

APPENDIX A  
NOTICE OF VIOLATION

Baltimore Gas and Electric Company  
Calvert Cliffs Nuclear Power Plant, Units 1 and 2  
License Nos. DPR-53  
                  DPR-69

Docket Nos. 50-317  
              50-318

As a result of the inspection conducted on February 17-20, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

1. Appendix A, Technical Specifications, Section 6.8.1 states that written procedures shall be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, November 1972. Regulatory Guide 1.33 requires procedures for sampling of gaseous effluents. Appendix B, Environmental Technical Specifications, Section 5.5, requires that systems which are directly involved with the fulfillment of the environmental technical specifications shall be operated in accordance with approved operating procedures. Procedure RCP 1-502, Sampling of Gases for Activity, requires waste gas decay tank samples to be taken and analyzed in a gas vial.

Contrary to the above, on February 19, 1980, sampling and analysis of Number 12 Waste Gas Decay Tank was performed using a 500 ml polybottle instead of the gas vial.

This is a Severity Level V Violation (Supplement I).

2. Appendix A, Technical Specifications, Section 6.8.1 states that written procedures shall be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, November 1972. Regulatory Guide 1.33 requires procedures for analysis of effluents including calibration. Appendix B, Environmental Technical Specifications, Section 5.5, requires that systems which are directly involved with the fulfillment of the environmental technical specifications shall be operated in accordance with approved operating procedures. Procedure RCP 2-302, Liquid Scintillation System, requires the use of a quench curve for efficiency determinations. Procedure RCP 1-1001, Radiochemistry Analysis Determination of Gross Beta-Gamma (Alpha) Degassed Activity, requires the use of a self-absorption factor in determining the gross beta-gamma activity.

Contrary to the above, at the time of this inspection, a quench curve was not used for efficiency determinations of the liquid scintillation counter used for effluent analyses, and a self-absorption factor was not applied in determining the gross beta-gamma activity of liquid effluent samples analyzed during 1981.

This is a Severity Level IV Violation (Supplement I).

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3. Appendix A, Technical Specifications, Section 6.8.1 states that written procedures shall be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, November 1972. Regulatory Guide 1.33 requires procedures for calibration of instrumentation used in effluent analyses. Appendix B, Environmental Technical Specifications, Section 5.5, requires that systems which are directly involved with the fulfillment of the environmental technical specifications shall be operated in accordance with approved operating procedures. Procedure RCP 2-301.4, Set Up and Calibration of the Gamma Ray Spectrometer with Ge(Li) Detector, requires the use of three separate standards for each geometry; requires the determination of the overall standard deviation for the analysis; and specifies the geometries to be calibrated.

Contrary to the above, for 1980 and as of the dates of the inspection, three separate standards were not used for calibration with each geometry; the overall standard deviation for the analysis was not determined; and the gas vial geometry had not calibrated as required.

This is a Severity Level V Violation (Supplement I).

4. Appendix A, Technical Specifications, Section 6.8.1 states that written procedures shall be established, implemented and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, November 1972. Regulatory Guide 1.33 requires procedures for the control of gaseous effluents. Appendix B, Environmental Technical Specifications, Section 5.5, requires that systems which are directly involved with the fulfillment of the environmental technical specifications shall be operated in accordance with approved operating procedures. Procedure RCP 1-207, Gaseous Waste Releases Specification and Surveillance, requires that at the end of each month the site release rates for Group I and II nuclides averaged over 12 consecutive months shall be recorded on the Twelve Month Release Rate Calculation Sheet.

Contrary to the above, as of the date of inspection, the Twelve Month Release Rate Calculation Sheet had not been completed for the January-December, 1980 period as required.

This is a Severity Level VI Violation (Supplement I).

Pursuant to the provisions of 10 CFR 2.201, Baltimore Gas and Electric Company is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Dated 19 MAY 1981

