



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

BALTIMORE GAS & ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 27  
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The applications for amendment by Baltimore Gas & Electric Company (the licensee) dated August 5, 1977, and September 7, 1977, as supplemented by filings dated October 7 and 19, 1977, November 1, 4, 16 and 17, 1977, and December 7, 1977, comply 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.

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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 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. 27, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

*Karl R. Goller*

Karl F. Goller, Assistant Director  
for Operating Reactors  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 4, 1973

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ATTACHMENT TO LICENSE AMENDMENT NO.27

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page 5-6 is also provided to maintain document completeness. No changes were made on 5-6.

Page

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## DESIGN FEATURES

### VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is  $10,614 \pm 460$  cubic feet at a nominal  $T_{avg}$  of  $531^{\circ}\text{F}$ .

### 5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

### 5.6 FUEL STORAGE

#### CRITICALITY - SPENT FUEL

5.6.1 The spent fuel storage racks are designed and shall be maintained with a minimum 12.5 x 13 inch center-to-center distance between fuel assemblies placed in the storage racks to ensure a  $k_{eff}$  equivalent to  $\leq 0.95$  with the storage pool filled with unborated water. The  $k_{eff}$  of  $\leq 0.95$  includes the conservative allowances for uncertainties described in Section 9.7.2 of the FSAR. In addition, fuel in the storage pool shall have a U-235 loading of  $\leq 44.0$  grams of U-235 per axial centimeter of fuel assembly.

#### CRITICALITY - NEW FUEL

5.6.2 The new fuel storage racks are designed and shall be maintained with a nominal 18 inch center-to-center distance between new fuel assemblies such that  $k_{eff}$  will not exceed 0.98 when fuel having a maximum enrichment of 4.0 weight percent U-235 is in place and aqueous foam moderation is assumed. The  $k_{eff}$  of  $\leq 0.98$  includes the conservative allowance for uncertainties described in Section 9.7.2 of the FSAR.

#### DRAINAGE

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

#### CAPACITY

5.6.4 The 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 1056 fuel assemblies.

### 5.7 COMPONENT CYCLIC OR TRANSIENT LIMITS

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.

TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>Component</u>	<u>Cyclic or Transient Limit</u>	<u>Design Cycle or Transient</u>
Reactor Coolant System	500 heatup and cooldown cycles	70°F to 532°F to 70°F
	400 reactor trip cycles	100% to 0% RATED THERMAL POWER
	10 Primary Hydrostatic Tests	3125 psia and 60°F > NDTT
	320 Primary Leak Tests	2500 psia and 60°F > NDTT
Steam Generator	10 Secondary Hydrostatic Tests	1250 psia Secondary Side and temperature $\geq$ 100°F
	320 Secondary Leak Tests	1000 psia Secondary Side With Primary - Secondary $\Delta p$ of 820 psi and shell side temperature between 100°F and 200°F

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

BALTIMORE GAS & ELECTRIC COMPANY

DOCKET NO. 50-318

CALVERT CLIFFS UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 12  
License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The applications for amendment by Baltimore Gas & Electric Company (the licensee) dated August 5, 1977, and September 7, 1977, as supplemented by filings dated October 7 and 19, 1977, November 1, 4, 16 and 17, 1977, and December 7, 1977, comply 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.

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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 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. 12, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

*Karl R. Goller*

Karl R. Goller, Assistant Director  
for Operating Reactors  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 4, 1978

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ATTACHMENT TO LICENSE AMENDMENT NO. 12

FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

Replace the following page of the Appendix "A" Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page 5-6 is also provided to maintain document completeness. No changes were made on 5-6.

Page

5-5

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## DESIGN FEATURES

### VOLUME

5.4.2 The total water and steam volume of the reactor coolant system is  $10,614 \pm 460$  cubic feet at a nominal  $T_{avg}$  of  $532^{\circ}\text{F}$ .

### 5.5 METEOROLOGICAL TOWER LOCATION

5.5.1 The meteorological tower shall be located as shown on Figure 5.1-1.

### 5.6 FUEL STORAGE

#### CRITICALITY - SPENT FUEL

5.6.1 The spent fuel storage racks are designed and shall be maintained with a minimum 12.5 x 13 inch center-to-center distance between fuel assemblies placed in the storage racks to ensure a  $k_{eff}$  equivalent to  $< 0.95$  with the storage pool filled with unborated water. The  $k_{eff}$  of  $< 0.95$  includes the conservative allowances for uncertainties described in Section 9.7.2 of the FSAR. In addition, fuel in the storage pool shall have a U-235 loading of  $\leq 44.0$  grams of U-235 per axial centimeter of fuel assembly.

#### CRITICALITY - NEW FUEL

5.6.2 The new fuel storage racks are designed and shall be maintained with a nominal 18 inch center-to-center distance between new fuel assemblies such that  $k_{eff}$  will not exceed 0.98 when fuel having a maximum enrichment of 4.0 weight percent U-235 is in place and aqueous foam moderation is assumed. The  $k_{eff}$  of  $\leq 0.98$  includes the conservative allowance for uncertainties described in Section 9.7.2 of the FSAR.

#### DRAINAGE

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

#### CAPACITY

5.6.4 The 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 1056 fuel assemblies.

### 5.7 COMPONENT CYCLIC OR TRANSIENT LIMITS

5.7.1 The components identified in Table 5.7-1 are designed and shall be maintained within the cyclic or transient limits of Table 5.7-1.

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TABLE 5.7-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>Component</u>	<u>Cyclic or Transient Limit</u>	<u>Design Cycle or Transient</u>
Reactor Coolant System	500 heatup and cooldown cycles	70°F to 532°F to 70°F
	400 reactor trip cycles	100% to 0% RATED THERMAL POWER
	10 Primary Hydrostatic Tests	3125 psia and 60°F > NDTT
	320 Primary Leak Tests	2500 psia and 60°F > NDTT
Steam Generator	10 Secondary Hydrostatic Tests	1250 psia Secondary Side and temperature $\geq$ 100°F
	320 Secondary Leak Tests	1000 psia Secondary Side With Primary - Secondary $\Delta p$ of 820 psi and shell side temperature between 100°F and 200°F

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