

DCS MS-016

Docket Nos. 50-317
and 50-318

MAY 31 1984

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Mr. A. E. Lundvall, Jr.
Vice President - Supply
Baltimore Gas & Electric Company
P. O. Box 1475
Baltimore, Maryland 21203

Dear Mr. Lundvall:

The Commission has issued the enclosed Amendment Nos. 93 and 74 to Facility Operating License Nos. DPR-53 and DPR-69 for Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications in response to your application dated September 20, 1983 as supplemented January 18, 1984.

The amendments revise the Technical Specifications relating to the operability of the air recirculation and cooling units. The changes allow consideration of the operability status of the containment spray system in determining remedial action should elements of the air recirculation and cooling units become inoperable.

Copies of the related Safety Evaluation and of the Notice of Issuance are also enclosed.

Sincerely,

Original signed by

David H. Jaffe, Project Manager
Operating Reactors Branch #3
Division of Licensing

Enclosures:

1. Amendment No. 93 to DPR-53
2. Amendment No. 74 to DPR-69
3. Safety Evaluation
4. Notice of Issuance

cc w/enclosures:
See next page

D. Brinkman

STSG Group
5/23/84

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PMKreutzer
5/21/84

ORB#3:DL
DJaffe/pn
5/21/84

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JMiller
5/23/84

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

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PMKreutzer

DOCKET No. 50-317 and 50-318

MEMORANDUM FOR: Docketing and Service Branch
Office of the Secretary of the Commission

FROM: Office of Nuclear Reactor Regulation

SUBJECT: BALTIMORE GAS AND ELECTRIC COMPANY, Calvert Cliffs Units 1 and 2

One signed original of the *Federal Register* Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (6) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Consideration of Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Order.
- Exemption.
- Notice of Granting of Relief.
- Other: _____

Office of Nuclear Reactor Regulation
Division of Licensing

Enclosure:
As stated

OFFICE	ORB#3:DL						
URNAME	PMKreutzer						
DATE	6/2/80						

Baltimore Gas and Electric Company

cc:

James A. Biddison, Jr.
General Counsel
Baltimore Gas and Electric Company
P. O. Box 1475
Baltimore, MD 21203

George F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
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Nuclear Licensing Analysis Unit
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Baltimore, MD 21203

Mr. Leon B. Russell
Plant Superintendent
Calvert Cliffs Nuclear Power Plant
Maryland Routes 2 & 4
Lusby, MD 20657

Bechtel Power Corporation
Attn: Mr. J. C. Ventura
Calvert Cliffs Project Engineer
15740 Shady Grove Road
Gaithersburg, MD 20760

Combustion Engineering, Inc.
Attn: Mr. R. R. Mills, Manager
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P. O. Box 500
Windsor, CT 06095

Mr. R. M. Douglass, Manager
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Baltimore Gas & Electric Company
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Mr. S. M. Davis, General Supervisor
Operations Quality Assurance
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Ms. Mary Harrison, President
Calvert County Board of County Commissioners
Prince Frederick, MD 20768

U. S. Environmental Protection Agency
Region III Office
Attn: Regional Radiation Representative
Curtis Building (Sixth Floor)
Sixth and Walnut Streets
Philadelphia, PA 19106

Mr. Ralph E. Architzel
Resident Reactor Inspector
NRC Inspection and Enforcement
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Mr. Charles B. Brinkman
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Mr. R. E. Denton, General Supervisor
Training & Technical Services
Calvert Cliffs Nuclear Power Plant
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Administrator, Power Plant Siting Program
Energy and Coastal Zone Administration
Department of Natural Resources
Tawes State Office Building
Annapolis, MD 21204

Regional Administrator
Nuclear Regulatory Commission, Region I
Office of Executive Director for Operations
631 Park Avenue
King of Prussia, Pennsylvania 19406



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. 93
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas & Electric Company (the licensee) dated September 20, 1983 as supplemented January 18, 1984, 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.

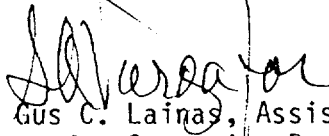
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 93, 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



Gus C. Lainas, Assistant Director
for Operating Reactors
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 93

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 contain vertical lines indicating the area of change. The corresponding overleaf page is provided to maintain document completeness.

Page

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CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 18 months, during shutdown, by:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position on Safety Injection Actuation test signal.
 - 2. Verifying that each spray pump starts automatically on a Containment Spray Actuation test signal.
- c. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 Two independent groups of containment air recirculation and cooling units shall be OPERABLE with two units to each group.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one group of required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore the inoperable group of air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.
- b. With three required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore at least one required air recirculation and cooling unit to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within 12 hours. Restore both above required groups of containment air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.
- c. With one group of required containment air recirculation and cooling units inoperable and one containment spray system inoperable, restore the inoperable containment spray system to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within 12 hours. Restore the inoperable group of containment air recirculation and cooling units to OPERABLE status within 7 days of initial loss or be in at least HOT SHUTDOWN within 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 Each containment air recirculation and cooling unit shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Starting each unit from the control room.
 2. Verifying that each unit operates for at least 15 minutes.
 3. Verifying a cooling water flow rate of \geq 2000 gpm to each cooling unit when the full flow service water outlet valves are fully open.
- b. At least once per 18 months by verifying that each unit starts automatically on a Containment Spray Actuation test signal.



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. 74
License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas & Electric Company (the licensee) dated September 20, 1983 as supplemented January 18, 1984, 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.

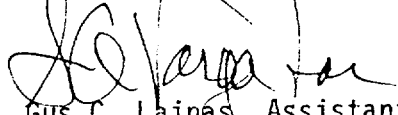
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2 of Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 74, 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



GUS C. LAINAS, Assistant Director
for Operating Reactors
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 31, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 74

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 contain vertical lines indicating the area of change. The corresponding overleaf page is provided to maintain document completeness.

Pages

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CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 18 months, during shutdown, by:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position on Safety Injection Actuation test signal.
 - 2. Verifying that each spray pump starts automatically on a Containment Spray Actuation test signal.
- c. At least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.2 Two independent groups of containment air recirculation and cooling units shall be OPERABLE with two units to each group.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one group of required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore the inoperable group of air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.
- b. With three required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore at least one required air recirculation and cooling unit to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within 12 hours. Restore both above required groups of containment air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.
- c. With one group of required containment air recirculation and cooling units inoperable and one containment spray system inoperable, restore the inoperable containment spray system to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within 12 hours. Restore the inoperable group of containment air recirculation and cooling units to OPERABLE status within 7 days of initial loss or be in at least HOT SHUTDOWN within 12 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 Each containment air recirculation and cooling unit shall be demonstrated OPERABLE:

- a. At least once per 31 days on a STAGGERED TEST BASIS by:
 1. Starting each unit from the control room.
 2. Verifying that each unit operates for at least 15 minutes.
 3. Verifying a cooling water flow rate of ≥ 2000 gpm to each cooling unit when the full flow service water outlet valves are fully open.
- b. At least once per 18 months by verifying that each unit starts automatically on a Containment Spray Actuation test signal.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 93 AND 74

TO FACILITY OPERATING LICENSE NOS. DPR-53 AND DPR-69

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

Introduction

By application dated September 20, 1983, as supplemented by letter dated January 18, 1984, Baltimore Gas and Electric (BG&E) requested changes to the Calvert Cliffs Technical Specifications (TS) for Calvert Cliffs Units 1 and 2. The proposed changes to the TS would revise the provisions in the Technical Specifications (TS) relating to the operability of the air recirculation and cooling units. The proposed revision to TS 3.6.2.2, "Containment Cooling System," would allow consideration of the operability status of the containment spray system in determining remedial action should elements of the air recirculation and cooling units become inoperable.

Discussion and Evaluation

At the present time, Calvert Cliffs Units 1 and 2 Technical Specification 3.6.2.2, "Containment Cooling System," requires two groups of containment air recirculation and cooling (ARC) units to be operable with two units to each group. Should one ARC unit become inoperable, the unit must be restored to operable status within 72 hours or the plant must be in hot shutdown within 12 hours.

The proposed change to TS 3.6.2.2 would allow less restrictive remedial actions to be taken if an ARC unit or units is inoperable. The proposed remedial actions would be as follows:

- a. With one group of required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore the inoperable group of air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.
- b. With three required containment air recirculation and cooling units inoperable and both containment spray systems OPERABLE, restore at least one required air recirculation and cooling unit to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within 12 hours. Restore both above required groups of containment air recirculation and cooling units to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within 12 hours.

- c. With one group of required containment air recirculation and cooling units inoperable and one containment spray system inoperable, restore the inoperable containment spray system to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within 12 hours. Restore the inoperable group of containment air recirculation and cooling units to OPERABLE status within 7 days of initial loss or be in at least HOT SHUTDOWN within 12 hours.

Calvert Cliffs Units 1 and 2 are each equipped with four 33% capacity ARC units and two 50% capacity containment spray trains for a total of 233% of the capacity required for post-LOCA containment cooling. The Calvert Cliffs Final Safety Analysis Report (FSAR) recognizes that the ARC units and containment spray trains are mutually supportive with regard to post-LOCA containment heat removal. The FSAR states that:

The containment air recirculation and cooling system is independent of the safety injection and containment spray systems. It is sized such that, following a LOCA, three of the four containment air recirculation units limit the containment pressure to less than the containment design pressure even if the containment spray system does not operate.

The redundant nature of the ARC and containment spray systems is recognized by the most recent NRC guidance on TS for Combustion Engineering facilities (CESTS), NUREG-0212, Rev. 2, "Standard Technical Specifications for Combustion Engineering Pressurized Water Reactors," Fall 1980. The CESTS represents the model for the proposed change to Calvert Cliffs TS 3.6.2.2. In this regard, the proposed TS are more conservative than the CESTS in that the proposed TS allows the operable containment cooling capability to be reduced to 117% of required capacity. The CESTS allows the operable containment cooling capability to be reduced to 100% of required capacity. The proposed TS require that an adequate level of containment cooling capability be maintained and thus the proposed TS are acceptable.

Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of the amendments.

Conclusion

We have 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, and (2) such

activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 31, 1984

Principal Contributor:
D. Jaffe

UNITED STATES NUCLEAR REGULATORY COMMISSIONBALTIMORE GAS AND ELECTRIC COMPANYDOCKET NOS. 50-317 AND 50-318NOTICE OF ISSUANCE OF AMENDMENTS TOFACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (Commission) has issued Amendment Nos. 93 and 74 to Facility Operating License Nos. DPR-53 and DPR-69, issued to Baltimore Gas and Electric Company (the licensee), which revised the Technical Specifications for operation of Calvert Cliffs Units 1 and 2 (the facility) located in Calvert County, Maryland. The amendments were effective as of the date of their issuance.

The amendments revise the provisions in the Technical Specifications (TS) relating to the operability of the air recirculation and cooling units. The proposed revision to TS 3.6.2.2, "Containment Cooling System," allow consideration of the operability status of the containment spray system in determining remedial action should elements of the air recirculation and cooling units become inoperable.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments.

Notice of Consideration of Issuance of Amendments and Opportunity for Prior Hearing in connection with this action was published in the FEDERAL REGISTER on April 16, 1984 (49 FR 15030). No request for a hearing or petition for leave to intervene was filed following this notice.

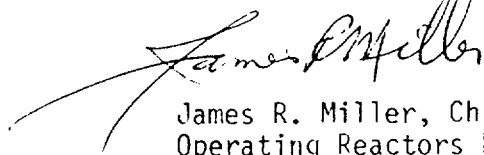
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The Commission has determined that the issuance of the amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of the amendments.

For further details with respect to the action see (1) the application for amendments dated September 20, 1983 as supplemented by letter dated January 18, 1984, (2) Amendment Nos. 93 and 74 to License Nos. DPR-53 and DPR-69, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., and at the Calvert County Library, Prince Frederick, Maryland. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland this 31st day of May, 1984.

FOR THE NUCLEAR REGULATORY COMMISSION



James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing