

March 13, 1986

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016

Docket Nos. 50-317  
and 50-318

Mr. J. A. Tiernan  
Vice President - Nuclear Energy  
Baltimore Gas & Electric Company  
P. O. Box 1475  
Baltimore, Maryland 21203

Dear Mr. Tiernan:

Several amendments issued to Facility Operating Licenses DPR-53 and DPR-69 in December 1985 and February 1986 contained typographical, administrative or reproduction errors. An explanation of the corrections transmitted herewith is stated below:

1. Amendment Nos. 108 and 91 (issued December 4, 1985) contained a typographical error on pages 3/4 3-13 in that double asterisks should have been used instead of a single/asterisk to designate the new footnote. Corrected pages 3/4 3-13 are enclosed for Amendments 108 and 91.
2. Amendment Nos. 109 and 92 (issued December 9, 1985) contained an administrative error on pages 3/4 3-45 in that a room (113) was inadvertently omitted from the revised Fire Detection Instruments listings. Corrected pages 3/4 3-45 are enclosed for Amendments 109 and 92.
3. Amendment No. 96 issued for Calvert Cliffs Unit No. 2 on February 19, 1986 contained two pages incorrectly printed back-to-back. Page 3/4 7-69 was printed on the back of B 3/4 7-7. That reproduction error has been corrected and the pages are enclosed.
4. Amendment No. 115 issued for Calvert Cliffs Unit No. 1 on February 20, 1986 repeated an error which was originally made on Amendment No. 108. On Table 3.6-1, "Containment Isolation Valves," the function for Penetration 64 was described as "Containment Heating Outlet." It should have read "Containment Heating Inlet." A corrected page 3/4 6-25 for Amendment No. 115 is enclosed.

8603260223 860313  
PDR ADOCK 05000317  
P PDR

Please accept our apologies for any inconvenience these errors may have caused you.

Sincerely,

/S/

D. H. Jaffe, Project Manager  
PWR Projecte Directorate #8  
Division of Licensing-B


Enclosures:  
As stated

TS page 3/4 3-13 Unit 1  
TS page 3/4 3-13 Unit 2  
TS page 3/4 3-45 Unit 1  
TS page 3/4 3-45 Unit 2


TS page 3/4 7-69 Unit 2  
TS page B 3/4 7-7 Unit 2  
TS page 3/4 6-25 Unit 1

DISTRIBUTION: DOCKET FILE  
NRC PDR Local PDR  
PD#8 Rdg PMKreutzer  
FMiraglia DHJaffe  
OELD LHarmon  
EJordan BGrimes  
JPartlow TBarnhart (4)  
WJones ACRS (10)  
OPA LFMB  
Gray File

PD#8:  
PMKreutzer:dd  
3/7/86

  
PD#8:  
DHJaffe  
3/12/86

~~OELD  
3/7/86~~

  
PD#8:  
ACThadani  
3/13/86

Mr. J. A. Tiernan  
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant

cc:  
Mr. William T. Bowen, President  
Calvert County Board of  
Commissioners  
Prince Frederick, Maryland 20768

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U.S. Nuclear Regulatory Commission  
Office of Executive Director  
for Operations  
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Calvert Cliffs Project Engineer  
15740 Shady Grove Road  
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TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
6. CONTAINMENT PURGE VALVES ISOLATION ##					
a. Manual (Purge Valve Control Switches)	2/Penetration	1/Penetration	2/Penetration	6**	8
b. Containment Radiation - High Area Monitor	4	2	3	6**	8
7. LOSS OF POWER					
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3	7*
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3	7*

## Containment purge valve isolation is also initiated by SIAS (functional units 1.a, 1.b, and 1.c).

\*\* Must be OPERABLE only in MODE 6 when the valves are required OPERABLE and they are open.

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PDR ADDOCK 05000317  
P PDR

CALVERT CLIFFS - UNIT 1

3/4 3-13

Amendment No. 40, 52, 55, 108

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
8. CVCS ISOLATION					
a. Manual (CVCS Isolation Valve Control Switches)	1/Valve	1/Valve	1/Valve	1, 2, 3, 4	6
b. West Penetration Room/Letdown Heat Exchanger Room Pressure - High	4	2	3	1, 2, 3, 4	7*
9. AUXILIARY FEEDWATER ACTUATION SYSTEM (AFAS)					
a. Manual (Trip Buttons)	2 sets of 2 per S/G	1 set of 2 per S/G	2 sets of 2 per S/G	1, 2, 3	6
b. Steam Generator Level - Low	4/SG	2/SG	3/SG	1, 2, 3	7
c. Steam Generator ΔP High	4/SG	2/SG	3/SG	1, 2, 3	7

CALVERT CLIFFS - UNIT 1

3/4 3-14

Amendment No. 84, 83

TABLE 3.3-11

FIRE DETECTION INSTRUMENTS

UNIT 1

<u>ROOM/AREA</u> <u>AUX BLDG</u>	<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
		<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
100/103/				5
104/106	Corridors - Elev (-)10"-0"			2
110	Coolant Waste Rec & Mon. Tk Pp Rm.			4
111	Waste Processing Control Rm		4	1
112/114	Coolant Waste Rec Tank			1
113	Misc. Waste Receiver Tank Room			3
115	Charging Pump Room			7
118/122	ECCS Pump Room			7
119/123	ECCS Pump Room			
200/202	Corridors, &			
209/210	Corridors &			
212/219	Corridors			13
207/208	Waste Gas Equip Rm			3
216	Reactor Coolant Make-up Pumps			1
217	Boric Acid Tank & Pump Room			2
218	Volume Control Tank Room			1
220	Degasifier Pump Room			1
221/326	West Piping Penetration Room		2	3
222	Hot Instrument Shop			2
223	Hot Machine Shop			4
224	12 MSIV Hyd Area			10
225	Rad Exhaust Vent Equip Rm			4
226	Service Water Pump Rm		3	6
227/316	East, Piping Penetration Rm		3	5
228	Component Cooling Pump Rm			8
301/304/300	Battery Room & Corridor			3
306/1C	Cable Spreading Rm & Cable Chase**	2		10
308	N/S Corridor			6
315	Main Steam Piping Area			6
317	Switchgear Room, Elev 27'-0"***			6
318	Purge Air Supply Room			2
319/325	West Passage and Vestibule			6
320	Spent Fuel Heat Exchange Room			3
323	Passage 27' Valve Alley & Filter Rm			3
324	Letdown Heat Exchanger Rm			1
Elev. 27'-0"	Switchgear Vent Duct	1		
1A	Cable Chase 1A			1
1B	Cable Chase 1B			1
405	Control Room			6
410	N/S Corridor			4
417/418	Solid Waste Processing		2	3

TABLE 3.3-11 (Continued)  
FIRE DETECTION INSTRUMENTS  
UNIT 1

<u>ROOM/AREA</u> <u>AUX BLDG</u>	<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
		<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
413/419/420	Cask and Equip Loading Area &			
424/425/426	Cask and Equip Loading Area		3	22
421	Diesel Generator No. (12)**	2		
422	Diesel Generator No. (11)**	2		
423	West Electrical Pen Rm			3
428	East Piping Area			7
429	East Electrical Pene Rm			3
430	Switchgear Room Elev 45'-0"***			8
439	Refueling Water Tank Pump Rm			2
441	Spent Resin Metering Tank Rm			1
Elev 45'-0"	Switchgear Vent Duct	1		
Elev 69'-0"	Control Room Vent Duct "A"			1
Elev 69'-0"	Cable Spreading Room Vent Duct			1
512	Control Room HVAC Equipment			4
586-590,	Radiation Chemistry Area,			
592,593	Radiation Chemistry Area,			
595-597,	Radiation Chemistry Area &			
521,523	Corridors			20
520	Spent Fuel Pool Area Vent Equip Rm			2
524	Main Plant Exhaust Equip Rm			8
525	Cntmt Access Area			3
529	Electrical Equip. Room			3
530/531/533	Spent Fuel Pool Area		5	17
536/537	Misc Waste Evaporator & Equip Rm			3
Elev 83'-0"	Cable Tunnel			4
603	Auxiliary Feedwater Pump Rm			2
<u>Containment Bldgs</u>				
U-1	RCP Bay East*	16		
U-1	RCP Bay West*	16		
U-1	East Electric Pen Area*	4***		
U-1	West Electric Pen Area*	4***		
<u>Intake Structure</u>	Elev 3'-0" Unit 1 Side			24

\* Detection instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

\*\* Detectors which automatically actuate fire suppression systems.

\*\*\* Monitored by four protecto wires.

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

<u>PENETRATION NO.</u>	<u>ISOLATION CHANNEL</u>	<u>ISOLATION VALVE IDENTIFICATION NO.</u>	<u>FUNCTION</u>	<u>ISOLATION TIME (SECONDS)</u>
61	NA	SFP-176	Refueling Pool Outlet	NA
	NA	SFP-174		NA
	NA	SFP-172		NA
	NA	SFP-189		NA
62	SIAS A	PH-6579-MOV	Containment Heating Outlet	≤ 13
64	NA	PH-376	Containment Heating Inlet	NA

- (1) Manual or remote manual valve which is closed during plant operation.
- (2) May be opened below 300°F to establish shutdown cooling flow.
- (3) Containment purge valves will be shut in MODES 1, 2, 3, and 4 per TS 3/4 6.1.7.
  - \* May be open on an intermittent basis under administrative control.
  - \*\* Containment purge isolation valves isolation times will only apply in MODE 6 when the valves are required to be OPERABLE and they are open. Isolation time for containment purge isolation valves is NA for MODES 1, 2, 3 and 4 per TS 3/4 6.1.7, during which time these valves must remain closed.
- (4) Containment vent isolation valves shall be opened for containment pressure control, airborne radioactivity control, and surveillance testing purposes only.

CALVERT CLIFFS - UNIT 1

3/4 6-25

Amendment No. 65, 88, 103, 108, 115



CONTAINMENT SYSTEMS

3/4.6.5 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

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3.6.5.1 Two independent containment hydrogen analyzers shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With one hydrogen analyzer inoperable, restore the inoperable analyzer to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.
- b. With both hydrogen analyzers inoperable, restore at least one inoperable analyzer to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

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4.6.5.1 Each hydrogen analyzer shall be demonstrated OPERABLE at least bi-weekly on a STAGGERED TEST BASIS by drawing a sample from the waste gas system through the hydrogen analyzer.

4.6.5.2 Each hydrogen analyzer shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gases in accordance with manufacturers' recommendations.

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
6. CONTAINMENT PURGE VALVES ISOLATION ##					
a. Manual (Purge Valve Control Switches)	2/Penetration	1/Penetration	2/Penetration	6**	8
b. Containment Radiation - High Area Monitor	4	2	3	6**	8
7. LOSS OF POWER					
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3	7*
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	4/Bus	2/Bus	3/Bus	1, 2, 3	7*

## Containment purge valve isolation is also initiated by SIAS (functional units 1.a, 1.b, and 1.c).

\*\* Must be OPERABLE only in MODE 6 when the valves are required OPERABLE and they are open.

CALVERT CLIFFS - UNIT 2

3/4 3-13

Amendment No. 8, 22, 35, 47, 91

TABLE 3.3-3 (Continued)ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
8. CVCS ISOLATION					
a. Manual (CVCS Isolation Valve Control Switches)	1/Valve	1/Valve	1/Valve	1, 2, 3, 4	6
b. West Penetration Room/Letdown Heat Exchanger Room Pressure - High	4	2	3	1, 2, 3, 4	7*
9. AUXILIARY FEEDWATER					
a. Manual	2 sets of 2 per S/G	1 set of 2 per S/G	2 sets of 2 per S/G	1, 2, 3	6
b. Steam Generator Level - Low	4/SG	2/SG	3/SG	1, 2, 3	7
c. Steam Generator ΔP High	4/SG	2/SG	3/SG	1, 2, 3	7

TABLE 3.3-11

FIRE DETECTION INSTRUMENTS

UNIT 2

<u>ROOM/AREA</u> <u>AUX BLDG</u>	<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
		<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
101/120	ECCS Pump Room			7
102/121	ECCS Pump Room			7
105	Charging Pump Room			3
106	Misc Waste Monitor Tank			1
107/109	Coolant Waste Monitor Tank		4	
108	Pump Room-Elev (-)10'-0"			1
113	Misc. Waste Receiver Tank Room			1
201	Component Cooling Pump Rm			9
203	East Piping Area			10
204	Rad Exhaust Vent, Equip Rm			4
205	Service Water Pump Rm		3	6
206/310	East Piping Pen Rm		3	5
211/321	West Piping Pen Rm		2	3
213	Degasifier Pump Rm			1
214	Volume Control Tank Rm			1
215	Boric Acid Tank & Pump Rm			2
216A	Reactor Coolant Make-up Pumps			2
302/2C	U2 Cable Spreading Rm & Cable Chase**	2		10
305/307/303	U2 Battery Rm & Corridor			3
309	Main Steam Piping Area			6
311	Switchgear Rm, Elev 27'-0"			6
312	Purge Air Supply Rm			2
322	Letdown Heat Exchanger Rm			1
Elev. 27'-0"	Switchgear Vent Duct	1		
2A	Cable Chase 2A			1
2B	Cable Chase 2B			1
407	Switchgear Rm, Elev 45'-0"***			8
408	East Piping Area			7
409	East Electrical Pen Rm			3
414	West Electrical Pen Rm			3
416	Diesel Generator No. (21)**	2		
440	Refueling Water Tank Pump Rm			2
Elev 45'-0"	Switchgear Vent Duct	1		
526	Main Plant Exhaust Equip Rm			8
527	Containment Access			3
532	Electrical Equip Rm			3
Elev. 69'-0"	Cable Spreading Room Vent Duct			1
Elev. 83'-0"	Cable Tunnel			4
605	Auxiliary Feedwater Pump Rm			2

TABLE 3.3-11 (Continued)  
FIRE DETECTION INSTRUMENTS

UNIT 2

<u>ROOM/AREA</u> <u>AUX BLDG</u>	<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
		<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
<u>Containment Bldgs.</u>				
UNIT 2	RCP Bay East*	16		
UNIT 2	RCP Bay West*	16		
UNIT 2	East Electric Pen Area*	+		
UNIT 2	West Electric Pen Area*	+		
<u>Intake Structure Elev 3'-0" Unit 2 Side</u>				24

\*Detection instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.  
 \*\*Detectors which automatically actuate fire suppression systems.  
 +Monitored by four protecto wires.

## PLANT SYSTEMS

### 3/4.7.12 PENETRATION FIRE BARRIERS

#### LIMITING CONDITIONS FOR OPERATION

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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.

The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

b.

#### SURVEILLANCE REQUIREMENTS

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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

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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.