

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

- c. With one offsite circuit and one diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours*; restore one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement "a" or "b", as appropriate with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.4 performed under this Action Statement for an OPERABLE diesel or a restored to OPERABLE diesel satisfies the EDG test requirement of Action Statement "a" or "b".
- d. With two of the required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of two diesel generators by sequentially performing Surveillance Requirement 4.8.1.1.2.a.4 on both diesels within 8 hours, unless the diesel generators are already operating; restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow Action Statement "a" with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable offsite A.C. circuit. A successful test(s) of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.4 performed under this Action Statement for the OPERABLE diesels satisfies the EDG test requirement of Action Statement "a".
- e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Following restoration of one diesel generator unit, follow Action Statement "b" with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable diesel generator. A successful test of diesel OPERABILITY per Surveillance Requirement 4.8.1.1.2.a.4 performed under this Action Statement for a restored to OPERABLE diesel satisfies the EDG test requirement of Action Statement "b".

*This test is required to be completed regardless of when the inoperable EDG is restored to OPERABILITY.

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UNLESS IT IS ALREADY
OPERABLE,

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification 6.4

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety; and
- (B) This change reflects the changes in the organization described in Specification 6.2.1. The Training Manager will report to the Assistant Vice President, Nuclear Production, instead of the PVNGS Plant Manager.

This change was discussed with Mr. Manny Licitra in your offices on February 21, 1986 and found to be acceptable.

ADMINISTRATIVE CONTROLS

6.4 TRAINING *ASST. V.P. NUCLEAR PRODUCTION*

6.4.1 A training program for the unit staff shall be maintained under the direction of the ~~PVNGS Plant Manager~~ or his designee and shall meet or exceed the requirements and recommendations of Section 5.0 of ANS 3.1-1978 and Appendix A of 10 CFR Part 55 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience.

6.5 REVIEW AND AUDIT

6.5.1 PLANT REVIEW BOARD (PRB)

FUNCTION

6.5.1.1 The Plant Review Board shall function to advise the PVNGS Plant Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PRB shall be composed of the following personnel:

Member:	Technical Support Manager
Member:	Operations Manager
Member:	Maintenance Manager
Member:	Plant Services Manager
Member:	Engineering Manager
Member:	Operations Superintendents for Unit 1, Unit 2, Unit 3
Member:	STA Supervisor
Member:	I&C Superintendent
Member:	Radiation Protection and Chemistry Manager
Member:	Quality Systems/Engineering Manager

The PVNGS Plant Manager shall designate the Chairman and Vice-Chairmen in writing. The Chairman and Vice-Chairmen may be from outside the members listed above provided that they meet ANSI Standard 3.1, 1978.

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PRB Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PRB activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PRB shall meet at least once per calendar month and as convened by the PRB Chairman, Vice-Chairmen, or his designated alternate.

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification 3/4.3.3.9, Tables 3.3-13 and 4.3-8

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety; and
- (B) The proposed change does not result from a change in plant design, but it reflects that, at certain times during plant operation in MODES 3 and 4, condenser vacuum may not be established or sealing steam applied to turbine glands from the steam generators. If neither of these conditions exists, there is no possibility of a release from this pathway. The monitors would not need to be operable at this time.

This change was discussed with Mr. Jared Wermiel in your offices on February 20, 1986 and found to be acceptable.

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TABLE 3.3-13 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
3. CONDENSER EVACUATION SYSTEM			
A. Low Range Monitors			
a. Noble Gas Activity Monitor #RU-141	1	1, 2, 3, 4 ***	37
b. Iodine Sampler	1	1, 2, 3, 4	40
c. Particulate Sampler	1	1, 2, 3, 4	40
d. Flow Rate Monitor	1	1, 2, 3, 4	36
e. Sampler Flow Rate Measuring Device	1	1, 2, 3, 4	36
B. High Range Monitors			
a. Noble Gas Activity Monitor #RU-142	1	1, 2, 3, 4 ***	42
b. Iodine Sampler	1	1, 2, 3, 4	42
c. Particulate Sampler	1	1, 2, 3, 4	42
d. Sampler Flow Rate Measuring Device	1	1, 2, 3, 4	42
4. PLANT VENT SYSTEM			
A. Low Range Monitors			
a. Noble Gas Activity Monitor #RU-143	1	*	37
b. Iodine Sampler	1	*	40
c. Particulate Sampler	1	*	40
d. Flow Rate Monitor	1	*	36
e. Sampler Flow Rate Measuring Device	1	*	36

TABLE 3.3-13 (Continued)

TABLE NOTATION

* At all times.

** During GASEOUS RADWASTE SYSTEM operation.

During waste gas release.

In MODES 1, 2, 3, and 4 or when irradiated fuel is in the fuel storage pool.

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

- a. At least two independent samples of the tank's contents are analyzed, and
- b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours.

ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the actions of (a) or (b) are performed:

- a. Initiate the Preplanned Alternate Sampling Program of Specification 6.16 to monitor the appropriate parameter(s).
- b. Place moveable air monitors in-line or take grab samples at least once per 12 hours.

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.

ACTION 39 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of the GASEOUS RADWASTE SYSTEM may continue provided grab samples are taken and analyzed daily. With both channels inoperable operation may continue provided grab samples are taken and analyzed (1) every 4 hours during degassing operations, and (2) daily during other operations.

*** WHENEVER THE CONDENSER AIR REMOVAL SYSTEM IS IN OPERATION,
OR ^{WHENEVER} TURBINE GLANDS ARE BEING SUPPLIED WITH STEAM FROM SOURCES
OTHER THAN THE AUXILIARY BOILER(S).

TABLE 4.3-8 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE IS REQUIRED</u>
3. CONDENSER EVACUATION SYSTEM (RU-141 and RU-142)					
a. Noble Gas Activity Monitor	D(6)	M	R(3)	Q(2)	1, 2, 3, 4 ^{***} 4 ^{***}
b. Iodine Sampler	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
c. Particulate Sampler	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
d. Flow Rate Monitor	D(7)	N.A.	R	Q	1, 2, 3, 4
e. Sampler Flow Rate Measuring Device	D(7)	N.A.	R	Q	1, 2, 3, 4
4. PLANT VENT SYSTEM (RU-143 and RU-144)					
a. Noble Gas Activity Monitor	D(6)	M	R(3)	Q(2)	*
b. Iodine Sampler	N.A.	N.A.	N.A.	N.A.	*
c. Particulate Sampler	N.A.	N.A.	N.A.	N.A.	*
d. Flow Rate Monitor	D(7)	N.A.	R	Q	*
e. Sampler Flow Rate Measuring Device	D(7)	N.A.	R	Q	*

TABLE 4.3-8 (Continued)

TABLE NOTATIONS

* At all times.

** During GASEOUS RADWASTE SYSTEM operation.

During waste gas release.

During MODES 1, 2, 3 or 4 or with irradiated fuel in the fuel storage pool.

Functional test should consist of, but not be limited to, a verification of system isolation capability by the insertion of a simulated alarm condition.

(1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway occurs if the instrument indicates measured levels above the alarm/trip setpoint.

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:

1. Instrument indicates measured levels above the alarm setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.
4. Instrument controls not set in operate mode.

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.

(4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent hydrogen, balance nitrogen, and
2. Four volume percent hydrogen, balance nitrogen.

(5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

1. One volume percent oxygen, balance nitrogen, and
2. Four volume percent oxygen, balance nitrogen.

(6) The channel check for channels in standby status shall consist of verification that the channel is "on-line and reachable."

(7) Daily channel check not required for flow monitors in standby status.

*** WHENEVER THE CONDENSER AIR REMOVAL SYSTEM IS IN OPERATION, OR WHENEVER TURBINE GLANDS ARE BEING SUPPLIED WITH STEAM FROM SOURCES OTHER THAN THE AUXILIARY BOILER(S)

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification 3/4.4.3.2

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety; and
- (B) This change reflects requirements stated in NUREG-0857, Supplement No. 9, issued with Facility Operating License NPF-46. Locking the valves in the open position helps to ensure the operability of the auxiliary spray system when it may be needed.

This change was reviewed by Mr. Chu-Yu Liang in your offices on February 20, 1986 and found to be acceptable.

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REACTOR COOLANT SYSTEM

AUXILIARY SPRAY

LIMITING CONDITION FOR OPERATION

3.4.3.2 Both auxiliary spray valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With only one of the above required auxiliary spray valves OPERABLE, restore both valves to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With none of the above required auxiliary spray valves OPERABLE, restore at least one valve to OPERABLE status within the next 6 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.4.3.2.1 The auxiliary spray valves shall be verified to have power available to each valve every 24 hours.

4.4.3.2.2 The auxiliary spray valves shall be cycled at least once per 18 months.

4.4.3.2.2 CH-HV-S24 AND CH-HV-S32 SHALL BE VERIFIED LOCKED OPEN AT LEAST ONCE PER 31 DAYS

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification 3/4.5.1

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety; and
- (B) This change will make the surveillance requirement more conservative than the present specification. This will make the referenced pressure agree with the pressure stated in the footnote on Page 3/4 5-1 and will eliminate confusion between the two items.

