



Consumers
Power
Company

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 748-0550

October 6, 1978

Director, Nuclear Reactor Regulation
Att: Mr Dennis L Ziemann, Chief
Operating Reactors Branch No 2
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-6 -
BIG ROCK POINT PLANT - FIRE PROTECTION
ADMINISTRATIVE CONTROLS AND FIRE
BARRIER TESTS

By letter dated June 19, 1978, Consumers Power Company committed to a submittal of a Big Rock Point Plant "Fire Protection Plan" in October 1978. The attached Fire Protection Plan dated September 29, 1978 completes the requirements of the June letter.

In addition, our July 14, 1978 letter providing additional information relative to the Big Rock Point Fire Hazards Analysis indicated in Item 21 that fire barrier test data would be forwarded when the tests were complete. The test data for qualifying fire stop designs was provided as Attachments 1 and 2 of our September 29, 1978 letter on the Palisades Plant Docket 50-255. The final design for fire stops (existing, modified and new) to be used at the Big Rock Point Plant will be consistent with the designs tested and documented in those reports.

David P Hoffman
Assistant Nuclear Licensing Administrator

CC: JGKeppler, USNRC

7810110164

A006/5 *
1/40

BIG ROCK POINT PLANT

Docket 50-155

License DPR-6

FIRE PROTECTION PLAN

September 29, 1978

BIG ROCK POINT PLANT
Fire Protection Plan

1. SCOPE

- 1.1 This document is Consumers Power Company's Fire Protection Plan for the Big Rock Nuclear Power Plant.
- 1.2 The purpose of this plan is to establish and define controls for fire protection activities that affect safety related and certain nonsafety-related structures, systems and components.
- 1.3 The following figures are attached:
 - Figure 1: Fire Protection Responsibility
 - Figure 2: Functional Organization
 - Figure 3: Off-Site Organization

2. APPLICABILITY

- 2.1 The Fire Protection Plan applies to on-site Big Rock employees, visitors, vendors, contractors and subcontractors.

3. REFERENCES

- 3.1 BTP - APC 9.5-1, Appendix A - Guidelines for Fire Protection for Nuclear Power Plants
- 3.2 Big Rock Technical Specifications
- 3.3 Quality Assurance Topical Report CPC-1-A
- 3.4 Operating Procedures Manual
- 3.5 Site Emergency Plan
- 3.6 Plant Training Manual
- 3.7 Plant Records Management
- 3.8 Administrative Procedures
- 3.9 Property Protection Standards
- 3.10 Nuclear Mutual Limited (NML) Property Loss Prevention Standards

4. ORGANIZATION

4.1 Administrative Organization

- 4.1.1 The Manager of Production - Nuclear shall have responsibility for overall management of the Fire Protection Program.
- 4.1.2 The Plant Superintendent is responsible for the overall administration of the plant operations and emergency plans which include the fire protection and prevention programs.
- 4.1.3 The Big Rock Fire Marshall shall:
 - 4.1.3.1 Be responsible for overall formulation and implementation of the fire protection and prevention programs.
 - 4.1.3.2 Assess the effectiveness of Big Rock's Fire Protection Program including fire drills, fire brigade and plant staff training and makes program reviews as required by Technical Specifications. A report of these assessments including any recommendations for improvement shall be made.
 - 4.1.3.3 Be responsible for coordination of recommendations concerning the updating and backfitting of the Big Rock Plant to applicable requirements.
 - 4.1.3.4 Provide the plant staff with technical information and expertise needed for development of fire prevention and protection procedures including maintenance.
 - 4.1.3.5 Assist in the development of programs for Big Rock Plant's staff and fire brigade training.
- 4.1.4 The plant Shift Supervisor or his designee:
 - 4.1.4.1 Shall be responsible for day-to-day, in-plant implementation of the Fire Protection Plan.
 - 4.1.4.2 Shall be responsible for completion of procedures for:

4.1.4.2.1 Testing and availability of fire detection, suppression and extinguishing systems at the plant including all installed and portable equipment and barriers used in fighting or containing fires.

4.1.4.2.2 Fire prevention and protection requirements during activities which place a portion of the fire protection system out of service or increase the possibility of a fire.

4.1.4.3 Shall be responsible for assuring indoctrination in fire emergency procedures for employees, visitors, contractors, and subcontractors. The responsibility for the above training is delegated to the Plant Training Coordinator.

4.1.4.4 Is assisted in the above activities and responsibilities by the Plant Fire Marshall in performance of administrative duties concerning the Fire Protection Plan.

