

December 28, 1995

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

SUBJECT: ISSUANCE OF AN AMENDMENT FOR CALVERT CLIFFS NUCLEAR POWER PLANT,
UNIT NO. 1 (TAC NO. M93920)

Dear Mr. Denton:

The Commission has issued the enclosed Amendment No. 209 to Facility Operating License No. DPR-53 for the Calvert Cliffs Nuclear Power Plant, Unit No. 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated October 20, 1995.

The one-time amendment revises the CC-1 TSs by extending certain 18-month instrument surveillance intervals by a maximum of 39 days to March 31, 1996. This amendment will be superseded by Amendment No. 208 when it is implemented prior to restart from the Unit No. 1 spring 1996 refueling outage.

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, Jr., Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-317

- Enclosures: 1. Amendment No. 209
to DPR-53
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION: See attached sheet

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DATED: December 28, 1995

AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-53-CALVERT CLIFFS
UNIT 1

Docket File

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PDI-1 Reading

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C. Cowgill, Region I

cc: Plant Service list

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 28, 1995

Mr. Robert E. Denton
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
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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,

A handwritten signature in dark ink, appearing to read "Daniel G. McDonald, Jr.", written in a cursive style.

Daniel G. McDonald, Jr., Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-317

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2. Safety Evaluation

cc w/encls: See next page

Mr. Robert E. Denton
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant
Unit No. 1

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 209
License No. DPR-53

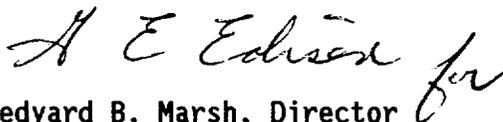
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated October 20, 1995, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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. 209, 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



Ledyard B. Marsh, 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: December 28, 1995

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 209 FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Revise Appendix A as follows:

Remove Pages

3/4 3-1
3/4 3-6
3/4 3-8
3/4 3-9
3/4 3-19
3/4 3-20
3/4 3-21
3/4 3-22
3/4 3-26
3/4 3-32
3/4 3-36
3/4 4-8
3/4 4-18
3/4 4-35

Insert Pages

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3/4 4-35

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTIVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1.1 As a minimum, the reactor protective instrumentation channels and bypasses of Table 3.3-1 shall be **OPERABLE**.

APPLICABILITY: As shown in Table 3.3-1.

ACTION: As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

4.3.1.1.1 Each reactor protective instrumentation channel shall be demonstrated **OPERABLE** by the performance of the **CHANNEL CHECK, CHANNEL CALIBRATION** and **CHANNEL FUNCTIONAL TEST** operations during the **MODES** and at the frequencies shown in Table 4.3-1.

4.3.1.1.2 The logic for the bypasses shall be demonstrated **OPERABLE** prior to each reactor **STARTUP** unless performed during the preceding 92 days. The total bypass function shall be demonstrated **OPERABLE** at least once per 18 months** during **CHANNEL CALIBRATION** testing of each channel affected by bypass operation.

4.3.1.1.3 The **REACTOR TRIP SYSTEM RESPONSE TIME** of each reactor trip function* shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function as shown in the "Total No. of Channels" column of Table 3.3-1.

** For Cycle 12, the Steam Generator Low Pressure Trip Bypass surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

* Neutron detectors are exempt from response time testing.

TABLE 4.3-1

REACTOR PROTECTIVE INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. Manual Reactor Trip	NA	NA	S/U ⁽¹⁾	NA
2. Power Level - High				
a. Nuclear Power	S	D ⁽²⁾ , M ⁽³⁾ , Q ⁽⁵⁾	Q	1, 2
b. ΔT Power	S	D ⁽⁴⁾ , R ⁽⁶⁾	Q	1
3. Reactor Coolant Flow - Low	S	R ⁽⁶⁾	Q	1, 2
4. Pressurizer Pressure - High	S	R ⁽⁶⁾	Q	1, 2
5. Containment Pressure - High	S	R	Q	1, 2
6. Steam Generator Pressure - Low	S	R ⁽⁶⁾	Q	1, 2
7. Steam Generator Water Level - Low	S	R ⁽⁶⁾	Q	1, 2
8. Axial Flux Offset	S	R	Q	1
9. a. Thermal Margin/Low Pressure	S	R ⁽⁶⁾	Q	1, 2
b. Steam Generator Pressure Difference - High	S	R ⁽⁶⁾	Q	1, 2
10. Loss of Load	NA	NA	S/U ⁽¹⁾	NA

