

March 14, 1995

Mr. Robert E. Denton
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: ISSUANCE OF AMENDMENTS FOR CALVERT CLIFFS NUCLEAR POWER PLANT,
UNIT NO. 1 (TAC NO. M88429) AND UNIT NO. 2 (TAC NO. M88430)

Dear Mr. Denton:

The Commission has issued the enclosed Amendment No.204 to Facility Operating License No. DPR-53 and Amendment No.182 to Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated December 8, 1993, as supplemented on March 2, 1995. The supplement provided clarification and withdrew the request to delete two TS subsections.

The amendments revise Section 5.0, Design Features. The revisions are generally consistent with the format and content of the improved Standard TSs for Combustion Engineering plants provided in NUREG-1432. The two subsections, for which the request to delete them was withdrawn, have been reformatted to be consistent with NUREG-1432 and are included in the enclosed amendments.

Copies of the related Safety Evaluation and Notice of Partial Withdrawal are enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice; the Notice of Partial Withdrawal will be published separately in the Federal Register.

Sincerely,

Original signed by

Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-317
and 50-318

- Enclosures:
1. Amendment No. 204 to DPR-53
 2. Amendment No. 182 to DPR-69
 3. Safety Evaluation
 4. Notice of Partial Withdrawal

cc w/encls: See next page

DOCUMENT NAME: H:\CC1-2\CC88429.AMD

*See previous concurrence

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

OFFICE	LA:PDI-1	E	PM:PDI-1	E	BC:OTSB*		OGC*		D:PDI-1	E
NAME	CVogancv		DMcDonald:an	Grimes					LMarsh	
DATE	03/14/95		03/14/95	3/1/95			03/10/95		03/14/95	

9503160096 950314
PDR ADDCK 05000317
P PDR

OFFICIAL RECORD COPY

DF01.11



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 14, 1995

Mr. Robert E. Denton
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

SUBJECT: ISSUANCE OF AMENDMENTS FOR CALVERT CLIFFS NUCLEAR POWER PLANT,
UNIT NO. 1 (TAC NO. M88429) AND UNIT NO. 2 (TAC NO. M88430)

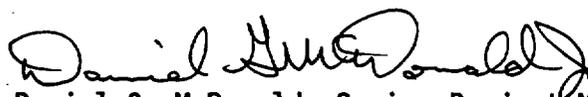
Dear Mr. Denton:

The Commission has issued the enclosed Amendment No. 204 to Facility Operating License No. DPR-53 and Amendment No. 182 to Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated December 8, 1993, as supplemented on March 2, 1995. The supplement provided clarification and withdrew the request to delete two TS subsections.

The amendments revise Section 5.0, Design Features. The revisions are generally consistent with the format and content of the improved Standard TSs for Combustion Engineering plants provided in NUREG-1432. The two subsections, for which the request to delete them was withdrawn, have been reformatted to be consistent with NUREG-1432 and are included in the enclosed amendments.

Copies of the related Safety Evaluation and Notice of Partial Withdrawal are enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice; the Notice of Partial Withdrawal will be published separately in the Federal Register.

Sincerely,


Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-317
and 50-318

Enclosures: 1. Amendment No. 204 to DPR-53
2. Amendment No. 182 to DPR-69
3. Safety Evaluation
4. Notice of Partial Withdrawal

cc w/encls: See next page

Mr. Robert E. Denton
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

cc:

Mr. Hagner Mister, President
Calvert County Board of
Commissioners
175 Main Street
Prince Frederick, MD 20678

Mr. Joseph H. Walter
Engineering Division
Public Service Commission of
Maryland
6 St. Paul Centre
Baltimore, MD 21202-6806

D. A. Brune, Esquire
General Counsel
Baltimore Gas and Electric Company
P. O. Box 1475
Baltimore, MD 21203

Kristen A. Burger, Esquire
Maryland People's Counsel
6 St. Paul Centre
Suite 2102
Baltimore, MD 21202-1631

Jay E. Silberg, Esquire
Shaw, Pittman, Potts and Trowbridge
2300 N Street, NW
Washington, DC 20037

