

TABLE 15.3.13-1

SAFETY RELATED SHOCK SUPPRESSORS (SNUBBERS)

Location ID Number	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubber Especially Difficult to Remove	Snubber Inaccessible During Normal Operation	Snubber Accessible During Normal Operation
<u>Unit 1</u>						
1-HS-1	"A" Main Steam Line - West	100				X
1-HS-2	"A" Main Steam Line - East	100				X
1-HS-5	"A" SG Side - North	66				X (2)
1-HS-6	"A" SG Side - Middle	66				X (2)
1-HS-7	"A" SG Side - South	66				X (2)
1-HS-3	"B" Main Steam Line - West	100				X
1-HS-4	"B" Main Steam Line - East	100				X
1-HS-8	"B" SG Side - North	66				X (2)
1-HS-9	"B" SG Side - Middle	66				X (2)
1-HS-10	"B" SG Side - South	66				X (2)
1-HS-11	"A" Main Feed Line at 66'	61				X
1-HS-15	Containment Spray Header Above 66'	120				X
1-HS-16	Containment Spray Header Above 66'	120				X
1-HS-17	Pressurizer Relief Line	80				X
1-HS-18	Pressurizer Relief Line	80				X
1-HS-14	Power Operated Header-Pressurizer Cubicle	78				X
1-HS-M74	Relief Valve Header-Pressurizer Cubicle	80				X
1-HS-12	SIS Line - Regen. HX Cubicle	34	X			X (2)
1-HS-13	SIS Line at 21' Elevation	40				X
1-HS-19	Reactor Vessel Keyway	3	X (1)		X	
1-HS-20	Reactor Vessel Keyway	3	X (1)		X	
<u>Unit 2</u>						
2-HS-36	"A" SG Side - North	66				X (2)
2-HS-37	"A" SG side - Middle	66				X (2)
2-HS-38	"A" SG Side - South	66				X (2)
2-HS-32	"A" Main Steam Line - East	100				X
2-HS-33	"A" Main Steam Line - West	100				X
2-HS-39	"B" SG Side - North	66				X (2)
2-HS-40	"B" SG Side - Middle	66				X (2)
2-HS-41	"B" SG Side - South	66				X (2)

7910120222

114 136

TABLE 15.3.13-1 (Continued)

Snubber ID Number	Location	Elevation	Snubber in High Radiation Area During Shutdown*	Snubber Especially Difficult to Remove	Snubber Inaccessible During Normal Operation	Snubber Accessible During Normal Operation
2-HS-34	"B" Main Steam Line - East	100				X
2-HS-35	"B" Main Steam Line - West	100				X
2-HS-21	Aux. Feed Line to "A" SG	72				X
2-HS-23	SIS Line at 46'	50				X
2-HS-26	SIS Line at 46'	34				X
2-HS-24	At Overhead to Keyway at 26'	36				X
2-HS-29	Downstream of Valve PCV 434	80				X
2-HS-30	Downstream of Valve PCV 435	80				X
2-HS-M75	Downstream of Pressurizer Safety Valve	80				X
2-HS-28	Line to Power Operated Relief Valves	77				X
2-HS-22	Beneath Valve 541 in "A" Loop Cubicle	41	X		X	
2-HS-31	Reactor Vessel Keyway	3	X (1)		X	
2-HS-27	Reactor vessel Keyway	3	X (1)		X	
2-HS-25	Regen. HX Cubicle at 26'	34	X			X (2)
(1) High radiation during shutdown with flux thimble withdrawn.						
(2) Accessible during normal operation for visual inspection only.						
* Modifications to this Table due to changes in high radiation areas shall be submitted to the NRC as part of the next license amendment.						

TABLE 15.4.1-1

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND
TEST OF INSTRUMENT CHANNELS

Channel Description	Check	Calibrate	Test	Remarks
1. Nuclear Power Range	S(1)** M*(3)**	D (1)** Q*(3)**	B/W (2)**	1) Heat balance 2) Signal to ΔT ; bistable action (permissive, rod stop, trips) 3) Upper and lower chambers for axial off-set
2. Nuclear Intermediate Range	S(1)**	N.A.	P (2)	1) Once/shift when in service 2) Log level; bistable action (permissive, rod stop, trips)
3. Nuclear Source Range	S (1)	N.A.	P (2)	1) Once/shift when in service 2) Bistable action (alarm, trips)
4. Reactor Coolant Temperature	S .	R	B/W (1)** (2)	1) Overtemperature-Delta T 2) Overpower - Delta T
5. Reactor Coolant Flow	S**	R	M**	
6. Pressurizer Water Level	S**	R	M**	
7. Pressurizer Pressure	S**	R	M**	
8. 4 Kv Voltage & Frequency	N.A.	R	M**	Reactor protection circuits only
9. Analog Rod Position	S (1)**	R	M**	1) With step counters

* By means of the movable in-core detector system.

** Not required during periods of refueling shutdown, but must be performed prior to starting up if it has not been performed during the previous surveillance period. Tests of permissive and low power trip bistable setpoints which cannot be done during power operations shall be conducted prior to startup if not done in the previous two weeks.

15.5 DESIGN FEATURES

15.5.1 SITE

Applicability

Applies to the location and extent of the reactor site.

Objective

To define those aspects of the site which affect the overall safety of the installation.

Specification

The Point Beach Nuclear Power Plant is located on property owned by Wisconsin Electric Power Company at a site on the shore of Lake Michigan, approximately 30 miles southeast of the city of Green Bay. The minimum distance from the reactor containment center line to the site exclusion boundary as defined in 10 CFR 100.3 is 1200 meters.

15.6 ADMINISTRATIVE CONTROLS

15.6.1 RESPONSIBILITY

15.6.1.1 The Manager - Nuclear Operations shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during absences from the Point Beach Nuclear Plant area of greater than 48 hours and where ready contact by telephone or other means is not assured.

15.6.2 ORGANIZATION

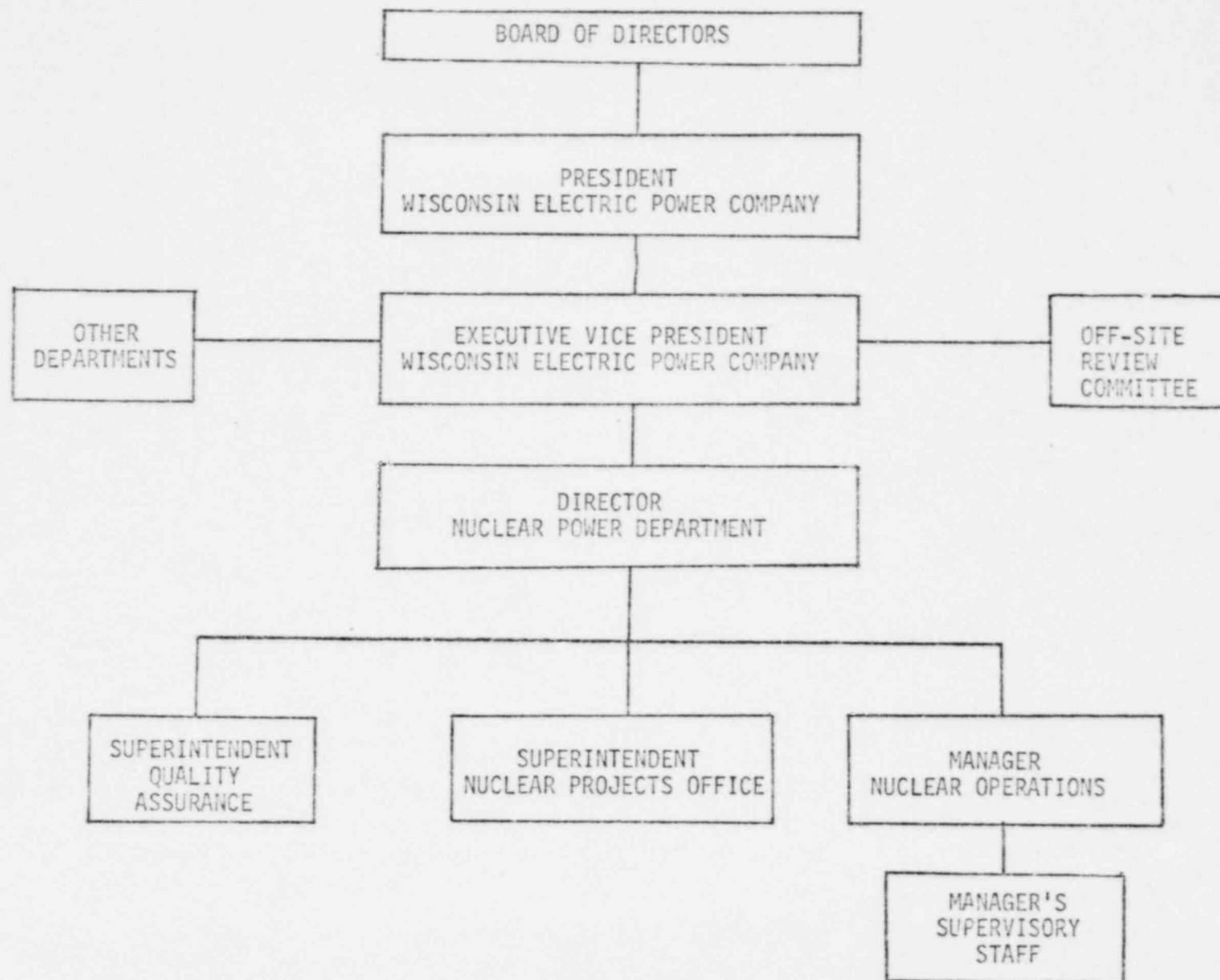
OFFSITE

15.6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 15.6.2-1.

FACILITY STAFF

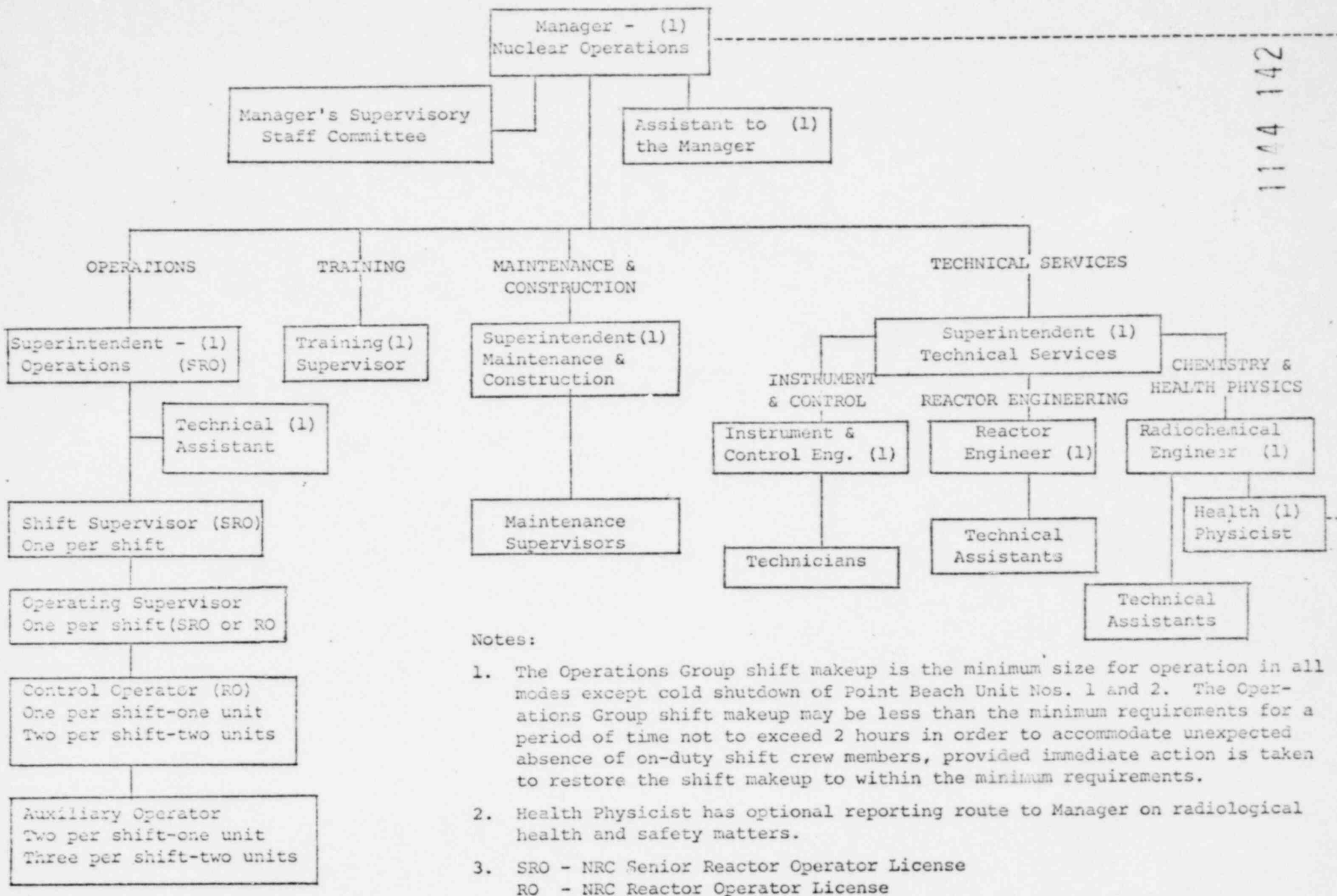
15.6.2.2 The Facility organization shall be as shown on Figure 15.6.2-2 and:

- a. Each on-duty shift shall normally be composed of at least the minimum shift crew composition as noted in Figure 15.6.2-2.
- b. At least one licensed Operator shall be in the control room when fuel is in either 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 either 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.



MANAGEMENT ORGANIZATION CHART

FIGURE 15.6.2-1



CONDUCT OF PLANT OPERATIONS CHART
Figure 15.6.2-2

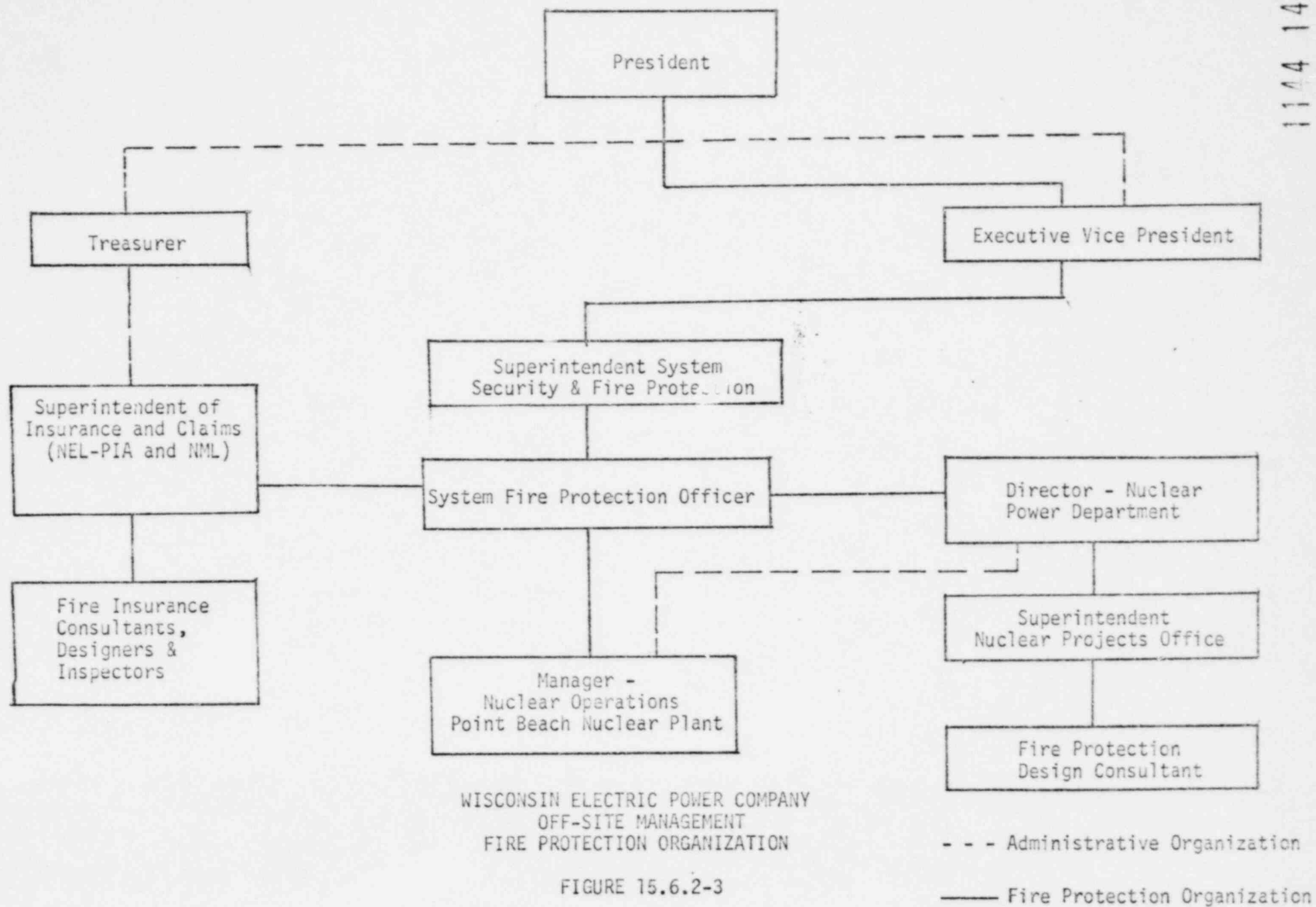
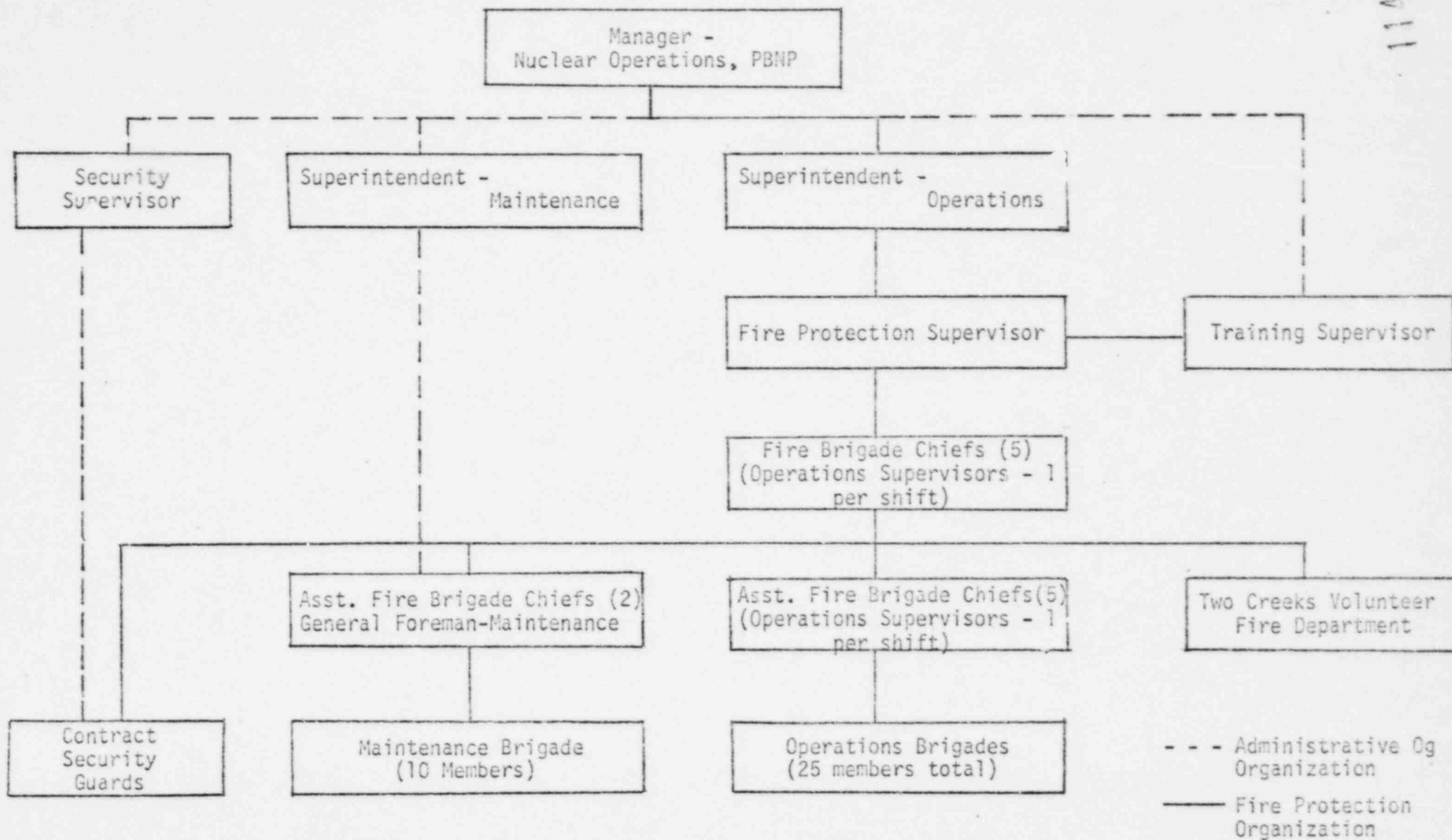


FIGURE 15.6.2-3

1144 144



POINT BEACH NUCLEAR PLANT
FIRE PROTECTION ORGANIZATION

FIGURE 15.6.2-4

15.6.3 FACILITY STAFF QUALIFICATIONS

15.6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions.

15.6.4 TRAINING

15.6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

15.6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Fire Protection Supervisor and shall meet or exceed the requirements of Section 27 of the NFPA Code-1976, except that the meeting frequency may be quarterly.

15.6.5 REVIEW AND AUDIT

15.6.5.1 Duty and Call Superintendents

- a. To assist and counsel the Shift Supervisor in case of significant operating events, a Duty and Call Superintendent Group has been established. The Duty and Call Superintendent Group shall consist of any qualified person designated by the Manager - Nuclear Operations.
- b. In the event of a reportable occurrence, the Shift Supervisor shall communicate with at least one Duty and Call Superintendent before taking other than the immediate on-the-spot action required. One Duty and Call Superintendent will be assigned to be "on call" at all times. The Duty and Call Superintendent provides continuously available counsel, call out backups, and review to the Shift Supervisor.

15.6.5.2 Manager's Supervisory Staff

FUNCTION

15.6.5.2.1 The Manager's Supervisory Staff (MSS) shall function to advise the Manager - Nuclear Operations on all matters related to nuclear safety.

COMPOSITION

15.6.5.2.2 The Manager's Supervisory Staff shall be composed of the:

Chairman:	Manager - Nuclear Operations
Member:	Superintendent - Operations
Member:	Superintendent - Maintenance & Construction
Member:	Instrument and Control Engineer
Member:	Superintendent - Technical Services
Member:	Radiochemical Engineer
Member:	Health Physicist
Member:	Assistant to the Manager - Nuclear Operations

ALTERNATES

15.6.5.2.3 Alternate members shall be appointed in writing by the MSS Chairman to serve on a temporary basis; however, no more than two alternates shall participate in MSS activities at any one time.

MEETING FREQUENCY

15.6.5.2.4 The MSS shall meet at least once per calendar month and as convened by the MSS Chairman.

QUORUM

15.6.5.2.5 A quorum of the MSS shall consist of the Chairmen and four members including alternates.

RESPONSIBILITIES

15.6.5.2.6 The Manager's Supervisory Staff shall:

- a) Review existing and proposed normal, abnormal and emergency operating procedures. Review maintenance procedures and proposed changes to these procedures and other procedures or changes thereto as determined by the Manager to affect plant operational safety. (Re: Section 15.6.7 for area of review.)

- b) Review all proposed tests and experiments related to safety and the results thereof when applicable.
- c) Review all proposed changes to Technical Specifications.
- d) Review all proposed changes or modifications to plant systems or equipment where changes would require a change in operating or emergency procedures or that affect nuclear safety.
- e) Periodically review plant operations for industrial and nuclear safety hazards.
- f) Investigate violations or suspected violations of Technical Specifications, such investigations to include reports, evaluations, and recommendations to prevent recurrence, to the Executive Vice President and to the Chairman of the Off-Site Review Committee.
- g) Perform special reviews and investigations and prepare reports thereon as requested by the Chairman of the Off-Site Review Committee.
- h) Investigate, review, and report on all reportable occurrences.
- i) Cause to be conducted periodic drills on emergency procedures, including evacuation (partial or complete) of the site and check adequacy of communications with off-site support groups.
- j) Review the Facility Fire Protection Program and implementing procedures at least once per 24 months.

AUTHORITY

- 15.6.5.2.7 a) The Supervisory Staff shall serve as advisory to the Manager - Nuclear Operations.
- b) The Supervisory Staff shall recommend to the Manager approval or disapproval of proposals under items a) through d) above.
- In the event of disagreement between a majority of the

Supervisory Staff and decisions by the Manager, the course of action will be determined by the Manager and the disagreement recorded in the Staff minutes. Records of the disagreement will be included in the minutes sent for review to the Off-Site Review Committee and the Executive Vice President.

- c) The Supervisory Staff shall make tentative recommendations as to whether or not proposals considered by the Staff involve unreviewed safety questions. These recommendations shall be subject to review and further recommendations by the Off-Site Review Committee. Minutes shall be kept of all meetings of the Staff and copies shall be sent to the Executive Vice President and to the Chairman of the Off-Site Review Committee.
- d) The Supervisory Staff shall review and approve the contents of a report for each reportable occurrence. This report shall include an evaluation of the cause of the occurrence and recommendations for appropriate action to prevent or reduce the probability of a recurrence. Copies of all such reports shall be submitted to the Executive Vice President and to the Off-Site Review Committee.

RECORDS

15.6.5.2.8 The Manager's Supervisory Staff shall maintain written minutes of each meeting and copies shall be provided to the Executive Vice President and Chairman, Off-Site Review Committee.

15.6.5.3 OFF-SITE REVIEW COMMITTEE (OSRC)

FUNCTION

15.6.5.3.1 The Off-Site Review Committee shall function to provide independent review and audit of designated activities in the areas of:

- a) nuclear power plant operations
- b) nuclear engineering
- c) chemistry and radiochemistry
- d) metallurgy
- e) instrumentation and control
- f) radiological safety
- g) mechanical and electrical engineering
- h) quality assurance practices
- i) environmental monitoring

COMPOSITION

15.6.5.3.2 The Off-Site Review Committee is made up of a minimum of five regular members appointed by the Executive Vice President and one ex-officio member. Of the five or more regular members, at least two will be persons not directly employed by the Licensee. All members will be experienced in one or more aspects of the nuclear industry. The ex-officio member will be the Executive Vice President.

ALTERNATES

15.6.5.3.3 Alternate members may be appointed in writing by the OSRC Chairman to serve on a temporary basis; however, no more than two alternates shall participate in OSRC activities at any one time.

CONSULTANTS

15.6.5.3.4 Consultants shall be utilized as determined by the OSRC Chairman to provide expert advice to the OSRC.

- h) Any indication of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components.
- i) Reports and meeting minutes of the Manager's Supervisory Staff.

AUDITS

15.6.5.3.8 Audits of facility activities shall be performed under the cognizance of the OSRC. These audits shall encompass:

- a) The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per year.
- b) The performance, training and qualifications of the licensed operating staff at least once per year.
- c) The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least twice per year at approximately six month intervals.
- d) The results of quarterly audits by the Quality Assurance Division on the performance of activities required by the Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per two years.
- e) Emergency Plan and implementing procedures at least once per two years.
- f) Any other area of facility operation considered appropriate by the Executive Vice President.

AUTHORITY

15.6.5.3.9 The OSRC shall report to and advise the Executive Vice President on those areas of responsibility specified in Section 15.6.5.3.7 and 15.6.5.3.8.

1144 150

RECORDS

15.6.5.3.10 Records of OSRC activities shall be prepared, approved and distributed as indicated below:

- a) Minutes of each OSRC meeting shall be prepared, approved and forwarded to the Executive Vice President within 14 days following each meeting.
- b) Reports of reviews encompassed by Section 15.6.5.3.7.e, f and g above, shall be prepared, approved and forwarded to the Executive Vice President within 14 days following completion of the review.
- c) Audit reports encompassed by Section 15.6.5.3.8 above, shall be forwarded to the Executive Vice President and to the management positions responsible for the areas audited within 30 days after completion of the audit.

1144 151

15.6.6 REPORTABLE OCCURRENCE ACTION

Specification

The following action shall be taken for REPORTABLE OCCURRENCES

- A. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 15.6.9.2.
- B. Each REPORTABLE OCCURRENCE requiring 24 hour notification to the Commission shall be reviewed by the Manager's Supervisory Staff (MSS) and submitted to the Off-Site Review Committee (OSRC) and the Executive Vice President.

15.6.7 ACTION TO BE TAKEN IF A SAFETY LIMIT IS EXCEEDED

Specification

- A. If a safety limit is exceeded, the affected reactor shall be shut down and reactor operation shall not be resumed until approval is received from the NRC.
- B. An immediate report shall be made to the Executive Vice President and the Chairman of the Off-Site Review Committee.
- C. The Executive Vice President shall report the circumstances to the NRC.
- D. A Safety Limit Violation Report including a complete analysis of the circumstances leading to and resulting from the occurrence, effects upon facility components, systems or structures, together with recommendations to prevent a recurrence, shall be prepared. This report shall be submitted to the Executive Vice President and the Chairman of the Off-Site Review Committee. A Safety Limit Violation Report shall be submitted to the NRC by the Executive Vice President within 10 days of the occurrence.

15.6.8 PLANT OPERATING PROCEDURES

15.6.8.1 The plant shall be operated and maintained in accordance with approved procedures. Major procedures, supported by appropriate minor procedures (such as checkoff lists, operating instructions, data sheets, alarm responses, chemistry analytical procedures, etc.) shall be provided for the following operations where these operations involve nuclear safety of the plant:

1. Normal sequences of startup, operation and shutdown of components, systems and overall plant.
2. Refueling.
3. Specific and foreseen potential malfunctions of systems or components including abnormal reactivity changes.
4. Security Plan Implementation.
5. Emergencies which could involve release of radioactivity.
6. Nuclear core testing.
7. Surveillance and Testing of safety related equipment.
8. Fire Protection Implementation (to be provided by March 31, 1978).

15.6.8.2 Approval of Procedures

- A. All major procedures of the categories listed in 15.6.8.1 (except 15.6.8.1.4) and 15.6.11, and modifications to the intent thereof, shall be reviewed by the Manager's Supervisory Staff and approved by the Manager - Nuclear Operations prior to implementation.
- B. Minor procedures (checkoff lists, operating instructions, data sheets, alarm responses, chemistry analytical procedures, technical instructions, special and routine maintenance procedures, laboratory manuals, etc.) shall, prior to initial use, be reviewed by the Manager's Supervisory Staff and approved by the Manager - Nuclear Operations.

1144 154

15.6.8.3 Changes to Procedures

- A. Temporary changes to major procedures, of the categories listed in 15.6.8.1 (except 15.6.8.1.4) and 15.6.11.1, which do not change the intent of the original or subsequent approved procedure, may be made provided such changes to operating procedures are approved by the Duty Shift Supervisor and one of the Duty and Call Superintendents. For temporary changes to major procedures under the jurisdiction of Maintenance, Instrumentation and Control, Reactor Engineering, or Chemistry and Health Physics which do not change the intent, changes may be made upon approval of the cognizant group head and a Duty and Call Superintendent. All Temporary changes to major procedures (made by a Duty and Call Superintendent and either a cognizant group head or the Duty Shift Supervisor) shall subsequently be reviewed by the Manager's Supervisory Staff and approved by the Manager - Nuclear Operations within 2 weeks; except that temporary changes to major procedure made to a given unit during its refueling outage may be reviewed and approved at any time prior to initial criticality of the reload core; and shall only become permanent changes after the Manager's Supervisory Staff's review and Manager's approval steps.
- B. All temporary or permanent changes to minor operating procedures (checkoff lists, alarm responses, data sheets, operating instructions, etc.) shall be approved by the Duty Shift Supervisor, and shall be subsequently reviewed and approved by the Superintendent - Operations. All temporary or permanent changes

to other minor procedures under the jurisdiction of Maintenance, Instrumentation and Control, Reactor Engineering, or Chemistry and Health Physics, shall be approved by a supervisor of the cognizant group and shall be subsequently reviewed and approved by the group head of the cognizant group.

In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following program for reporting of operating information shall be followed. Reports should be addressed to the Director, Office of Inspection and Enforcement, Region III unless otherwise noted.

15.6.9.1 Routine Reports

A. Startup Report

1. A summary report of plant startup and power escalation testing which addresses each of the tests identified in the PFDSAR and includes a general description of the measured values obtained during the test program and a comparison of these values with design predictions and specifications must be submitted under the following conditions:
 - a. Receipt of an operating license.
 - b. Amendment to the license involving a planned increase in power level.
 - c. Installation of fuel that has a different design or has been manufactured by a different fuel supplier.
 - d. Modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.Any corrective actions that were required to obtain satisfactory operations shall also be described.
2. This report shall be submitted within the earliest time frame of the following:

9. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than that assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

B. Thirty-Day Written Reports

The types of events listed in items 1 through 4 below have lesser immediate importance. These events shall be the subject of written reports to the Director, Office of Inspection and Enforcement, Region III within 30 days of the occurrence of the event. The written report shall include, as a minimum, a completed copy of the licensee event report form, and may be supplemented, as needed to provide complete explanation of the circumstances surrounding the event.

1. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems.
2. Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.