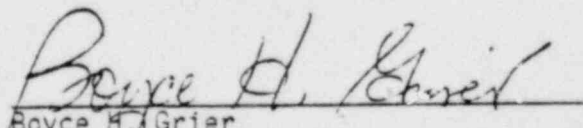
  
Boyce H. Grier  
Director

TABLE 1

## CALVERT CLIFFS UNITS 1 AND 2 VERIFICATION TEST RESULTS

SAMPLE	ISOTOPE	RESULTS IN MICROCURIES PER MILLILITER		COMPARISON
		NRC VALUE	LICENSEE VALUE	
Unit 1 Reactor Coolant Particulate Filter 0935 Hrs 2-19-81 (Licensee's Counting System #2)	Cr-51	(4.68±0.14)E-4	(4.8±0.3)E-4	Agreement
	Mn-54	(4.2±0.3)E-5	(3.2±0.3)E-5	Agreement
	Co-58	(6.92±0.06)E-4	(6.1±0.1)E-4	Agreement
	Co-60	(1.30±0.04)E-4	(9.96±0.72)E-5	Agreement
	Zr-95	(1.76±0.05)E-4	(1.47±0.09)E-4	Agreement
	I-133	(2.88±0.04)E-4	(2.1±0.1)E-4	Agreement
	I-131	(3.8±0.2)E-5	(3.4±0.4)E-5	Agreement
	Np-239	(2.2±0.1)E-4	(1.84±0.06)E-4	Agreement
#12 RCWMT 1050 Hrs 2-18-81 (Licensee's Counting System #1)	Cr-51	(1.44±0.05)E-4	(1.30±0.12)E-4	Agreement
	Mn-54	(1.74±0.05)E-5	(1.19±0.10)E-5	Possible Agreement
	Co-58	(8.37±0.02)E-4	(8.14±0.06)E-4	Agreement
	Fe-59	(9.7±1.2)E-6	(5.18±1.27)E-6	Possible Agreement
	Co-60	(4.9±0.3)E-5	(3.86±0.24)E-5	Agreement
	Zr-95	(3.14±0.08)E-5	(2.21±0.18)E-5	Possible Agreement
	Nb-95	(4.52±0.06)E-5	(3.49±0.15)E-5	Possible Agreement
	I-131	(7.9±0.6)E-6	(9.84±1.24)E-6	Agreement
	Cs-137	(1.12±0.07)E-5	(1.12±0.15)E-5	Agreement
	Cs-134	(8.6±0.5)E-6	(7.60±1.03)E-6	Agreement

POOR ORIGINAL

TABLE 1

## CALVERT CLIFFS UNITS 1 AND 2 VERIFICATION TEST RESULTS

SAMPLE	ISOTOPE	NRC VALUE	LICENSEE VALUE	COMPARISON
		RESULTS IN MICROCURIES PER MILLILITER		
Unit 1 Containment Radiation Monitor Charcoal Cartridge 1120 Hrs 2-18-81 (Licensee's Counting System #1)	I-131	(9.4±0.7)E-10	(1.49±0.07)E-9	Agreement
	I-133	(2.18±0.11)E-9	(3.23±0.11)E-9	Possible Agreement
Unit 1 Reactor Coolant 1205 Hrs 2-18-81 (Licensee's Counting System #2)	I-131	(8.9±0.2)E-3	(9.1±0.2)E-3	Agreement
	I-133	(8.20±0.07)E-2	(7.7±0.1)E-2	Agreement
Unit 1 Reactor Coolant 1205 Hrs 2-18-81 (Licensee's Counting System #1)	I-131	(8.9±0.2)E-3	(8.2±0.2)E-3	Agreement
	I-133	(8.20±0.07)E-2	(7.19±0.13)E-2	Agreement
	I-135	(1.09±0.05)E-1	(7.4±0.4)E-2	Possible Agreement
Unit 1 Reactor Coolant Particulate Filter 0935 Hrs 2-19-81 (Licensee's Counting System #1)	Cr-51	(4.68±0.14)E-4	(6.7±0.5)E-4	Possible Agreement
	Mn-54	(4.2±0.3)E-5	(4.3±0.6)E-5	Agreement
	Co-60	(1.30±0.04)E-4	(1.22±0.05)E-4	Agreement
	Co-58	(6.92±0.06)E-4	(8.5±0.2)E-4	Agreement
	Zr-95	(1.76±0.05)E-4	(2.06±0.08)E-4	Agreement
	I-133	(2.88±0.04)E-4	(3.5±0.1)E-4	Agreement
	Na-24	(4.4±0.3)E-5	(4.7±0.6)E-5	Agreement
	Mn-56	(8.3±1.0)E-5	(6.7±2.3)E-5	Agreement
	Np-239	(2.16±0.12)E-4	(2.6±0.1)E-4	Agreement
	Co-57	(6.8±0.7)E-6	(4.8±1.9)E-6	Agreement
	I-135	(3.4±0.2)E-4	(2.3±0.2)E-4	Agreement

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TABLE 1

## CALVERT CLIFFS UNITS 1 AND 2 VERIFICATION TEST RESULTS

<u>SAMPLE</u>	<u>ISOTOPE</u>	<u>NRC VALUE</u>	<u>LICENSEE VALUE</u>	<u>COMPARISON</u>
		<u>RESULTS IN MICROCURIES PER MILLILITER</u>		
#12 RCWMT 1050 Hrs 2-18-81  (Licensee's Counting System #1)	Cr-51	(2.84±0.11)E-4	(3.0±0.1)E-4	Agreement
	Mn-54	(2.98±0.11)E-5	(2.9±0.1)E-5	Agreement
	Co-58	(8.49±0.04)E-4	(8.48±0.06)E-4	Agreement
	Co-60	(8.4±0.2)E-5	(7.6±0.2)E-5	Agreement
	Zr-95	(6.4±0.2)E-5	(6.5±0.3)E-5	Agreement
Note: Different aliquot than counted on System #1	Nb-95	(9.96±0.15)E-5	(9.0±0.2)E-5	Agreement
#12 WGD1 1120 Hrs 2-20-81 (Licensee's Counting System #1)	Xe-133	(5.36±0.10)E-3	(9.670±0.010)E-3	Disagreement
#12 WGD1 1120 Hrs 2-20-81 (Licensee's Counting System #2)	Xe-133	(5.36±0.10)E-3	(1.110±0.001)E-2	Disagreement

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