Patricia T. Birnie, Esquire
Co-Director
Maryland Safe Energy Coalition
P. O. Box 33111
Baltimore, MD 21218

Mr. G. L. Detter, Director, NRM
Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657-4702

Mr. Larry Bell
NRC Technical Training Center
5700 Brainerd Road
Chattanooga, TN 37411-4017

Resident Inspector
c/o U.S. Nuclear Regulatory
Commission
P. O. Box 287
St. Leonard, MD 20685

Mr. Richard I. McLean
Administrator - Radioecology
Department of Natural Resources
580 Taylor Avenue
Tawes State Office Building
B3
Annapolis, MD 21401

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

DATED: March 14, 1995

AMENDMENT NO. 204 TO FACILITY OPERATING LICENSE NO. DPR-53-CALVERT CLIFFS
UNIT 1

AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-69-CALVERT CLIFFS
UNIT 2

Docket File

PUBLIC

PDI-1 Reading

S. Varga, 14/E/4

J. Zwolinski, 14/H/3

L. Marsh

C. Vogan

D. McDonald

OGC

D. Hagan, T-4 A43

C. Liang, 8/E/23

G. Hill (4), T-5 C3

C. Grimes, 11/E/22

J. Luehman

ACRS (4)

OPA

OC/LFDCB

PD plant-specific file

C. Cowgill, Region I

cc: Plant Service list



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 204
License No. DPR-53

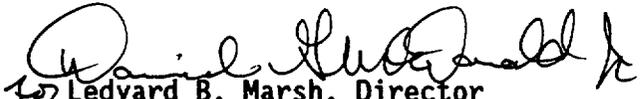
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated December 8, 1993, as supplemented on March 2, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Facility Operating License No. DPR-53 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 204, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION


for Ledyard B. Marsh, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 14, 1995



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 182
License No. DPR-69

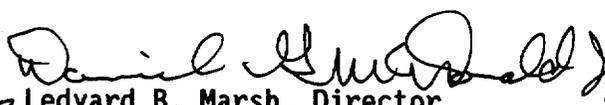
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated December 8, 1993, as supplemented on March 2, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 182, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION


for Ledyard B. Marsh, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 14, 1995

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 204 FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 182 FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Revise Appendix A as follows:

Remove Pages

IV
5-1
5-2
5-3
5-4
5-5
5-6
5-7 (DPR-53 only)

Insert Pages

IV
5-1
5-2

5.0 DESIGN FEATURES

5.1 SITE LOCATION

The site for the Calvert Cliffs Nuclear Power Plant is located on the western shore of the Chesapeake Bay in Calvert County, Maryland, about 10-1/2 miles southeast of Prince Frederick, Maryland. The site is approximately 45 miles southwest of Washington, DC, and 60 miles south of Baltimore, Maryland. The exclusion area boundary has a minimum radius of 1,150 meters from the center of the plant.

5.2 REACTOR CORE

5.2.1 FUEL ASSEMBLIES

The reactor shall contain 217 fuel assemblies. Each assembly shall consist of a matrix of cylindrical zircaloy or ZIRLO cladding fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO₂) as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting regions.

5.2.2 CONTROL ELEMENT ASSEMBLIES

The reactor core shall contain 77 full length and no part length control element assemblies.

5.3 FUEL STORAGE

5.3.1 CRITICALITY

5.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 4.52 weight percent;
- b. $k_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.7.2 of the UFSAR;
- c. A nominal 10-3/32-inch center-to-center distance between fuel assemblies.

5.0 DESIGN FEATURES

5.3.1.2 The new fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;
- b. $k_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.7.1 of the UFSAR;
- c. $k_{eff} \leq 0.95$ if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 9.7.1 of the UFSAR; and
- d. A nominal 18-inch center-to-center distance between fuel assemblies placed in the storage racks.

5.3.2 DRAINAGE

The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 63 feet.

5.3.3 CAPACITY

The spent fuel storage pool is designed and shall be maintained with a combined storage capacity, for both Units 1 and 2, limited to no more than 1,830 fuel assemblies.

