



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

February 20, 1991

Docket No. 50-317

Mr. G. C. Creel
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
MD Rts. 2 & 4
P. O. Box 1535
Lusby, Maryland 20657

Dear Mr. Creel:

SUBJECT: ISSUANCE OF AMENDMENT FOR CALVERT CLIFFS NUCLEAR POWER PLANT
UNIT 1 (TAC NO. 79709)

The Commission has issued the enclosed Amendment No. 151 to Facility Operating License No. DPR-53 for the Calvert Cliffs Nuclear Power Plant, Unit No. 1. This amendment consists of changes to the Technical Specifications (TS) in response to your application transmitted by letter dated February 8, 1991.

This amendment allows the operation of Unit 1 with its center Control Element Assembly (CEA) excluded from the Technical Specification requirements for operability and alignment for the remainder of operating Cycle 10.

Specifically, this amendment revises Technical Specifications 4.1.1.1.1, 4.1.1.2, 3.1.3.1, 4.1.3.1.1, 4.1.3.1.2, 4.1.3.1.3, 3.1.3.3, 4.1.3.3.1, 4.1.3.3.2, 3.1.3.4, 4.1.3.4, 4.1.3.5, 3.10.1, 4.10.1.1, and 4.10.1.2. The revision consists of a footnote which excludes the applicability of the Technical Specifications to the center CEA for operating Cycle 10. Technical Specifications 3.1.3.6 and 4.1.3.6 do not specifically deal with single CEAs; however, a footnote was added to permit the exclusion of the center CEA from the determination of CEA Bank 5 position. The proposed changes to Technical Specifications 3.2.2.1, 4.2.1.3, 4.2.2.1.3, 4.2.2.3, 3.2.3 and 4.2.3.3 consist of a footnote which permits exclusion of the center CEA from the stated full length CEA insertion limit.

Your February 8, 1991, letter requested that the Commission handle the proposed amendment on an emergency basis. The details related to the requested changes, the emergency circumstances, and Final Determination of No Significant Hazards Consideration are included in the enclosed Safety Evaluation.

DFD
111

Mr. G. C. Creel
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant

cc:

Mr. William T. Bowen, President
Calvert County Board of
Commissioners
Prince Frederick, Maryland 20678

Mr. Joseph H. Walter
Engineering Division
Public Service Commission of Maryland
American Building
231 E. Baltimore Street
Baltimore, Maryland 21202-3486

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

Ms. Kirsten A. Burger, Esq.
Maryland People's Counsel
American Building, 9th Floor
231 E. Baltimore Street
Baltimore, Maryland 21202

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

Ms. Patricia Birnie
Co-Director
Maryland Safe Energy Coalition
P. O. Box 902
Columbia, Maryland 21044

Ms. G. L. Adams, Licensing
Calvert Cliffs Nuclear Power Plant
MD Rts 2 & 4,
P. O. Box 1535
Lusby, Maryland 20657

Resident Inspector
c/o U.S. Nuclear Regulatory Commission
P. O. Box 437
Lusby, Maryland 20657

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

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

February 20, 1991

Mr. G. C. Creel

- 2 -

A Notice of Issuance and Final Determination of No Significant Hazards Consideration and Opportunity for Hearing will be included in the Commission's next regular biweekly Federal Register notice.

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

Enclosures:

- 1. Amendment No. 151 to DPR-53
- 2. Safety Evaluation

cc w/enclosures:
See next page

Distribution:

| | |
|---------------|------------------|
| Docket File | NRC & Local PDRs |
| PDI-1 Reading | SVarga |
| EGreenman | CVogan |
| DMcDonald | RACapra |
| JLinville | HRichings |
| OGC | DHagan |
| EJordan | Ghill (4) |
| Wanda Jones | JCalvo |
| ACRS (10) | GPA/PA |
| OC/LFMB | Plant File |
| CHehl, RI | |

| | | | | | | |
|------|------------|-------------|-----------|-----------|-------------|-------------------|
| OFC | : PDI-1:LA | : PDI-1:PM | : OGC | : PDI-1:D | : ADR | : REGION I |
| NAME | : CVogan | : DMcDonald | : J. Hill | : RACapra | : EGreenman | : CHehl by TELCON |
| DATE | : 2/13/91 | : 2/13/91 | : 2/14/91 | : 2/19/91 | : 2/20/91 | : 2/20/91 |

OFFICIAL RECORD COPY
Document Name: CC AMEND 79709



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

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 151
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 February 8, 1991, 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. 151, 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 upon receipt.

FOR THE NUCLEAR REGULATORY COMMISSION

Edward G. Greenman

Edward G. Greenman, Acting Assistant Director
for Region I Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 20, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 151 FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Revise Appendix A as follows:

| <u>Remove Pages</u> | <u>Insert Pages</u> |
|---------------------|---------------------|
| 3/4 1-1 | 3/4 1-1 |
| 3/4 1-2* | 3/4 1-2* |
| 3/4 1-2a* | 3/4 1-2a* |
| 3/4 1-3 | 3/4 1-3 |
| 3/4 1-17 | 3/4 1-17 |
| 3/4 1-18 | 3/4 1-18 |
| 3/4 1-19 | 3/4 1-19 |
| 3/4 1-19A | 3/4 1-19A |
| 3/4 1-21 | 3/4 1-21 |
| 3/4 1-22 | 3/4 1-22 |
| 3/4 1-23 | 3/4 1-23 |
| 3/4 1-24 | 3/4 1-24 |
| 3/4 1-25 | 3/4 1-25 |
| 3/4 1-26 | 3/4 1-26 |
| 3/4 2-1 | 3/4 2-1 |
| 3/4 2-6 | 3/4 2-6 |
| 3/4 2-7 | 3/4 2-7 |
| 3/4 2-8 | 3/4 2-8 |
| 3/4 2-9 | 3/4 2-9 |
| 3/4 2-10 | 3/4 2-10 |
| 3/4 10-1 | 3/4 10-1 |

*Pages that did not change, but are overleaf

3/4.1 REACTIVITY CONTROL SYSTEMS

3/4.1.1 BORATION CONTROL

SHUTDOWN MARGIN - T > 200°F
avg

LIMITING CONDITION FOR OPERATION

3.1.1.1 The SHUTDOWN MARGIN shall be equal to or greater than the limit line of Figure 3.1-1b.

APPLICABILITY: MODES 1, 2**, 3, and 4.

ACTION:

With the SHUTDOWN MARGIN less than the limit line of Figure 3.1-1b immediately initiate and continue boration at ≥ 40 gpm of 2300 ppm boric acid solution or equivalent until the required SHUTDOWN MARGIN is restored.