4.2 Support Services

4.2.1 The Property Protection Department is organized wholly independent of the Nuclear Production Department and provides support services and technical assistance to the plant for all matters of fire protection.

4.2.1.1 The Director of the Property Protection Department shall assist the Manager of Production - Nuclear in his responsibilities for the overall management of the plant Fire Protection Program.

4.2.1.2 The Fire Protection Staff of the Property Protection Department shall assist the Plant Superintendent in his responsibilities of overall administration of the site fire protection and prevention programs.

An organization chart, Figure No 1, depicts the organization concerned with implementation of the Fire Protection Plan.

4.3 Functional Organization (Figure 2)

4.3.1 The functional organization for resolving a local emergency caused by an in-plant fire is:

- 4.3.1.1 Site Emergency Director is responsible for maintaining the plant in a safe condition, as warranted, during a plant emergency.
- 4.3.1.2 Plant Fire Marshall is capable in advising the fire brigade leader in fire fighting activities, if necessary.
- 4.3.1.3 Plant Fire Brigade Leader is responsible for directing efforts of the fire brigade to minimize the effects of the fire. The advice of the Plant Fire Marshall will be followed as overall plant safety warrants.
- 4.3.1.4 Radiation Protection Technician is available if needed for determining what, if any, radiological hazards are present at the fire and coordinating with the fire brigade leader to insure all necessary precautions and monitoring are done.
- 4.3.1.5 Fire Brigade - A group that is responsible for carrying out the orders of the fire brigade leader.

5. COURSE OF ACTION

5.1 Procedures

- 5.1.1 This plan is implemented in accordance with various Company and plant procedures as listed in the Reference Section.
- 5.1.2 Changes to procedures involving fire protection requirements shall be processed in accordance with plant practices.

5.2 On Site Personnel

- 5.2.1 Continuous supervisory coverage of the plant is provided by the Shift Supervisor. He has responsibility for proper plant operation and response to plant emergencies.
- 5.2.2 During nonroutine working hours, the designated on-call Superintendent provides higher management direction, as appropriate, or as requested by the Shift Supervisor.
- 5.2.3 The Plant Fire Brigade responds to fires and automatic detection alarms. The fire brigade is comprised of a Control Operator, Auxiliary Operators or other personnel trained in fighting fires. The minimum number of brigade members to be on site at all times is set by Technical Specifications and plant procedures.

5.3 Locations of Fires

5.3.1 Fires may occur in the following locations:

5.3.1.1 On site (inside of fence boundary).

5.3.1.2 Off site (outside of fence boundary).

5.4 Response to Fires

5.4.1 In-Plant Fire

5.4.1.1 An in-plant fire is classified as a local emergency and handled in accordance with the Operating Procedures Manual.

5.4.2 On-Site Fire (Inside of Fence Boundary)

5.4.2.1 An on-site fire shall be handled in accordance with the Operating Procedures Manual.

5.4.3 Off-Site Fire (Outside of Fence Boundary)

5.4.3.1 An off-site fire shall be handled in accordance with the Site Emergency Plan.

6. FIRE PROTECTION EQUIPMENT

6.1 Permanent

6.1.1 The following permanent fire protection equipment is provided:

6.1.1.1 Lake Michigan is the firewater source.

6.1.1.2 Two (2) vertical turbine pumps (one diesel driven and one electric motor drive). Each having a rated capacity of 1000 gpm at 110 psi discharge pressure.

6.1.1.3 Six-inch underground water loop, which supplies the plant complex, which has branches with fire hydrants.

6.1.1.4 A main fire protection header that supplies water to various manually and automatically initiated sprinkler and deluge systems.

- 6.1.1.5 Automatic smoke or fire detection devices in various plant areas.
- 6.1.1.6 Fire hoses in the Screenhouse Service Building, Reactor Building and Turbine Building.
- 6.1.1.7 Fire barriers to prevent the spread of fire within the plant complex.

6.2 Portable

- 6.2.1 The following portable fire protection equipment is provided.
 - 6.2.1.1 Portable dry chemical, water and carbon dioxide extinguishers are located throughout the plant and other on-site buildings.

6.3 Usage

- 6.3.1 The permanent firewater protection equipment shall be operated in accordance with plant Technical Specifications.
- 6.3.2 Permanent and portable fire protection equipment should not be used for purposes other than fire protection without the approval of the Shift Supervisor or his designee.

6.4 Equipment Modifications

- 6.4.1 Physical modifications to permanent or portable fire protection equipment shall be in accordance with the Administrative Procedures.

6.5 Out-of-Service Requirements

- 6.5.1 Fixed fire protection equipment shall not be removed from service without the written approval of the Shift Supervisor or an in-line member of management who is senior to the Shift Supervisor. The Property Protection Department shall be notified immediately in accordance with the Operating Procedures Manual.

6.6 Inspection and Maintenance

- 6.6.1 Inspection, maintenance and testing requirements for fire protection equipment is listed in the Technical Specifications.

7. TRAINING

7.1 Instructor

- 7.1.1 The Plant Training Coordinator has been delegated the responsibility for development, implementation and revision of fire training requirements. This training will be accomplished in accordance with the Administrative Procedures.

7.2 Fire Drills

- 7.2.1 Plant fire drills and critiques shall be scheduled and conducted in accordance with the shift fire drill procedures.

8. FIRE PREVENTION ACTIVITIES

- 8.1 Fire prevention activities (ie, control of combustibles, ignition sources, flammable gas and liquid storage) are conducted under the guidance of administrative procedures, Property Protection and NML Standards.

9. QUALITY ASSURANCE

- 9.1 Quality Assurance activities for the Big Rock Fire Protection Systems will be conducted in accordance with the Quality Assurance Topical Report CPC-1-A.

10. PROGRAM REVIEW

- 10.1 In addition to the review by the Fire Marshall outlined earlier, the Fire Protection Program is reviewed by the Property Protection Department in conjunction with fire insurance inspections conducted by an outside consulting firm and is reviewed under the in-house audit program.

