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Docket No. 50-317
50-318

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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. 79 and 59 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 22, 1982.

These amendments amend the Technical Specifications to increase the interval for containment purge isolation valve testing from six months to approximately 18 months in conjunction with a containment purge isolation valve seal replacement program.

A copy of the Safety Evaluation and 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. 79 to DPR-53
2. Amendment No. 59 to DPR-69
3. Safety Evaluation
4. Notice of Issuance

cc: See next page

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Baltimore Gas and Electric Company

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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. 79
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 22, 1982, 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.

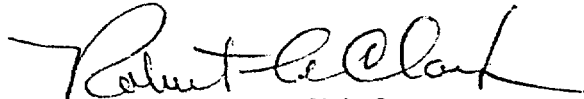
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 79, 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



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: October 13, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 79

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following page of the Appendix A Technical Specifications with the enclosed page as indicated. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

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CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4.1 The containment isolation valves specified in Table 3.6-1 shall be OPERABLE with isolation times as shown in Table 3.6-1.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of the isolation valve(s) specified in Table 3.6-1 inoperable, either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1.1 The isolation valves specified in Table 3.6-1 shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.4.1.2 Each isolation valve specified in Table 3.6-1 shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on each containment isolation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.
- b. Verifying that on each Containment Radiation-High Test Channel A or Channel B test signal, both required containment purge valves actuate to their isolation position.
- c. Verifying that on each Safety Injection Actuation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

4.6.4.1.3 The isolation time of each power operated or automatic valve of Table 3.6-1 shall be determined to be within its limit when tested pursuant to Technical Specification 4.0.5.

4.6.4.1.4 Containment purge isolation valves shall be demonstrated OPERABLE any time upon entering MODE 5 from power operation modes, unless the last surveillance test has been performed within the past 6 months or any time after being opened and prior to entering MODE 4 from shutdown modes by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Technical Specification 4.6.1.2.d for all other Type B or C penetrations, the combined leakage rate is less than or equal to 0.60 L_a (207,600 SCCM). The leakage rate for the containment purge isolation valves shall also be compared to the previously measured leakage rate to detect excessive valve degradation.

4.6.4.1.5 The containment purge isolation valve seals shall be replaced with new seals at a frequency to ensure no individual seal remains in service greater than 2 consecutive fuel reload cycles.



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. 59
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 22, 1982, 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. 59, 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



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: October 13, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 59

FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

Replace the following page of the Appendix A Technical Specifications with the enclosed page as indicated. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. The corresponding overleaf page is also provided to maintain document completeness.

Page

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CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4.1 The containment isolation valves specified in Table 3.6-1 shall be OPERABLE with isolation times as shown in Table 3.6-1.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of the isolation valve(s) specified in Table 3.6-1 inoperable, either:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate the affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.1.1 The isolation valves specified in Table 3.6-1 shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test and verification of isolation time.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.4.1.2 Each isolation valve specified in Table 3.6-1 shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on each containment isolation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.
- b. Verifying that on each Containment Radiation-High Test Channel A or Channel B test signal, both required containment purge valves actuate to their isolation position.
- c. Verifying that on each Safety Injection Actuation Channel A or Channel B test signal, each required isolation valve actuates to its isolation position.

4.6.4.1.3 The isolation time of each power operated or automatic valve of Table 3.6-1 shall be determined to be within its limit when tested pursuant to Technical Specification 4.0.5.

4.6.4.1.4 Containment purge isolation valves shall be demonstrated OPERABLE any time upon entering MODE 5 from power operation modes, unless the last surveillance test has been performed within the past 6 months or any time after being opened and prior to entering MODE 4 from shutdown modes by verifying that when the measured leakage rate is added to the leakage rates determined pursuant to Technical Specification 4.6.1.2.d for all other Type B or C penetrations, the combined leakage rate is less than or equal to 0.60 L^a (207,600 SCCM). The leakage rate for the containment purge isolation valves shall also be compared to the previously measured leakage rate to detect excessive valve degradation.

4.6.4.1.5 The containment purge isolation valve seals shall be replaced with new seals at a frequency to ensure no individual seal remains in service greater than 2 consecutive fuel reload cycles.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 79 AND 59 TO

FACILITY OPERATING LICENSES NOS. DPR-53 AND DPR-69

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NOS. 1 & 2

DOCKET NOS. 50-317 AND 50-318

Introduction

By application for license amendment dated September 22, 1982, Baltimore Gas and Electric Company (BG&E) requested changes to Technical Specifications (TS) for Calvert Cliffs Units 1 and 2. The proposed changes to TS 4.6.4.1.4, "Containment Isolation Valves", would increase the interval for containment purge isolation valve testing from six (6) months to approximately eighteen (18) months. In addition, a containment purge isolation valve seal replacement program would be incorporated in the TS.

Discussion

On February 1, 1982, the NRC issued Amendment Nos. 65 and 47 to the Operating Licenses for Calvert Cliffs Units 1 and 2. These amendments contained Limiting Conditions for Operation and Surveillance Requirements for the containment purge isolation valves. One such specification, TS 4.6.4.1.4, required the measurement of the leakage associated with the purge isolation valves at least once every six (6) months.

By application dated September 22, 1982, BG&E requested that the six month test requirement of TS 4.6.4.1.4 be replaced with a leakage test to be conducted,

"...anytime upon entering MODE 5 from power operation modes, unless the last surveillance test has been performed within the past 6 months or anytime after being opened and prior to entering MODE 4 from shutdown modes..."

Since the only scheduled entering into MODE 5 (cold shutdown) is for refueling, the scheduled leakage test interval would correspond with the refueling interval which is expected to be 18 months for Calvert Cliffs Units 1 and 2. Since TS 3.6.1.7, "Containment Purge System" requires the containment purge isolation valves to remain closed except in MODES 5 and 6 (cold shutdown and refueling modes, respectively), the scheduled interval for opening of these valves would also correspond with the refueling interval. As indicated in the application, this proposed

change in the containment purge isolation valve leakage test interval was the result of difficulty encountered by BG&E in performing these leakage tests as a result of the thermal gradient across the test boundary. BG&E also indicated that testing the containment purge isolation valves with the reactor shutdown would reduce the radiation exposure to personnel performing the leakage testing.

BG&E has also requested a change to the TS which would incorporate a containment purge isolation valve seal replacement program in the TS as new TS 4.6.4.1.5. This program requires that,

"...The containment purge isolation valve seals shall be replaced with new seals at a frequency to ensure that no individual seal remains in service greater than 2 consecutive fuel reload cycles."

The September 22, 1982 application stated that the individual seal replacement interval was selected based upon the seal vendor and BG&E experience. This experience indicates that the resilient seals associated with the containment purge isolation valves can be expected to maintain a high degree of integrity for five (5) years of operation. The proposed individual seal replacement interval of two refueling cycles corresponds to approximately three (3) years.

Evaluation

In issuing Amendment Nos. 65 and 47, the NRC had been responding to the concern that the resilient seals of the purge isolation valves might degrade, causing eventual leakage, even if these valves remained closed. Such degradation was not observed at Calvert Cliffs. In their September 22, 1982 application, BG&E presented an alternative to a six-month leak testing program for the containment purge isolation valves. This alternative consists of:

- o an eighteen-month leak testing program, and
- o a seal replacement program.

Experience to date at Calvert Cliffs has shown the purge isolation valve seals can satisfactorily perform their function for periods in excess of three years. Accordingly, we conclude that a three-year seal replacement program is sufficient to compensate for the decrease in seal reliability associated with increasing the leak test interval from six to eighteen months. The changes to TS 4.6.4.1.4 and the addition of TS 4.6.4.1.5 do not decrease the reliability of the containment purge isolation valves and are therefore 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 these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: October 13, 1982

Principal Contributor:

D. H. Jaffe

UNITED STATES NUCLEAR REGULATORY COMMISSION
DOCKET NOS. 50-317 AND 50-318
BALTIMORE GAS AND ELECTRIC COMPANY
NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 79 and 59 to Facility Operating Licenses Nos. DPR-53 and DPR-69, issued to Baltimore Gas and Electric Company, which revised Technical Specifications for operation of the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. The amendments are effective as of the date of issuance.

These amendments amend the Technical Specifications to increase the interval for containment purge isolation valve testing from six months to approximately 18 months in conjunction with a containment purge isolation valve seal replacement program.


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. Prior public notice of the amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these 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 this action, see (1) the application for amendment dated September 22, 1982, (2) Amendment Nos. 79 and 59 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., Washington, D.C. 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 13th day of October, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing