



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. 113
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 9, 1985, as supplemented on October 29, 1985, 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.

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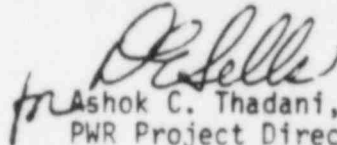
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 113, 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



Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 19, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 113

FACILITY OPERATING LICENSE NO. DPR-53

DOCKET NO. 50-317

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The corresponding overleaf pages are provided to maintain document completeness.

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INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring 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 4.3-3.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Containment					
i. Purge & Exhaust Isolation	3	6	≤ 220 mr/hr	10 ⁻¹ - 10 ⁴ mr/hr	16
b. Containment Area High Range	2	1, 2, 3, & 4	≤ 10 R/hr	1 - 10 ⁸ R/hr	30
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity					
a) RCS Leakage Detection	1	1, 2, 3, & 4	Not Applicable	1 - 10 ⁶ cpm	14
ii. Particulate Activity					
a) RCS Leakage Detection	1	1, 2, 3, & 4	Not Applicable	1 - 10 ⁶ cpm	14
b. Noble Gas Effluent Monitors					
i. Main Vent Wide Range	1	1, 2, 3, & 4	*	10 ⁻⁷ to 10 ⁺⁵ μCi/cc	30

*Alarm setpoint to be specified in a controlled document (e.g., setpoint control manual)

TABLE 3.3-6 (Continued)

TABLE NOTATION

- ACTION 14 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 16 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 30 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:
- 1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or
 - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event, outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION 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

*The CHANNEL CHECK shall be accomplished by comparing samples independently drawn from the main vent.

PLANT SYSTEMS

3/4.7.12 PENETRATION FIRE BARRIERS

LIMITING CONDITIONS FOR OPERATION

3.7.12 All fire barrier penetrations (i.e., cable penetration barriers, fire-doors and fire dampers), in fire zone boundaries, protecting safe shutdown areas shall be **OPERABLE**.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the above required fire barrier penetrations inoperable within one hour either establish a continuous fire watch on at least one side of the affected penetration, or verify the **OPERABILITY** of fire detectors on at least one side of the inoperable fire barrier and establish an hourly fire watch patrol; or verify the operability of automatic sprinkler systems (including the water flow alarm and supervisory system) on both sides of the inoperable fire barrier. Restore the inoperable fire barrier penetration(s) to operable status within 7 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperable penetration and plans and schedule for restoring the fire barrier penetration(s) to **OPERABLE** status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12 Each of the above required fire barrier penetrations shall be verified to be **OPERABLE**:

- a. At least once per 18 months by a visual inspection.
- b. Prior to returning a fire barrier penetration to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration(s).

PLANT SYSTEMS

BASES

3/4.7.12 PENETRATION FIRE BARRIERS

The functional integrity of the penetration fire barriers ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The penetration fire barriers are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the barriers are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected barrier until the barrier is restored to functional status.

ADMINISTRATIVE CONTROLS

- b. A high radiation area in which the intensity of radiation is greater than 1000 mrem/hr shall be subject to the provisions of 6.12.1.a, above, and in addition locked barricades shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained by the Supervisor-Radiation Control Operations and the Operations Shift Supervisor on duty under their separate administrative control.

6.13 SYSTEM INTEGRITY

The licensee shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and
2. Leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

6.14 IODINE MONITORING

The licensee shall implement a program* which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

6.15 POSTACCIDENT SAMPLING

The licensee shall establish, implement and maintain a program* which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

1. Training of personnel,
2. Procedures for sampling and analysis, and
3. Provisions for maintenance of sampling and analysis equipment.

*It is acceptable if the licensee maintains details of the program in plant operation manuals (e.g., chemistry procedures, training instructions, maintenance procedures, ERPIPs).

ADMINISTRATIVE CONTROLS

6.16 PROCESS CONTROL PROGRAM (PCP)

- 6.16.1 The PCP shall be approved by the Commission prior to implementation.
- 6.16.2 Licensee initiated changes to the PCP:
1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:
 - a. An evaluation supporting the premise that the change did not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes; and
 - b. A reference to the date and the POSRC meeting number in which the change(s) were reviewed and found acceptable to the POSRC.
 2. Shall become effective upon review by the POSRC and approval of the Manager-Nuclear Operations.

6.17 OFFSITE DOSE CALCULATION MANUAL (ODCM)

- 6.17.1 The ODCM shall be approved by the Commission prior to implementation.
- 6.17.2 Licensee initiated changes to the ODCM:
1. Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made effective. This submittal shall contain:
 - a. Sufficient information to support the rationale for the change. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with a change number and/or change date together with appropriate analyses or evaluations justifying the change(s);
 - b. A determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and
 - c. Documentation of the fact that the change has been reviewed and found acceptable by the POSRC.
 2. Shall become effective upon review by the POSRC and approval of the Manager-Nuclear Operations.

ADMINISTRATIVE CONTROLS

6.18 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS AND SOLID WASTE
TREATMENT SYSTEMS

6.18.1 Licensee initiated major changes to the radioactive waste systems (liquid, gaseous and solid) shall be reported to the Commission in the Semi-annual Radioactive Effluent Release Report for the period in which the modification to the waste system is completed. The discussion of each change shall contain:

- a. A description of the equipment, components and processes involved.
- b. Documentation of the fact that the change including the safety analysis was reviewed and found acceptable by the POSRC.



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. 96
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 9, 1985, as supplemented on October 29, 1985, 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.

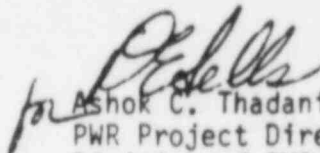
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2 of Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 96, 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



Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 19, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 96

FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

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INSTRUMENTATION

3/4.3.3 MONITORING INSTRUMENTATION

RADIATION MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.1 The radiation monitoring instrumentation channels shown in Table 3.3-6 shall be OPERABLE with their alarm/trip setpoints within the specified limits.

APPLICABILITY: As shown in Table 3.3-6.

ACTION:

- a. With a radiation monitoring channel alarm/trip setpoint exceeding the value shown in Table 3.3-6, adjust the setpoint to within the limit within 4 hours or declare the channel inoperable.
- b. With one or more radiation monitoring channels inoperable, take the ACTION shown in Table 3.3-6.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each radiation monitoring 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 4.3-3.

TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. AREA MONITORS					
a. Containment					
i. Purge & Exhaust Isolation	3	6	< 220 mr/hr	10 ⁻⁴ - 10 ⁴ mr/hr	16
b. Containment Area High Range	2	1, 2, 3 & 4	< 10 R/hr	1 - 10 ⁸ R/hr	30
2. PROCESS MONITORS					
a. Containment					
i. Gaseous Activity					
a) RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 ¹ - 10 ⁶ cpm	14
ii. Particulate Activity					
a) RCS Leakage Detection	1	1, 2, 3 & 4	Not Applicable	10 ¹ - 10 ⁶ cpm	14
b. Noble Gas Effluent Monitors					
i. Main Vent Wide Range	1	1, 2, 3 & 4	*	10 ⁻⁷ to 10 ⁵ uCi/cc	30

*Alarm setpoint to be specified in a controlled document (e.g., setpoint control manual).

TABLE 3.3-6 (Continued)

TABLE NOTATION

- ACTION 14 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.6.1.
- ACTION 16 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 30 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, initiate the preplanned alternate method of monitoring the appropriate parameter(s), within 72 hours, and:
- 1) either restore the inoperable channel(s) to OPERABLE status within 7 days of the event, or
 - 2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

TABLE 4.3-3

RADIATION 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

*The CHANNEL CHECK shall be accomplished by comparing samples independently drawn from the main vent. |

PLANT SYSTEMS

3/4.7.12 PENETRATION FIRE BARRIERS

LIMITING CONDITIONS FOR OPERATION

3.7.12 All fire barrier penetrations (i.e., cable penetration barriers, fire-doors and fire dampers), in fire zone boundaries, protecting safe shutdown areas shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the above required fire barrier penetrations inoperable within one hour either establish a continuous fire watch on at least one side of the affected penetration, or verify the OPERABILITY of fire detectors on at least one side of the inoperable fire barrier and establish an hourly fire watch patrol; or verify the operability of automatic sprinkler systems (including the water flow alarm and supervisory system) on both sides of the inoperable fire barrier. Restore the inoperable fire barrier penetration(s) to operable status within 7 days or prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperable penetration and plans and schedule for restoring the fire barrier penetration(s) to operable status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.12 Each of the above required fire barrier penetrations shall be verified to be OPERABLE:

- a. At least once per 18 months by a visual inspection.
- b. Prior to returning a fire barrier penetration to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration(s).

PLANT SYSTEMS

BASES

3/4.7.12 PENETRATION FIRE BARRIERS

The functional integrity of the penetration fire barriers ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The penetration fire barriers are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the barriers are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected barrier until the barrier is restored to functional status.