



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

January 5, 1993

Docket Nos. 50-317  
and 50-318

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

Dear Mr. Denton:

SUBJECT: ISSUANCE OF AMENDMENTS FOR CALVERT CLIFFS NUCLEAR POWER PLANT,  
UNIT NO. 1 (TAC NO. M84441) AND UNIT NO. 2 (TAC NO. M84442)

The Commission has issued the enclosed Amendment No.179 to Facility Operating License No. DPR-53 and Amendment No.156 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 in response to your application transmitted by letter dated September 1, 1992.

The amendments make changes to Technical Specification 3.8.2.1, Onsite Power Distribution Systems AC Distribution-Operating, for Units 1 and 2, by adding additional requirements to the Limiting Condition for Operation.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

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.179 to DPR-53
2. Amendment No.156 to DPR-69
3. Safety Evaluation

cc w/enclosures:  
See next page

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Mr. Robert E. Denton  
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 and 2

cc:

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Docket Nos. 50-317  
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January 5, 1993

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Vice President - Nuclear Energy  
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Calvert Cliffs Nuclear Power Plant  
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The amendments make changes to Technical Specification 3.8.2.1, Onsite Power Distribution Systems AC Distribution-Operating, for Units 1 and 2, by adding additional requirements to the Limiting Condition for Operation.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original Signed By: Christopher Orsini For  
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. 179 to DPR-53
2. Amendment No. 156 to DPR-69
3. Safety Evaluation

cc w/enclosures:

See next page

Distribution:

See next page

PDI-1:LA	PDI-1	PDI-1:PM <i>PM</i>	EELB <i>Enfor</i>	OGC <i>OGC</i>	PDI-1:D
CVogan <i>CV</i>	COrsini: <i>CO</i>	DMcDonald	CBerlinger		RACapra <i>RA</i>
12/17/92 <i>12/24/92</i>	12/17/92	12/17/92	12/17/92	12/17/92	01/05/93

OFFICIAL RECORD COPY  
FILENAME: CC84441.AMD

DATED: January 5, 1993

AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. DPR-53-CALVERT CLIFFS  
UNIT 1

AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. DPR-69-CALVERT CLIFFS  
UNIT 2

Docket File

NRC & Local PDRs

PDI-1 Reading

S. Varga, 14/E/4

J. Calvo, 14/A/4

R. Capra

C. Vogan

C. Orsini

D. McDonald

C. Berlinger, 8/D/22

OGC

D. Hagan, 3302 MNBB

C. Liang, 8/E/23

G. Hill (8), P1-22

Wanda Jones, P-370

C. Grimes, 11/F/23

ACRS (10)

OPA

OC/LFMB

Plant File

C. Cowgill, Region I

cc: Plant Service list



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

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 179  
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 September 1, 1992, 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. 179, 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



Robert A. Capra, 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: January 5, 1993



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

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 156  
License No. DPR-69

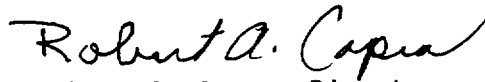
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated September 1, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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. 156, 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



Robert A. Capra, 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: January 5, 1993

### **3/4.8 ELECTRICAL POWER SYSTEMS**

#### **3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS**

##### **A.C. Distribution - Operating**

#### **LIMITING CONDITION FOR OPERATION**

---

3.8.2.1 The following A.C. electrical busses shall be **OPERABLE** and energized from sources of power other than the diesel generators with tie breakers open between redundant busses:

4160	volt Emergency Bus #11
4160	volt Emergency Bus #14
480	volt Emergency Bus #11A
480	volt Emergency Bus #11B
480	volt Emergency Bus #14A
480	volt Emergency Bus #14B
480	volt Motor Control Center #104R
480	volt Motor Control Center #114R
120	volt A.C. Vital Bus #11
120	volt A.C. Vital Bus #12
120	volt A.C. Vital Bus #13
120	volt A.C. Vital Bus #14

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

**ACTION:** With less than the above complement of A.C. busses **OPERABLE**, restore the inoperable bus to **OPERABLE** status within 8 hours or be in at least **HOT STANDBY** within the next 6 hours and in **COLD SHUTDOWN** within the following 30 hours.