SURVEILLANCE REQUIREMENTS

4.1.1.1.1 The SHUTDOWN MARGIN shall be determined to be equal to or greater than the limit of Figure 3.1-1b:

- a. Within one hour after detection of an inoperable CEA(s)⁺ and at least once per 12 hours thereafter while the CEA(s)⁺ is inoperable. If the inoperable CEA is immovable or untrippable, the above required SHUTDOWN MARGIN shall be increased by an amount at least equal to the withdrawn worth of the immovable or untrippable CEA(s)⁺.
- b. When in MODES 1 or 2[#], at least once per 12 hours by verifying that CEA group withdrawal⁺ is within the Transient Insertion Limits of Specification 3.1.3.6.
- c. When in MODE 2^{##}, within 4 hours prior to achieving reactor criticality by verifying that the predicted critical CEA position⁺ is within the limits of Specification 3.1.3.6.
- d. Prior to initial operation above 5% RATED THERMAL POWER after each fuel loading, by consideration of the factors of e below, with the CEA groups⁺ at the Transient Insertion Limits of Specification 3.1.3.6.

* Adherence to Technical Specification 3.1.3.6 as specified in Surveillance Requirements 4.1.1.1.1 assures that there is sufficient available shutdown margin to match the shutdown margin requirements of the safety analyses.

** See Special Test Exception 3.10.1.

With $K_{eff} \geq 1.0$

With $K_{eff} < 1.0$

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- e. When in **MODES 3 or 4**, at least once per 24 hours by consideration of the following factors:
1. Reactor coolant system boron concentration,
 2. CEA position,
 3. Reactor coolant system average temperature,
 4. Fuel burnup based on gross thermal energy generation,
 5. Xenon concentration, and
 6. Samarium concentration.

4.1.1.1.2 The overall core reactivity balance shall be compared to predicted values to demonstrate agreement within $\pm 1.0\% \Delta k/k$ at least once per 31 Effective Full Power Days (EFPD). This comparison shall consider at least those factors stated in Specification 4.1.1.1.1.e, above. The predicted reactivity values shall be adjusted (normalized) to correspond to the actual core conditions prior to exceeding a fuel burnup of 60 Effective Full Power Days after each fuel loading.

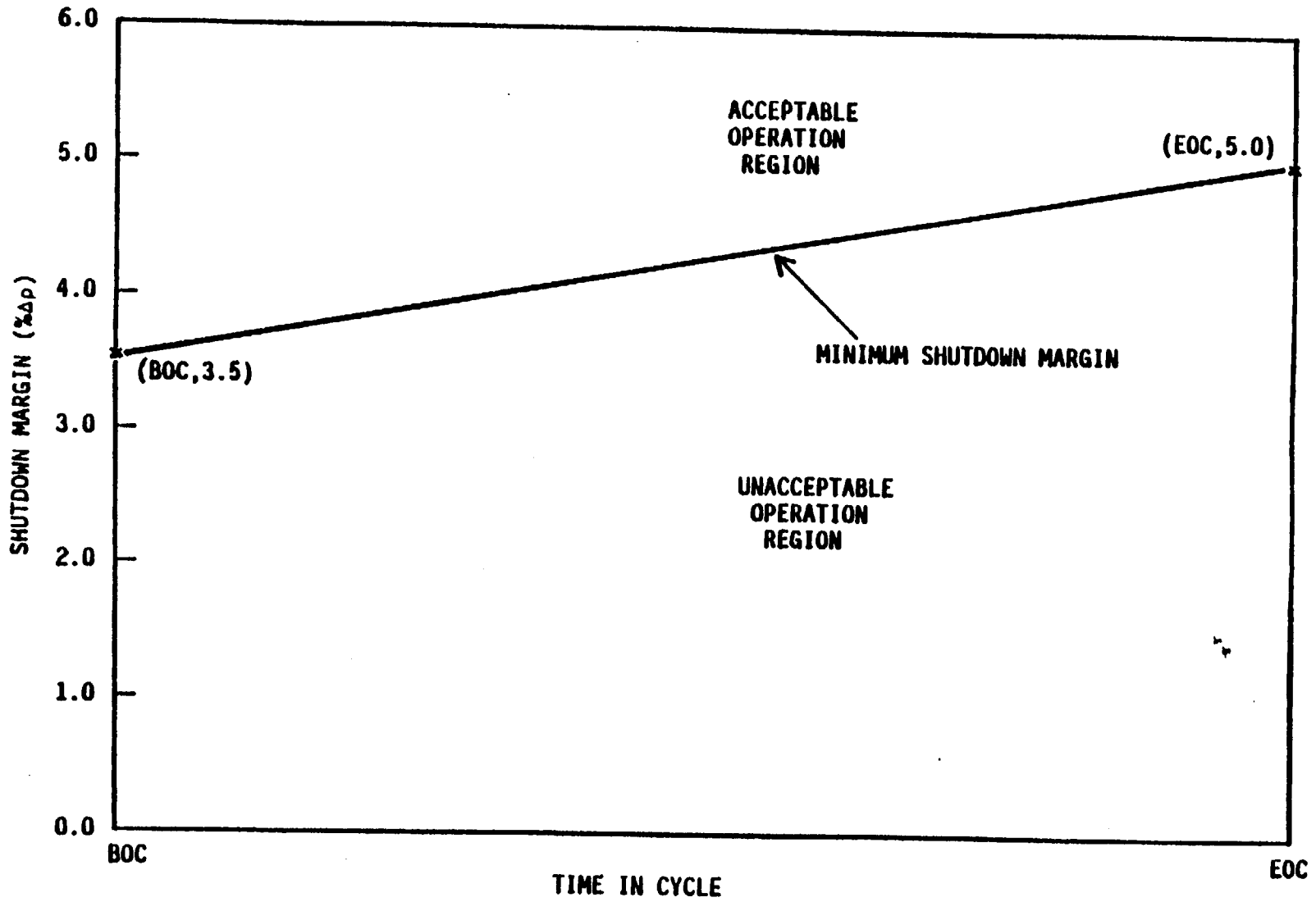


Figure 3.1-1b

REACTIVITY CONTROL SYSTEMS

SHUTDOWN MARGIN - $T_{avg} \leq 200^{\circ}\text{F}$

LIMITING CONDITION FOR OPERATION

3.1.1.2 The SHUTDOWN MARGIN shall be $\geq 3.0\% \Delta k/k$.

APPLICABILITY: MODE 5

- a. Pressurizer level ≥ 90 inches from bottom of the pressurizer.
- b. Pressurizer level < 90 inches from bottom of the pressurizer and all sources of non-borated water ≤ 88 gpm.

