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November 7, 1990

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
Request for Amendment to Operating Licenses

Gentlemen:

The Baltimore Gas and Electric Company hereby requests an Amendment to its Operating License Nos. DPR-53 and DPR-69 for Calvert Cliffs Unit Nos. 1 & 2, respectively, with the submittal of the proposed changes to the Technical Specifications. This request will correct inconsistencies between certain Calvert Cliff's Technical Specifications, provide clarifications and supplemental requirements, and incorporate updated bases for the affected specifications.

BACKGROUND

The Calvert Cliffs Nuclear Power Plant (CCNPP) Technical Specifications were originally written based on an early version (Revision 2) of the Standard Technical Specifications for Combustion Engineering (CE) Pressurized Water Reactors (NUREG-0212). This version of the CE Standard Technical Specifications is the origin of the ACTION statements currently included in CCNPP Technical Specification Limiting Conditions for Operation (LCOs) 3.8.2.2 and 3.8.2.4, AC/DC Electrical Power Distribution Systems - Shutdown.

These ACTION statements require that full CONTAINMENT INTEGRITY be established within eight hours of determining that the required complement of A.C. or D.C. busses are not OPERABLE. CONTAINMENT INTEGRITY is defined, partially, in terms of Specifications 3.6.1.2, 3.6.1.3 and 3.6.4.1. These specifications are applicable only in **MODES** 1 through 4, and are not required to be met in **MODES** 5 and 6. However, they are "invoked" through the ACTION statements of Specifications 3.8.2.2 and 3.8.2.4 for **MODES** 5 and 6 under certain conditions.

This inconsistency in the manner with which the current Technical Specifications treat conditions regarding CONTAINMENT INTEGRITY has been the source of some confusion. A later version of the Standard Technical Specifications (Revision 3) provided an ACTION that eliminated the requirement for CONTAINMENT INTEGRITY and replaced it with actions such as suspension of CORE ALTERATIONS, positive reactivity changes, and movement of irradiated fuel. Revision 3 did not revise the BASES for the Technical Specifications in any way. This indicates a refined understanding of the actions necessary to ensure safe operation in the COLD SHUTDOWN and REFUELING MODES.

The requested change to the Technical Specifications and their Bases will provide for a more consistent interpretation of the requirements for containment isolation during COLD SHUTDOWN and REFUELING conditions, and will address some operating conditions identified subsequent to the adoption of the existing Technical Specifications.

The need for this change to the Technical Specifications is based on the impracticality of implementing full CONTAINMENT INTEGRITY during some conditions (such as during integrated leak rate testing or penetration modification) that occur during **MODES** 5 and 6.

REQUESTED CHANGE

In this proposed amendment, the ACTION statements for Technical Specifications 3.8.1.2, 3.8.2.2 and 3.8.2.4 would be modified to replace the requirement to establish CONTAINMENT INTEGRITY with a containment penetration closure requirement. These Technical Specifications would also be supplemented with requirements from the Standard Technical Specifications (Revision 3) and the latest draft of the forthcoming Restructured Standard Technical Specifications (Reference: J. Calvo to W. Hall, dated July 24, 1990) to require suspension of operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel and heavy loads over irradiated fuel, and initiation of corrective actions to restore the power source or electrical distribution system within one hour. Technical Specification 3.9.4 would also be modified to be applicable during these operations.

DETERMINATION OF SIGNIFICANT HAZARDS

This proposed change has been evaluated against the standards in 10 CFR 50.92 and has been determined to involve no significant hazards considerations, in that operation of the facility in accordance with the proposed amendment would not:

(i) involve a significant increase in the probability or consequences of an accident previously evaluated; or

In **MODES** 1, 2, 3, and 4, a Design Basis Accident could cause a release of radioactive material into the containment. In these **MODES**, prevention against the release of this material to the environment is accomplished by maintaining CONTAINMENT INTEGRITY. In **MODES** 5 and 6; however, the

probability and consequences of these events are lower because of the reactor coolant system pressure and temperature limitations of these **MODES**. A minimum complement of electrical power sources and distribution systems is established to assure adequate power for systems required to recover from a boron dilution event or fuel handling incident, as discussed in Updated Final Safety Analysis Report Sections 14.3 and 14.18, respectively. A single power train/division is adequate in these lower **MODES** (5 and 6) because additional time is available to restore power before fuel damage occurs. Additionally, because of the lack of a containment pressurization potential, less stringent requirements are needed to isolate the containment from the outside atmosphere. These less stringent requirements are applied during CORE ALTERATIONS, movement of irradiated fuel, and when the power distribution systems are degraded, as addressed in Technical Specification 3.9.4, "Containment Penetrations".

With the number of energized A.C. or D.C. power distribution systems less than that required, sufficient power may not be available to recover from a fuel handling accident. Consequently, the ACTION statements require immediate suspension of CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel in the containment, and movement of loads over irradiated fuel within the containment. This precludes the occurrence of the postulated events and the need for CONTAINMENT INTEGRITY. However, containment penetration closure is provided for additional mitigation of unforeseen events. Therefore, there is no increase in the probability or consequences of any accident previously evaluated.

(ii) create the possibility of a new or different type of accident from any accident previously evaluated; or

The proposed changes will not represent a significant change in the configuration or operation of the plant. Specifically, no new hardware is being added to the plant as part of the proposed change, no existing equipment is being modified, nor are any significantly different types of operations being introduced. The initiators of the accidents previously evaluated, boron dilution and fuel handling, have been reviewed with no impact identified. Other operations that are potential precursors to events which are not currently addressed in the Technical Specifications would henceforth be precluded by the proposed amendment. Therefore, there is no possibility of the creation of a new or different type of accident.

(iii) involve a significant reduction in a margin of safety.

The Technical Specifications involved are based upon the need to prevent and/or control the consequences of a fuel handling incident or boron dilution event. The margin of safety is provided in the current Technical Specifications for these two events by requiring CONTAINMENT INTEGRITY to prevent the release of radioactive materials to the environment. However, full CONTAINMENT INTEGRITY is not practical to achieve under

some conditions, e.g., during integrated leak rate testing or penetration modification. The revised Technical Specifications strengthen the controls to prevent the design basis accidents while modifying the means specified for controlling the consequences of such accidents. A containment boundary will continue to be provided when there are operations being conducted which could lead to a fuel handling incident or boron dilution event. Containment penetration closure is equivalent to CONTAINMENT INTEGRITY under these circumstances. Additionally, if electrical distribution systems needed to mitigate the consequences of one of these events become inoperable, the proposed Technical Specifications would require suspension of such operations and the establishment of containment penetration closure, thereby removing the possibility of the event occurring, and mitigating any unforeseen events. Therefore, margin of safety against release to environs is maintained because of an equivalent barrier. Margin is then improved upon by new restrictions on activities that could lead to a challenge to the barrier.

SAFETY COMMITTEE REVIEW

These proposed changes to the Technical Specifications and our determination of significant hazards have been reviewed by our Plant Operations and Safety Review Committee and Off-Site Safety Review Committee, and they have concluded that implementation of these changes will not result in an undue risk to the health and safety of the public.

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

Very truly yours,

GCC

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

I hereby certify that on the 7th day of November, 1990, before me, the subscriber, a Notary Public of the State of Maryland in and for Calvert County, personally appeared George C. Creel, being duly sworn, and states that he is Vice President of the Baltimore Gas and Electric Company, a corporation of the State of Maryland; that he provides the foregoing information for the purposes therein set forth; that the statements made are true and correct to the best of his knowledge, information, and belief; and that he was authorized to provide the information on behalf of said Corporation.

WITNESS my Hand and Notarial Seal:

Michelle D. Hall
Notary Public

My Commission Expires:

February 2, 1991
Date

GCC/ERG/dlm

Attachments: (1) Unit 1 Revised Technical Specifications and BASES Pages
(2) Unit 2 Revised Technical Specifications and BASES Pages

cc: D. A. Brune, Esquire
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