

SEMI-ANNUAL EFFLUENT RELEASE REPORT
FOR CALVERT CLIFFS NUCLEAR POWER PLANT

SECOND HALF - 1982

LIST OF ENCLOSURES

<u>TITLE</u>	<u>PAGE</u>
Regulatory Limits	1
Maximum Permissible Concentration	2
Measurements and Approximation of Total Radioactivity	3
Batch Releases	7
Abnormal Releases	8
Gaseous Effluents - Summation of Releases	9
Gaseous Effluents - Isotopic Breakdown	10
Liquid Effluents - Summation of Releases	12
Liquid Effluents - Isotope Breakdown	13
Solid Waste Shipments	16

CALVERT CLIFFS NUCLEAR POWER PLANT
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT 1/
SUPPLEMENTAL INFORMATION

Facility - Calvert Cliffs Nuclear Power Plant

Licensee - Baltimore Gas & Electric Company

I. REGULATORY LIMITS

A. Fission and Activation Gases:

1. The instantaneous release rate of gross activity, except for I-131 and particulates with half-lives longer than eight days shall not exceed

$$\frac{Q_i}{(3.85 \times 10^5) (MPC)_i} \leq 1$$

where Q_i is the release rate in Ci/sec for isotope i and MPC_i is the maximum permissible concentration of isotope i as defined in Appendix B, Table II, Column i , 10 CFR 20.

2. The release rates of gross gaseous activity shall not exceed 16 percent of the values specified in I.A.1. above when averaged over any calendar quarter. See Table IA, A3.
3. The release rates of gross gaseous activity shall not exceed 8 percent of the values specified in I.A.1. above when averaged over 12 consecutive months. See Table IA, A4.

1/ Submitted in accordance with Section 5.6.1.b of Appendix B of the Environmental Technical Specifications

B. Iodines and Particulates, Half-Lives > 8 Days:

1. The release rate from the main vents of I-131 and particulates with half-lives greater than eight days released to the environment as part of airborne effluents shall not exceed 2.0 uCi/sec.
2. The release rates of I-131 and particulates shall not exceed 8 percent of the value specified in I.B.1. above when averaged over any calendar quarter. See Table 1A, B3.
3. It should be noted that "iodines" as used here includes only iodine-131 since the Technical Specifications only refer to it specifically. Such other iodines, i.e., iodine-133, iodine-135, etc., are treated as gross activity and are included in I.A.1. and I.A.2.
4. The release rates of I-131 and particulates shall not exceed 4 percent of the values specified in I.B.1. above when averaged over any 12 consecutive months. See Table 1A, B4.

C. Liquid Effluents:

1. The release rate of radioactive liquid effluents, excluding tritium and noble gases, shall not exceed 10 curies per unit during any calendar quarter.
2. The radioactivity release concentrations in liquid effluents from the plant shall not exceed the values specified in 10 CFR, Part 20, Appendix B, for unrestricted areas.

II. MAXIMUM PERMISSIBLE CONCENTRATIONS

The MPC's used for radioactive materials released in liquid and gaseous effluents are in accordance with Technical Specifications and/or are derived from the use of notes to Appendix B, 10 CFR, Part 20. In all cases, the most restrictive (lowest) MPC found for each isotope is used regardless of solubility.

The following limits were used to calculate the percent of applicable limit in Table 2A:

A. Fission and Activation Products - Limit used 1×10^{-7} uCi/ml. This limit was used as given in the notes to Appendix B, Table II, Column 2 of 10 CFR 20.

B. Tritium - Limit used 3×10^{-3} uCi/ml.

This limit was used as given in Appendix B, Table II, Column 2 of 10 CFR 20.

C. Dissolved and Entrained Gases - Limit used 3×10^{-6} uCi/ml.

This limit was used as given in Appendix B, Table II, Column 2 of 10 CFR 20.

III. AVERAGE ENERGY - not applicable

IV. MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

A. Fission and Activation Gases:

1. Batch Releases

Prior to each batch release of gas from a pressurized gas decay tank, a sample is collected and analyzed for each significant isotope using a Ge(Li) detector. The total activity released is based on the pressure/volume relationship (gas laws) of the tank prior to and after the release.

Prior to and after the release of gas as a result of purging containment, samples are collected and analyzed for each significant isotope using a Ge(Li) detector. The total activity released is based on containment volume and purge rate with activity buildup while purging is being considered.

2. Continuous releases

During the release of gas from the main vents, samples are collected and analyzed at least weekly for each significant isotope using a Ge(Li) detector. The total activity released for the week is based on the weekly result multiplied by the main vent flow for the week.

B. Iodine and Particulates:

1. Batch releases

Total activity released from a pressurized gas decay tank as iodines and particulates is measured by the same methods as fission and activation gases.

Prior to and after the release of gas as a result of purging containment, iodines are sampled using a charcoal filter and particulates are sampled using a particulate filter. These filters are analyzed for each significant isotope using a Ge(Li) detector. The total activity released is based on containment volume and purge rate with activity buildup while purging is being considered.

2. Continuous releases

During the release of gas from the main vents, samples of iodines and particulates are collected using a charcoal and particulate filter respectively. The filters are removed weekly and are analyzed for each significant isotope using a Ge(Li) detector. The total activity released for the week is based on the activity found on the filters multiplied by the main vent flow for the week. The activity on the filters is corrected for decay and buildup during the sample period. These weekly particulate filters are then composited to form monthly and quarterly composites at which time gross alpha and strontium 89 and 90 are analyzed.

C. Liquid Effluents:

1. Batch releases

Prior to the release of liquid from a monitor tank, a sample is collected and analyzed for the concentration of each significant gamma energy peak to demonstrate compliance with Section I.C.1 above using the water flow rate in each discharge conduit into which the effluent is discharged at the time of discharge. The total activity released in each batch is determined by multiplying the volume released times the concentration of each isotope. The actual volume released is based on the difference in tank levels prior to and after the release. A proportional composite sample is also withdrawn for each week's releases, and this is used in turn to prepare monthly and quarterly composites for use in analyses of gross alpha and strontium 89 and 90.

2. Continuous releases

Steam generator blowdown is sampled daily and these samples are used in turn to prepare a weekly blowdown composite based on each day's blowdown. The weekly composite is analyzed for each significant isotope using a Ge(Li) detector and these results are multiplied by the actual quantity of blowdown to determine the total activity released. The weekly composite is also used to prepare monthly and quarterly composites for use in analyses of tritium, gross alpha, and strontium 89 and 90.

D. Estimation of Total Error

Total error on all releases was estimated using as a minimum the random counting error associated with typical releases. In addition to the random error, the detector to sample geometry systematic error during gamma counting was determined. This included an estimate of sample volume error and sample pipetting error. More specifically the following other systematic errors were also examined:

1. Liquid

- a. Error in volume of liquid released prior to dilution during batch releases.
- b. Error in volume of liquid released via steam generator blowdown.
- c. Error in amount of dilution water used during the reporting period.

2. Gases

- a. Error in main vent release flow.
- b. Error in sample flow rate.
- c. Error in containment purge release flow.
- d. Error in gas decay tank pressure.

Where errors could be estimated they were usually considered additive.

V. BATCH RELEASES

	<u>3rd Quarter</u>	<u>4th Quarter</u>
A. <u>Liquid:</u>		
1. Number of batch releases	9.30E+01	7.70E+01
2. Total time period for batch release (hours)	5.20E+02	3.57E+02
3. Maximum time period for a batch release (min)	1.38E+03	1.64E+03
4. Average time period for batch releases (min)	3.36E+02	2.78E+02
5. Minimum time period for a batch release (min)	1.30E+01	1.90E+01
6. Average stream flow during periods of effluent into a flowing stream (liters/min of dilution water)	4.64E+06	4.64E+06
B. <u>Gaseous:</u>		
1. Number of batch releases	4.90E+01	1.50E+01
2. Total time period for batch releases (min)	1.85E+04	7.18E+04
3. Maximum time period for a batch release (min)	4.62E+03	3.72E+04
4. Average time period for batch release (min)	3.80E+02	4.79E+03
5. Minimum time period for a batch release (min)	6.00E+00	1.20E+02

VI. ABNORMAL RELEASES

	<u>3rd</u> <u>Quarter</u>	<u>4th</u> <u>Quarter</u>
A. <u>Liquid:</u>		
1. Number of releases	- 0 -	- 0 -
2. Total activity released (Curies) <u>2/</u>		
B. <u>Gaseous:</u>		
1. Number of releases	- 0 -	- 0 -
2. Total activity releases (Curies)		

2/ Excluding tritium and dissolved gases

TABLE 1A - REG GUIDE 1.21

CALVERT CLIFFS NUCLEAR POWER PLANT

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT

SECOND HALF - 1982

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

A. Fission and activation gases	Units	3rd Quarter	4th Quarter	Est. Total Error, %
1. Total Release	Ci	4.01E+03	3.00E+02	2.15E+01
2. Average release rate for period	uCi/sec	5.10E+02	3.82E+01	
3. Percent of tech. spec. limit (1)	%	2.88E+00	2.31E-01	
4. Percent of tech. spec. limit (2)	%	2.90E+00	1.73E+00	
B. Iodines				
1. Total iodine - 131	Ci	7.00E-03	2.01E-03	1.84E+01
2. Average release rate for period	uCi/sec	8.90E-04	2.56E-04	
3. Percent of tech. spec. limit (3)	%	5.56E-01	1.60E-01	
4. Percent of tech. spec. limit (4)	%	6.51E+00	1.55E+00	
C. Particulates				
1. Particulates with half lives greater than 8 days	Ci	2.14E-04	1.00E-03	1.84+01
2. Average release rate for period	uCi/sec	2.72E-05	1.27E-04	
3. Percent of tech. spec. limit (3)	%	1.70E-02	7.94E-02	
4. Percent of tech. spec. limit (4)	%	6.13E+00	5.86E+00	
5. Gross alpha radioactivity	Ci	< 5.40E-07	< 9.07E-07	
D. Tritium				
1. Total Release	Ci	4.10E-01	2.01E-01	2.18E+01
2. Average release rate for period	uCi/sec	5.21E-02	2.55E-02	
3. Percent of tech. spec. limit (1)	%	4.22E-04	2.07E-04	

- (1) Percent of I.A.2 for each quarter
- (2) Percent of I.A.3 for previous 12 months
- (3) Percent of I.B.2 for each quarter
- (4) Percent of I.B.3 for previous 12 months

TABLE 1C REG GUIDE 1.21

CALVERT CLIFFS NUCLEAR POWER PLANT

SECOND HALF - 1982

GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

			Continuous Mode		Batch Mode	
		Units	3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
1.	Fission and activation gases					
	krypton - 85m	Ci			4.50E+01	5.10E-01
	krypton - 88	Ci			2.60E-01	1.20E-03
	xenon - 131m	Ci			3.40E+01	1.10E+00
	xenon - 133	Ci	4.00E+02	1.80E+02	3.50E+03	1.00E+02
	xenon - 133m	Ci			1.10E+01	1.20E+00
	xenon - 135	Ci	6.00E+00	1.12E+01	2.40E+01	1.80E+00
	argon - 41	Ci			1.00E-01	1.50E-02
	krypton - 87	Ci			8.10E-03	
	Total For Period	Ci	4.06E+02	1.91E+02	3.60E+03	1.10E+02
2.	Halogens					
	iodine - 131	Ci	5.00E-03	1.98E-03	2.00E-03	2.80E-05
	iodine - 132	Ci			2.20E-07	6.80E-09
	iodine - 133	Ci	1.81E-03	1.80E-03	5.95E-04	6.26E-06
	iodine - 135	Ci	9.00E-03	8.10E-03	8.90E-07	4.10E-08
	bromine - 82	Ci			8.90E-06	4.60E-06
	Total For Period	Ci	1.58E-02	1.20E-02	2.61E-03	3.90E-05

TABLE 1C REG GUIDE 1.21 (CONT'D)
CALVERT CLIFFS NUCLEAR POWER PLANT
SECOND HALF - 1982

GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

			Continuous Mode		Batch Mode		
3. Particulates			Units	3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
strontium	- 89		Ci	1.11E-04	9.25E-07		
strontium	- 90		Ci	< 2.32E-05	< 1.05E-06		
rubidium	- 88*		Ci			9.10E-02	2.40E-03
cobalt	- 58		Ci			1.90E-08	1.00E-03
cesium	- 138*		Ci			2.60E-04	1.50E-05
cesium	- 134		Ci			2.90E-06	
cesium	-137		Ci			7.10E-06	7.40E-08
Total For Period			Ci	1.34E-04	1.97E-06	9.12E-02	3.41E-03

* Particulates with half lives less than eight days.

TABLE 2B REG GUIDE 1.21

CALVERT CLIFFS NUCLEAR POWER PLANT

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT

SECOND HALF - 1982

LIQUID EFFLUENTS

Nuclides Released		Units	Continuous Mode (1)		Batch Mode	
			3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
strontium	- 89	Ci	1.76E-05		8.65E-03	1.71E-02
strontium	- 90	Ci	1.76E-05		1.27E-02	4.10E-02
cesium	- 134	Ci			1.72E-01	1.87E-01
cesium	- 137	Ci			3.00E-01	3.31E-01
iodine	- 131	Ci	< 5.54E-05		3.90E-01	7.75E-02
cobalt	- 58	Ci			3.24E-01	4.76E-01
cobalt	- 60	Ci			5.57E-02	4.95E-02
iodine	- 132	Ci			8.25E-05	
manganese	- 54	Ci			1.85E-02	8.60E-03
chromium	- 51	Ci			8.75E-02	1.03E-01
zirconium	- 95	Ci			2.79E-02	1.73E-02
niobium	- 95	Ci			5.15E-02	2.81E-02
molybdenum	- 99	Ci			1.50E-02	1.11E-03
barium	- 140	Ci			5.81E-03	
antimony	- 124	Ci			1.43E-02	1.83E-02
iodine	- 133	Ci			1.32E-01	7.79E-03
antimony	- 125	Ci			1.23E-01	5.40E-02
cobalt	- 57	Ci			7.01E-05	1.07E-03
silver	- 110m	Ci			1.78E-01	3.31E-02
lanthanum	- 140	Ci			1.24E-02	
tin	- 113	Ci			2.35E-03	1.75E-05
sodium	- 24	Ci			7.50E-04	8.12E-04
ruthenium	- 103	Ci			2.72E-03	2.89E-03

TABLE 2A REG GUIDE. 1.21

CALVERT CLIFFS NUCLEAR POWER PLANT
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
SECOND HALF - 1982

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

A. Fission and activation products	Units	3rd Quarter	4th Quarter	Est. Total Error, %
1. Total release (not including tritium, gases, alpha)	Ci	2.09E+00	1.43E+00	2.16E+01
2. Average diluted concentration during period	uCi/ml	3.74E-09	2.31E-09	
3. Percent of applicable limit	%	3.74E+00	2.31E+00	
B. Tritium				
1. Total release	Ci	1.29E+02	9.73E+01	1.81E+01
2. Average diluted concentration during period	uCi/ml	2.33E-07	1.59E-07	
3. Percent of applicable limit	%	7.77E-03	5.30E-03	
C. Dissolved and entrained gases				
1. Total release	Ci	9.62E-03	6.11E-03	2.00E+01
2. Average diluted concentration during period	uCi/ml	3.94E-09	1.34E-09	
3. Percent of applicable limit	%	1.31E-01	4.47E-02	
D. Gross alpha radioactivity				
1. Total release	Ci	< 9.62E-03	< 6.11E-03	3.00E+00
E. Volume of Waste Releases (prior to dilution)				
	liters	1.24E+07	9.74E+06	3.00E+00
F. Volume of dilution water used during period				
	liters	5.54E+11	6.13E+11	1.40E+01

TABLE 2B REG GUIDE 1.21 (CONT'D)

CALVERT CLIFFS NUCLEAR POWER PLANT

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT

SECOND HALF - 1982

LIQUID EFFLUENTS

Nuclides Released		Units	Continuous Mode (1)		Batch Mode	
			3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
neptunium	- 239	Ci			1.12E-03	
antimony	- 122	Ci			4.05E-02	2.24E-02
ruthenium	- 106	Ci			8.87E-04	1.36E-03
unidentified		Ci	< 1.37E-05		4.73E-03	4.87E-03
Total For Period		Ci	< 1.04E-04		1.98E+00	1.48E+00

TABLE 2B REG GUIDE 1.21 (CONT'D)

CALVERT CLIFFS NUCLEAR POWER PLANT

EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT

SECOND HALF - 1982

LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode (1)		Batch Mode	
		3rd Quarter	4th Quarter	3rd Quarter	4th Quarter
Xenon - 133	Ci	< 1.34E-05		2.17E+00	7.07E-01
Xenon - 135	Ci			2.75E-03	1.35E-03
Xenon - 133m	Ci			3.77E-03	9.47E-04
Xenon - 131m	Ci				4.78E-03

- (1) Continuous mode releases, i.e., nuclides released, are less than "unidentified" unless otherwise noted.

TABLE 3A
EFFLUENT AND WASTE DISPOSAL SEMI-ANNUAL REPORT
SECOND HALF - 1982

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL (NOT IRRADIATED FUEL)

1. Type of Waste	Units	6-Month Period	Est. Total Error %
a. Spent resin, filter sludge evaporator bottoms, etc.	m3 Ci	1.74E+01 1.19E+02	2.00E+01
b. Dry compressible waste, contaminated equipment, etc.	m3 Ci	5.88E+01 1.18E+01	5.00E+01
c. Irradiated components, control rods, etc.	m3 Ci	---	---
d. Other (describe)	m3 Ci		

2. Estimate of major nuclides (by type of waste)

a.	Cobalt - 58	%	4.43E+01
	Cesium - 137	%	2.93E+01
	Cesium - 134	%	1.76E+01
	Manganese - 54	%	1.80E+00
	Cobalt - 60	%	2.50E+00
	Antimony - 122	%	2.60E+00
	Strontium - 90	%	1.22E+00
b.	Cobalt - 60	%	2.77E+01
	Cobalt - 58	%	4.76E+01
	Cesium - 137	%	5.09E+00
	Cesium - 134	%	3.27E+00
	Manganese - 54	%	2.40E+00
	Niobium - 95	%	4.70E+00
	Chromium - 51	%	5.45E+00
	Zirconium - 95	%	2.40E+00
c.	-----	%	

3. Solid Waste Disposition

Number of Shipments

11

Mode of Transportation

Motor surface transit

Destination

Barnwell, S. C.

PART 50 • DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

(5) *Administrative controls.* Administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

(d)(1) This section shall not be deemed to modify the technical specifications included in any license issued prior to January 16, 1969. A license in which technical specifications have not been designated shall be deemed to include the entire safety analysis report as technical specifications.

(2) An applicant for a license authorizing operation of a production or utilization facility to whom a construction permit has been issued prior to January 16, 1969, may submit technical specifications in accordance with this section, or in accordance with the requirements of this part in effect prior to January 16, 1969.

(3) At the initiative of the Commission or the licensee, any license may be amended to include technical specifications of the scope and content which would be required if a new license were being issued.

§ 50.36a Technical specifications on effluents from nuclear power reactors.

(a) In order to keep releases of radioactive materials to unrestricted areas during normal reactor operations, including expected operational occurrences, as low as is reasonably achievable, each license authorizing operation of a nuclear power reactor will include technical specifications that, in addition to requiring compliance with applicable provisions of § 20.106 of this chapter, require:

(1) That operating procedures developed pursuant to § 50.34a(c) for the control of effluents be established and followed and that equipment installed in the radioactive waste system, pursuant to § 50.34(a) be maintained and used.

(2) The submission of a report to the appropriate NRC Regional Office shown in Appendix D of Part 20 of this chapter within sixty (60) days after January 1 and July 1 of each year specifying the quantity of each of the principal radionuclides released to unrestricted areas in liquid and in gaseous effluents during the previous six (6) months of operation, and such other information as may be required by the Commission to estimate maximum potential annual radiation doses to the public resulting from effluent releases. Copies of such report shall be sent to the Director of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

If quantities of radioactive materials released during the reporting period are significantly above design objectives, the report shall cover this specifically. On the basis of such reports and any additional information the Commission may obtain from the licensee or others, the Commission may from time to time require the licensee to take such action as the Commission deems appropriate.

(b) In establishing and implementing the operating procedures described in paragraph (a) of this section, the licensee shall be guided by the following considerations: Experience with the design, construction and operation of nuclear power reactors indicates that compliance with the technical specifications described in this section will keep average annual releases of radioactive material in effluents at small percentages of the limits specified in § 20.106 of this chapter and in the operating license. At the same time, the licensee is permitted the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power even under unusual operating conditions which may temporarily result in releases higher than such small percentages, but still within the limits specified in § 20.106 of this chapter and the operating license. It is expected that in using this operational flexibility under unusual operating conditions, the licensee will exert his best efforts to keep levels of radioactive material in effluents as low as is reasonably achievable.

The guides set out in Appendix I provide numerical guidance on limiting conditions for operation for light-water-cooled nuclear power reactors to meet the requirement that radioactive materials in effluents released to unrestricted areas be kept as low as is reasonably achievable.

§ 50.37 Agreement limiting access to Restricted Data.

As part of his application and in any event prior to the receipt of Restricted Data or the issuance of a license or construction permit, the applicant shall agree in writing that he will not permit any individual to have access to Restricted Data until the Civil Service Commission shall have made an investigation and report to the Commission on the character, associations, and loyalty of such individual, and the Commission shall have determined that permitting such person to have access to Restricted Data will not endanger the common defense and security. The agreement of the applicant in this regard shall be deemed part of the license or construction permit, whether so stated therein or not.

§ 50.38 Ineligibility of certain applicants.

Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.

§ 50.39 Public inspection of applications.

Applications and documents submitted to the Commission in connection with applications may be made available for public inspection in accordance with the provisions of the regulations contained in Part 2 of this chapter.

STANDARDS FOR LICENSES AND CONSTRUCTION PERMITS

§ 50.40 Common standards.

In determining that a license will be issued to an applicant, the Commission will be guided by the following considerations:

(a) The processes to be performed, the operating procedures, the facility and equipment, the use of the facility, and other technical specifications, or the proposals, in regard to any of the foregoing collectively provide reasonable assurance that the applicant will comply with the regulations in this chapter, including the regulations in Part 20, and that the health and safety of the public will not be endangered.

58.	D	Unlawful diversion of source material	§ 40.64(c)	Promptly	P,T	RO	None
59.	D	Unlawful diversion of source material	§ 40.64(c)	15 days	W	RO (1)	IE (1)
60.	D	Effluent Monitoring Report	§ 40.65	Semiannually	W	RO (1)	IE (1)
61.	D	Ceasing operations due to emission controls	§ 40, App. A.I, Crit. 8	10 days subsequent to restart	W	RO (1)	DCD (1)
62.	D	Failure of retention system	§ 40, App. A.I, Crit. 8A	Immediately	P,T	RO or IE	None
63.	D	Annual site inspection	§ 40, App. A.IV	60 days	W	NMSS	None
64.	A	Effluent releases report	§ 50.36(a)(2), Tech Specs	Semiannually	W	RO (1)	DCD (1)
65.	A,B	Changes in security plan made without prior approval	§ 50.54(p)	Two months after change	W	NRR or NMSS (2)	MPA (1)
66.	A,B	Changes in emergency plan made without prior approval	§ 50.54(q)	30 days after change or proposed to NRC	W	RO (1)	DCD (1)
67.	A,B	Construction deficiency report	§ 50.55(e)(2)	24 hours	P,T	RO	None
68.	A,B	Construction deficiency report	§ 50.55(e)(3)	30 days	W	RO (1)	DCD (1)
69.	A,B	Facility changes, tests, and experiments conducted without prior approval	§ 50.59(b)	Annually or as otherwise specified in license	W	RO (1)	DCD (1)
70.	A,B	Financial report	§ 50.71(b)	Annually	W	NRR (10)	None

APPENDIX A (Continued)

No.	Types of Licensee	Report	Required By	Timing	Method	Primary Recipient	Secondary Recipient
71.	A,B	FSAR updating	§ 50.71(e)(1)	Annually	W	NRR (12)	None
72.	A,B	Significant events	§ 50.72(a)	Prompt (1 hour)	P	OP CTR	None
73.	A,B	Financial report	Part 50, App. C, Sec. III	Annually	W	NRR (10)	None



CHARLES CENTER • P. O. BOX 1475 • BALTIMORE, MARYLAND 21203

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

March 1, 1983

Mr. Ronald C. Haynes, Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA 19406

SUBJECT: Calvert Cliffs Nuclear Power Plant
Docket Nos. 50-317 and 50-318
Semi-Annual Effluent Release Report

Dear Mr. Haynes:

The purpose of this letter is to forward to you the attached Semi-Annual Effluent Release Report for the second half of 1982 in compliance with Paragraph 5.6.1.b of the Unit 1 and Unit 2 Environmental Technical Specifications. This report does not include the meteorological summary which will be forwarded at a later date.

Very truly yours,

Attachment

cc: Director, Office of Management Information
and Program Control

111 IE25