ACTION:

- a. With the SHUTDOWN MARGIN $< 3.0\% \Delta k/k$, immediately initiate and continue boration at ≥ 40 gpm of 2300 ppm boric acid solution or equivalent until the required SHUTDOWN MARGIN is restored.
- b. With the pressurizer drained to ≤ 90 inches and all sources of non-borated water > 88 gpm, immediately suspend all operations involving positive reactivity changes while the SHUTDOWN MARGIN is increased to compensate for the additional sources of non-borated water or reduce the sources of non-borated water to ≤ 88 gpm.

SURVEILLANCE REQUIREMENTS

4.1.1.2 The SHUTDOWN MARGIN shall be determined to be $\geq 3.0\% \Delta k/k$:

- a. Within one hour after detection of an inoperable CEA(s)⁺ and at least once per 12 hours thereafter while the CEA(s)⁺ is inoperable. If the inoperable CEA⁺ is immovable or untrippable, the above required SHUTDOWN MARGIN shall be increased by an amount at least equal to the withdrawn worth of the immovable or untrippable CEA(s)⁺.
- b. At least once per 24 hours by consideration of the following factors:
 1. Reactor coolant system boron concentration,
 2. CEA position,
 3. Reactor coolant system average temperature,
 4. Fuel burnup based on gross thermal energy generation,
 5. Xenon concentration, and
 6. Samarium concentration.

4.1.1.2.2 With the pressurizer drained to ≤ 90 inches determine:

- a. Within one hour and every 12 hours thereafter that the level in the reactor coolant system is above the bottom of the hot leg nozzles, and
- b. Within one hour and every 12 hours thereafter that the sources of non-borated water are ≤ 88 gpm or the shutdown margin has compensated for the additional sources.

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

3.4.1.3 MOVABLE CONTROL ASSEMBLIES

LIMITING CONDITION FOR OPERATION

3.1.3.1 The CEA Motion Inhibit and all shutdown and regulating CEAs⁺ shall be OPERABLE with each CEA of a given group positioned within 7.5 inches (indicated position) of all other CEAs in its group.

APPLICABILITY: **MODES 1* and 2***

ACTION:

- a. With one or more CEAs⁺ inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable, be in at least HOT STANDBY within 6 hours.
- b. With the CEA Motion Inhibit inoperable, within 6 hours either:
 1. Restore the CEA Motion Inhibit to OPERABLE status, or
 2. Place and maintain the CEA drive system mode switch in either the "Off" or any "Manual Mode" position and fully withdraw all CEAs in groups 3 and 4 and withdraw the CEAs⁺ in group 5 to less than 5% insertion, or
 3. Be in at least HOT STANDBY.
- c. With one CEA inoperable⁺ due to causes other than addressed by ACTION a, above, and inserted beyond the Long Term Steady State Insertion Limits but within its above specified alignment requirements, operation in MODES 1 and 2 may continue for up to 7 days per occurrence with a total accumulated time of ≤ 14 days per calendar year.
- d. With one CEA inoperable⁺ due to causes other than addressed by ACTION a, above, but within its above specified alignment requirements and either fully withdrawn or within the Long Term Steady State Insertion Limits if in CEA group 5, operation in MODES 1 and 2 may continue.

* See Special Test Exceptions 3.10.2 and 3.10.4.

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

LIMITING CONDITION FOR OPERATION

- e. With one or more CEAs⁺ misaligned from any other CEAs in its group by more than 7.5 inches but less than 15 inches, operation in **MODES 1 and 2** may continue, provided that within one hour the misaligned CEA(s) is either:
1. Restored to **OPERABLE** status within its above specified alignment requirements, or
 2. Declared inoperable. After declaring the CEA⁺ inoperable operation in **MODES 1 and 2** may continue for up to 7 days per occurrence with a total accumulated time of ≤ 14 days per calendar year provided all of the following conditions are met:
 - a. The **THERMAL POWER** level shall be reduced to $\leq 70\%$ of the maximum allowable **THERMAL POWER** level for the existing Reactor Coolant Pump combination within one hour; if negative reactivity insertion is required to reduce **THERMAL POWER**, boration shall be used.
 - b. Within one hour after reducing the **THERMAL POWER** as required by a) above, the remainder of the CEAs⁺ in the group with the inoperable CEA⁺ shall be aligned to within 7.5 inches of the inoperable CEA⁺ while maintaining the allowable CEA sequence and insertion limits shown on Figure 3.1-2; the **THERMAL POWER** level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation.
- f. With one CEA⁺ misaligned from any other CEA⁺ in its group by 15 inches or more, operation in **MODES 1 and 2** may continue, provided that the misaligned CEA⁺ is positioned within 7.5 inches of the other CEAs⁺ in its group in accordance with the time allowance shown in Figure 3.1-3. The pre-misaligned F_r^T value used to determine the allowable time to realign the CEA⁺ from Figure 3.1-3 shall be the latest measurement taken within 5 days prior to the CEA misalignment. If no measurements were taken within 5 days prior to the misalignment, a pre-misaligned F_r^T of 1.65 shall be assumed.
- g. With one CEA⁺ misaligned from any other CEA⁺ in its group by 15 inches or more at the conclusion of the time allowance permitted in Figure 3.1-3, immediately start to implement the following actions:
1. If the **THERMAL POWER** level prior to the misalignment was greater than 50% of **RATED THERMAL POWER**, **THERMAL POWER** shall be reduced to less than the greater of:

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

LIMITING CONDITION FOR OPERATION

- a) 50% of RATED THERMAL POWER
 - b) 75% of the THERMAL POWER level prior to the misalignment within one hour after exceeding the time allowance permitted by Figure 3.1-3.
2. If the THERMAL POWER level prior to the misalignment was \leq 50% of RATED THERMAL POWER, maintain THERMAL POWER no higher than the value prior to the misalignment.

If negative reactivity insertion is required to reduce THERMAL POWER, boration shall be used. Within one hour after establishing the appropriate THERMAL POWER as required above, either:

1. Restore the CEA⁺ to within the above specified alignment requirements, or
 2. Declare the CEA⁺ inoperable. After declaring the CEA inoperable, POWER OPERATION may continue for up to 7 days per occurrence with a total accumulated time of \leq 14 days per calendar year provided the remainder of the CEAs⁺ in the group with the inoperable CEA are aligned to within 7.5 inches of the inoperable CEA while maintaining the allowable CEA sequence and insertion limits shown on Figure 3.1-2; the THERMAL POWER level shall be restricted pursuant to Specification 3.1.3.6 during subsequent operation.
- h. With more than one CEA⁺ inoperable or misaligned from any other CEA in its group by 15 inches (indicated position) or more, be in at least HOT STANDBY within 6 hours.
- i. For the purposes of performing the CEA⁺ operability test of TS 4.1.3.1.2, if the CEA has an inoperable position indication channel, the alternate indication system (pulse counter or voltage dividing network) will be used to monitor position. If a direct position indication (full out reed switch or voltage dividing network) cannot be restored within ten minutes from the commencement of CEA motion, or CEA withdrawal exceeds the surveillance testing insertion by $>$ 7.5 inches, the position of the CEA shall be assumed to have been $>$ 15 inches from its group at the commencement of CEA motion.

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

4.1.3.1.1 The position of each CEA⁺ shall be determined to be within 7.5 inches (indicated position) of all other CEAs in its group at least once per 12 hours except during time intervals when the Deviation Circuit and/or CEA Motion Inhibit are inoperable, then verify the individual CEA positions at least once per 4 hours.

4.1.3.1.2 Each CEA⁺ not fully inserted shall be determined to be OPERABLE by inserting it at least 7.5 inches at least once per 31 days.

4.1.3.1.3 The CEA Motion Inhibit shall be demonstrated OPERABLE at least once per 31 days by a functional test which verifies that the circuit maintains the CEA group overlap and sequencing requirements of Specification 3.1.3.6 and that the circuit also prevents any CEA from being misaligned from all other CEAs in its group by more than 7.5 inches (indicated position).⁺

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

3.1.3.3 At least two of the following three CEA position indicator channels shall be OPERABLE for each shutdown and regulating CEA⁺:

- a. CEA voltage divider reed switch position indicator channel, capable of determining the absolute CEA position within ± 1.75 inches;
- b. CEA "Full Out" or "Full In" reed switch position indicator channel, only if the CEA is fully withdrawn or fully inserted, as verified by actuation of the applicable position indicator; and
- c. CEA pulse counting position indicator channel.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With a maximum of one CEA⁺ per group having its voltage divider reed switch position indicator channel or its pulse counting position indicator channel inoperable and the CEA(s) with the inoperable position indicator channel partially inserted, either:
 1. Within 6 hours
 - a) Restore the inoperable position indicator channel to OPERABLE status, or
 - b) Be in at least HOT STANDBY, or
 - c) Reduce THERMAL POWER to $\leq 70\%$ of the maximum allowable THERMAL POWER level for the existing Reactor Coolant Pump combination; if negative reactivity insertion is required to reduce THERMAL POWER, boration shall be used. Operation at or below this reduced THERMAL POWER level may continue provided that within the next 4 hours either:
 - 1) The CEA group(s)⁺ with the inoperable position indicator is fully withdrawn while maintaining the withdrawal sequence required by Specification 3.1.3.6 and when this CEA group reaches its fully withdrawn position, the "Full Out" limit of the CEA with the inoperable position indicator is actuated and verifies this CEA to be fully withdrawn. Subsequent to fully withdrawing this CEA group(s), the THERMAL POWER level may be returned to a level consistent with all other applicable specifications and operation may continue per Specification 3.1.3.3 above; or
 - 2) The CEA group(s)⁺ with the inoperable position indicator is fully inserted, and subsequently maintained fully inserted, while maintaining the withdrawal sequence and THERMAL POWER level required by Specification 3.1.3.6 and when this CEA group reaches its fully

⁺ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

POSITION INDICATOR CHANNELS

LIMITING CONDITION FOR OPERATION

inserted position, the "Full In" limit of the CEA with the inoperable indicator is actuated and verifies this CEA to be fully inserted. Subsequent operation shall be within the limits of Specification 3.1.3.6, and may continue per Specification 3.1.3.3 above.

2. or, if the failure existed before entry into **MODE 2** or occurs prior to an "all CEAs out" configuration, the CEA groups(s)⁺ with inoperable position indicator channel must be moved to the "Full Out" position and verified to be fully withdrawn via a "Full Out" indicator. These actions must be completed within 10 hours of entry into **MODE 2** and prior to exceeding 70% of the maximum allowable **THERMAL POWER** level for the existing Reactor Coolant Pump combination. The provisions of Specification 3.0.4 are not applicable. Once these actions are completed, operation may continue per Specification 3.1.3.3 above.
- b. With more than one CEA⁺ per group having its CEA pulse counting position indicator channel and either (1) the "Full Out" or "Full In" position indicator, or (2) the voltage divider position indicator channel inoperable, operation in **MODES 1** and **2** may continue for up to 24 hours provided that for the affected CEAs, either:
 1. The CEA voltage divider reed switch position indicator channels are **OPERABLE**, or
 2. The CEA "Full Out" or "Full In" reed switch position indicator channels are **OPERABLE**, with the CEA fully withdrawn or fully inserted as verified by actuation of the applicable position indicator.

SURVEILLANCE REQUIREMENTS

4.1.3.3.1 Each required CEA⁺ position indication channel shall be determined to be **OPERABLE** by determining CEA positions as follows at least once per 12 hours, by:

- a. Verifying the CEA pulse counting position indicator channels and the CEA voltage divider reed switch position indicator channels agree within 4.5 inches, or
- b. Verifying the CEA pulse counting position indicator channels and the CEA "Full Out" or "Full In" reed switch position indicator channels agree within 4.5 inches, or
- c. Verifying the CEA voltage divider reed switch position indicator channels and the CEA "Full Out" or "Full In" reed switch position indicator channels agree within 4.5 inches.

4.1.3.3.2 During time intervals when the deviation circuit is inoperable, the above verification of required CEA⁺ position indicator channels shall be made at least once per 4 hours.

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

CEA DROP TIME

LIMITING CONDITION FOR OPERATION

3.1.3.4 The individual full length (shutdown and control) CEA⁺ drop time, from a fully withdrawn position, shall be ≤ 3.1 seconds from when the electrical power is interrupted to the CEA drive mechanism until the CEA reaches its 90 percent insertion position with:

- a. $T_{avg} \geq 515^{\circ}F$, and
- b. All reactor coolant pumps operating.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With the drop time of any full length CEA⁺ determined to exceed the above limit, restore the CEA drop time to within the above limit prior to proceeding to MODE 1 or 2.
- b. With the CEA drop times within limits but determined at less than full reactor coolant flow, operation may proceed provided THERMAL POWER is restricted to less than or equal to the maximum THERMAL POWER level allowable for the reactor coolant pump combination operating at the time of CEA drop time determination.

SURVEILLANCE REQUIREMENTS

4.1.3.4 The CEA drop time of full length CEAs⁺ shall be demonstrated through measurement prior to reactor criticality:

- a. For all CEAs following each removal of the reactor vessel head,
- b. For specifically affected individual CEAs following any maintenance on or modification to the CEA drive system which could affect the drop time of those specific CEAs, and
- c. At least once per refueling interval.

