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February 22, 1985

Posted Amat. 99 to DPR-53

Docket Nos. 50-317 and 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. 99 and 81 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 applications dated April 9 and June 29, 1984. This completes the action on your April 9 application. One item from your June 29 application is still under consideration.

The amendments revise the Technical Specifications to provide Limiting Conditions for Operation and Surveillance Requirements for the following NUREG-0737 items:

- Post-Accident Sampling System (II.B.3)
- Noble Gas Effluent Monitors (II.F.1.1)
- Sampling and Analysis of Plant Effluents (II.F.1.2)
- Containment High Range Radiation Monitor (II.F.1.3)

Existing TS for the following areas were reviewed and found to be acceptable:

- Auxiliary Feedwater System (II.E.1.1)
- Containment Pressure Monitor (II.F.1.4)

The following TS are not acceptable, or absent, at this time:

- Noble Gas Steam Effluent Monitors (II.F.1.1)
- Instrumentation for Detection of Inadequate Core Cooling (II.F.2)
- Containment Water Level Monitor (II.F.1.5)
- Reactor Coolant System Vents (II.B.1)
- Control Room Habitability (III.D.3.4)
- Containment Hydrogen Monitor (II.F.1.6)

These TS will be the subject of future discussions.

A copy of the related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

/S/

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

Enclosures:
1. Amendment No. 99 to DPR-53
2. Amendment No. 81 to DPR-69
3. Safety Evaluation

cc w/enclosure:
See next page

ORB#3:DL	ORB#3:DL	ORB#3:DL	OELD	AD:ORB:DL
PMKreutzer	DJaffe	JRMiller		GCLainas
2/13/85	2/13/85	2/13/85	2/14/85	2/19/85

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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. 99
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment by Baltimore Gas & Electric Company (the licensee) dated April 9 and June 29, 1984 comply 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 applications, 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. 99 , 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 22, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 99

FACILTIY 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

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Containment					
i. Purge & Exhaust Isolation	3	6	$\leq$ 220 mr/hr	10^{-1} - 10^{4} mr/hr	16
b. Containment Area High Range	2	1, 2, 3, & 4	$\leq$ 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

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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 Monitor				
i. Main Vent Wide Range	S	R	M	1, 2, 3, & 4

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The main vent iodine and particulate sampler shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

a. With the main vent iodine and particulate sampler inoperable, initiate the preplanned alternate method of sampling the main vent for the appropriate parameter(s) within 72 hours; and

   1. either restore the inoperable sampler 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.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 The main vent iodine and particulate sampler shall be demonstrated OPERABLE by comparing samples independently drawn from the main vent at least once per month.

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

3/4.7.13 POST-ACCIDENT SAMPLING

LIMITING CONDITION FOR OPERATION

3.7.13 The post-accident sampling system shall be OPERABLE and capable of processing samples from all of the below listed points:

a. RCS sample via hot leg

b. RCS sample via low pressure safety injection, and

c. Containment sump sample via low pressure safety injection.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the operability of the post-accident sampling system less than the LIMITING CONDITION FOR OPERATION specified above, within 72 hours initiate the preplanned alternate method of processing specified sample(s), and either:

   1. Restore the system to OPERABLE status within 7 days, 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.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.13 The post-accident sampling system shall be demonstrated OPERABLE at least once per six (6) months by comparing the results of a RCS sample analyzed by laboratory techniques with the results analyzed by the below listed analyzing equipment:

1. Boron Analyzer

2. Hydrogen and Oxygen Analyzer

3. pH Analyzer

4. Liquid Radioisotopic Analyzer.

3/4.3.3.6 POST-ACCIDENT INSTRUMENTATION

The OPERABILITY of the post-accident instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Plants to Assess Plant Conditions During and Following an Accident," December 1975, and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations."

3/4.3.3.7 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to operability.

3/4.3.3.8 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION IODINE AND PARTICULATE SAMPLER

The OPERABILITY of the Iodine and Particulate Sampler ensures that Iodine and Particulate Samples can be obtained for analysis during and following an accident. The surveillance requirements ensure a high degree of availability.