#### **SURVEILLANCE REQUIREMENTS**

---

4.8.2.1 The specified A.C. busses shall be determined **OPERABLE** and energized from A.C. sources other than the diesel generators with tie breakers open between redundant busses at least once per 7 days by verifying correct breaker alignment and indicated power availability.

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 179 FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 156 FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Revise Appendix A as follows:

Remove Pages

3/4 8-9

Insert Pages

3/4 8-9

### 3/4.8 ELECTRICAL POWER SYSTEMS

#### 3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

##### A.C. Distribution - Operating

#### LIMITING CONDITION FOR OPERATION

---

3.8.2.1 The following A.C. electrical busses shall be **OPERABLE** and energized from sources of power other than the diesel generators with tie breakers open between redundant busses:

4160	volt Emergency Bus #21
4160	volt Emergency Bus #24
480	volt Emergency Bus #21A
480	volt Emergency Bus #21B
480	volt Emergency Bus #24A
480	volt Emergency Bus #24B
480	volt Motor Control Center 204R
480	volt Motor Control Center 214R
120	volt A.C. Vital Bus #21
120	volt A.C. Vital Bus #22
120	volt A.C. Vital Bus #23
120	volt A.C. Vital Bus #24

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

ACTION: With less than the above complement of A.C. busses **OPERABLE**, restore the inoperable bus to **OPERABLE** status within 8 hours or be in at least **HOT STANDBY** within the next 6 hours and in **COLD SHUTDOWN** within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.8.2.1 The specified A.C. busses shall be determined **OPERABLE** and energized from A.C. sources other than the diesel generators with tie breakers open between redundant busses at least once per 7 days by verifying correct breaker alignment and indicated power availability.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. DPR-53  
AND AMENDMENT NO. 156 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 September 1, 1992, the Baltimore Gas and Electric Company (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Technical Specifications (TS). The requested changes would revise TS 3.8.2.1, Onsite Power Distribution Systems AC Distribution-Operating, for Units 1 and 2, by adding additional requirements to the Limiting Condition for Operation (LCO). The LCO changes will require that all 480 volt emergency busses must be operable in Modes 1 through 4. In addition, two safety-related motor control centers for each unit are added to the list of AC busses which must be operable.

2.0 EVALUATION

The AC Distribution System is designed to supply power during normal operation and under accident conditions. The four safety-related 480-volt busses and the two 480-volt Motor Control Centers (MCCs) supply power to the engineered safety features system. The engineered safety features electrical system uses the two channel concept to provide redundancy in anticipation of a single failure. Emergency power for the 480-volt busses and MCCs is supplied by separate emergency diesel generators. Operability of the 480-volt system is required to ensure the plant can mitigate a design basis accident.

The current TS is worded such that two 480-volt emergency busses on one unit could be inoperable without entering an Action Statement. The licensee found that the original issue of custom TSs for Calvert Cliffs Unit 1 required the four safety-related 480-volt busses and the two safety-related MCCs to be operable. In the conversion to Standard Technical Specification format, the requirements for the busses were changed such that the LCO could be interpreted to allow two emergency 480-volt busses to be inoperable. The conversion also deleted the two safety-related MCCs from the LCO.

It has been the licensee's practice to maintain all four 480-volt busses operable in Modes 1 through 4 and to enter the Action Statements for any supported safety systems when a bus was declared inoperable. Administrative controls are in place which require entering the Action Statement of TS

3.8.2.1 if a 480-volt emergency bus is inoperable. If one of the safety-related MCCs is inoperable, current practice is to review the affected equipment and enter the Action Statements appropriate for the inoperable equipment. The requested change will revise the TS to require entering the Action Statement of TS 3.8.2.1 when any 480-volt emergency bus or 480-volt MCC is inoperable.

The staff finds this change acceptable based on the fact that it provides additional requirements to ensure two independent and redundant power source trains will be available to supply the engineered safety features system during power operation.

### 3.0 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.

### 4.0 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 (57 FR 45075). 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.

### 5.0 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 Contributor: C. Orsini

Date: January 5, 1993