5.0 DESIGN FEATURES

5.1 SITE LOCATION

The site for the Calvert Cliffs Nuclear Power Plant is located on the western shore of the Chesapeake Bay in Calvert County, Maryland, about 10-1/2 miles southeast of Prince Frederick, Maryland. The site is approximately 45 miles southwest of Washington, DC, and 60 miles south of Baltimore, Maryland. The exclusion area boundary has a minimum radius of 1,150 meters from the center of the plant.

5.2 REACTOR CORE

5.2.1 FUEL ASSEMBLIES

The reactor shall contain 217 fuel assemblies. Each assembly shall consist of a matrix of cylindrical zircaloy or ZIRLO cladding fuel rods with an initial composition of natural or slightly enriched uranium dioxide (UO_2) as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting regions.

5.2.2 CONTROL ELEMENT ASSEMBLIES

The reactor core shall contain 77 full length and no part length control element assemblies.

5.3 FUEL STORAGE

5.3.1 CRITICALITY

5.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 4.52 weight percent;
- b. $k_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.7.2 of the UFSAR;
- c. A nominal 10-3/32-inch center-to-center distance between fuel assemblies.

5.0 DESIGN FEATURES

5.3.1.2 The new fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum U-235 enrichment of 5.0 weight percent;
- b. $k_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 9.7.1 of the UFSAR;
- c. $k_{eff} \leq 0.95$ if moderated by aqueous foam, which includes an allowance for uncertainties as described in Section 9.7.1 of the UFSAR; and
- d. A nominal 18-inch center-to-center distance between fuel assemblies placed in the storage racks.

5.3.2 DRAINAGE

The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 63 feet.

5.3.3 CAPACITY

The spent fuel storage pool is designed and shall be maintained with a combined storage capacity, for both Units 1 and 2, limited to no more than 1,830 fuel assemblies.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 204 TO FACILITY OPERATING LICENSE NO. DPR-53
AND AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-69
BALTIMORE GAS AND ELECTRIC COMPANY
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By letter dated December 8, 1993, as supplemented on March 2, 1995, the Baltimore Gas and Electric Company (BG&E) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Units Nos. 1 and 2 (CC1/2) Technical Specifications (TSs). The requested changes would, for the most part, adopt the improved Standard Technical Specifications (STS) format and content of Section 5.0, "Design Features," for the CC1/2 TSs, as modified by approved changes to the improved STSs. In addition, BG&E initially proposed to eliminate two subsections of the improved STSs. The March 2, 1995, letter provided clarifying information and withdrew the request to delete two subsections. These revisions did not change the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to state TSs to be included as part of the license. The Commission's regulatory requirements related to the content of TSs are set forth in 10 CFR § 50.36. That regulation requires that the TSs include items in five specific categories, including: (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

The Commission has provided guidance for the contents of TSs in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" ("Final Policy Statement"), 58 Fed. Reg. 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies § 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TSs to licensee-controlled documents, consistent with the standard enunciated in *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary

to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety." The policy statement encouraged licensees to adopt the applicable improved STSs and provided some guidance for the conversion from the present plant specific TSs to the improved Standard TSs. However, specific guidance for converting the design features section of TSs was not provided in the policy statement. CC1/2 are Combustion Engineering (CE) designed units and the improved STSs for CE plants was published as NUREG-1432 in September 1992.

3.0 DISCUSSION

While the example design features section in NUREG-1432 provides a standard for the design features of a typical CE plant, as noted above, there is no specific guidance for a licensee to follow when updating the design features section of its plant specific TSs. In this case, BG&E conducted a review of the existing legislation and regulations potentially impacting the content of the design features section of TSs for guidance in updating that portion of its current TSs. Three applicable references were identified.

Section 182.a of the Atomic Energy Act of 1954, as amended (the Act) "License Applications," states, in part:

In connection with applications for licenses to operate production or utilization facilities, the applicant shall state such technical specifications, including information of the amount, kind and source of special nuclear materials required, the place of the use, the specific characteristics of the facility, and such other information as the Commission may, by rule or regulation, deem necessary in order to enable it to find that utilization or production of special nuclear material will be in accord with common defense and security of the public. Such technical specifications shall be a part of any license issued.