TABLE 4.3-1 (Continued)

TABLE NOTATION

- * With reactor trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.
- (1) If not performed in previous 7 days.
- (2) Heat balance only, above 15% of **RATED THERMAL POWER**; adjust "Nuclear Power Calibrate" potentiometers to make the nuclear power signals agree with calorimetric calculation if absolute difference is $> 1.5\%$. During **PHYSICS TESTS**, these daily calibrations of nuclear power and ΔT power may be suspended provided these calibrations are performed upon reaching each major test power plateau and prior to proceeding to the next major test power plateau.
- (3) Above 15% of **RATED THERMAL POWER**, recalibrate the excore detectors which monitor the **AXIAL SHAPE INDEX** by using the incore detectors or restrict **THERMAL POWER** during subsequent operations to $\leq 90\%$ of the maximum allowed **THERMAL POWER** level with the existing Reactor Coolant Pump combination.
- (4) Above 15% of **RATED THERMAL POWER**, adjust " ΔT Pwr Calibrate" potentiometers to null "Nuclear Pwr - ΔT Pwr." During **PHYSICS TESTS**, these daily calibrations of nuclear power and ΔT power may be suspended provided these calibrations are performed upon reaching each major test power plateau and prior to proceeding to the next major test power plateau.
- (5) Neutron detectors may be excluded from **CHANNEL CALIBRATION**.
- (6) For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

3/4.3 INSTRUMENTATION

3/4.3.2 ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.2.1 The Engineered Safety Feature Actuation System (ESFAS) instrumentation channels and bypasses shown in Table 3.3-3 shall be **OPERABLE** with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3-4.

APPLICABILITY: As shown in Table 3.3-3.

ACTION:

- a. With an ESFAS instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3-4, declare the channel inoperable and apply the applicable **ACTION** requirement of Table 3.3-3 until the channel is restored to **OPERABLE** status with the trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With an ESFAS instrumentation channel inoperable, take the **ACTION** shown in Table 3.3-3.

SURVEILLANCE REQUIREMENTS

4.3.2.1.1 Each ESFAS instrumentation channel shall be demonstrated **OPERABLE** by the performance of the **CHANNEL CHECK, CHANNEL CALIBRATION** and **CHANNEL FUNCTIONAL TEST** operations during the **MODES** and at the frequencies shown in Table 4.3-2.

4.3.2.1.2 The logic for the bypasses shall be demonstrated **OPERABLE** during the at power **CHANNEL FUNCTIONAL TEST** of channels affected by bypass operation. The total bypass function shall be demonstrated **OPERABLE** at least once per 18 months* during **CHANNEL CALIBRATION** testing of each channel affected by bypass operation.

4.3.2.1.3 The **ENGINEERED SAFETY FEATURES RESPONSE TIME** of each ESFAS function shall be demonstrated to be within the limit at least once per 18 months*. Each test shall include at least one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific ESFAS function as shown in the "Total No. of Channels" Column of Table 3.3-3.

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

TABLE 4.3-2

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. SAFETY INJECTION (SIAS)				
a. Manual (Trip buttons)	NA	NA	R ⁽⁷⁾	NA
b. Containment Pressure - High	S	R	Q	1, 2, 3
c. Pressurizer Pressure - Low	S	R ⁽⁷⁾	O	1, 2, 3
d. Automatic Actuation Logic	NA	NA	M ⁽¹⁾⁽²⁾⁽³⁾	1, 2, 3
2. CONTAINMENT SPRAY (CSAS)				
a. Manual (Trip buttons)	NA	NA	R ⁽⁷⁾	NA
b. Containment Pressure - High	S	R	O	1, 2, 3
c. Automatic Actuation Logic	NA	NA	M ⁽¹⁾⁽⁶⁾	1, 2, 3
3. CONTAINMENT ISOLATION (CIS) [#]				
a. Manual CIS (Trip buttons)	NA	NA	R ⁽⁷⁾	NA
b. Containment Pressure - High	S	R	O	1, 2, 3
c. Automatic Actuation Logic	NA	NA	M ⁽¹⁾⁽⁴⁾	1, 2, 3

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
4. MAIN STEAM LINE ISOLATION (SGIS)				
a. Manual SGIS (MSIV Hand Switches and Feed Head Isolation Hand Switches)	NA	NA	R ⁽⁷⁾	NA
b. Steam Generator Pressure - Low	S	R ⁽⁷⁾	Q	1, 2, 3
c. Automatic Actuation Logic	NA	NA	M ⁽¹⁾ (5)	1, 2, 3
5. CONTAINMENT SUMP RECIRCULATION (RAS)				
a. Manual RAS (Trip Buttons)	NA	NA	R ⁽⁷⁾	NA
b. Refueling Water Tank - Low	NA	R	Q	1, 2, 3
c. Automatic Actuation Logic	NA	NA	M ⁽¹⁾	1, 2, 3
6. CONTAINMENT PURGE VALVES ISOLATION				
a. Manual (Purge Valve Control Switches)	NA	NA	R	NA
b. Containment Radiation - High Area Monitor	S	R	Q	6**

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
7. LOSS OF POWER				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	NA	R ⁽⁷⁾	Q	1, 2, 3
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	NA	R ⁽⁷⁾	Q	1, 2, 3
8. CVCS ISOLATION				
West Penetration Room/Letdown Heat Exchanger Room Pressure - High	NA	R	Q	1, 2, 3, 4
9. AUXILIARY FEEDWATER				
a. Manual (Trip Buttons)	NA	NA	R	NA
b. Steam Generator Level - Low	S	R ⁽⁷⁾	Q	1, 2, 3
c. Steam Generator Δ P - High	S	R	Q	1, 2, 3
d. Automatic Actuation Logic	NA	NA	M ⁽¹⁾	1, 2, 3

TABLE 4.3-2 (Continued)

TABLE NOTATION

- # Containment isolation of non-essential penetrations is also initiated by SIAS (functional units 1.a and 1.c).
- ** Must be **OPERABLE** only in **MODE 6** when the valves are required **OPERABLE** and they are open.
- (1) The logic circuits shall be tested manually at least once per 31 days.
- (2) SIAS logic circuits A-10 and B-10 shall be tested monthly with the exception of the Safety Injection Tank isolation valves. The SIAS logic circuits for these valves are exempted from testing during operation; however, these logic circuits shall be tested at least once per 18 months during shutdown.
- (3) SIAS logic circuits A-5, and B-5 are exempted from testing during operation; however, these logic circuits shall be tested at least once per 18 months during shutdown.
- (4) CIS logic circuits A-5 and B-5 are exempted from testing during operation; however, these logic circuits shall be tested at least once per 18 months during shutdown.
- (5) SGIS logic circuits A-1 and B-1 are exempted from testing during operation; however, these logic circuits shall be tested at least once per 18 months during shutdown.
- (6) CSAS logic circuits A-3 and B-3 are exempted from testing during operation; however, these logic circuits shall be tested at least once per 18 months during shutdown.
- (7) For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

TABLE 4.3-3RADIATION MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. AREA MONITORS				
a. Containment				
i. Purge & Exhaust Isolation	S	R	M	6
b. Containment Area High Range	S	R*	M	1, 2, 3, & 4
2. PROCESS MONITORS				
a. Containment				
i. Gaseous Activity				
a) RCS Leakage Detection	S	R	M	1, 2, 3, & 4
ii. Particulate Activity				
a) RCS Leakage Detection	S	R	M	1, 2, 3, & 4
b. Noble Gas Effluent Monitors				
i. Main Vent Wide Range	S	R	M	1, 2, 3, & 4
ii. Main Steam Header	S	R	M	1, 2, 3, & 4

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

3/4.3 INSTRUMENTATION

TABLE 4.3-6

REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Wide Range Neutron Flux	M	NA
2. Reactor Trip Breaker Indication	M	NA
3. Reactor Coolant Cold Leg Temperature	M	R*
4. Pressurizer Pressure	M	R*
5. Pressurizer Level	M	R*
6. Steam Generator Level (Wide Range)	M	R*
7. Steam Generator Pressure	M	R*

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

TABLE 4.3-10POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>
1. Containment Pressure	M	R
2. Wide Range Logarithmic Neutron Flux Monitor	M	NA
3. Reactor Coolant Outlet Temperature	M	R**
4. Pressurizer Pressure	M	R**
5. Pressurizer Level	M	R**
6. Steam Generator Pressure	M	R**
7. Steam Generator Level (Wide Range)	M	R**
8. Auxiliary Feedwater Flow Rate	M	R
9. RCS Subcooled Margin Monitor	M	R**
10. PORV/Safety Valve Acoustic Monitor	NA	R**
11. PORV Solenoid Power Indication	NA	NA
12. Feedwater Flow	M	R**
13. Containment Water Level (Wide Range)	M	R**
14. Reactor Vessel Water level	M	NA
15. Core Exit Thermocouple System	M	R*

* The performance of a **CHANNEL CALIBRATION** operation exempts the Core Exit Thermocouple but includes all electronic components. The Core Exit Thermocouple shall be calibrated prior to installation in the reactor core.

** For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

3/4.4 REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS

4.4.3.1 Each PORV shall be demonstrated **OPERABLE**:

- a. At least once per 31 days by performance of a **CHANNEL FUNCTIONAL TEST**, in accordance with Table 4.3-1, Item 4.
- b. At least once per 18 months* by performance of a **CHANNEL CALIBRATION**.

4.4.3.2 Each block valve shall be demonstrated **OPERABLE** at least once per 92 days by operating the valve through one complete cycle of full travel unless the block valve is closed to meet the requirements of Action a, b, or c in Specification 3.4.3.

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

3/4.4 REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated **OPERABLE** by:

- a. Containment Atmosphere Gaseous and Particulate Monitoring Systems-performance of **CHANNEL CHECK, CHANNEL CALIBRATION** and **CHANNEL FUNCTIONAL TEST** at the frequencies specified in Table 4.3-3, and
- b. Containment Sump Level Alarm System-performance of **CHANNEL CALIBRATION** at least once per 18 months*.

* For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

3/4.4 REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

2. Verify the excessive flow condition did not raise pressure above the maximum allowable pressure for the given RCS temperature on Figure 3.4.9-1 or Figure 3.4.9-2.
 3. If a pressure limit was exceeded, take action in accordance with Specification 3.4.9.1.
- h. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.4.9.3.1 Each PORV shall be demonstrated **OPERABLE** by:

- a. Performance of a **CHANNEL FUNCTIONAL TEST** on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required **OPERABLE** and at least once per 31 days thereafter when the PORV is required **OPERABLE**.
- b. Performance of a **CHANNEL CALIBRATION** on the PORV actuation channel at least once per 18 months**.
- c. Verifying the PORV block valve is open at least once per 72 hours when the PORV is being used for overpressure protection.
- d. Testing in accordance with the inservice test requirements pursuant to Specification 4.0.5.

4.4.9.3.2 The RCS vent(s) shall be verified to be open at least once per 12 hours* when the vent(s) is being used for overpressure protection.

4.4.9.3.3 All high pressure safety injection pumps, except the above **OPERABLE** pump, shall be demonstrated inoperable at least once per 12 hours by verifying that the motor circuit breakers have been removed from their electrical power supply circuits or by verifying their discharge valves are locked shut. The automatic opening feature of the high pressure safety injection loop MOVs shall be verified disabled at least once per 12 hours. The above **OPERABLE** pump shall be verified to have its handswitch in pull-to-lock at least once per 12 hours.

** For Cycle 12, the surveillance shall be due by March 31, 1996, after which time this amendment will be superseded by Amendment No. 208.

* Except when the vent pathway is locked, sealed, or otherwise secured in the open position, then verify these vent pathways open at least once per 31 days.



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-53
BALTIMORE GAS AND ELECTRIC COMPANY
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-317

1.0 INTRODUCTION

By letter dated October 20, 1995, the Baltimore Gas and Electric Company (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit No. 1 (CC-1) Technical Specifications (TSs). The proposed one-time amendment would revise the CC-1 TSs by extending certain 18-month instrument surveillance intervals by a maximum of 39 days to March 31, 1996, for Cycle 12.

The instruments which will be affected by the proposed amendment are included in the reactor protective system (RPS), engineered safety features actuation system (ESFAS), power-operated relief valve (PORV) actuation, low temperature overpressure protection (LTOP), remote shutdown panel, post-accident monitoring (PAM), containment sump level and radiation monitoring. The surveillance activities which will be affected are instrument channel calibrations, RPS and ESFAS total bypass function operability verification, RPS and ESFAS time response tests, ESFAS manual trip button channel functional tests and ESFAS automatic actuation logic channel functional tests.

The Commission issued Amendment No. 208 to Facility Operating License No. DPR-53 and Amendment No. 186 to Facility Operating License No. DPR-69 for the CC-1/2, respectively. The amendments permanently extended the surveillance intervals for the instruments described above from 18-months to 24-months after a specified number of the instruments had been replaced. The amendments were effective immediately and to be implemented on CC-2 within 30 days, but not implemented on CC-1 until its restart after the spring 1996 refueling outage. All of the instruments identified for replacement on CC-2 have been replaced, but those identified for replacement on CC-1 have not been replaced, thus, the reason for the later implementation date. The proposed one-time amendment is needed prior to Amendment No. 208 being implemented because of a change in the refueling schedule.

CC-1 was initially scheduled to begin its refueling outage on February 16, 1996, which would have been within the time frame necessary to perform the required 18-month instrument surveillances currently required for the instruments identified above. The licensee has recently rescheduled the refueling outage for CC-1 to start March 15, 1996. This decision was made after consultation with the Pennsylvania-New Jersey-Maryland power pool

relating to projected power needs which was several months after the initial request for the permanent extension which was granted by Amendment Nos. 208 and 186 as discussed above. The revised refueling schedule will allow the maximum use of the available fuel in the CC-1 reactor core and will also allow the unit to operate for an additional time period of about 1 month during a period of potentially high power demand. Performing the required instrument surveillances at power would present an unwarranted personnel safety risk and, in some cases, the surveillances cannot be done during power operation because they would cause a unit trip.

CC-1 has been operating on a 24-month fuel cycle since July 1988 and has been performing the 18-month surveillance activities, described above, during mid-cycle outages. Extending the surveillance interval from 18 months to 24 months, which was granted by Amendment No. 208, will eliminate the need for scheduling mid-cycle outages. This one-time request for the proposed changes is based on guidance provided by the NRC staff in Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," dated April 2, 1991.

Specifically, the proposed amendment will revise CC-1 TS 4.3.1.1.2, TS 4.3.1.1.3, TS Tables 4.3-1, 4.3.2.1.2, 4.3.2.1.3, 4.3-2, 4.3-3, 4.3-6, 4.3-10, 4.4.3.1.b, 4.4.6.1.b, and 4.4.9.3.1.b by extending the 18-month surveillance intervals on a one-time basis by a maximum of 39 days to March 31, 1996, at which time CC-1 will enter its spring 1996 refueling outage. This proposed one-time amendment will be superseded by Amendment No. 208 which will be implemented prior to the restart of CC-1 from its spring 1996 refueling outage.

2.0 EVALUATION

GL 91-04 provides guidance on how licensees should evaluate effects of 24-month extension on safety of the plant and perform an evaluation to support a conclusion that the effect of such an extension on safety is insignificant. The licensee has performed a detailed engineering review of all instrument loops affected to establish the basis for a 30 month (24 months + 25%) calibration frequency. Using Calvert Cliffs procedures, the analyses were performed to verify that the surveillance interval extensions have a small effect on plant safety and would not invalidate any assumption in the plant licensing basis. The analysis was based on the guidance provided in the following documents: GL 91-04, EPRI document TR-103335, March 1994, "Guidelines for Instrument Calibration Extension/Reduction Programs," ISA-DRP67.04, Part II, Draft Recommended Practice, "Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation," Draft 10, and ISA-S-67.04-1987, "Standard for Nuclear Safety-Related Instrumentation."

In its submittal dated June 6, 1995, in support of Amendment Nos. 208 and 186 which were issued on October 19, 1995, the licensee provided a summary of the results of analyses for each of the affected instrument loops. The evaluation results indicated that the proposed extension did not require any setpoint

changes and that the plant parameter indications are still acceptable, taking into consideration the effects of drift over a 30-month period, for safe plant operation and having the necessary information to effect a safe shutdown of an operating unit.

In GL 91-04, the NRC staff discussed seven issues pertaining to increasing the interval for instrument surveillances and identified specific actions that licensees should take to address each of these issues. The NRC staff evaluated the licensee's submittal to verify that it adequately addressed all of the issues identified in the GL necessary to provide an acceptable basis for increasing the calibration interval for instruments that are used to perform safety-related functions.

The NRC staff reviewed the information provided by the licensees and determined that it supported the requested extension in the surveillance interval and issued Amendment Nos. 208 and 186 as previously noted.

The licensee's October 20, 1995, submittal which requests the one-time extension of the instrument surveillance intervals by a maximum of 39 days provided the same basis for the one-time extension for all the specified instruments except those that are scheduled for replacement during the upcoming spring 1996 refueling outage.

The NRC staff has previously determined that the licensee has adequately addressed all of the applicable provisions identified in GL 91-04 for all of the instrument loops whose instruments are not scheduled for replacement. Therefore, the NRC staff has concluded that the requested one-time extension of a maximum of 39 days is also acceptable for the following: TSs 4.3.2.1.2, 4.4.3.1.b, 4.4.9.3.1.b; TS Table 4.3-1, Items 2b, 3, 4, 5, 7, 9a, and 9b; TS Table 4.3-2, Items 1c, 4b, 7a, 7b, and 9b; TS Table 4.3-6, Item 3; and TS Table 4.3-10, Items 3 and 9.

The instrument scheduled for replacement during the upcoming CC-1 spring 1996 refueling outage provide inputs for steam generator (SG) pressure, SG level, remote shutdown panel, pressurizer pressure, pressurizer level, and containment water level (wide range). The licensee indicates that the operating characteristics and history are well known for these instruments. The routine monitoring program at CC-1 consists of channel calibrations, channel checks, and/or channel functional checks to provide reliable indication of instrument operation. The licensee further indicates that the routine monitoring program has identified improperly operating instruments. Corrective actions are initiated when instrument parameter(s) are found to be out of the specified acceptance criteria.

The licensee indicated that its existing monitoring program has in the past and, for the requested short one-time extension, will identify improper operation and that appropriate action will be initiated to address problems associated with drift that could potentially cause plant parameters to exceed accident analyses assumptions.

Although these instruments have performed in an acceptable manner, the licensee is replacing them with improved designs to assure even more reliable operation for the increased surveillance interval to support 24-month refueling outages.

The NRC staff has determined that there is reasonable assurance that the licensee's monitoring and corrective action programs, as discussed above, are adequate to detect and correct any instrument loop problem. This determination is based on the acceptable performance of these instruments in the past and the requested short one-time extension interval of a maximum of 39 days. Therefore, the NRC staff has concluded that the requested one-time extension of a maximum of 39 days is also acceptable for the following: TSs 4.3.1.1.2 and 4.3.2.1.2; TS Table 4.3-1, Item 6, 7, and 9b; TS Table 4.3-2, Items 4b and 9b; TS Table 4.3-6, Items 4, 5, 6, and 7; TS Table 4.3-10, Items 4, 5, 6, 7, 9, and 13.

3.0 SUMMARY

Based upon the above review, the NRC staff finds that the proposed one-time surveillance extension for a maximum of 39 days up to March 31, 1996, is acceptable. TS 4.3.1.1.2, TS 4.3.1.1.3, and TS Tables 4.3-1, 4.3.2.1.2, 4.3.2.1.3, 4.3-2, 4.3-3, 4.3-6, 4.3-10, 4.4.3.1.b, 4.4.6.1.b, and 4.4.9.3.1.b will be revised by adding footnotes indicating that the Cycle 12 surveillances are required by March 31, 1996, and that this requirement will be superseded when Amendment No. 208 is implemented prior to the restart of Unit No. 1 from the spring 1996 refueling outage.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves 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 (60 FR 58396). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: D. McDonald

Date: December 28, 1995