

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. 96 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 April 8, 1984, complies with the stande ds 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-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. 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 within 30 days of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment: Changes to the Technical Specifications

Date of Issuance: August 2, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 96

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.

Pages

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TABLE 3.3-11

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENTS	OPERABLE
	HEAT	FLAME.	SMOKE
Spent Fuel Pool Heat Exchanger Room 320			3
Main Control Room 405			6
Control Room Vent Duct "A"			2 8 4
Main Plant Exhaust Equip Room 524			8
Control Room HVAC Equip Room 512			4
Passage and Filter Room 323			3
Unit 1 Cont SW Elec Pen Area*	4		
Unit 1 Cont NE Elec Pen Area*	4		
Unit 1 Cont East RCPS*	16		
Unit 1 Cont West RCPS*	16		
Control Room Vent Duct "B"			1
West Passage 319 Elev 27'-0"			6
E/W Corridor 104, 100 and 106 - Elev (-) 10'-0"			6 5 48
Intake Structure			48
Unit 1 Waste Proc Control Room 111			1
Coolant Waste Rec/Mon TK Pp Room 110			2
11 Diesel Generator**	2 2		
12 Diesel Generator**	2		
Unit 1 Cable Tunnel Elev 83'-0"			4
Cable Chase 1A			1
Cable Chase 1B			1
Unit 1 C.S.R. & Cable Chase 1C**	2		10
Unit 1 Personnel Access Area Room 525			3
Unit 1 Switchgear Elev 27'-0" Room 317**			6
Unit 1 Switchgear Elev 45'-0" Room 430**			3 6 8 3 3 2 5 2 3 1
Unit 1 Elec Equip Room 529			3
Unit 1 East Elec Pen Room 429			3
Unit 1 West Elec Pen Room 423			3
Unit 1 Refueling Water TK Pump Room 439			2
Unit 1 East Piping Pen Rooms 227 and 316		3	5
Unit 1 Purge Air Supply Room 318			2
Unit 1 West Piping Pen Rooms 221 and 326		2	3
Unit 1 Letdown Heat Exchanger Room 324			
Unit 1 Volume Control TK Room 218			
Unit 1 ECCS Pump Rooms 118 and 122			7
Unit 1 Coolant Waste Rec TK Room 114 and 112		4	
Unit 1 ECCS Pump Rooms 119 and 122	75 1		7
Unit 1 Elev 27'-0" Swgr Room Vent Duct			
Unit 1 Elev 45'-0" swgr Room Vent Duct			

^{*}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.

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENTS	OPERABLE
	HEAT	FLAME	SMOKE
Main Steam Piping Room 315A			6
Hot Machine Shop 223			4
Battery Room 304 and 301			4 3 1 3 7
Misc. Waste Monitor Tank Room 113			
Charging Pump Room 115			3
East Piping Room 428			7
North South Corridor 410			4
Spent Fuel Pool 530		5	17
Radiation Chem., Lab Office, Rm. 513,			
518 and 519, Corridor 521, 522 and	,		16
534			10
Cask and Equipment Loading Area Rm. 419, 420, 425, and 426		3	22
Spent Fuel Vent Equip. Room 520			2
Component Cool Room 228			8
Radiation Exchange Vent Equip. Room 225			4
Boric Hold Tank & Pump Room 217			2
Reactor Cooling Pump Room 216			1
Hot Instrument Shop Room 222			2
Service Water Room 226		3	2 8 4 2 1 2 6
East Piping Room 224			10
Corridor 200, 209, and 210			13
Solid Waste Room 418 and 417		2	
Spent Resin Metering Tank Room 441			1
Waste Gas Equipment Room 207			1
Auxiliary Feed Tank Room 603			2
Misc. Waste Equipment Room 536			3
Corridor 308			6
N/S Corridor Room 410			4
N/S Corridor Room 308			6
Degasifier Pump Room 220			3 1 1 2 3 6 4 6
Waste Gas Compressor Room 208			2
was te das compressor Room 200			-

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENTS	OPERABLE
	HEAT	FLAME	SMOKE
Main Steam Piping Room 315A			6
Hot Machine Shop 223			4
Battery Room 304 and 301			3
Misc. Waste Monitor Tank Room 113			1
Charging Pump Room 115			3
East Piping Room 428			7
North South Corridor 410			4 3 1 3 7 4
Spent Fuel Pool 530		5	17
Radiation Chem., Lab Office, Rm. 513,			
518 and 519, Corridor 521, 522 and			
534	1		16
Cask and Equipment Loading Area Rm. 419,			
420, 425, and 426		3	22
Spent Fuel Vent Equip. Room 520			2
Component Cool Room 228			8
Radiation Exchange Vent Equip. Room 225			4
Boric Hold Tank & Pump Room 217			8 4 2 1 2
Reactor Cooling Pump Room 216			1
Hot Instrument Shop Room 222			2
Service Water Room 226		3	6
East Piping Room 224			10
Corridor 200, 209, and 210			13
Solid Waste Room 418 and 417		2	3
Spent Resin Metering Tank Room 441			1
Waste Gas Equipment Room 207			1
Auxiliary Feed Tank Room 603			2
Misc. Waste Equipment Room 536			3
Corridor 308			6
N/S Corridor Room 410			4
N/S Corridor Room 308			2 3 6 4 6
Degasifier Pump Room 220			
Waste Gas Compressor Room 208			2

6.1 RESPONSIBILITY

6.1.1 The Plant Superintendent shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

- 6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:
 - a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
 - b. At least one licensed Operator shall be in the control room when fuel is in the reactor.
 - c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
 - d, An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
 - e. All CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
 - f. A site Fire Brigade of at least 5 members shall be maintained onsite at all times. The Fire Brigade shall not include the minimum shift crew necessary for safe shutdown of both units (4 members) or any personnel required for other essential functions during a fire emergency.

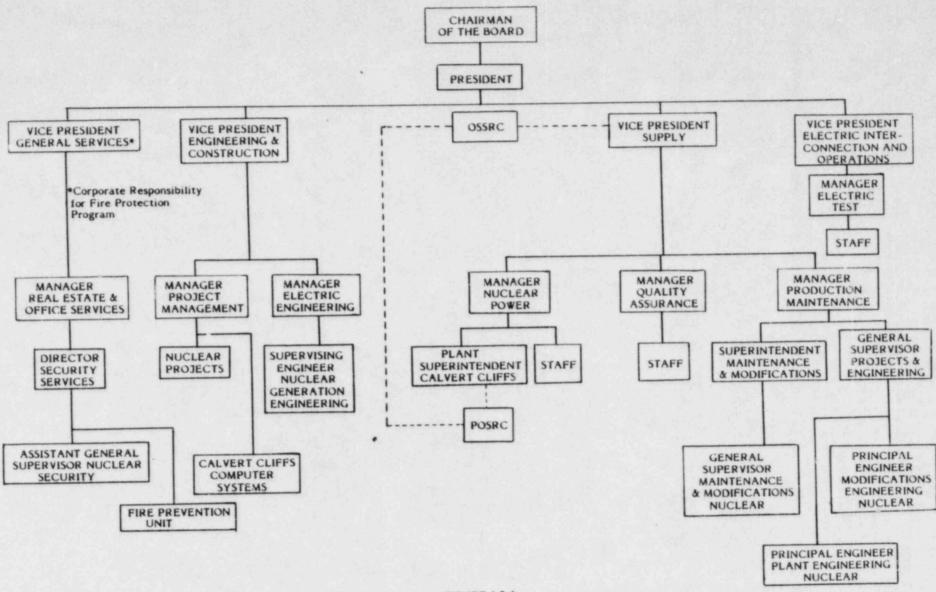


FIGURE 6.2-1
MANAGEMENT ORGANIZATION CHART
CALVERT CLIFFS NUCLEAR POWER PLANT
BALTIMORE GAS & ELECTRIC COMPANY

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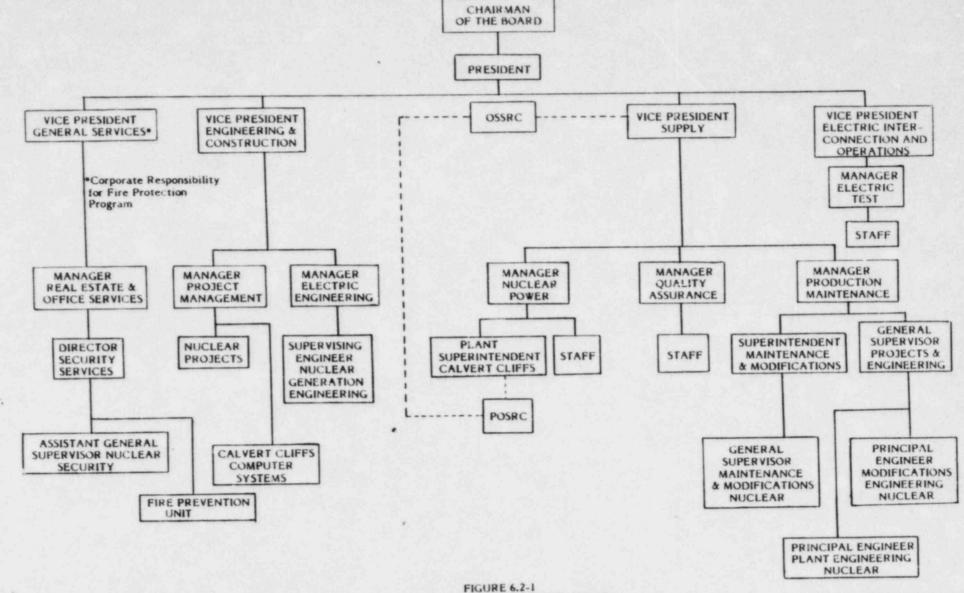


FIGURE 6.2-1
MANAGEMENT ORGANIZATION CHART
CALVERT CLIFFS NUCLEAR POWER PLANT
BALTIMORE GAS & ELECTRIC COMPANY

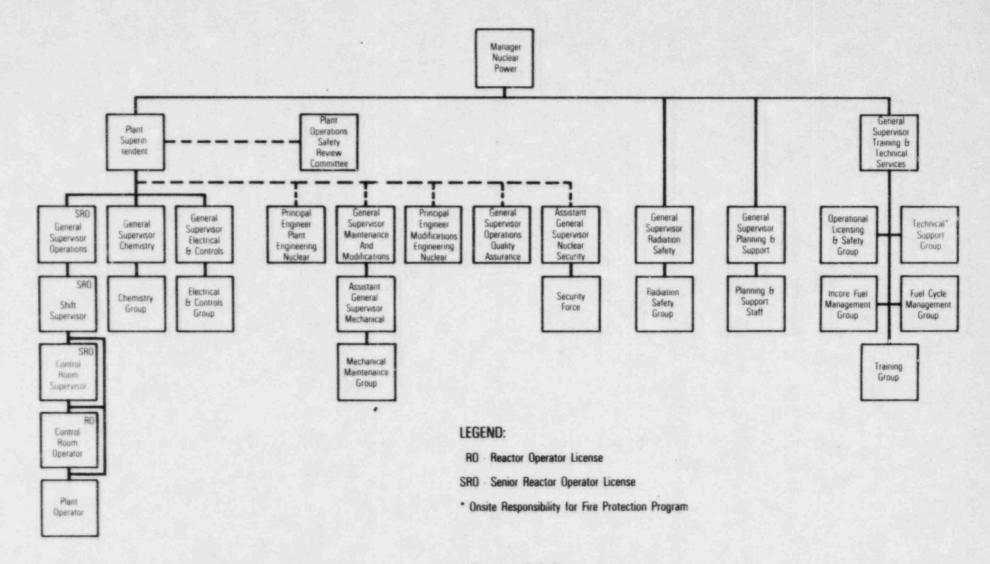


Figure 6.2.2
Organization Chart (Two Unit Operation) - Calvert Cliffs Nuclear Power Plant
Baltimore Gas and Electric Company

TABLE 6.2-1
MINIMUM SHIFT CREW COMPOSITION #

Condition of Unit 1 - Unit 2 in MODES 1, 2, 3 or 4

LICENSE	ICENSE APPLICABLE M	
CATEGORY	1, 2, 3 & 4	5 & 6
SOL**	2	2*
OL**	3	3
Non-Licensed	3	3
Shift Technical Advisor	1##	1##

Condition of Unit] - Unit 2 in MODES 5 or 6

LICENSE	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
SOL**	2	1*
0L**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1##	0

TABLE 6.2-1
MINIMUM SHIFT CREW COMPOSITION #

Condition of Unit 1 - Unit 2 in MODES 1, 2, 3 or 4

LICENSE	APPLICABLE MODES	
CATEGORY	1, 2, 3 & 4	5 & 6
SOL**	2	2*
OL**	3	3
Non-Licensed	3	3
Shift Technical Advisor	1##	1##

Condition of Unit 1 - Unit 2 in MODES 5 or 6

LICENSE	APPLICABLE MODES	
CATEGORY	1, 2, 3 & 4	5 & 6
SOL**	2	1*
OL**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1##	0

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 and the Operations Shift Supervisor on duty under their separate administrative control.

6.13 ENVIRONMENTAL QUALIFICATION

- 6.13.1 By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or NUPEG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of Licenses DPR-53 and DPR-69 dated October 24, 1980.
- 6.13.2 By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6.14 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:

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

6.15 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 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.



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

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-313

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 77 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 April 9, 1984, 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. issuance of this amendment is in accordance with 10 CFR Part of the Commission's regulations and all applicable requirements 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. 77, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective within 30 days 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: August 8, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 77

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.

Pages

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TABLE 3.3-11 FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENTS	OPERABLE*
	HEAT	FLAME	SMOKE
Unit 2 East Elec Pen Room 409			3
Unit 2 West Elec Pen Room 414			3 6 8
Unit. 2 Switchgear Elev 27'-0" Room 311**			6
Unit 2 Switchgear Elev 45'-0" Room 407**			8
Unit 2 Elec Equip Room 532			3
Unit 2 Cont SE Elec Pen Area*	4		
Unit 2 Cont NW Elec Pen Area*	4		
Unit 2 Cont East RCPS*	16		
Unit 2 Cont West RCPS*	16		
Unit 2 Main Plant Exh Equip Room 526			8
Unit 2 Personnel Access Area Room 527			3
Cable Tunnel U-2 Elev 83'-0"			4
Cable Chase 2A			1
Cable Chase 2B			1
Unit 2 C.S.R. & Cable Chase 2C**	2		10
Unit 2 Letdown Heat Exchanger Room 322			1
Unit 2 Volume Control Tank Room 214			1
Unit 2 Cool Waste Rec TK Room 107 and 109		4	
Unit 2 ECCS Pump Rooms 101 and 120			7
Unit 2 Pump Room 108 Elev (-) 10'-0"			1
Unit 2 Intake Structure			48
Unit 2 Elev 27'-0" Swgr Room Vent Duct	1		
Unit 2 Elev 45'-0" Swgr Room Vent Duct	1		
Unit 2 ECCS Pp Rooms 102 and 120			7
21 Diesel Generator **	2		
Unit 2 Refueling Water Tk Pp Room 440.			2
Unit 2 East Pp Pen Rooms 206 and 310		3	
Unit 2 Purge Air Supply Room 312			5 2 3
Unit 2 West Piping Pen Rooms 211 and 321		2	3

^{*}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.

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENT	OPERABLE
	HEAT	FLAME	SMOKE
Main Steam Piping Room 309 East Piping Area Room 203 Charging Pump Room 105 Battery Room 307 and 305 Misc. Waste Monitor Tank Room East Piping Area Room 408 Component Cooling Room 201 Radiation Exchange Equip. Room 204 Boric Acid Tank and Pump Room 215 Reactor Cooling Pump Room 216A Service Water Room 205 Auxiliary Feed Pump Room 605 Degasifier Pump Room		3	6 10 3 3 1 7 9 4 2 2 6 2

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM	INSTRUMENT	OPERABLE
	HEAT	FLAME	SMOKE
Main Steam Piping Room 309 East Piping Area Room 203 Charging Pump Room 105 Battery Room 307 and 305 Misc. Waste Monitor Tank Room East Piping Area Room 408 Component Cooling Room 201 Radiation Exchange Equip. Room 204 Boric Acid Tank and Pump Room 215 Reactor Cooling Pump Room 216A Service Water Room 205 Auxiliary Feed Pump Room 605 Degasifier Pump Room		3	6 10 3 3 1 7 9 4 2 2 6 2

6.1 RESPONSIBILITY

6.1.1 The Plant Superintendent shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

- 6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:
 - a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
 - b. At least one licensed Operator shall be in the control room when fuel is in the reactor.
 - c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
 - d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
 - e. All CORE ALTERATIONS after the initial fuel loading shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
 - f. A site Fire Brigade of at least 5 members shall be maintained onsite at all times. The Fire Brigade shall not include the minimum shift crew necessary for safe shutdown of both units (4 members) or any personnel required for other essential functions during a fire emergency.

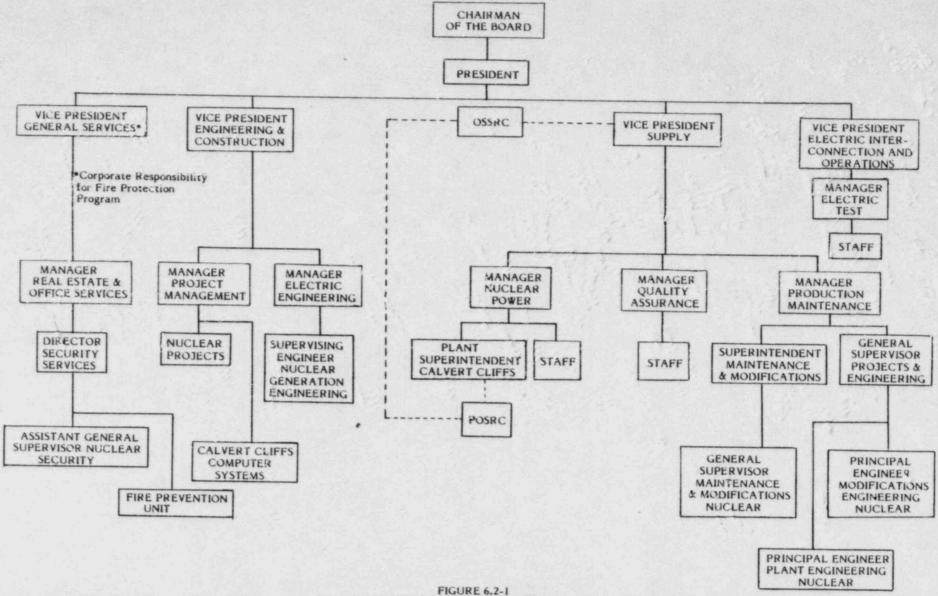
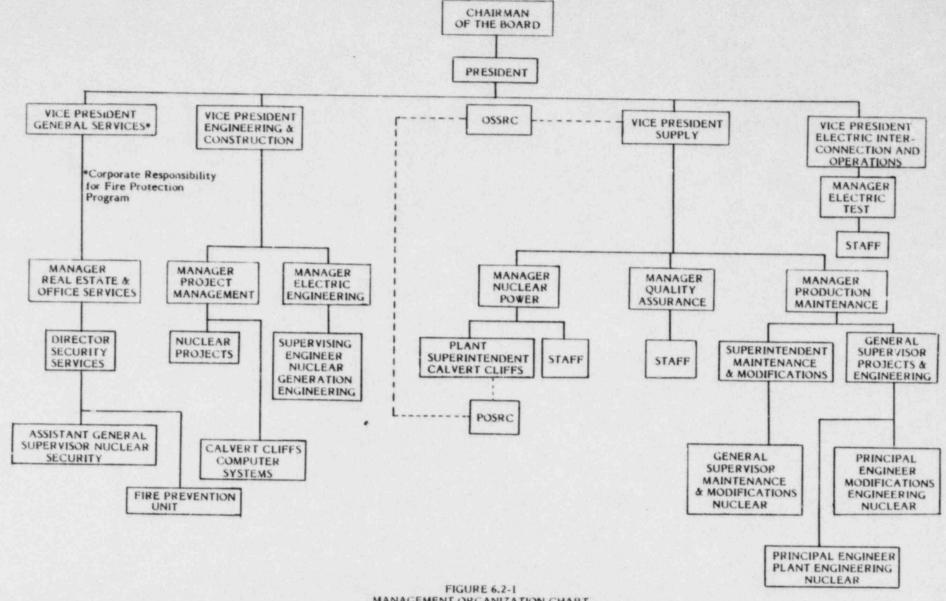


FIGURE 6.2-1
MANAGEMENT ORGANIZATION CHART
CALVERT CLIFFS NUCLEAR POWER PLANT
BALTIMORE GAS & ELECTRIC COMPANY



MANAGEMENT ORGANIZATION CHART
CALVERT CLIFFS NUCLEAR POWER PLANT
BALTIMORE GAS & ELECTRIC COMPANY

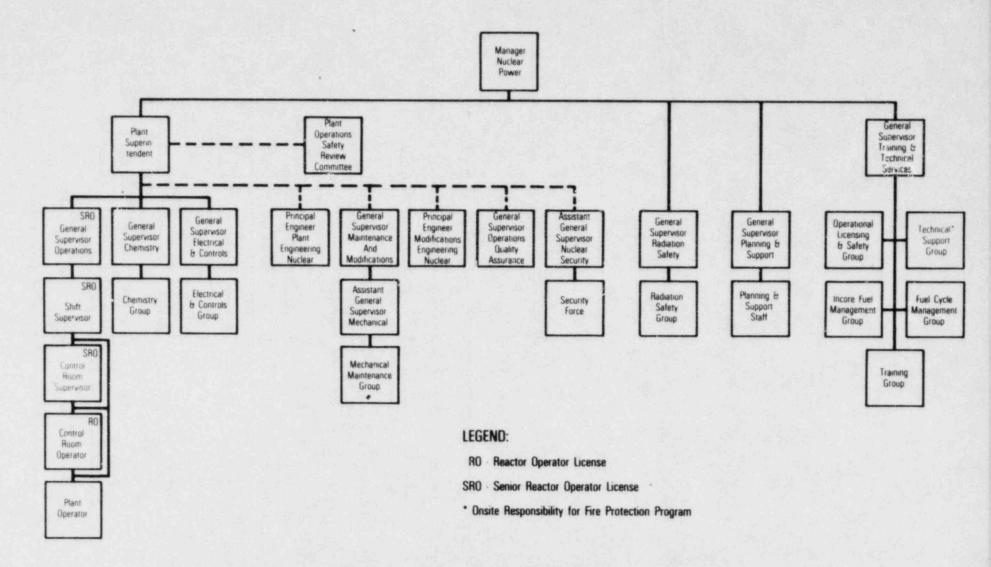


Figure 6.2.2
Organization Chart (Two Unit Operation) - Calvert Cliffs Nuclear Power Plant
Baltimore Gas and Electric Company

TABLE 6.2-1 MINIMUM SHIFT CREW COMPOSITION #

Condition of Unit 2 - Unit 1 in MODES 1, 2, 3 or 4

LICENSE	APPLICABLE MODES	
CATEGORY	1, 2, 3 & 4	5 & 6
S0L**	2	2*
OL**	3	3
Non-Licensed	3	3
Shift Technical Advisor	1##	1##

Condition of Unit 2 - Unit 1 in MODES 5 or 6

LICENSE CATEGORY	APPLICABLE MODES	
CATEGORY	1, 2, 3 & 4	5 & 6
S0L**	2	1*
0L**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1##	0

TABLE 6.2-1 MINIMUM SHIFT CREW COMPOSITION

Condition of Unit 2 - Unit 1 in MODES 1, 2, 3 or 4

LICENSE	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
SOL**	2	2*
OL**	3	3
Non-Licensed	3	3
Shift Technical Advisor	1##	1##

Condition of Unit 2 - Unit 1 in MODES 5 or 6

LICENSE CATEGORY	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
SOL**	2	1*
0L**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1##	0

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 and the Operations Shift Supervisor on duty under their separate administrative control.

6.13 ENVIRONMENTAL QUALIFICATION

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6.14 SYSTEM INTEGRITY

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

6.15 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:

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 - 2. Procedures for monitoring, and
 - 3. Provisions for maintenance of sampling and analysis equipment.

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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,
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 - 3. Provisions for maintenance of sampling and analysis equipment.