10 CFR 50.36(c)(4) states, in part, "Design features to be included are those features of the facility such as materials of construction and geometric arrangements, which, if altered or modified, would have a significant effect on safety and are not covered in categories described in paragraphs (c)(1), (2), (3) of this section [Safety Limits, Limiting Conditions for Operations, and Surveillance Requirements]." Section 182.a of the Act does not specify the design features that must be included in the TSs.

10 CFR 50.59, "Changes, tests and experiments," provides the criteria for determining if a change to the features of a facility, as described in its Final Safety Analysis Report (FSAR), is an unreviewed safety question. The criteria in 10 CFR 50.59 for making this determination are: (1) if the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; (2) if a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or (3) if the margin of safety as defined in the basis for any TS is reduced.

BG&E indicated that those features of CC1/2 for which any change would have an immediate and significant impact on safety would not be appropriate for being controlled using 10 CFR 50.59. This is consistent with 10 CFR 50.36(c)(4).

With the above citations as references, BG&E concluded that the following criteria are appropriate to use in determining what information should be placed in the design features section of the CC1/2 TSs:

1. The amount, kind, and source of special nuclear material required;
2. The place of the use of the special nuclear material; and
3. Those features of the facility, such as materials of construction and geometric arrangements, which if altered or modified would have an immediate and significant effect on safety and are not covered in the safety limits, limiting conditions for operation (LCO), or surveillance requirements of the TSs.

Based on the above criteria, BG&E proposes to change Section 5.0, "Design Features," of the CC1/2 TSs by eliminating some subsections, including some contained in NUREG-1432, and modifying others to conform to the examples provided in NUREG-1432. The subsections which BG&E proposes to change or modify are; 5.1 Site Location (including Figures 5.1-1 and 5.1-2), 5.3 Reactor Core, and 5.6.1 and 5.6.2 of 5.6 Fuel Storage. The subsections proposed for elimination are; 5.2 Containment, 5.3.3 Control Element Assemblies, 5.4 Reactor Coolant, 5.5 Meteorological Tower Location, 5.6.3 Drainage and 5.7 Component Cyclic or Transients (including Table 5.7-1).

4.0 EVALUATION

The NRC staff has reviewed BG&E's proposed criteria as well as the background information that provided the bases for the criteria. With one exception, relating to the immediate effect on safety, the NRC staff agrees with the criteria chosen by the BG&E. An immediate effect on safety is not stated or inferred in the Act or 50.36(c)(4) as a necessary condition for inclusion of a matter in the TSs. A significant effect on safety, whether immediate or delayed, must be considered. Thus, the NRC staff's evaluation that follows did not consider the timing when assessing the safety significance of BG&E's proposed changes.

The NRC staff reviewed BG&E's proposed changes individually against both the proposed criteria, with the noted exception, and the examples provided in the design features section of NUREG-1432 as follows:

- a. 5.1 Site Location (including Figures 5.1-1 and 5.1-2) - Section 182.a of the Act requires that the place of use of the special nuclear material be specified. Presently, subsection 5.1.1 meets that requirement by reference to Figure 5.1-1 which is a map of the site. In BG&E's proposed

Section 5.1, the place of use is specified by a description rather than a map. This is consistent with NUREG-1432 which indicates that the site shall be described or as shown in figures.

As noted, BG&E proposes to eliminate the present maps showing the site and exclusion area boundaries (Figure 5.1-1) and also the Low Population Zone (Figure 5.1-2) and relocate them to Chapter 2 of the Updated Final Safety Analysis Report (UFSAR). BG&E notes that this is consistent with the Standard Review Plan, NUREG-0800, which indicates that the site details are to be provided in Chapter 2 of the FSAR. Although the example in NUREG-1432 indicates the use of maps for defining the site boundaries and low population zone, a description may provide an equivalent presentation of the existing TS intent as long as a minimum exclusion area boundary is included in the description. By letter dated March 2, 1995, BG&E included this clarification in the proposed description. Thus, in accordance with 10 CFR Part 100, the site description includes a minimum distance to the Exclusion Area Boundary to ensure that the area, for which the licensee has the authority to determine all activities including the exclusion or removal of personnel and property from the area, is clearly associated with the "place of use" referred to in Section 182.a of the Act. The inclusion of the maps in the UFSAR will ensure that any change to either the boundaries or the zone will have to be evaluated using the 10 CFR 50.59 process.

Based on the above discussion, the NRC staff finds this proposed change to Section 5.1, including the description of the Exclusion Area Boundary, acceptable.

- b. 5.2 Containment - BG&E proposes that this section be completely eliminated. However, certain modifications or alterations to the containment would have a significant impact on plant safety and therefore they are required to be controlled by TSs. BG&E notes that accounting for such changes is already adequately controlled by the containment limiting conditions for operations in Section 3/4.6 of the CC1/2 TSs and need not be specified in the design features section. Further, the information contained in Section 5.2 of the TSs, which is to be eliminated by this proposed change, is presently in UFSAR sections, such as 5.1.2.1 and 5.1.5.1. Any change to the UFSAR, as previously noted, would have to be evaluated using the 10 CFR 50.59 process prior to being implemented. Finally, the example provided in NUREG-1432 does not contain this information.

Based on the above discussion, the NRC staff finds this proposed change to eliminate the existing Section 5.2 acceptable.

- c. 5.3 Reactor Core - Recognizing that the Act requires the amount, type and source of special nuclear material be specified in the TSs, BG&E proposes to modify the information of Subsections 5.3.1 and 5.3.2 into a new Section 5.2 consistent with the example provided in NUREG-1432 including the removal of the fuel enrichment information. BG&E further proposes to eliminate Subsection 5.3.3 which is not consistent with the NUREG.

The fuel enrichment information indirectly quantifies the amount of special nuclear material in use. Consistent with the Act that information must be controlled in the TSs. The removal of the enrichment information from the design features section of TSs is not inconsistent with the requirements of the Act in that the various CC1/2 TSs controlling reactor core reactivity adequately account for the fuel enrichment limits. The NRC staff identified one clarification needed for the existing and proposed descriptions of the fuel assemblies. The existing and proposed descriptions refer to the fuel assemblies as zirconium alloy fuel rods. 10 CFR 50.46 specifically states cylindrical zircaloy or zirlo cladding. Although the existing zirconium alloy fuel rods comply with 10 CFR 50.46, by letter dated March 2, 1995, BG&E revised the wording to be the same as 10 CFR 50.46 to assure that any future changes will also be in compliance with that regulation. Therefore, the portion of the proposed Section 5.2 which replaces Subsections 5.3.1 and 5.3.2 contains the necessary information required by the evaluation criteria and is consistent with the example provided in NUREG-1432.

Eliminating Subsection 5.3.3, "Control Element Assemblies," completely from design features section, as noted, is inconsistent with the example provided in NUREG-1432. BG&E stated in its initial submittal that the safety significant aspects of the control element assemblies (CEAs) which require inclusion in the TSs (reactivity worth and insertion times) are adequately controlled elsewhere in the TSs and need not be included in the design features section. Further, BG&E maintained that the mechanical design of the CEAs is specified in the UFSAR and that the less critical aspects of the CEAs performance can be adequately controlled by using the 10 CFR 50.59 process.

The NRC staff does not agree with the elimination of Subsection 5.3.3. Should the number of CEAs or their materials of construction be altered they could have a significant impact on safety and therefore must be controlled by TSs and not by the 10 CFR 50.59 process. The maximum overall core reactivity worth, not specifically the minimum CEA reactivity worth, is adequately controlled by the other portions of the TSs. The other critical CEA TSs (e.g., insertion times and insertion limits) are predicated on there being a specific number of assemblies and that the assemblies be constructed of specified materials. Therefore, the NRC staff determined that the TSs proposed by BG&E are not adequate in assuring the nuclear performance of the CEAs and the information in the current design features description of the CEAs should be retained. By letter dated March 2, 1995, BG&E modified its initial request to delete this proposed subsection indicating the existing information would be retained.

Based on the above discussion, the NRC staff finds this proposed change, including the inclusion of cylindrical zircaloy or zirlo cladding in the fuel assemblies description, for a new Section 5.2 acceptable. The new Section 5.2 will include Subsection 5.2.1 which will incorporate the information in the old Subsections 5.3.1 and 5.3.2, as detailed above, and a new Subsection 5.2.2 which will retain the information in the old Subsection 5.3.3.

