



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
February 19, 1992

Docket Nos. 50-317
and 50-318

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 AMENDMENTS FOR CALVERT CLIFFS NUCLEAR POWER PLANT,
UNIT NO. 1 (TAC NO. M82213) AND UNIT NO. 2 (TAC NO. M82212)

The Commission has issued the enclosed Amendment No. 168 to Facility Operating License No. DPR-53 and Amendment No. 147 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 November 27, 1991.

The amendments reduce the combined allowable leakage rate limit for Type B and C local leak rate tests (LLRT). The new combined allowable leakage rate is $0.50 L_a$. The surveillance interval for performing the Type B and C LLRT on containment penetrations and isolation valves, respectively, has been increased to maximum intervals of 30 months. This increase takes into account the current 24-month operating cycles at the Calvert Cliffs facility. Administrative changes have been made which delete outdated footnotes and change action statement wording to be consistent with current NRC guidance.

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Mr. G. C. Creel

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February 19, 1992

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. 168 to DPR-53
2. Amendment No. 147 to DPR-69
3. Safety Evaluation

cc w/enclosures:
See next page

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

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

cc:

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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. 168
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 November 27, 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. 168, 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: February 19, 1992



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. 147
License No. DPR-69

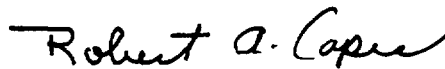
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated November 27, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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-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. 147, 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: February 19, 1992

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Revise Appendix A as follows:

Remove Pages

3/4 6-2

3/4 6-3

3/4 6-3a (DPR-53 only)

3/4 6-4* (DPR-69 only)

B 3/4 6-1

Insert Pages

3/4 6-2

3/4 6-3

3/4 6-3a

3/4 6-4* (DPR-69 only)

B 3/4 6-1

*A page that did not change, but is an overleaf.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 1. $\leq L_a$ (346,000 SCCM), 0.20 percent by weight of the containment air per 24 hours at P_a , 50 psig, or
 2. $\leq L_t$ (61,600 SCCM), 0.058 percent by weight of the containment air per 24 hours at a reduced pressure of P_t , 25 psig.
- b. A combined leakage rate of $\leq 0.50 L_a$ (173,000 SCCM), for all penetrations and valves subject to Type B and C tests when pressurized to P_a .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (46,200 SCCM), as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.50 L_a$, restore the overall integrated containment leakage rate to less than or equal to $0.75 L_a$ or less than or equal to $0.75 L_t$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than or equal to $0.50 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F .

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria, methods and provisions specified in Appendix J of 10 CFR Part 50:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during shutdown at either P_a (50 psig) or at P_t (25 psig) during each 10-year service period.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 1. $\leq L_a$ (346,000 SCCM), 0.20 percent by weight of the containment air per 24 hours at P_a , 50 psig, or
 2. $\leq L_t$ (44,600 SCCM), 0.042 percent by weight of the containment air per 24 hours at a reduced pressure of P_t , 25 psig.
- b. A combined leakage rate of $\leq 0.50 L_a$ (173,000 SCCM) for all penetrations and valves subject to Type B and C tests when pressurized to P_a .

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding $0.75 L_a$ (259,500 SCCM), or $0.75 L_t$ (33,400 SCCM), as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.50 L_a$, restore the overall integrated containment leakage rate to less than or equal to $0.75 L_a$ or less than or equal to $0.75 L_t$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than or equal to $0.50 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria, methods and provisions specified in Appendix J of 10 CFR Part 50:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during shutdown at either P_a (50 psig) or at P_t (25 psig) during each 10-year service period.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (46,200 SCCM), the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A Tests fail to meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (46,200 SCCM), a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (46,200 SCCM) at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 1. Confirms the accuracy of the Type A test by verifying that the difference between supplemental and Type A test data is within $0.25 L_a$ (86,500 SCCM) or $0.25 L_t$ (15,400 SCCM).
 2. Has a duration sufficient to establish accurately the change in leakage between the Type A test and supplemental test.
 3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage rate at P_a (50 psig) or P_t (25 psig).
- d. Type B and C tests shall be conducted with gas at P_a (50 psig) at intervals of 24 months except for tests involving air locks.*
- e. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.1.3.
- f. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- g. 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

* Exemption to Appendix "J" to 10 CFR 50.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (33,400 SCCM), the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A Tests fail to meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (33,400 SCCM), a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either $0.75 L_a$ (259,500 SCCM) or $0.75 L_t$ (33,400 SCCM) at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
1. Confirms the accuracy of the Type A test by verifying that the difference between supplemental and Type A test data is within $0.25 L_a$ (86,500 SCCM) or $0.25 L_t$ (11,100 SCCM).
 2. Has a duration sufficient to establish accurately the change in leakage between the Type A test and supplemental test.
 3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage rate at P_a (50 psig) or P_t (25 psig).
- d. Type B and C tests shall be conducted with gas at P_a (50 psig) at intervals of 24 months except for tests involving air locks.*
- e. Air locks shall be tested and demonstrated OPERABLE per Surveillance Requirement 4.6.13.
- f. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- g. 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 $0.50 L_a$ (173,000 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.

* Exemption to Appendix "J" to 10 CFR 50.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

all other Type B or C penetrations, the combined leakage rate is less than or equal to $0.50 L_a$ (173,000 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.

- h. 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.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- h. 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.

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be **OPERABLE** with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of $\leq 0.05 L_a$ (17,300 SCCM) at P_a , 50 psig.

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

ACTION:

- a. With an air lock inoperable, except as a result of an inoperable door gasket, restore the air lock to **OPERABLE** status within 24 hours or be in at least **HOT STANDBY** within the next 6 hours and in **COLD SHUTDOWN** within the following 30 hours.
- b. With an air lock inoperable due to an inoperable door gasket:
 1. Maintain the remaining door of the affected air lock closed and sealed, and
 2. Restore the air lock to **OPERABLE** status within 7 days or be in at least **HOT STANDBY** within the next 6 hours and in **COLD SHUTDOWN** within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated **OPERABLE**:

- a.* After each opening, except when the air lock is being used for multiple entries, then at least once per 72 hours by verifying that the seal leakage is $< 0.0002 L_a$ (69.2 SCCM) as determined by precision flow measurement when the volume between the door seals is pressurized to a constant pressure of 15 psig.

* Except to Appendix "J" of 10 CFR 50.

3/4.6 CONTAINMENT SYSTEMS

BASES

3/4.6.1 PRIMARY CONTAINMENT

3/4.6.1.1 CONTAINMENT INTEGRITY

In MODES 1, 2, 3, and 4, primary **CONTAINMENT INTEGRITY** ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 100 during accident conditions. In MODES 5 and 6, the probability and consequences of these events are reduced because of the Reactor Coolant System (RCS) pressure and temperature limitations of these modes, by preventing operations which could lead to a need for containment isolation, and by providing containment isolation through penetration closure.

3/4.6.1.2 CONTAINMENT LEAKAGE

The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the accident analyses at the peak accident pressure, P_a . As an added conservatism, the measured overall integrated leakage rate is further limited to $\leq 0.75 L_a$ or $0.75 L_t$ (as applicable) during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leak tests.

The surveillance testing for measuring leakage rates are consistent with the requirements of Appendix "J" of 10 CFR 50, except for the performance of Type B and C leakage testing. The allowable leakage rate has been proportionately reduced, as recommended in Generic Letter 91-04, to account for an extended surveillance schedule of 24 months + 25% (per Specification 4.0.2). This is an exemption from Appendix J to 10 CFR Part 50.

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on **CONTAINMENT INTEGRITY** and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

3/4.6 CONTAINMENT SYSTEMS

BASES

3/4.6.1 PRIMARY CONTAINMENT

3/4.6.1.1 CONTAINMENT INTEGRITY

In **MODES 1, 2, 3, and 4**, primary **CONTAINMENT INTEGRITY** ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the accident analyses. This restriction, in conjunction with the leakage rate limitation, will limit the site boundary radiation doses to within the limits of 10 CFR 100 during accident conditions. In **MODES 5 and 6**, the probability and consequences of these events are reduced because of the Reactor Coolant System (RCS) pressure and temperature limitations of these modes, by preventing operations which could lead to a need for containment isolation, and by providing containment isolation through penetration closure.

3/4.6.1.2 CONTAINMENT LEAKAGE

The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the accident analyses at the peak accident pressure, P_a . As an added conservatism, the measured overall integrated leakage rate is further limited to $\leq 0.75 L_a$ or $\leq 0.75 L_t$ (as applicable) during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring leakage rates are consistent with the requirements of Appendix "J" of 10 CFR 50, except for the performance of Type B and C leakage testing. The allowable leakage rate has been proportionately reduced, as recommended in Generic Letter 91-04, to account for an extended surveillance schedule of 24 months + 25% (per Specification 4.0.2). This is an exemption from Appendix J to 10 CFR Part 50.

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on **CONTAINMENT INTEGRITY** and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-53
AND AMENDMENT NO. 147 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 November 27, 1991, 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 reduce the combined allowable leakage rate limit for Type B and C local leak rate tests (LLRT) from the current value of $0.60 L_a$ to a new value of $0.50 L_a$. The requested changes would also allow the surveillance intervals for performing Type B and C LLRT on containment penetrations and isolation valves, respectively, to be increased to a maximum test interval of 30 months. Finally, administrative changes are included which delete outdated footnotes and change the wording of action statements to be consistent with the current guidance.

As requested in Generic Letter (GL) 91-04, dated April 2, 1991, "Changes In Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," the licensee provided an evaluation in support of the change which concludes that the effect on safety is small and does not invalidate any assumption in the plant licensing basis. Subsequent to increasing the refueling interval from 18 months to 24 months, the licensee requested amendments to the TS of both units which added the definition, "Refueling Interval - at least once per 24-months" to Table 1.2 of TS Definition 1.22, "Frequency Notation." The definition for "R - at least once per 18-months" remains. This is necessary to assure the safety-related systems and components which have not yet been approved for 24-month surveillance intervals, have their surveillance performed at the required 18-month intervals. This is accomplished during scheduled mid-cycle surveillance/maintenance outages until all the safety-related systems and components have been approved for the 24-month refueling interval. The Commission issued Amendment No. 133 to Facility Operating License No. DPR-53 and Amendment No. 114 to Facility Operating License No. DPR-69 for Units 1 and 2, respectively, by letter dated December 21, 1988, which included the definition for a 24-month refueling interval.

Subsequent to issuance of the above amendments, TS Base 4.0.2 was updated in accordance with the guidance provided in GL 91-04. This was accomplished in

Amendment No. 165 to Facility Operating License No. DPR-53 and Amendment No. 145 to Facility Operating License No. DPR-69 for Units Nos. 1 and 2, respectively, by letter dated November 18, 1991.

The licensee's November 27, 1991, letter also requested an exemption from Appendix J to 10 CFR Part 50 in accordance with the guidance provided in Enclosure 3 to GL 91-04. The NRC staff issued an environmental assessment in support of the requested exemption by letter dated January 15, 1992, and the exemption was issued by letter dated February 3, 1992. These actions were noticed in the Federal Register on January 23, 1992 (57 FR 2791) and February, 10, 1992 (57 FR 4894), respectively.

Enclosure 3 to GL 91-04 indicates two issues need to be addressed to support a surveillance interval increase up to 30 months. These issues are: (1) a possible reduction in the combined leakage limit for Type B and C LLRT, and (2) the basis for concluding that the containment leakage rate would be maintained within the acceptable limits with an LLRT interval increase up to 30 months. The licensee has addressed these two issues for Calvert Cliffs, Units 1 and 2, in its request dated November 27, 1991.

2.0 EVALUATION

The first issue is a reduction in the combined containment penetration leakage rate limit for Type B and C tests which increases the margin to a maximum allowable leakage rate L_a . The Code of Federal Regulations at 10 CFR Part 50, Appendix J, defines L_a as the maximum allowable leakage rate as specified in a facility's TS. The Calvert Cliffs TS, Section 3.6.1.2, requires that the combined leakage rate for all containment penetrations and isolation valves subject to Type B and C tests be limited to a combined leakage rate of less than or equal to $0.60 L_a$, which is 207,600 Standard Cubic Centimeters per Minute (SCCM) for each unit's containment. This constitutes a margin of $0.40 L_a$ (40 percent of L_a). The proposed amendments would change the TS Section 3.6.1.2 limit to a value of less than or equal to $0.50 L_a$, which is 173,000 SCCM. This increases the margin from 40 percent to 50 percent.

The NRC staff has determined that the proposed change in the combined leakage rate limit, which provides an overall increase in margin of 25 percent (40 percent to 50 percent), is consistent with the guidance provided in GL 91-04 and is, therefore, acceptable.

The second issue is the basis for concluding that the containment leakage will be maintained within acceptable limits based on an extrapolation of past Type B and C LLRT data, taking into account an LLRT interval limit of 30 months. The 30-month maximum limit is based on a 24-month fuel cycle and a 25 percent extension allowed by TS Section 4.0.2 for all required TS surveillances unless otherwise specified. The proposed amendments would change TS 4.6.1.2.d, which would allow the use of TS Section 4.0.2 for a maximum of 30 months.

The licensee has provided data for the 20 LLRT performed since 1979. Six of these LLRT results are found to be in excess of the combined leakage rate

limit at the end of the operating cycle. The results have been considered in light of the causes of the excessive leakage rates and the corrective actions taken by the licensee. A review by the NRC staff of containment isolation test data for pressurized water reactors during the 1965 through 1983 period indicates that the leakage rate data as reported by the licensee at the end of the Calvert Cliffs facility operating cycles falls within a typical range. In all cases but one, corrective action was successfully taken to reduce leakage on affected penetrations to a small fraction of the combined leakage rate limit of $0.60 L_a$. The licensee reviewed the LLRT data to determine if the causes of the leakage were random or recurring. Only the recurring leakage events were used to project the leakage rate at the end of a 30-month LLRT interval considering the leakage rate increase on a monthly basis for all past surveillance intervals. The projected leakage rate at the end of a 30-month LLRT interval was found to be below the maximum allowable leakage rate limit. Similar results were obtained from the projection of the recurring leakage over time, using the five most recent time-dependent leakage rates.

The NRC staff has reviewed the LLRT results provided by the licensee as well as the methodology used in extrapolating previous Type B and C LLRT data to a 30-month test interval and finds that there is reasonable assurance that the containment leakage rate would be maintained within acceptable limits with a LLRT interval increase limited to 30 months.

The amendment also requested removal of the footnote to TS Section 4.6.1.2.d, which granted a one-time extension for testing CVC-515 until June 21, 1991, for Unit 1 and the footnote to TS, Section 4.6.1.2.d, which was a one-time exemption for Type B and C tests during the heatup following the Unit 2, Cycle 9 restart, which has been completed. Minor changes to the wording in the action statements were proposed to be consistent with the current guidance provided in the Combustion Engineering Standard Technical Specifications (NUREG-0212).

The NRC staff has reviewed these proposed changes and determined that the footnotes are no longer applicable and the word changes are consistent with our current guidance and are, therefore, acceptable.

The NRC staff has also reviewed the proposed changes to TS Bases 3/4.6.1.2 and determine they reflect the proposed changes discussed above and are, therefore, acceptable.

3.0 SUMMARY

Based on the above evaluation, the NRC staff has determined that the increase in the margin to the maximum allowable leakage rate (L_a) and the results, including the methodology used of the extrapolated LLRT data, are consistent with the guidance provided in GL 91-04 and provide reasonable assurance that the overall impact on safety resulting from the requested changes is determined to be small and that the initial assumptions in the Calvert Cliffs Nuclear Power Plant, Units 1 and 2, licensing bases remain valid.

4.0 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.

5.0 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 and changes to the surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluent 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 (56 FR 66917). 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.

6.0 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 Contributors:

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D. McDonald

Date: February 19, 1992

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:

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. 168 to DPR-53
- 2. Amendment No. 147 to DPR-69
- 3. Safety Evaluation

cc w/enclosures:
See next page

OFC	:PDI-1:LA	:PDI-1:FM	:OGC	:PDI-1:D	: SPLB: BC
NAME	:CVogan	:DMcDonald:rb	:RCapra	: C E M ^c CRAREN	
DATE	: 1/22/92	: 1/24/92	: 2/11/92	: 2/19/92	: / 17/192

DATED: February 19, 1992

AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-53-CALVERT CLIFFS
UNIT 1

AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NO. DPR-69-CALVERT CLIFFS
UNIT 2

Docket File
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