The change was reviewed by Mr. Chu-Yu Liang in your offices on February 21, 1986 and found to be acceptable.



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EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that each safety injection tank isolation valve is open and the nitrogen vent valves are closed.
 - b. At least once per 31 days and within 6 hours after each solution level increase of greater than or equal to 7% of tank narrow range level by verifying the boron concentration of the safety injection tank solution is between 2000 and 4400 ppm.
 - c. At least once per 31 days when the ~~RCS~~ ^{PRESSURIZER} pressure is above ~~700 psig~~ ^{430 psia}, by verifying that power to the isolation valve operator is removed.
 - d. At least once per 18 months by verifying that each safety injection tank isolation valve opens automatically under each of the following conditions:
 1. When an actual or simulated RCS pressure signal exceeds 515 psia, and
 2. Upon receipt of a safety injection actuation (SIAS) test signal.
 - e. At least once per 18 months by verifying OPERABILITY of RCS-SIT differential pressure alarm by simulating RCS pressure > 715 psia with SIT pressure < 600 psig.
 - f. At least once per 18 months, when SITs are isolated, by verifying the SIT nitrogen vent valves can be opened.
 - g. At least once per 31 days, by verifying that power is removed from the nitrogen vent valves.

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification 6.8.4f

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety; and
- (B) Deletion of the procedure number would allow the flexibility to change the procedure number without changing the Technical Specifications. It is also common practice not to include plant procedure numbers in the Technical Specifications.

This change was discussed with Mr. Jared Wermiel in your offices on February 21, 1986 and found to be acceptable.

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ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

- (1) Training of personnel, and
- (2) Procedures for monitoring.

e. Post-Accident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (1) Training of personnel,
- (2) Procedures for sampling and analysis,
- (3) Provisions for maintenance of sampling and analysis equipment.

f. Spray Pond Monitoring

A program which will identify and describe the parameters and activities used to control and monitor the Essential Spray Pond and Piping. The program shall be conducted in accordance with

~~Procedure 73AC-SP01.~~ STATION MANUAL PROCEDURES

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the Regional Office of the NRC unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

6.9.1.2 The Startup Report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

The staff requested that additional information be supplied concerning the change to Technical Specification 6.2.1.

The major change is depicted on Figure 6.2-1. The Assistant Vice President, Nuclear Production, is shown separated from the Vice President, Nuclear Production, and is assigned direct responsibility for four support functions: Emergency Planning, Administrative Services, Training, and Water Reclamation Facility Operations. This change was made to allow those managers who have direct responsibilities for plant operation and safety to concentrate resources on those areas and to provide effective management for necessary support functions.

An additional change can be seen on Figure 6.2-1. The Compliance Department reporting to the PVNGS Plant Manager will now be headed by a manager with one or more supervisors reporting to him. This change is intended to increase the effectiveness of this group in responding to Licensee Event Reports and other interfaces with regulatory matters.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud.

2. The second part of the document outlines the specific procedures for recording transactions. It details the steps involved in the accounting process, from the initial entry of data into the system to the final review and approval of the records.

3. The third part of the document addresses the challenges associated with maintaining accurate records. It identifies common sources of error and provides strategies for minimizing these errors, such as implementing strict controls and regular audits.

4. The fourth part of the document discusses the role of technology in improving record-keeping. It highlights the benefits of using automated systems to process transactions and generate reports, and provides examples of how these systems can be implemented effectively.

5. The fifth part of the document concludes by emphasizing the importance of ongoing training and education for all personnel involved in the record-keeping process. It stresses that continuous learning is necessary to stay up-to-date on the latest best practices and to ensure the highest level of accuracy and reliability in the financial records.

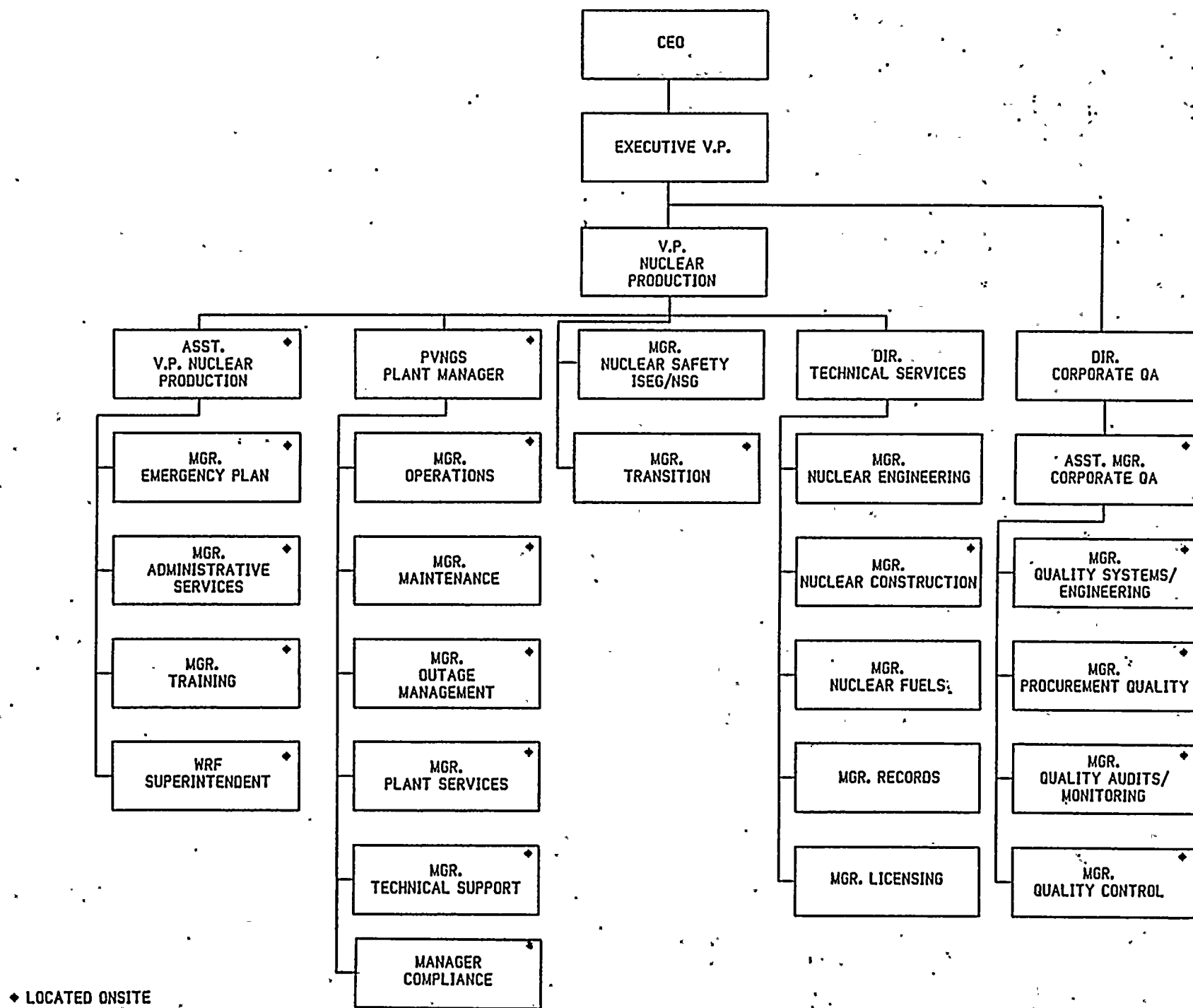


FIGURE 6.2-1
OFFSITE ORGANIZATION

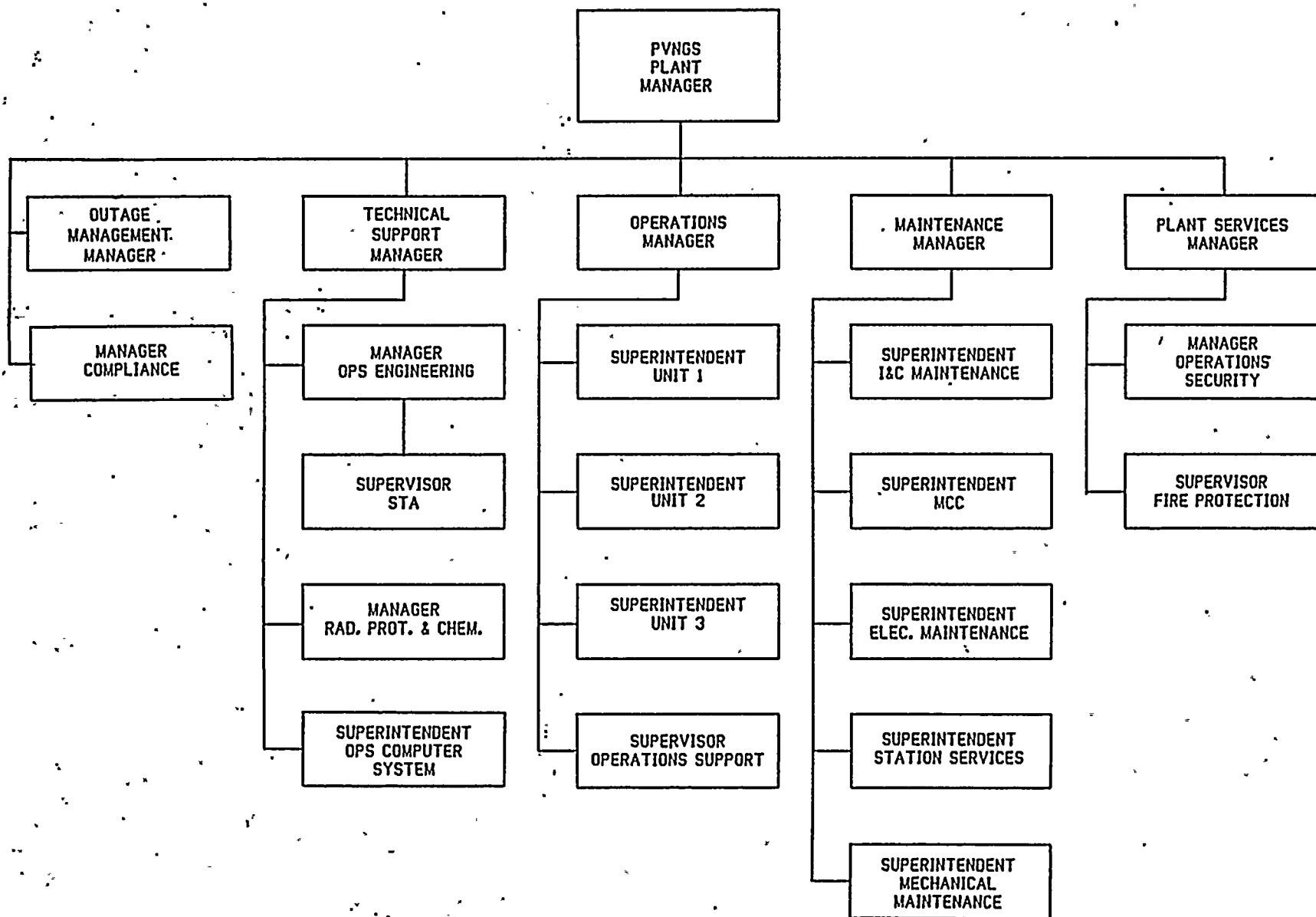


FIGURE 6.2-2
ONSITE UNIT ORGANIZATION

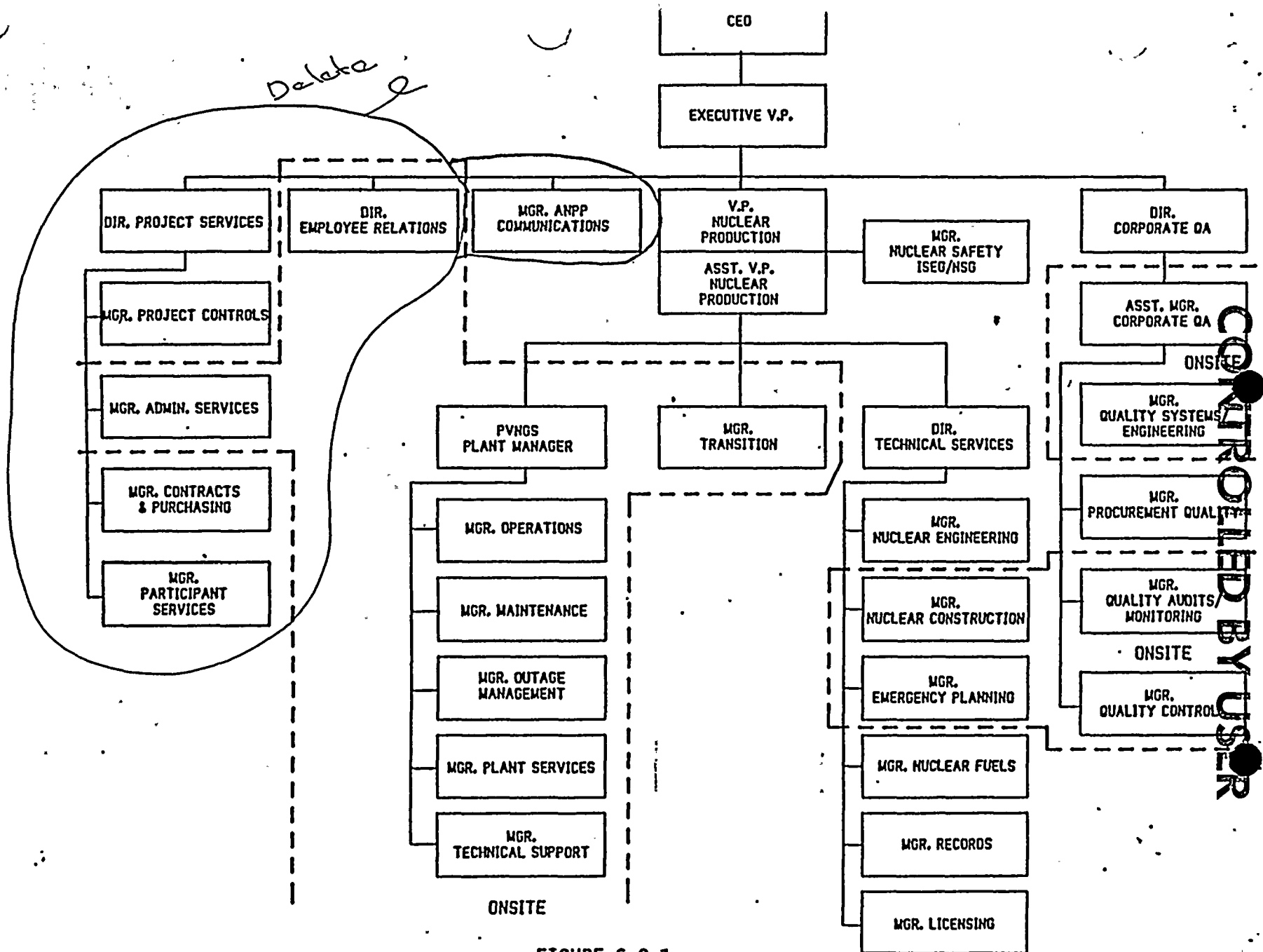


FIGURE 6.2-1

OFFSITE ORGANIZATION

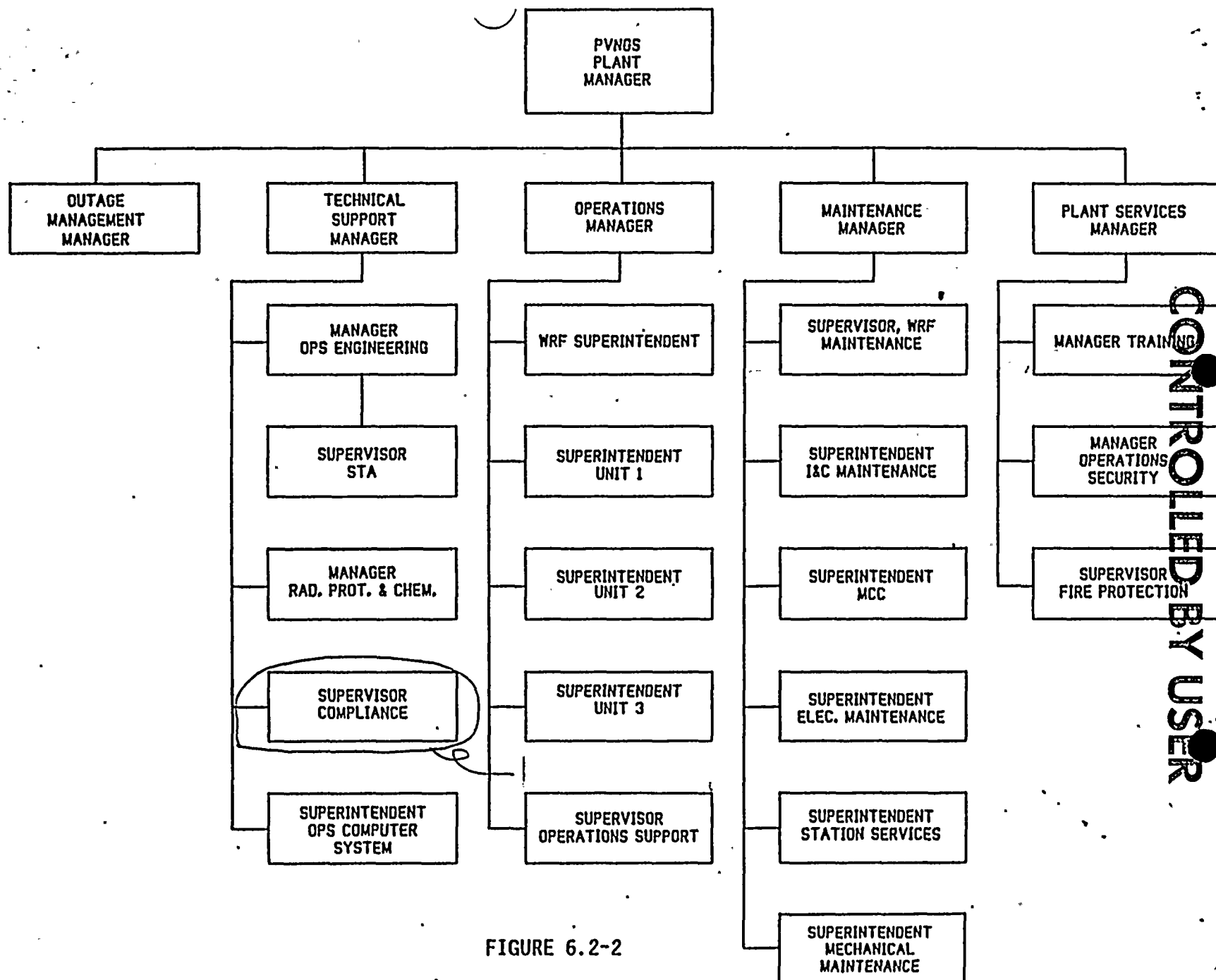


FIGURE 6.2-2
ONSITE UNIT ORGANIZATION

NO SIGNIFICANT HAZARDS DOCUMENTATION

Unit 2 Technical Specification Table 3.3-11

The proposed amendment request does not involve a Significant Hazards Consideration because:

- (A) The operation of PVNGS Unit 2 in accordance with this change would not:
 - 1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
 - 2) Create the possibility of a new or different kind of accident from any accident previously analyzed; or
 - 3) Involve a significant reduction in a margin of safety.
- (B) The proposed amendment is purely an administrative change to the technical specifications: the fire detection instruments listed have been added to Unit 2.

CONTROLLED BY USER

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

FIRE ZONE	ELEVATION	INSTRUMENT LOCATION	TOTAL NUMBER OF INSTRUMENTS*		
			HEAT (x/y)	FLAME (x/y)	SMOKE (x/y)
9A	100'	Battery Rm. - Train A (Channel A)	0/2		0/2
9B	100'	Battery Rm. - Train B (Channel B)	0/2		0/2
10A	100'	Remote Shutdown Rm. - Train A	0/1		1/1
10B	100'	Remote Shutdown Rm. - Train B	0/1		1/1
11A	120'	Cable Shaft - Train A			1/0
11B	120'	Cable Shaft - Train B			1/0
12	120'	Communications Rm.			0/2
13	120'	Inverter Rm.			0/2
14	120'	Lower Cable Spreading Rm.			0/2
		System 1	0/1		0/6
		System 2	0/1		0/6
		System 3	0/1		0/8
		System 4	0/1		0/8
		System 5	0/1		0/8
		System 6	0/1		0/8
15A	140'	Cable Shaft - Train A			1/0
16	140'	Computer, Office and Storage Rm.			4/4
15B	140'	Cable Shaft - Train B			1/0
17	140'	Control Rm. - MCB's & Relay Cabinets	2/0		1/0 112/0
18A	160'	Cable Shaft - Train A			1/0
18B	160'	Cable Shaft - Train B			1/0
19	160'	Normal Smoke Exhaust Rm.			1/0
20	160'	Upper Cable Spreading Rm.			1/0
		System 1	0/1		0/12
		System 2	0/1		0/8
		System 3	0/1		0/8
		System 4	0/1		0/8
		System 5	0/1		0/8

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TABLE 3.3-11 (Continued)
FIRE DETECTION INSTRUMENTS