- d. 5.4 Reactor Coolant System - BG&E proposes to eliminate this section. BG&E has determined that other CC1/2 TSs adequately control the reactor coolant system parameters, such as; temperature, pressure, and boundary degradation, which could have a significant impact on safety. In addition, BG&E states that the specific information eliminated by the removal of Subsection 5.4 is already contained in the UFSAR Section 4.1.1 and Table 4-1 and would be adequately controlled by the 10 CFR 50.59 process.

The NRC staff has determined that this proposed change is consistent with the requirements of the Act and the regulations cited earlier as well as the example design features section of NUREG-1432. Therefore, based on the above discussion, the NRC staff finds this proposed change to eliminate Section 5.4 acceptable.

- e. 5.5 Meteorological Tower Location - BG&E proposes to eliminate this section which specifies the tower's location by a reference to Figure 5.1-1. BG&E has determined that the tower's location does not meet the criteria for inclusion in the TSs. Further, BG&E states that the inclusion of Figure 5.1-1 into the UFSAR will ensure that any change to the tower's location is adequately evaluated by using the 10 CFR 50.59 process.

The NRC staff has determined that the proposed elimination of this section and inclusion of the information into the UFSAR is appropriate in that the information contained in this section is not required to be controlled by the TSs. Further, the NRC staff finds that the proposed change is consistent with NUREG-1432. Therefore, based on the above discussion, the NRC staff finds this proposed change to eliminate Section 5.5 acceptable.

- f. 5.6 Fuel Storage - BG&E initially proposed to: (1) retain the information in present subsections 5.6.1 and 5.6.2 in the format of Subsection 4.3.1 of the example provided in NUREG-1432; (2) retain the information in present subsection 5.6.4 and; (3) eliminate the information of Subsection 5.6.3 Drainage.

The NRC staff has determined that the proposed modifications of the information presently contained in Subsections 5.6.1 and 5.6.2, which includes incorporation of that information into a new Subsection 5.3.1, along with the relocation of present Subsection 5.6.4 into a new Subsection 5.3.3 is appropriate. The proposed changes do not eliminate any existing information required to be controlled by TSs and the proposed changes are consistent with NUREG-1432.

With respect to elimination of Subsection 5.6.3, the design considerations required to prevent inadvertent draining of the spent fuel pool (SFP), the staff finds this initial proposal unacceptable. BG&E's rationale for eliminating this subsection is that it does not meet the evaluation criteria. BG&E indicates that it does not describe geometry or materials of construction and the requirements are contained in other portions of the TSs.

BG&E's first point concerning the design considerations required to be considered is incorrect because it is based on a limited interpretation of 10 CFR 50.36(c)(4). Rather than restricting applicability to the design considerations of geometry and materials of construction, the regulation simply states those as examples. All design considerations that would have a significant impact on safety and that are not accounted for in other TSs must be included in the design features section. Clearly, the inadvertent draining of the SFP would have a significant impact (though it may not be immediate) and therefore must be considered in the design features section if inadvertent draining of the SFP is not accounted for elsewhere in TSs.

BG&E indicates that the inadvertent draining of the SFP is already accounted for in TS 3.9.11 (not TS 3.9.1.1 as incorrectly stated in the BG&E's initial submittal). The LCO for TS 3.9.11 would detect a decrease in level due to an inadvertent draining. However, detection of inadvertent draining is not the same as preventing it. TS 3.9.11 is written (as explained in the TS Bases) only to ensure that an adequate amount of water covers the spent fuel elements in the event of a fuel handling accident. If there is not enough water covering the elements, the TS requires that the handling of fuel in the SFP and the transfer of loads over it are to be suspended. Once those actions are taken, the TS requirements have been met. The TS does further state that the SFP level should be returned to the specified level within 4 hours. However, that requirement (which includes no guidance on how to proceed if the specified level cannot be achieved within that time period) presupposes all drain paths are known and that normal makeup will be adequate to restore level. The control of drain paths and the adequacy of normal makeup are only assured by the Design Features Subsection 5.3 which states, "The spent fuel storage pool is designed and maintained to prevent inadvertent draining of the pool below elevation 63 feet." Thus, the NRC staff determined that deleting Subsection 5.3.3 is inappropriate. By letter dated March 2, 1995, BG&E modified its initial request to delete this subsection indicating the existing information would be retained.