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

SHUTDOWN CEA INSERTION LIMIT

LIMITING CONDITION FOR OPERATION

3.1.3.5 All shutdown CEAs shall be withdrawn to at least 129.0 inches.

APPLICABILITY: **MODES 1 and 2*#.**

ACTION:

With a maximum of one shutdown CEA withdrawn, except for surveillance testing pursuant to Specification 4.1.3.1.2, to less than 129.0 inches, within one hour either:

- a. Withdraw the CEA to at least 129.0 inches, or
- b. Declare the CEA inoperable and apply Specification 3.1.3.1.

SURVEILLANCE REQUIREMENTS

4.1.3.5 Each shutdown CEA shall be determined to be withdrawn to at least 129.0 inches:

- a. Within 15 minutes prior to withdrawal of any CEAs⁺ in regulating groups during an approach to reactor criticality, and
- b. At least once per 12 hours thereafter.

* See Special Test Exception 3.10.2.

With $K_{eff} \geq 1.0$

+ Excluding the center CEA during Cycle 10.

REACTIVITY CONTROL SYSTEMS

REGULATING CEA INSERTION LIMITS

LIMITING CONDITION FOR OPERATION

3.1.3.6 The regulating CEA⁺ groups shall be limited to the withdrawal sequence and to the insertion limits shown on Figure 3.1-2 (regulating CEAs are considered to be fully withdrawn in accordance with Figure 3.1-2 when withdrawn to at least 129.0 inches) with CEA insertion between the Long Term Steady State Insertion Limits and the Transient Insertion Limits restricted to:

- a. ≤ 4 hours per 24 hour interval,
- b. ≤ 5 Effective Full Power Days per 30 Effective Full Power Day interval, and
- c. ≤ 14 Effective Full Power Days per calendar year.

APPLICABILITY: MODES 1* and 2*#.

ACTION:

- a. With the regulating CEA⁺ groups inserted beyond the Transient Insertion Limits, except for surveillance testing pursuant to Specification 4.1.3.1.2, within two hours either:
 1. Restore the regulating CEA groups to within the limits, or
 2. Reduce THERMAL POWER to less than or equal to that fraction of RATED THERMAL POWER which is allowed by the CEA group position using Figure 3.1-2.
- b. With the regulating CEA⁺ groups inserted between the Long Term Steady State Insertion Limits and the Transient Insertion Limits for intervals > 4 hours per 24 hour interval, except during operations pursuant to the provisions of ACTION items c. and e. of Specification 3.1.3.1, operation may proceed provided either:
 1. The Short Term Steady State Insertion Limits of Figure 3.1-2 are not exceeded, or
 2. Any subsequent increase in THERMAL POWER is restricted to $\leq 5\%$ of RATED THERMAL POWER per hour.

* See Special Test Exceptions 3.10.2 and 3.10.4.

With $K_{eff} \geq 1.0$.

+ The center CEA may be excluded from the determination of Bank 5 position during Cycle 10.

REACTIVITY CONTROL SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

- c. With the regulating CEA⁺ groups inserted between the Long Term Steady State Insertion Limits and the Transient Insertion Limits for intervals > 5 EFPD per 30 EFPD interval or > 14 EFPD per calendar year, except during operations pursuant to the provisions of ACTION items c. and e. of Specification 3.1.3.1, either:
1. Restore the regulating groups to within the Long Term Steady State Insertion Limits within two hours, or
 2. Be in at least HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.3.6 The position of each regulating CEA⁺ group shall be determined to be within the Transient Insertion Limits at least once per 12 hours except during time intervals when the PDIL Alarm Circuit is inoperable, then verify the individual CEA positions at least once per 4 hours. The accumulated times during which the regulating CEA groups are inserted beyond the Steady State Insertion Limits but within the Transient Insertion Limits shall be determined at least once per 24 hours.

-
- + The center CEA may be excluded from the determination of Bank 5 position during Cycle 10.

3/4.2 POWER DISTRIBUTION LIMITS

LINEAR HEAT RATE

LIMITING CONDITION FOR OPERATION

3.2.1 The linear heat rate shall not exceed the limits shown on Figure 3.2-1.

APPLICABILITY: **MODE 1.**

ACTION:

With the linear heat rate exceeding its limits, as indicated by four or more coincident incore channels or by the **AXIAL SHAPE INDEX** outside of the power dependent control limits of Figure 3.2-2, within 15 minutes initiate corrective action to reduce the linear heat rate to within the limits and either:

- a. Restore the linear heat rate to within its limits within one hour, or
- b. Be in at least **HOT STANDBY** within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.2.1.1 The provisions of Specification 4.0.4 are not applicable.

4.2.1.2 The linear heat rate shall be determined to be within its limits by continuously monitoring the core power distribution with either the excore detector monitoring system or with the incore detector monitoring system.

4.2.1.3 Excore Detector Monitoring System - The excore detector monitoring system may be used for monitoring the core power distribution by:

- a. Verifying at least once per 12 hours that the full length CEAs⁺ are withdrawn to and maintained at or beyond the Long Term Steady State Insertion Limit of Specification 3.1.3.6.
- b. Verifying at least once per 31 days that the **AXIAL SHAPE INDEX** alarm setpoints are adjusted to within the limits shown on Figure 3.2-2.

+ Excluding the center CEA during Cycle 10.

POWER DISTRIBUTION LIMITS

TOTAL PLANAR RADIAL PEAKING FACTOR - F_{xy}^T

LIMITING CONDITION FOR OPERATION

3.2.2.1 The calculated value of F_{xy}^T , defined as $F_{xy}^T = F_{xy}(1+T_q)$, shall be limited to ≤ 1.70 .

APPLICABILITY: **MODE 1***.

ACTION:

With $F_{xy}^T > 1.70$, within 6 hours either:

- a. Reduce **THERMAL POWER** to bring the combination of **THERMAL POWER** and F_{xy}^T to within the limits of Figure 3.2-3a and withdraw the full length CEAs⁺ to or beyond the Long Term Steady State Insertion Limits of Specification 3.1.3.6; or
- b. Be in at least **HOT STANDBY**.

SURVEILLANCE REQUIREMENTS

4.2.2.1.1 The provisions of Specification 4.0.4 are not applicable.

4.2.2.1.2 F_{xy}^T shall be calculated by the expression $F_{xy}^T = F_{xy}(1+T_q)$ and F_{xy}^T shall be determined to be within its limit at the following intervals:

- a. Prior to operation above 70 percent of **RATED THERMAL POWER** after each fuel loading,
- b. At least once per 31 days of accumulated operation in **MODE 1**, and
- c. Within four hours if the **AZIMUTHAL POWER TILT** (T_q) is > 0.030 .

* See Special Test Exception 3.10.2.

+ Excluding the center CEA during Cycle 10.

POWER DISTRIBUTION LIMITS

SURVEILLANCE REQUIREMENTS (Continued)

4.2.2.1.3 F_{xy} shall be determined each time a calculation of F_{xy}^T is required by using the incore detectors to obtain a power distribution map with all full length CEAs⁺ at or above the Long Term Steady State Insertion Limit for the existing Reactor Coolant Pump combination. This determination shall be limited to core planes between 15% and 85% of full core height inclusive and shall exclude regions influenced by grid effects.

4.2.2.1.4 T_q shall be determined each time a calculation of F_{xy}^T is required and the value T_q used to determine F_{xy}^T shall be the measured value of T_q .

+ Excluding the center CEA during Cycle 10.

POWER DISTRIBUTION LIMITS

TOTAL PLANAR RADIAL PEAKING FACTOR - F_{xy}^T

LIMITING CONDITION FOR OPERATION

3.2.2.2 The value of N presently used in Specification 4.2.1.3 shall be in accordance with Figure 3.2-3b.

APPLICABILITY: **MODE 1** when operating in accordance with Specification 4.2.1.3.

ACTION:

With the value of N presently used in Specification 4.2.1.3 exceeding the limit shown in Figure 3.2-3b, within 6 hours either:

- a. Reduce the value of N used in Specification 4.2.1.3 to within the limits of Figure 3.2-3b; or
- b. Be in at least **HOT STANDBY**.

SURVEILLANCE REQUIREMENTS

4.2.2.2.1 The provisions of Specification 4.0.4 are not applicable.

4.2.2.2.2 F_{xy}^T shall be calculated by the expression $F_{xy}^T = F_{xy}(1+T_q)$ and N shall be determined to be within its limit by monitoring F_{xy}^T at the following intervals:

- a. Prior to operation above 70 percent of **RATED THERMAL POWER** after each fuel loading,
- b. At least once per 3 days of accumulated operation in **MODE 1**.

4.2.2.3 F_{xy} shall be determined each time a calculation of F_{xy}^T is required by using the incore detectors to obtain a power distribution map with all full length CEAs⁺ at or above the Long Term Steady State Insertion Limit for the existing Reactor Coolant Pump combination. This determination shall be limited to core planes between 15% and 85% of full core height inclusive and shall exclude regions influenced by grid effects.

4.2.2.2.4 T_q shall be determined each time a calculation of F_{xy}^T is required and the value of T_q used to determine F_{xy}^T shall be the measured value of T_q .

+ Excluding the center CEA during Cycle 10.

POWER DISTRIBUTION LIMITS

TOTAL INTEGRATED RADIAL PEAKING FACTOR - F_r^T

LIMITING CONDITION FOR OPERATION

3.2.3 The calculated value of F_r^T , defined as $F_r^T = F_r(1+T_q)$, shall be limited to ≤ 1.650 .

APPLICABILITY: **MODE 1***.

ACTION:

With $F_r^T > 1.650$ within 6 hours either:

- a. Be in at least **HOT STANDBY**, or
- b. Reduce **THERMAL POWER** to bring the combination of **THERMAL POWER** and F_r^T to within the limits of Figure 3.2.3c, withdraw the full length CEAs⁺ to or beyond the Long Term Steady State Limits of Specification 3.1.3.6, and insert new value of F_r^T in BASSS; or
- c. Reduce **THERMAL POWER** to bring the combination of **THERMAL POWER** and F_r^T to within the limits of Figure 3.2-3c and withdraw the full length CEAs⁺ to or beyond the Long Term Steady State Insertion Limits of Specification 3.1.3.6. The **THERMAL POWER** limit determined from Figure 3.2-3c shall then be used to establish a revised upper **THERMAL POWER** level limit on Figure 3.2-4 (truncate Figure 3.2-4 at the allowable fraction of **RATED THERMAL POWER** determined by Figure 3.2-3c) and subsequent operation shall be maintained within the reduced acceptable operation region of Figure 3.2-4.

SURVEILLANCE REQUIREMENTS

4.2.3.1 The provision of Specification 4.0.4 are not applicable.

4.2.3.2 F_r^T shall be calculated by the expression $F_r^T = F_r(1+T_q)$ and F_r^T shall be determined to be within its limit at the following intervals:

- a. Prior to operation above 70 percent of **RATED THERMAL POWER** after each fuel loading,
- b. At least once per 31 days of accumulated operation in **MODE 1**, and
- c. Within four hours if the **AZIMUTHAL POWER TILT (T_q)** is > 0.030 .

* See Special Test Exception 3.10.2.

+ Excluding the center CEA during Cycle 10.

SURVEILLANCE REQUIREMENTS (Continued)

4.2.3.3 F_r shall be determined each time a calculation of F_r^T is required by using the incore detectors to obtain a power distribution map with all full length CEAs⁺ at or above the Long Term Steady State Insertion Limit for the existing Reactor Coolant Pump combination.

4.2.3.4 T_q shall be determined each time a calculation of F_r^T is required and the value of T_q used to determine F_r^T shall be the measured value of T_q .

+ Excluding the center CEA during Cycle 10.

3/4.10 SPECIAL TEST EXCEPTIONS

SHUTDOWN MARGIN

LIMITING CONDITION FOR OPERATION

3.10.1 The SHUTDOWN MARGIN requirement of Specification 3.1.1.1 may be suspended for measurement of CEA worth and shutdown margin provided reactivity equivalent to at least the highest estimated CEA worth is available for trip insertion from OPERABLE CEA(s).

APPLICABILITY: MODE 2.

ACTION:

- a. With any full length CEA⁺ not fully inserted and with less than the above reactivity equivalent available for trip insertion, immediately initiate and continue boration at ≥ 40 gpm of 2300 ppm boric acid solution or its equivalent until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.
- b. With all full length CEAs⁺ inserted and the reactor subcritical by less than the above reactivity equivalent, immediately initiate and continue boration at ≥ 40 gpm of 2300 ppm boric acid solution or its equivalent until the SHUTDOWN MARGIN required by Specification 3.1.1.1 is restored.

SURVEILLANCE REQUIREMENTS

4.10.1.1 The position of each full length CEA⁺ required either partially or fully withdrawn shall be determined at least once per 2 hours.

4.10.1.2 Each CEA⁺ not fully inserted shall be demonstrated capable of full insertion when tripped from at least the 50% withdrawn position within 7 days prior to reducing the SHUTDOWN MARGIN to less than the limits of Specification 3.1.1.1.