FIRE ZONE	ELEVATION	INSTRUMENT LOCATION	TOTAL NUMBER OF INSTRUMENTS*		
			HEAT (x/y)	FLAME (x/y)	SMOKE (x/y)
BUILDING - DIESEL GENERATOR					
21A	100'	Diesel Generator - Train A	0/3	0/4	
21B	100'	Diesel Generator - Train B	0/3	0/4	
22A	100'	Diesel Generator Control Rm. - Train A.			1/0
22B	100'	Diesel Generator Control Rm. - Train B			1/0
24A	115'	Combustion Air Intake Rm. - Train A			1/0
24B	115'	Combustion Air Intake Rm. - Train B			1/0
23A	131'	Fuel Oil Day Tank - Train A	0/1		
23B	131'	Fuel Oil Day Tank - Train B	0/1		
25A	131'	Exhaust Silencer Rm. - Train A		3/0	
25B	131'	Exhaust Silencer Rm. - Train B		3/0	
BUILDING - FUEL					
27	100'	Exhaust Silencer Air Filtration Units			4/0
28	100'	Spent Fuel Pool Cooling and Cleanup Pump Areas			3/0
29	120'	Electrical Equipment Area			3/0
29A	140'	New and Spent Fuel Storage Area			5/0
BUILDING - AUXILIARY					
88A	51'-6" & 40'	West Corridors			6/0
88B	51'-6" & 40'	East Corridors			6/0
90	51'-6" & 40'	Equipment Drain Tank			2/0
32A	51'-6" & 40'	LPSI Pump Rm. - Train A			0/2
30A	51'-6" & 40'	Containment Spray Pump Room - Train A			0/2
30B	51'-6" & 40'	Containment Spray Pump Room - Train B			0/2
32B	51'-6" & 40'	LPSI Pump Rm. - Train B			0/2
31A	51'-6" & 40'	HPSI Pump Rm. - Train A			0/2
31B	51'-6" & 40'	HPSI Pump Rm. - Train B			0/2
PALO VERDE - UNIT 2					

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TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

FIRE ZONE	ELEVATION	INSTRUMENT LOCATION	TOTAL NUMBER OF INSTRUMENTS*		
			HEAT (x/y)	FLAME (x/y)	SMOKE (x/y)
47A	120'	Elect. Penetration Rm. - Tr. A (Chan. A)	0/1		0/28
47B	120'	Elect. Penetration Rm. - Tr. B (Chan. D)	0/1		0/24
48	120'	ECW Surge Tanks Corridor - Tr. A & B			3/0
50B	120'	Valve Gallery			1/0
51B	120'	Spray Chemical Storage Tk Rm.			1/0
52A	120'	Central Corridor - West	0/1		5/17
52D	120'	Central Corridor - East	0/1		7/18
54	120'	Reactor Trip Switchgear Rm.	1/0		6/0
55C	140'	Clean Issue Room			1/0
56B	140'	Storage and Elect. Equip.			6/0
55E	140'	Rm. - East			1/0
56A	140'	Hot Clothing Room			1/0
57I	140'	Storage and Electrical Room Clothing Issue and Men's Locker Rm.			5/0
57J	140'	Women's Locker, Clean Storage and Lunch Rms.			7/0
57N	140'	Corridor Area			4/0

BUILDING - CONTAINMENT**

66A&66B	100' & 120'	Southwest and Southeast Perimeter	1/0
67A&67B	100'	Northwest and Northeast Perimeter	1/0
66A	120'	Southwest Perimeter	1/0
66B	120'	Southeast Perimeter	1/0
67A&67B	120'	Northwest and Northeast Perimeter	1/0

CONTROLLED BY USER

TABLE 3.3-11 (Continued)

FIRE DETECTION INSTRUMENTS

FIRE ZONE	ELEVATION	INSTRUMENT LOCATION	TOTAL NUMBER OF INSTRUMENTS*		
			HEAT (x/y)	FLAME (x/y)	SMOKE (x/y)
63A	120'	No. 1 RCPs and SG Area			6/0
63B	120'	No. 2 RCPs and SG Area			6/0
66A&66B 67A&67B	140'	Southwest, Southeast, Northwest and Northeast Perimeters	1/0		
63A	140'	No. 1 RCPs and SG Area			5/0
63B	140'	No. 2 RCPs and SG Area			5/0
70	140'	Refueling Pool and Canal Area			4/0
71A	140'	North Preaccess Normal AFU Area			2/0
71B	140	South Preaccess Normal AFU Area			2/0
<u>MAIN STEAM SUPPORT STRUCTURE</u>					
72	80'	Turbine Driven Aux. Feedpump Rm.			0/3
73	80'	Motor Driven Aux. Feedpump Rm.			1/1
74A	100', 120' & 140'	Main Steam Isol. & Dump Valve Area North	0/6		0/6
74B	100', 120' & 140'	Main Steam Isol. & Dump Valve Area South	0/6		0/6
<u>OUTSIDE AREAS</u>					
83		Condensate Storage Tank Pump House			2/0