Based on the above discussion, the NRC staff concludes that this proposed change for a new Section 5.3 is acceptable. The existing information in old Subsection 5.6.3 shall be retained as a new Subsection 5.3.2.

- g. 5.7 Component Cyclic or Transient Limits (including Table 5.7-1) - BG&E proposes to eliminate the information contained in this section. BG&E has determined that the information does not meet the criteria for inclusion, maintains that the presence of the information in the UFSAR (Section 4.1.1 and 4.1.3.2) will ensure that these considerations will be adequately controlled by the 10 CFR 50.59 process, and notes that this proposed change is consistent with the example section of NUREG-1432. In addition, the component cyclic or transient limits need not be retained in the design features section because adequate controls for these requirements exist in 10 CFR 50.55a, as well as 10 CFR 50.59. The NRC staff agrees with this determination.

Based on the above discussion, the NRC staff concludes that this proposed change to eliminate Section 5.7 is acceptable.

In summary, the proposed changes to the Design Features section of the Calvert Cliffs 1/2 TSs, as detailed in this Safety Evaluation, satisfy Section 182.a of the Act and 10 CFR 50.36(c)(4). Further, they are not required to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety. In addition, the NRC staff finds that sufficient regulatory controls exist under 10 CFR 50.59 to ensure that future changes to these items are acceptable.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (59 FR 2861). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: J. Luehman
D. McDonald

Date: March 14, 1995

UNITED STATES NUCLEAR REGULATORY COMMISSION
BALTIMORE GAS AND ELECTRIC COMPANY
DOCKET NOS. 50-317 AND 50-318
CALVERT CLIFFS NUCLEAR POWER PLANT
UNIT NOS. 1 and 2
NOTICE OF PARTIAL WITHDRAWAL OF APPLICATION FOR
AMENDMENT TO FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has granted the request by the Baltimore Gas and Electric Company (BG&E) to withdraw a portion of its December 8, 1993, application for proposed amendments to Facility Operating License Nos. DPR-53 and DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, located in Calvert County, Maryland.

The proposed amendments would revise Technical Specifications (TSs) Section 5.0, Design Features. The requested changes, for the most part, adopt the improved Standard Technical Specifications format and content for Combustion Engineering plants provided in NUREG-1432. Included in the initial December 8, 1993, application was a request to delete two subsections of the existing TSs. These subsections were Subsection 5.3.3, "Control Element Assemblies," and 5.6.3, "Drainage." Subsection 5.6.3 relates to inadvertent drainage of the spent fuel pool. By letter dated March 2, 1995, BG&E withdrew the request to delete these two subsections. The existing information in Subsection 5.3.3 will be retained in a new Subsection 5.2.2 and the information in Subsection 5.6.3 will be retained in a new Subsection 5.3.2. The new subsection designations are necessary to be consistent with the reformatting of the Design Features Section of the TSs.

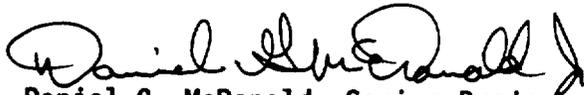
9503160104 950314
PDR ADDCK 05000317
P PDR

The Commission has previously issued a Notice of Consideration of Issuance of Amendments to Facility Operating License Nos. DPR-53 and DPR-69, Proposed No Significant Hazards Consideration Determination and Opportunity for a Hearing, which was published in the FEDERAL REGISTER on January 19, 1994 (59 FR 2861).

For further details with respect to this action, see the application for amendments dated December 8, 1993, as supplemented on March 2, 1995. The March 2, 1995, letter provided clarification of the initial application and withdrew the request to delete the two subsections as detailed above. These documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Calvert County Library, Prince Frederick, Maryland 20678.

Dated at Rockville, Maryland, this 14th day of March 1995.

FOR THE NUCLEAR REGULATORY COMMISSION


Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation