution [illegible]. 4 KV and 480 volt switchgear branch circuits are provided with overcurrent protection coordinated with the main bus protection. 480 volt motor control center branch circuits are protected by thermal-magnetic breakers or overload devices. 480 volt loads in excess of [illegible] HP and 4 KV circuits are provided with ground fault protection. 125 volt D.C. branch circuits are protected by fuses coordinated with the main fuses. Cable for control circuits are fuse protected at the control power source. [illegible] such as fire detectors and annunciators which [illegible] with shutdown equipment are [illegible] at their respective devices. [illegible] for these devices and "short" [illegible] shutdown circuits.

(d) The second category of associated circuits are cables that have a separation from the fire areas less than that required by Section III.G.2 and have a connection to circuits of equipment whose spurious operation will adversely affect the shutdown capability, e.g., RHR/RCS Isolation Valves.

No cables will be addressed in this category. All devices whose inadvertent operation could adversely affect the shutdown capability are contained in the logic charts and operating descriptions included in the "Report on Alternate Safe Shutdown" previously provided. For example the pressurizer relief valves (RPV-402 and RPV-404), which must remain closed to maintain RCS inventory, are included in Attachment 5 (p. 25) and are discussed subsequently. Any other valves which must be open or closed during the shutdown are also addressed. All cables required to assure these valve positions are being addressed as shutdown circuits.

(e) The third category of associated circuits are cables that have a separation from the fire areas less than that required by Section III.G.2 and have a common enclosure, e.g., raceway, panel, junction box, with alternative shutdown cables and are not electrically protected from the post-fire shutdown circuits of concern by circuit breakers, fuses or similar devices.

No cables contained in this category need be addressed since as noted in (c) above all cables are protected by fuses, circuit breakers or vertical devices or are designed to be "shorted". Cables which are part of the control scheme of a shutdown device but do not directly affect device control (e.g. indicators, annunciator circuits, etc.) will be analyzed as shutdown circuits and as such will not be addressed as associated circuits. Due to strict adherence to cable separation criteria, no single cable shares a common enclosure with redundant devices in separate divisions.