The sampler was installed to meet the requirements of NUREG-0737 Item II.F.1. The sampler's operation was not assumed in any accident analysis.

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.

3/4.7.13 POST-ACCIDENT SAMPLING SYSTEM

The OPERABILITY of the Post-Accident Sampling System ensures the capability to obtain and analyze reactor coolant and containment atmosphere samples during and following an accident. The surveillance requirements ensure a high degree of availability.

The Post-Accident Sampling System was installed to meet the requirements of NUREG-0737 Item II.B.3. The system's operation was not assumed in any accident analysis.

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. 81
License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The applications for amendment by Baltimore Gas & Electric Company (the licensee) dated April 9 and June 29, 1984, comply 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 applications, 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. 81 , 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

E. G. Tourigny for

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 22, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 81

FACILTIY OPERATING LICENSE NO. DPR-69

DOCKET NO. 50-318

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

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	MEASUREMENT RANGE	ACTION
1. AREA MONITORS					
a. Containment					
i. Purge & Exhaust Isolation	3	6	$\leq$ 220 mr/hr	10^{-4} - 10^{4} mr/hr	16
b. Containment Area High Range	2	1, 2, 3 & 4	$\leq$ 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} 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 appropirate 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 sumbit 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

INSTRUMENT	CHANNEL CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
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

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.8 The main vent iodine and particulate sampler shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

a. With the main vent iodine and particulate sampler inoperable, initiate the preplanned alternate method of sampling the main vent for the appropriate parameter(s) within 72 hours, and:

   1. either restore the inoperable sampler 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.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.8 The main vent iodine and particulate sampler shall be demonstrated OPERABLE by comparing samples independently drawn from the main vent at least once per month.

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

3/4.7.13 POST-ACCIDENT SAMPLING

LIMITING CONDITION FOR OPERATION

3.7.13 The post-accident sampling system shall be OPERABLE and capable of processing samples from all of the below listed points:

a. RCS sample via hot leg

b. RCS sample via low pressure safety injection, and

c. Containment sump sample via low pressure safety injection.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the operability of the post-accident sampling system less than the LIMITING CONDITION FOR OPERATION specified above, within 72 hours initiate the preplanned alternate method of processing specified sample(s), and either:

   1. Restore the system to OPERABLE status within 7 days, 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.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.13 The post-accident sampling system shall be demonstrated OPERABLE at least once per six (6) months by comparing the results of a RCS sample analyzed by laboratory techniques with the results analyzed by the below-listed analyzing equipment:

1. Boron Analyzer

2. Hydrogen and Oxygen Analyzer

3. Liquid Radioisotopic Analyzer

3/4.3.3.6 POST-ACCIDENT INSTRUMENTATION

The OPERABILITY of the post-accident instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Plants to Assess Plant Conditions During and Following an Accident," December 1975, and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations."

3/4.3.3.7 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to operability.

3/4.3.3.8 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION IODINE AND PARTICULATE SAMPLER

The OPERABILITY of the Iodine and Particulate Sampler ensures that Iodine and Particulate Samples can be obtained for analysis during and following an accident. The surveillance requirements ensure a high degree of availability.

The sampler was installed to meet the requirements of NUREG-0737 Item II.F.1. The sampler's operation was not assumed in any accident analysis.

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.

3/4.7.13 POST-ACCIDENT SAMPLING SYSTEM

The OPERABILITY of the Post-Accident Sampling System ensures the capability to obtain and analyze reactor coolant and containment atmosphere samples during and following an accident. The Surveillance Requirements ensure a high degree of availability.

The Post-Accident Sampling System was installed to meet the requirements of NUREG-0737 Item II.B.3. The system's operation was not assumed in any accident analysis.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 99 AND 81

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

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

INTRODUCTION AND BACKGROUND

In November 1980, the staff issued NUREG-0737, "Clarification of TMI Action Plan Requirements," which included all TMI Action Plan items approved by the Commission for implementation at nuclear power reactors. NUREG-0737 identifies those items for which Technical Specifications are required. A number of items which require Technical Specifications (TS) were scheduled for implementation after December 31, 1981. The staff provided guidance on the scope of TS for all of these items in Generic Letter 83-37. Generic Letter 83-37 was issued to all Pressurized Water Reactor (PWR) licensees on November 1, 1983. In this Generic Letter, the staff requested licensees to: (1) review their facility's TS to determine if they were consistent with the guidance provided in the Generic Letter, and (2) submit an application for a license amendment where deviations or absence of TS were found.

By applications dated April 9 and June 29, 1984, Baltimore Gas and Electric Company (the licensee) responded to Generic Letter 83-37 by submitting TS change requests for Calvert Cliffs Units 1 and 2. This evaluation covers proposed TS for the following TMI Action Plan items:

1. Post-Accident Sampling System (II.B.3)
2. Noble Gas Effluent Monitors (II.F.1.1)
3. Sampling and Analysis of Plant Effluents (II.F.1.2)
4. Containment High-Range Radiation Monitor (II.F.1.3)

With issuance of this safety evaluation, action has now been taken on all items associated with the April 9, 1984 application for license amendment; Change No. 2 of the June 29, 1984 application is still under consideration.

EVALUATION

1. Post-Accident Sampling System (II.B.3)

   The guidance provided by Generic Letter 83-37 requested that an administrative program should be established, implemented and maintained to ensure that the licensee has the capability to obtain and analyze reactor coolant and containment atmosphere samples under accident conditions.

The licensee has proposed the TS for Post-Accident Sampling System which will require the licensee to take appropriate actions for returning inoperable instrumentation to operable status as soon as practicable. The proposed TS meet the intent of the guidance provided in Generic Letter 83-37. Therefore, the staff finds the proposed TS to be acceptable.

2. Noble Gas Effluent Monitors (II.F.1.1)

The licensee has supplemented the existing normal range monitors to provide noble gas monitoring in accordance with Item II.F.1.1. The licensee has proposed to perform a channel check which may be performed by a visual check of the instrumentation to ensure the operability of the instrument. The proposed TS are consistent with the guidelines contained in our Generic Letter 83-37. Therefore, we conclude that the TS for Item II.F.1.1 are acceptable.

3. Sampling and Analysis of Plant Effluents (II.F.1.2)

The guidance provided by Generic Letter 83-37 requested that an administrative program should be established, implemented and maintained to ensure the capability to collect and analyze or measure representative samples of radioactive iodines and particulates in plant gaseous effluents during and following an accident. The licensee has proposed TS that will require the licensee to take appropriate actions to ensure that above capability is maintained. The proposed TS meet the intent of our guidelines contained in Generic Letter 83-37. We conclude that the TS for sampling and analysis of plant effluents are acceptable.

4. Containment High-Range Radiation Monitor (II.F.1.3)

The licensee has installed two in-containment monitors in Calvert Cliffs Units that are consistent with the guidance of TMI Action Plan Item II.F.1.3. Generic Letter 83-37 provided guidance for limiting conditions for operation and surveillance requirements for these monitors. The licensee has proposed to perform a channel check which may be performed by a visual check of the instrumentation to ensure the operability of the instrument. The proposed TS are consistent with the guidance provided in our Generic Letter 83-37. Therefore, we conclude that the proposed TS for Item II.F.1.3 are acceptable.

The following existing TS were reviewed and found to be adequate:

1. Containment Pressure Monitor (II.F.1.4)

The existing TS require two channels to be operable. These two channels consist of the following instrumentation: one channel with one instrument reading -5 to 150 psig and one channel with two instruments reading, -5 to + 5 psig and 0 to 150 psig.

2. Auxiliary Feedwater System

The existing TS provide Limiting Conditions for Operation and Surveillance requirements which conform to the guidance of GL 83-37. The maximum out-of-service time for the auxiliary feedwater pumps is being reviewed separately.

ENVIRONMENTAL CONSIDERATIONS

These amendments involve a change in the installation or use of a facility component located within the restricted area. The staff has determined that the amendments involve 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 these amendments involve no significant hazards consideration. Accordingly, these 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 these amendments.

CONCLUSION

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: February 22, 1985

Principal Contributor:
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