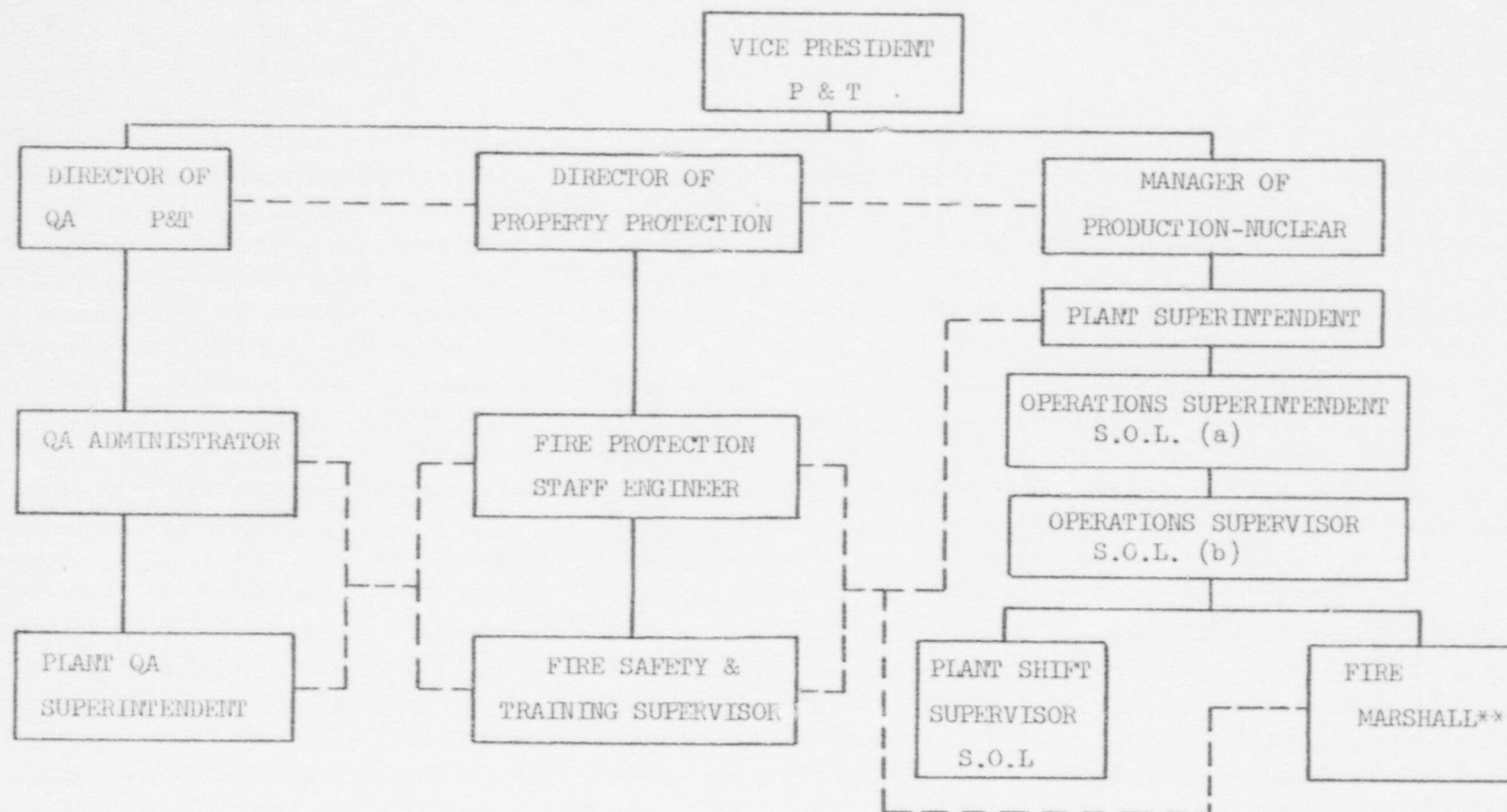
11. RECORDS

- 11.1 Records which document compliance with the Fire Protection Plan shall be retained in accordance with the Plant Records Management.

———— Line Responsibility

----- Functional Responsibility

FIRE PROTECTION RESPONSIBILITY

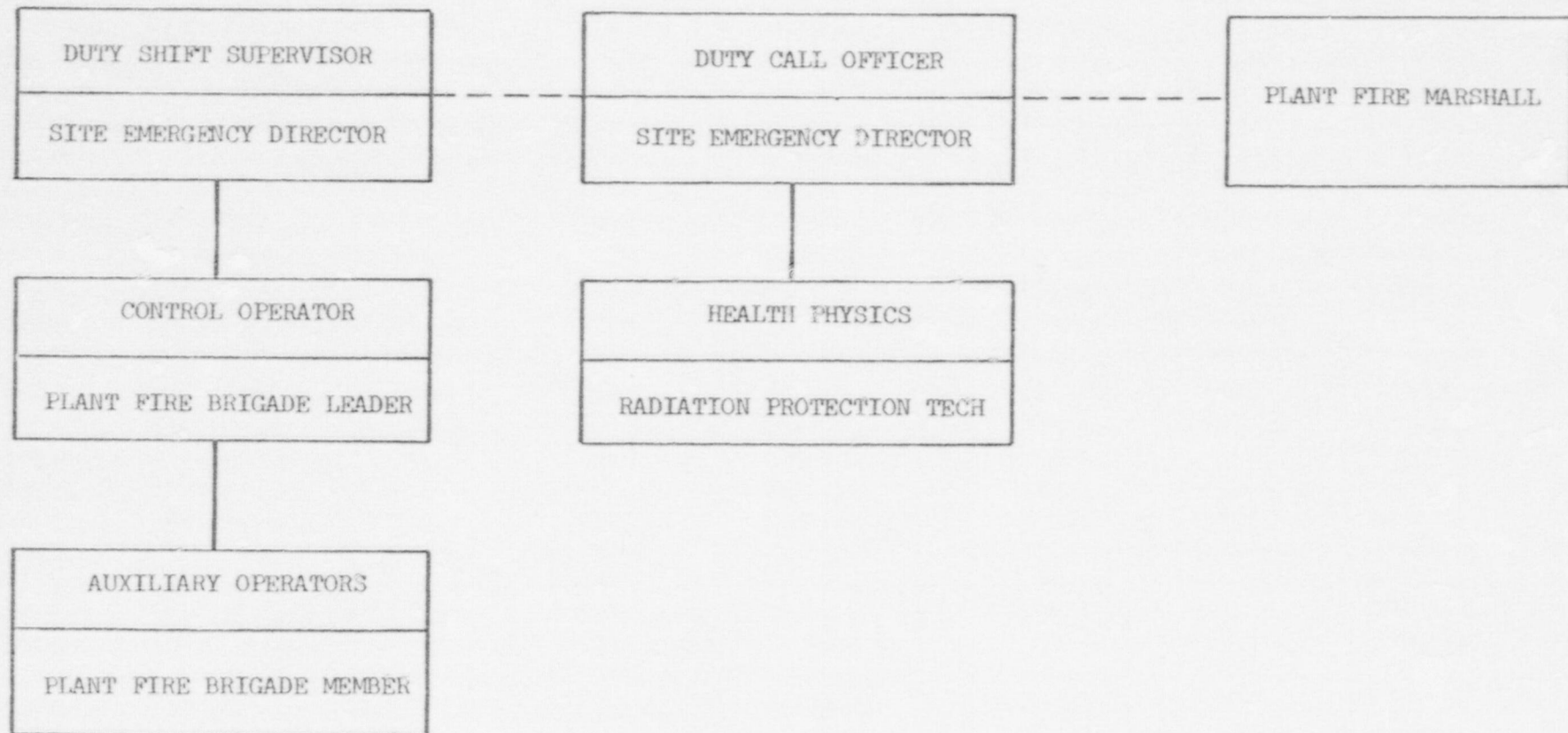


* Responsible for general corporate Fire Protection and Security at all facilities

** One Shift Supervisor Will be Designated Fire Marshall

* Reports to Vice-President of General Services

PLANT
FUNCTIONAL ORGANIZATION



LEGEND

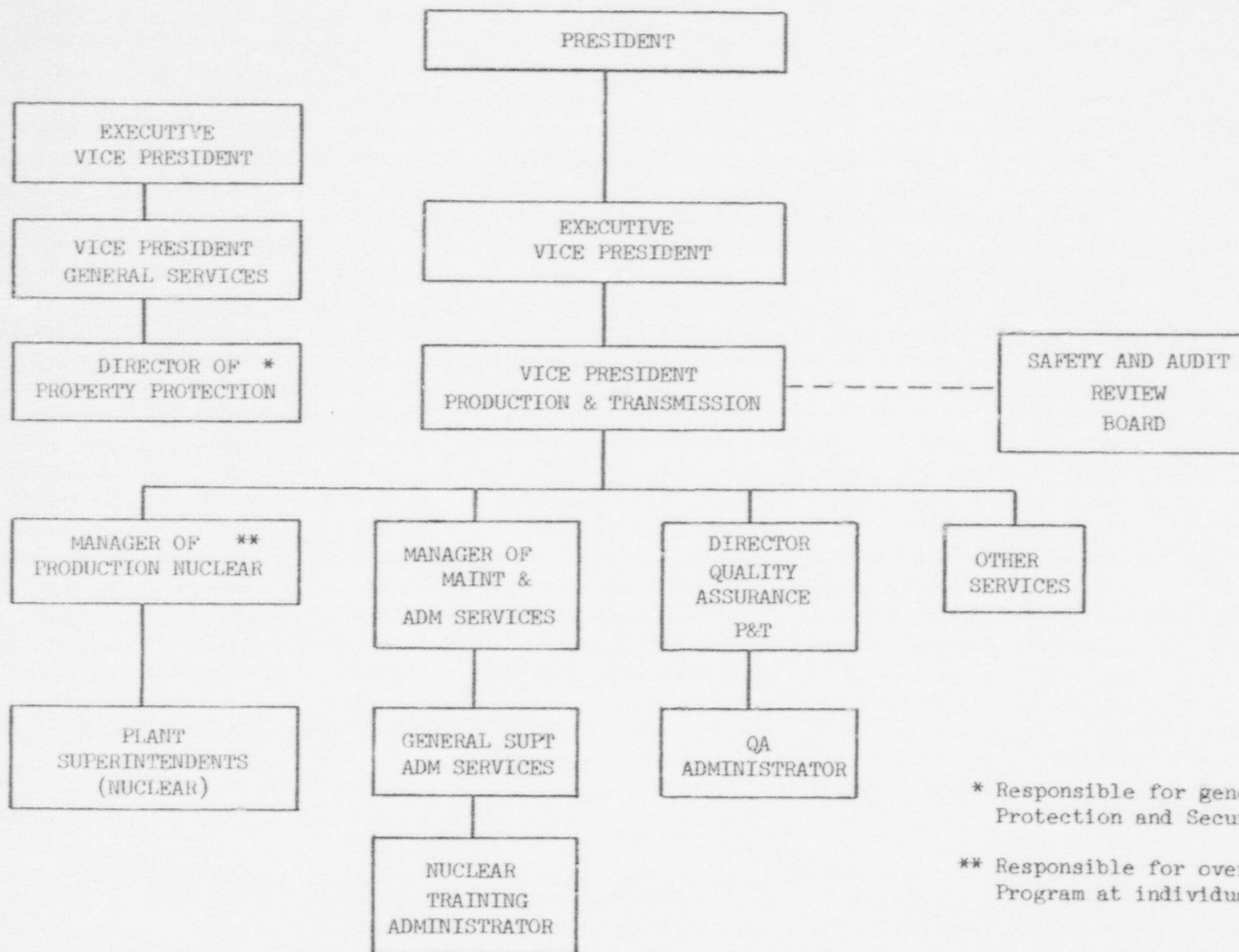
—— COMMAND

----- COMMUNICATION

FIGURE NO. 2

CONSUMERS POWER COMPANY

OFF-SITE ORGANIZATION



- * Responsible for general corporate Fire Protection and Security at all facilities
- ** Responsible for overall Fire Protection Program at individual nuclear plants

FIGURE NO. 3