+ Excluding the center CEA during Cycle 10.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 151 TO FACILITY OPERATING LICENSE NO. DPR-53

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-317

1.0 INTRODUCTION

By letter dated February 8, 1991, Baltimore Gas and Electric (BG&E) Company requested an emergency amendment to its Facility Operating License No. DPR-53 for Calvert Cliffs, Unit No. 1, to allow operation of the unit for the remainder of the current fuel cycle with the center Control Element Assembly (CEA) excluded from its current operability and alignment requirements. The request is only needed for the remainder of the Unit 1, Cycle 10, because the center CEA will be replaced during the next refueling outage for the upcoming Cycle 11 operation. Specifically, BG&E proposes changes to Technical Specifications 4.1.1.1.1, 4.1.1.2, 3.1.3.1, 4.1.3.1.1, 4.1.3.1.2, 4.1.3.1.3, 3.1.3.3, 4.1.3.3.1, 4.1.3.3.2, 3.1.3.4, 4.1.3.4, 4.1.3.5, 3.10.1, 4.10.1.1, and 4.10.1.2, which consists of a footnote excluding the applicability of the Technical Specifications to the center CEA for Cycle 10. Technical Specifications 3.1.3.6 and 4.1.3.6 do not specifically deal with single CEAs; however, a footnote is requested to permit the exclusion of the center CEA from the determination of CEA Bank 5 position. The proposed changes to Technical Specifications 3.2.2.1, 4.2.1.3, 4.2.2.1.3, 4.2.2.3, 3.2.3, and 4.2.3.3 consist of a footnote which permits exclusion of the center CEA from the stated full length CEA insertion limit.

BG&E's request to process this amendment on an emergency basis is due to the failure of the center CEA to fully insert during the shutdown of Unit 1 on February 2, 1991. BG&E discovered that the rod bottom light and the lower electric limit light, which provided indication of full insertion, had not energized for the center CEA after it had been driven into the core. Subsequent testing has led to the conclusion that the center CEA is binding in the buffer region of the guide tube due to swelling of the tips of the control rod fingers. The center CEA has been declared inoperable because BG&E cannot determine that it will continue to satisfy the rod drop time surveillance requirements due to the binding problem when the center CEA approaches the fully inserted position.

The determination that the center CEA is inoperable resulted in BG&E requesting a Temporary Waiver of Compliance (TWOC) on February 8, 1991. The NRC staff reviewed the requested TWOC and granted it by letter dated February 8, 1991. The TWOC became effective as of 2200 hours on February 8, 1991, and will expire upon issuance of this requested amendment.

2.0 EVALUATION

Unit 1 normally operates with all CEAs essentially fully out, including control Bank 5, the last bank withdrawn on approach to full power. The center CEA is a member of Bank 5. It is the only "weak" CEA in Bank 5 and in the core. BG&E concludes, and staff agrees, that the most probable source of the swelling is the Zircaloy (Zr) slugs in the center CEA fingers, due to hydriding of the slugs. There are no other CEAs with Zr slugs having the potential for swelling. This CEA is designed as a unique "weak" control rod for use at the core center as part of the (early in a 24-month cycle) power distribution control. Unit 1 is now about halfway through Cycle 10. The CEA is unusual in that only the center finger of the five finger configuration contains control material. The outer four fingers contain non-control material, including a Zr slug at the bottom tip of the fingers. It is noted that the center CEA, because of reduced absorption, has a low reactivity worth relative to other control rods (with 5 times the control material inventory) and shutdown rods (which are "double strength" rods covering two fuel assemblies). Furthermore, its worth is reduced because it is in a low worth twice-burned fuel assembly. BG&E thus concluded that the reactivity and associated power distribution effects from misalignment would be expected to be minor. Staff finds that this conclusion is valid.

BG&E's request presented evaluations which had been made to support operation with the CEA inoperable in various axial positions as well as failing to scram when required, and proposed Technical Specification changes which would provide permission for such operation. They evaluated the effects of a range of mispositioning on the physics data used in safety and setpoint analyses. This included full-in and full-out mispositioning of the CEA, and where axial power distribution is of interest intermediate misalignments were examined. Staff has reviewed BG&E's safety analyses and evaluations and agrees with BG&E's conclusion that such misalignments would not significantly affect the data input to the safety and setpoint analysis.

The shutdown margin evaluation indicated that neither the scram function used in safety analyses nor the steam line break analysis physics input data would be significantly affected. Similarly the evaluations indicated that the full-in insertion of the center CEA would not affect the physics parameters which had been used for the CEA ejection at power analysis. Staff has reviewed and agrees with the findings of these BG&E evaluations.

The calculation by the incore detector power distribution monitoring system (INCA) would be affected by a misalignment. Staff agrees that these values can be appropriately adjusted by BG&E if a misalignment of the center CEA occurs.

The staff review of these evaluations by BG&E has concluded that appropriate studies and evaluations were performed by BG&E and that the results of these evaluations are reasonable in view of the low reactivity worth of the center CEA. The results of BG&E's evaluations are in agreement with staff estimates of the significance of possible center CEA misoperations. The staff finds that these evaluations are acceptable. The staff expects, as has been stated by BG&E, that the center CEA will be removed from the core following Cycle 10 operation and replaced with an approved CEA.

3.0 STATEMENT OF EMERGENCY CIRCUMSTANCES

The February 8, 1991 TWOC allowed BG&E to initially start-up as scheduled on February 9, 1991. An emergency Technical Specification amendment is needed to allow BG&E to operate Unit 1 for the remainder of Cycle 10 operation due to the inoperable center CEA. During the shutdown of the Unit on February 2, 1991, the rod bottom light and lower electrical limit light, which provide indication of full insertion, did not energize when the center CEA was driven into the reactor core. Subsequent testing led to the conclusion that the center CEA was binding in the buffer region of the guide tube due to swelling of the tips of the control rod fingers. The center CEA has been declared inoperable because of BG&E's inability to determine that it will continue to satisfy the rod drop time surveillance requirements. Because of this, the Limiting Conditions for Operation of Technical Specification 3.1.3.4 cannot be met and the plant, absent the TWOC, would not have been able to resume power operation.

BG&E states that the conditions leading to this situation could not have been reasonably anticipated. BG&E had performed evaluations of observed swelling in other similar CEAs and had made correlations between observed swelling and length of operation. BG&E states that these evaluations did not indicate that it was likely that the center CEA would experience any interference during Unit 1, Cycle 10, operation. The CEA has been fully inserted several times during the current cycle, and has shown no indication of interference. BG&E states that it could not have avoided this situation because the unit was already operating in the current cycle when the swelling problem was discovered.

The NRC staff has reviewed BG&E's statement of emergency circumstances and concludes that BG&E has acted in good faith and that it made a timely application for revising the Technical Specifications relating to the operability and alignment of the center CEA, as detailed above. The staff further notes that BG&E will replace the center CEA with a different design during the next refueling outage which will preclude recurrence of this type of emergency.

Based on the above, the Commission has determined that the licensee has not abused the emergency provisions of 10 CFR 50.91(a)(5); failure for the Commission to act on the licensee's request would result in shutdown or prevent resumption of power of the unit; and therefore, the request should be processed under the emergency provision of 10 CFR 50.91(a)(5).

4.0 SUMMARY

The staff has concluded, based on the discussions in Section 2.0, that the proposed Technical Specifications deleting the operability and alignment requirements for the center CEA for the remainder of the Unit 1, Cycle 10, operation are acceptable. Further, based on the discussion in Section 3.0, a determination has been made that the licensee has acted in good faith and justified the need for emergency action on this amendment request.

5.0 FINAL DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The following evaluation, by BG&E and with which we agree, demonstrates that the proposed amendment does not involve a significant hazards consideration.

- [1] involve a significant increase in the probability or consequences of an accident previously evaluated.

The Technical Specification changes will allow plant operation with the center CEA excluded from operability and alignment requirements. This in itself will not affect the operation of any other CEA or plant component. Thus, the changes will not increase the probability of failure of any other plant component. Also, since the center CEA will not be operated in a different fashion than before except for possible misalignment, this change will not increase the probability of the failure of the center CEA itself. Therefore, the probability of occurrence of an accident previously evaluated is not increased. The consequences of accidents previously evaluated are not increased since, as shown in the safety analysis, none of the physics data input to the current licensing analyses for Unit 1 are invalidated due to removing the operability and alignment requirements of the center CEA.

- [2] create possibility of a new or different type of accident from any accident previously evaluated.

The Technical Specification changes will not affect the operation of a plant component other than the center CEA. The center CEA will not be operated differently than before. The misalignment of the center CEA creates new CEA configurations which have been considered, but it does not create new event scenarios. We [BG&E] have evaluated the possibility that the CEA swelling could induce irradiation assisted stress corrosion cracking (IASCC). The cladding material in the CEA is ductile because it is a new CEA in its first Cycle 0 operation, and is not susceptible to the IASCC-related problems in high exposure CEAs.

[3] involve a significant reduction in a margin of safety.

None of the physics data input to the current licensing analyses for Unit 1 are invalidated due to removing the operability and alignment requirements of the center CEA. Thus, all the licensing analyses remain valid and the existing margin of safety is preserved.

Based on the foregoing, the Commission has concluded that the standards of 10 CFR 50.92 are satisfied. Therefore, the Commission has made a final determination that the proposed amendment does not involve a significant hazards consideration.

6.0 STATE CONSULTATION

The appropriate representative of the State of Maryland was notified of this amendment. The State of Maryland had no comments.

7.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of the facility components located within the restricted areas as defined in 10 CFR Part 20 and changes surveillance requirements. The staff has determined that this amendment involves 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 made a final no significant hazards consideration finding with respect to this amendment. Accordingly, this amendment meets 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 this amendment.

8.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) increase the possibility of a new or different kind of accident from any previously evaluated, or (c) significantly reduce a safety margin and, therefore, the amendment does not involve significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Dated: February 20, 1991

Principal Contributors:

H. Richings
D. McDonald



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

February 20, 1991

MEMORANDUM FOR: Sholly Coordinator

FROM: Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II

SUBJECT: REQUEST FOR PUBLICATION IN BIWEEKLY FR NOTICE - NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE AND FINAL DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION AND OPPORTUNITY FOR HEARING (EXIGENT OR EMERGENCY CIRCUMSTANCES) (TAC NO. 79709)

Baltimore Gas and Electric Company, Docket No. 50-317, Calvert Cliffs
Nuclear Power Plant, Unit No. 1, Calvert County, Maryland

Date of amendment request: February 8, 1991

Description of amendment request: This amendment revises Technical

Specifications 4.1.1.1.1, 4.1.1.2, 3.1.3.1, 4.1.3.1.1, 4.1.3.1.2, 4.1.3.1.3, 3.1.3.3, 4.1.3.3.1, 4.1.3.3.2, 3.1.3.4, 4.1.3.5, 3.10.1.1, and 4.10.1.2.

The revision consists of a footnote which excludes the applicability of the Technical Specifications to the center Control Element Assembly (CEA) for Cycle 10. Technical Specifications 3.1.3.6 and 4.1.3.6 do not specifically deal with single CEAs. However, a footnote was added to permit the exclusion of the center CEA from the determination of CEA Bank 5 position. The changes to Technical Specifications 3.2.2.1, 4.2.1.3, 4.2.2.1.3, 4.2.2.3, 3.2.3, and 4.2.3.3. consist of a footnote which permits exclusion of the center CEA from the stated full length CEA insertion limit. This amendment excludes the Unit 1 center CEA from the operability and alignment requirements of the Technical Specifications for the remainder of the Unit 1, Cycle 10, operation. The Commission was requested to handle the proposed changes on an emergency basis.

9102250039 910220
CF ADDCK 050003
CI

220104

DFK2
110

Sholly Coordinator

- 2 -

Date of issuance: February 20, 1991

Effective date: February 20, 1991

Amendment No.: 151

Facility Operating License No. DPR-53. Amendments revised the Technical Specifications.

Public comments requested as to proposed no significant hazards consideration: No.

The Commission's related evaluation of the amendment, finding of emergency circumstances, consultation with the State, and final determination of no significant hazards consideration are contained in a Safety Evaluation dated February 20, 1991

Local Public Document Room location: Calvert County Library, Prince Frederick, Maryland.

Attorney for Licensee: Jay E. Silbert, Esquire, Shaw, Pittman, Potts, and Trowbridge, 2300 N Street, N.W., Washington, DC 20037.

NRC Project Director: Robert A. Capra

ORIGINAL SIGNED BY:
Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II

Distribution:

Docket File PDI-1 Reading
DMcDonald CVogan
RACapra OGC

| | | | | | |
|------|--------------------|-----------------------|---------------------|---------------------|---|
| OFC | : PDI-1:LA | : PDI-1:PM | : OGC | : PDI-1:D | : |
| NAME | : CVogan <i>CV</i> | : DMcDonald <i>DM</i> | : J. Hull <i>JH</i> | : RACapra <i>RA</i> | : |
| DATE | : 2/13/91 | : 2/13/91 | : 2/14/91 | : 2/19/91 | : |

OFFICIAL RECORD COPY
Document Name: SHOLLY 79709